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Dear Jack

Consultation on DNOs' future role in supporting the rollout of low carbon technologies

Thank you for inviting input into your plans for exploring the future role of DNOs in the roll-out of low carbon technologies (LCTs) in people's homes. This letter should be treated as a consolidated response on behalf of UK Power Networks' three distribution licence holding companies: Eastern Power Networks plc ('EPN'), London Power Networks plc ('LPN'), and South Eastern Power Networks plc ('SPN').

UK Power Networks, and its Distribution System Operator (DSO), will continue to play a proactive role in assisting Ofgem to explore the various options for how we could help facilitate the low carbon transition and address the issues highlighted in the consultation. There are five key points that we wish to convey to Ofgem, in addition to providing specific responses to the questions posed in the consultation:

1. Ofgem should remain focused on the challenges it is seeking to address through enhanced DNO involvement in the rollout of low carbon technologies

- a. Our initial engagement with Ofgem indicated that it was seeking to support low-income households to make the transition to low carbon heating. The single biggest barrier to making the transition today is simply the upfront cost of buying a heat pump relative to the cost of a replacement gas boiler. The cost differential is too big for low-income families even after application of the £7,500 BUS grant. Similarly, domestic solar PV and batteries offer reduction in bills, but the upfront cost puts them out of reach for many households.
- b. Therefore, whilst DNOs can support better co-ordination and information with local authorities, this is not going to move the needle on supporting low-income households unless the upfront cost issue is addressed. Hence, it is crucial that the potential for DNOs funding technologies, such as heat pumps, through the Regulated Asset Base to smooth the cost over time is assessed against other alternatives to understand which option achieves the best outcome for consumers overall. We believe that this analysis should be prioritised in the next stage to focus the effort on where it will have the best impact. The risk is that the current consultation is so broad, covering topics like data-sharing and "who coordinates"

that the main goal of supporting the transition for those who cannot afford it is missed.

- 2. Solutions proposed as part of this consultation must be aligned with the broader suite of reforms that are underway to ensure that consumers are getting the lowest cost energy system overall.**
 - a. Clean Power 2030, Connections Reform, and the recent T3 price control are collectively driving substantial growth in grid-scale renewables and battery storage, resulting in significant increases in transmission network costs for consumers. However, it remains unclear how the promotion of domestic solar and battery solutions at scale would align with this broader direction, particularly given consumers' anticipated responsibility for increased network costs supporting the connection of over 70GW of new renewables and 30 GW storage by 2030.
 - b. A whole system perspective is needed to clarify the overall future energy system that we are heading towards and its value for consumers. UK Power Networks will offer distribution network insights, but it requires Ofgem and possibly DESNZ to co-ordinate an overall coherent strategy to achieve government's objectives in the most optimal way for consumers.
- 3. Significant changes are already underway in regional energy planning, as Regional Energy Systems Plans (RESPs) are being developed and remain in their early stages. Similarly, the government announcement of a Warm Homes Agency will also have a role in convening local stakeholders. Before Ofgem determines any new obligations on DNOs for "Enhanced Co-ordination," there should be a clear design outlining how these reforms will work together to reach the desired goals.**
 - a. Many of the activities described under "Enhanced Co-ordination" in the consultation already form part of a modern and responsible DNO and DSO operating model. The quantity and quality of our interaction with local authorities, for example, has already been transformed over a relatively short timeframe, as is indicated by our strong performance in the DSO incentive in RIIO-ED2 to date.
 - b. Before layering on more reforms, there should be an appropriate assessment of the deficiencies of the current approaches and how these should be addressed. This assessment should provide clear evidence of which parties are best placed to undertake specific roles, such that duplication or gaps are avoided. Based on the evidence to date with respect to RESPs at Grid Supply Point level, we are not supportive of NESO taking a leading role in how any "Enhanced Co-ordination" should operate down at the local level.
- 4. Once Ofgem has determined what additional or new responsibilities DNOs should undertake in terms of "Enhanced Co-ordination," the best way to ensure rapid progress is to incentivise it.**
 - a. If Ofgem is worried that DNOs are inconsistent in how they work with local authorities and stakeholders, it should enhance the incentives to encourage the results it wants.
 - b. Incentives encourage competition, leading some licensees to initially outperform others. However, all customers benefit over time, as those DNOs lagging behind work harder to improve when meaningful rewards and penalties are involved. For example, expanding the DSO incentive to include all "Enhanced Co-ordination" activities and allowing these changes time to take effect, or increasing the incentive's value to accelerate progress, could be effective solutions. This approach

of using actual performance data allows Ofgem to set new, ambitious yet achievable targets in future price control periods – a proven method that has improved reliability, customer service, and connection performance in the electricity distribution sector.

5. We agree that any “Expanded Role” for DNOs in deploying LCTs and Energy Efficiency (EE) measures carries important implications for consumers, DNOs and wider market participants. Therefore, policy development must be informed by real world trials and evidence to ensure that changes have the intended impact of facilitating an increase in LCT deployment, whilst supporting those that would otherwise risk being left behind in the transition.

- a. UK Power Networks began work last summer to understand the current issues facing consumers and to scope further trials to inform Ofgem’s policy and price control arrangements.
- b. We understand that Ofgem is keen to explore the potential network benefits (lower levels of reinforcement, reduction of losses, voltage management) from a co-ordinated approach to LCT deployment. However, the theory needs to be tested in a real-world environment at sufficient scale to verify the benefits potential to consumers.
- c. Ofgem’s support of UK Power Networks’ business plan incentive proposals are key to enable this work to progress at pace.

Given the significant effort and work we have put into this area to date, we would be more than happy to engage further on this topic if Ofgem would find that helpful.

Yours sincerely



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Appendix: Response to questions

Overarching rationale

- 1) **Should DNOs play a role in co-ordinating and supporting a cost-effective energy transition through improved planning and supporting/directing targeted *delivery*? How can they help make the transition more efficient and affordable for everyone, and do they have a role in supporting lower-income households?**

We support Ofgem's analysis in chapter 2 of the consultation of the rationale for a greater potential role for DNOs in the roll-out of low carbon technologies.

We believe that DNOs could be well-placed to play a role in area-based delivery of support for disadvantaged consumers. DNO involvement in co-ordinated investment plans could help ensure:

- That network improvements are aligned with and supportive of uptake of LCTs in the community and that the network will not impede timely decarbonisation.
- That other actors are empowered to understand network opportunities and signal future plans in good time so that future constraints can be avoided.
- That the place-based impact of LCT adoption, particularly the combined impact of demand, generation and storage LCTs on the network and on the wider system, can be fully understood and analysed.
- That options for managing the impact of LCTs on networks can be explored and tested in order to reduce the cost of the transition.

Enhanced coordination will deliver the first two of these elements and potentially a part of the third element. In our view an Expanded Role is needed to secure the full suite of benefits. We explain this position in our detailed answers to subsequent questions.

The greatest value which DNOs can offer in this area is to help Government in developing a realistic consumer proposition for the transition to electric heat.

At the moment, heat pumps are unaffordable for most people and solar panels and batteries are also niche interests, mainly for the well off, even though they can reduce bills. Government is working to bring down the cost of electricity and to support LCT choices, but the cost for consumers is still high and the future uncertain.

We propose pilots to demonstrate what the future could possibly look like, i.e. integrated deployment of LCTs at scale in selected deprived areas, funded through Totex. The intention is that our analysis will reveal the potential network efficiencies on offer and the limits of what is achievable in a real-world, UK environment. It will provide evidence as to the costs of intervention and highlight the options for Government in seeking to make LCT adoption more mainstream in future, particularly for the most vulnerable.

Enhanced Co-ordination

- 2) **Do you agree with the overall rationale and scope of 'Enhanced Co-ordination'?**

The Big Picture

UK Power Networks supports "Enhanced Co-ordination" but views it as the starting point rather than the destination. A co-ordination only model would formalise and develop existing good

practice, while an expanded delivery model is required to unlock the full network and system benefits that Ofgem has identified for ED3.

The rationale for Enhanced Co-ordination is broader than is set out in the Consultation. Ofgem rightly assesses that greater coordination could support more effective roll-out of low carbon technologies (LCTs) and energy efficiency measures. DNOs could and should ensure that both market-based delivery of LCTs and delivery of LCTs under the Warm Homes Plan align with network investment and vice versa.

But the value of DNO engagement in this area is much greater than coordination of delivery of investment. DNO engagement in place-based delivery of LCTs also unlocks much better intelligence on the long-term impact of LCTs on demand for electricity, the reduction of losses and the implications of future demand for network planning.

We support Ofgem's view that improved alignment between networks and local actors can reduce delivery inefficiencies, minimise disruption for households, and ensure that schemes reach the consumers who most need support. However, the potential benefits are much broader than that and this impacts on what form Enhanced Co-ordination needs to take and how Ofgem should best facilitate it.

The Detail

Many of the activities described under Enhanced Co-ordination in the consultation already form part of a modern and responsible DNO and DSO operating model. The quantity and quality of our DSO interaction with local authorities, for example, has already been transformed over a relatively short timeframe, as is indicated by our strong performance in the DSO incentive in RIIO-ED2 to date.

What we already do

We already use stakeholder engagement to detect market trends and proactive engagement with Local Authorities and other local actors helps us understand the wider spatial planning context and the place-based effects of local and national Government intervention.

By opening up our data and digital tools to bring partners together, we enable joined-up planning. Other parties can understand network constraints and opportunities and engage with us, as necessary, to ensure that the network is developed to meet their future needs.

In the last few years, we have developed an engagement programme across all local authorities in our region and launched a series of data sets and information portals to assist them with their energy planning. These include LAEP+¹, ChargePoint Navigator² and LAEP Open Data Page³.

Our support is dynamic. We are always looking to extend and refine it to meet user needs. So when Local Authorities asked if we could extend support to other local actors, in a context where GB Energy was offering new funding for rooftop solar and community energy, we set out to devise a practical tool to assist stakeholders with fast, credible project development to seize these funding opportunities. Customers struggle in particular to respond quickly to time-limited funding opportunities and develop robust, evidence-based business cases

¹ [LAEP+ Planning Tool - Your Local Net Zero Hub](#)

² [ChargePoint Navigator - Your Local Net Zero Hub](#)

³ [LAEP Open Data Page - Your Local Net Zero Hub](#)

The result is our “Opportunity Finder” proof of concept scheme

- A new digital services proof of concept that enables customers to build a credible clean plan in minutes.
- Developed in partnership with Field Dynamics and Energy Systems Catapult, the proof of concept will be taken to market to secure enduring partners.
- Will provide simple, practical support for non-domestic rooftop solar grant applications.
- Initially focused on NHS Trusts, schools and community energy groups, with potential to scale to other use cases.
- Templates guide users through the planning logic – no specialist expertise required.
- The templates are scalable by design – they can be adapted for future technologies and funding schemes.
- The templates produce in each case:
 - Indicative carbon savings
 - High-level cost ranges
 - Site-level suitability insights
 - Pre-application DNO engagement baked in, reducing late-stage surprises

We are actively piloting Opportunity Finder with:

- Community Energy Pathways.
- Community Energy England.
- Guy’s & St Thomas’ NHS Trust.
- Sussex Community NHS Trust.
- Kent and Medway Mental Health NHS Trust.

Opportunity Finder shows what is possible and that we are well-placed to play an enhanced coordination role, building on the capabilities we have already established/matured in the first 3 years of RIIO-ED2 and on our new, emerging capabilities in such areas as proactive unlooping and support for the disadvantaged in both our DSO and our wider DNO.

However, this is not yet a mature coordination role. We have seen ourselves more as “facilitators” and our interactions with stakeholders are still developing. For example, whilst we already routinely share network insights and mapping data, structured engagement channels for installers, community groups, and housing providers, for example could be upgraded.

We are also conscious of the need to work in partnership with democratically elected authorities, the requirement to offer equal treatment to third parties and the need to fit in with emerging policy – for example the ending of the ECO scheme and the emergence of the new Warm Homes Agency (WHA).

If we are to develop new, strategic partnerships and a clearer, systematic view of what each region and Local Authority/local area is already delivering and planning, together with active plans in each locality to align with that planning, we will need to devote more resource to this function. Before Ofgem determines any new obligations on DNOs for “Enhanced Co-ordination,” there should be a clear design outlining how existing reforms such as the introduction of Regional Energy System Plans (RESPs) and WHA will work together to reach the desired goals.

We would also note that the ease of coordination depends to some extent on the capacity of local authorities to engage with us, and this is stronger where there is already a strategic authority in place, as in London, for example. We are aware of local government reform ambition in other parts of the country, but this will take time to translate into effective capacity for detailed energy planning. Until then the picture will remain patchy, with pockets of local authority excellence and other areas with less capability.

How to Deliver Enhanced Coordination

Clearer expectations will go some way to ensuring an appropriate response from DNOs, but the best way to ensure rapid progress is to incentivise it.

If Ofgem's concern is that DSO and DNO existing performance in this area is uneven, it should reflect on the competitive dynamic which is inherent in a system of incentives and outcome-based regulation. Incentives drive competition which always results in some licensees initially out-performing others. However, all licensees will improve performance as a result, and those who are initially behind will redouble efforts to catch up if rewards and penalties are at stake.

The answer could be as simple as broadening the DSO incentive, for example, to cover the full range of "enhanced coordination" activities and giving it time to show effects or perhaps increasing its value to drive even faster progress. This process of revealed performance enabling Ofgem to set new, stretching but realistic targets for the subsequent price control is a well-trodden path which has delivered significant improvements in reliability, customer service and connections performance in the electricity distribution sector.

Imposing extensive new processes and reporting obligations on all DNOs, on the other hand, risks distracting strong performers from the substance of their work and increasing cost for them, with little added benefit. It adds overheads, which DUoS customers pay for, without necessarily delivering performance improvements. At a time when the focus is again on bills, we would caution against prioritising reporting and red-tape, and instead look to sharpen existing incentives and create new opportunities for forward thinking DNOs to find innovative new ways to deliver for customers.

Demonstrating impact of LCTs on Network Efficiency

In view of the importance of keeping down the cost of the transition, we consider that Enhanced Coordination should also be focused on how DNOs should combine with local authorities to develop place-based demonstrations of how installations of LCTs can deliver network savings. This requires local authority agreement to place-based concentration, as well as DNO/DSO analytical capability.

Coordination on delivery alone may improve sequencing of unlooping work, for example and improve network preparedness to reduce avoidable failure points, but coordination just on delivery cannot ensure the concentrated uptake of low carbon technologies in particular areas or the ability to measure real-world reductions in peak demand to minimise the network requirements associated with the electrification of heat, that the transition needs.

There are two interlinked issues:

- Targeting of resources in the right places - local authority, place-based choices will always, quite rightly, be driven by their own social priorities. They must also take account of the political imperative to be fair and balanced across their entire territory.
- Adequate funding to overcome the up-front cost barrier which prevents disadvantaged consumers investing in LCTs. The Warm Homes Plan increases public funding for LCT deployment, but we are not sure at the moment, that enough of it can be concentrated in particular localities to identify network efficiency effects.

The full benefits of Enhanced Coordination will only be realised, therefore, when it is paired with a more ambitious, delivery focused Expanded Role for DNOs. A delivery model that enables targeted and place-based deployment of solar, battery storage, heat pumps and smart controls could generate net reductions or much lower increases than are currently expected in peak demand in

particular localities, deliver meaningful savings (where these may extend beyond their immediate electricity bill) for vulnerable customers, and provide system wide evidence that is essential for long term planning. This type of targeted deployment represents the step change that is needed to convert improved coordination into evidence of tangible outcomes for both consumers and the wider system.

3) *What are your views of the effectiveness of the existing Collaboration Plan requirements? Do you think the enhanced Community Collaboration Plans we have described would be helpful to stakeholders and, if so, how best should they be monitored?*

Effectiveness of existing requirements

The existing Collaboration Plan requirements in the Smart Optimisation Output (SOO) Licence Obligation must be looked at alongside the DSO incentive which also encourages DSOs to engage in wide and meaningful stakeholder engagement, to publish useful and helpful data sets and to assist local authorities with energy planning. Focusing on the SOO obligations in isolation does not reveal the full picture.

The existing Collaboration Plan requirements require DNOs to explain how they share network and household-level data, how they collaborate with stakeholders, and how stakeholder feedback is incorporated into planning. These plans already cover data-sharing processes, participation in local and regional strategies, and the operation of digital tools designed to support transparency, which has been an important step in strengthening DNO–stakeholder relationships as intended in the consultation’s description of the Smart Optimisation Output.

The current reporting model (on its own) would inevitably be limited in its ability to drive consistently effective collaboration, because it focuses primarily on documentation rather than outcomes. Today’s monitoring is largely based on whether DNOs have published a plan, provided required datasets, and described engagement processes, rather than whether stakeholders find these processes useful, predictable, or well-timed. Effective monitoring would look also at inclusivity of engagement, for example, timing relative to decision-making windows, clarity of roles and expectations, and demonstrable responsiveness to feedback.

But that is precisely why the licence obligation is combined with the DSO incentive which relies on stakeholder/expert assessment of performance to deliver differential rewards to strong performers.

Enhanced Plans

Qualitative assessments and where possible quantitative metrics with consequences are the best way to drive DNO performance, especially when the key reporting and transparency requirements are already in place.

DNO/DSO activity in this area has been completely transformed in the last five years. The enhancements described in the consultation mirror capabilities we already provide or are capable of providing with clarity of expectations and appropriate incentive, as explained above in our answer to question 2.

In terms of our own performance, whilst we are proud to have delivered industry-leading performance in this area, as reflected in our DSO performance in Years 1 and 2 of RIIO-ED2, we never rest on our laurels and are constantly striving to deliver even better service. The expectations of customers and stakeholders continue to rise and will rise further if Ofgem sets out new levels of expectation and this will require us to work hard just to keep up.

We support a monitoring approach that reflects the practical needs of delivery partners and encourages consistent, transparent, and forward-looking collaboration across all DNO regions, but the existing system is already driving extremely rapid progress.

The solution for any under performance by any DNOs in this area is not more documentation - loading administrative requirements onto all network operators, regardless of how well they are doing. It is rather to sharpen the incentive to perform well and where appropriate, sharpen the downside elements of incentives such that those whose performance is unsatisfactory are provided with a stronger signal to improve.

Administrative requirements

Finally, we have some concerns over the practicality and administrative burden of some of the options raised in this Consultation. For example, requiring DNOs to show where network planning has changed as a result of engagement with any local and regional stakeholders is a major task.

We already do this in respect of local authority interactions and support for LAEPs but to mainstream it across all stakeholder engagement and all network planning would be a much bigger challenge.

Plans go through several iterations and are run through multiple departments, depending on the subject matter – for example investments may respond to asset health issues or to specific connections requests or to more strategic concerns and the people delivering unlooping plans, for example, are different from the people replacing transformers. Plans are therefore iterative and interactive and based on multiple inputs. Identifying specific inflection points in decision-making as a result of specific conversations will often be very challenging.

It would be complex and burdensome to have to record every single time a stakeholder engagement influenced a plan and then to record again every time a plan changed, because of a practicality constraint or further stakeholder interaction or a regulatory barrier or some other problem. The cost of such reporting would appear to us to outweigh the benefits.

Before Ofgem imposes any complex, new reporting requirements, it should rigorously assess what benefits they will drive in practice and whether there are better ways of improving performance, where that is needed.

As we have outlined earlier, some of the most notable improvements in reliability, customer service and connections performance have been delivered through high-powered incentives. There is reporting associated with each of these mechanisms, but it is the final outcome figures which should be tracked or perhaps stakeholder qualitative assessment of performance, not all the associated work that has helped deliver the performance.

We would re-iterate to Ofgem, powerful incentives have a proven track-record of delivering for customers. Creating a cottage industry of reporting will not only increase the administrative costs of electricity distribution, and of Ofgem itself, it runs the risk of diverting attention away from real performance and more towards secondary conversations about the extent to which a “conversation has or has not influenced decision making” i.e. away from the final outputs – can customers connect, to “did you speak to that Local Authority on Tuesday and why didn’t you update your plans by Friday?”

4) *How useful is the data currently published by DNOs, and is it presented adequately?*

We are constantly searching for improvements in the granularity, clarity and usability of the data which we publish to increase its value for partners who rely on accurate planning information.

For example, in the last year alone (2025) we published 21 new datasets including, for example:

- Data on power quality.
- Data on LCT volumes by LSOA (units of about 1,000 homes).
- Several datasets on data centres, including granular load profiles by voltage and by season, and a breakdown by each local authority district, including pipeline projects.

The data that we publish through our Open Data Portal (our System Visualisation Interface) offers open access to network assets, constraints, capacities and other forward-looking indicators as well as advice and support for local authorities and others.⁴ This is in line with existing SOO requirements, but we go far beyond minimum requirements in order to meet customer expectations and deliver excellent service as measured under the DSO incentive.

These datasets have helped local authorities, installers and community organisations develop a more informed understanding of network conditions, and they have made it easier for stakeholders to locate high-level constraints and consider where electrification or retrofit activities may require coordination with the DNO.

- Our Common Information Model (CIM) also enables interoperable, consistent data exchange and network modelling across different Distribution Network Operators (DNOs). The CIM profiles linked to our long-term development statement are based on international standards with additions to meet UK requirements. The physical equipment and connectivity of the distribution network is profiled, covering assets from the 132kV level (or EHV in Scotland) down to the lower voltage busbars of primary substations. They include capacity and structural information as well as load, generation and storage data.

Where there remain gaps between the data provided today and the type of actionable insight that partners require to schedule heat pump, solar and energy efficiency deployment without the risk of failed or aborted installations, we are already competing with other DNOs to find ways to close them, whilst also collaborating on occasion to develop common solutions.

We have already made progress in addressing the gaps, for example by integrating smart meter data, constraint data and socio-economic indicators into the insight we share with partners, and by developing mapping and analytical tools that provide a clearer understanding of local network readiness. These enhancements have improved the usefulness of our data for local authorities and delivery partners, and they are starting to be taken up by other DNOs.

The feedback we have received indicates that partners benefit most from data that is simple to interpret, aligned to their delivery timelines and presented in formats that support their planning processes. This typically requires data that is timely, spatially granular, and accompanied by clear explanations of what it means for delivery programmes at a local level. It also requires regular updates, transparent assumptions and the ability for stakeholders to provide feedback on which datasets are most helpful for their planning needs.

⁴ See for example: [LAEP Open Data Page - Your Local Net Zero Hub](#); [Regional Energy Dashboard — UK Power Networks](#)

The DSO incentive is already encouraging DNOs to compete in this area. That competition is driving innovation and investment to meet customer needs in practical ways. DNOs leading the way are anxious to maintain their lead, by constantly improving service quality and communicating dynamically with customers and users to identify enhancements, whilst lagging DNOs are observing what others have done and are trying to catch up.

The addition of new reporting obligations will add nothing to this dynamic. It risks rather dampening progress by imposing costly new administrative tasks which distract staff from looking after customer needs, as well as driving up costs to customers at a time of heightened focus on bills.

5) *What are your views on strengthening the System Visualisation Interface requirement, and would it be valuable for DNOs to collate and publish additional non-network datasets, if so, which datasets would be most beneficial?*

The DSO Incentive Panel report for the period April 2024 to March 2025 reported as follows:

“UKPN has a very good data portal, with the breadth of available datasets (including LV heatmaps and fault data), the quality of user documentation and API integration standing out.”⁵

Since April 2025 there have been further improvements. We are constantly seeking ways to upgrade our offering and make it as user-friendly as possible.

Our view is that strengthening any DNO’s System Visualisation Interface (SVI) would be most valuable where it supports better-targeted, more coordinated and more cost-effective planning, rather than simply increasing the volume of data available.

From an energy efficiency and LCT delivery perspective, the greatest additional value would come from integrating and improving non network datasets that help identify where coordinated retrofit and electrification activity can deliver the highest combined network, system, and consumer benefits. In particular,

- Housing stock and fabric indicators, such as EPC ratings and building archetypes.
- Fuel poverty and deprivation metrics, to support fair and proportionate targeting.
- Local authority delivery pipelines, including retrofit programmes, heat network zones, and regeneration plans.
- Indicative demand profiles, informed by disaggregated smart meter data where appropriate.

We would note however, that these datasets are not always available to DNOs and if they are, the data may be incomplete or out-of-date. As such, we would be wary of Ofgem imposing requirements on DNOs to publish data which they don’t control – the licence should never put us in this situation, or to publish data whose veracity the DNO cannot determine – unless the licence places sufficient latitude such that Ofgem does not subsequently attempt to penalise the DNO for “poor data quality” in such cases.

When combined with existing network information on constraints, voltage and reinforcement requirements, these datasets already enable UK Power Networks and delivery partners to identify potential locations where energy efficiency, solar PV, batteries, and electrified heat could be delivered in a coordinated, place-based way, which would support peak demand reduction, improve network utilisation, and help avoid or defer unnecessary reinforcement.

⁵ [Distribution System Operation \(DSO\) Incentive Report for Regulatory Year 1 April 2024 to 31 March 2025](#)

Value is maximised where data is interoperable, timely and usable, rather than bespoke or overly complex. Raw data should remain the foundation, with layered visualisation (for example, map-based views) adding value where it directly supports planning and coordination decisions. Care should be taken to avoid duplicating existing commercial tools or constraining innovation in the wider market. Any strengthening of the SVI should focus on decision support, enabling better alignment between network investment and place-based delivery of energy efficiency and LCTs, rather than acting as a standalone delivery platform.

From our perspective, data-sharing has improved beyond measure in the last five years and is continuing to develop rapidly. If some DNOs are failing to meet the required standard, Ofgem should use its regulatory powers to encourage or ensure improved performance. Otherwise the focus should be on using the data which exists to target pilots and other research which will supply new data to inform policy on optimising the transition.

6) *What are your views on the Working with local authorities and others proposals we have set out above? What if any, would be the key elements of this? Are you aware of particular entities who would benefit from such advice?*

Working with local authorities

UK Power Networks supports proposals for Distribution Network Operators to work even more closely with local authorities and other place-based actors, particularly in order to improve alignment between network planning, retrofit delivery and the electrification of heat and transport. We already provide a range of tools to help local authorities with local area energy planning as well as a large variety of datasets relating to our network to help local authorities and others to plan their activities⁶. We also always share our DFES, will share our long-term investment plans and any other network build planning documents.

Enhancing forecasts with local intelligence:

We also use local authority engagement to strengthen our forecasting capability. The DFES reflects Local Area Energy Plans (LAEPs) wherever minimum confidence standards are met. LAEPs thus play a central role in validating, challenging and, where appropriate, accelerating our view of future demand, ensuring regional decarbonisation ambitions are directly reflected in our network investment planning.

Other local data is also taken into account – for example we integrate local authority housing trajectories in addition to Office for National Statistics (ONS) housing projections, ensuring our forecasts better reflect local ambition, delivery constraints and pipeline maturity.

Our 2026 DFES is our most locally enhanced yet, with Local Area Energy Plans (LAEPs) covering 66 of our 133 local authority areas directly shaping this year's forecast, up from 32 last year. A further 7 local authorities are in the process of completing a plan. Our [LAEP Support Framework](#) sets out how local data contained in LAEPs shapes our DFES, and how we assess the credibility and confidence of these plans in collaboration with local authorities. This transparency encourages local authorities to develop robust plans.

In 2025 UK Power Networks' DSO led a cross-sector industry initiative towards a more consistent, joined up approach to planning the energy system, first established through collaboration between UK Power Networks DSO, Cadent and SGN and expanded through joint collaboration with National Grid Electricity Distribution (NGED) and Scottish and Southern Electricity Networks

⁶ [Home - Your Local Net Zero Hub](#)

(SSEN). Consultancies ERM and Regen were also involved in its development. The “Local Authority Common Ask” enables councils to share their clean energy and growth data just once for the data to be used by all local utilities making it easier and saving time. This could be scaled up to a national scale with other DSOs having expressed an interest in joining.

Standardising how local authority outputs are shared drives more consistent, higher-quality data to feed into key network planning and investment processes - such as Distribution Future Energy Scenarios (DFES) and Distribution Network Options Assessments (DNOA).

In terms of other engagement beyond local authorities, our main priority is to gain insight from other organisations of any place-based initiatives which may shape network planning – for example plans for major new EV charging stations, data centres, etc. as well as plans for new distributed generation. Our ability to serve customers depends on forward planning and our forward planning depends on the quality of the insight we can deploy. Stakeholder engagement is a key source of that insight.

Targeting network benefit

In recent months, both in the Warm Homes Plan and in the private sector there has been discussion of targeting investment in particular localities, where the value of smart controls and decentralised generation and storage might be higher. We have engaged in such discussions with two objectives in mind:

- To secure insight to maximise network preparedness, so that network reinforcement, unlooping and any other works can be scoped and defined in advance of any specific request.
- To review opportunities to support demand reduction and flexibility in order to reduce the cost of network build, whilst at the same time supporting disadvantaged customers to overcome the upfront cost barrier in making the transition to low carbon technologies.

From an energy efficiency and LCT deployment perspective, UK Power Networks considers that DNOs can add most value by helping to identify locations where social need and network opportunity overlap. By combining network data with indicators such as housing condition, tenure, and fuel poverty, DNOs can support local authorities to prioritise areas where coordinated delivery can:

- Reduce peak electricity demand.
- Improve network resilience and hosting capacity.
- Deliver tangible bill reductions for vulnerable households.

Key elements of this role should include:

- Early, proactive sharing of network constraints and upgrade plans to inform local delivery strategies.
- Joint identification of priority zones where coordinated retrofit and LCT deployment could deliver the greatest system value.
- Clear interfaces between DNO technical insight and local-authority-led engagement and delivery.

This approach avoids DNOs duplicating existing local authority or market roles, while helping ensure that public funding, private investment, and network expenditure are better aligned.

Where delivery programmes are not aligned with network-informed priority locations, there is a risk that opportunities to optimise investment, reduce or minimise the growth in peak demand and avoid inefficient or premature network reinforcement may not be fully realised. Creating clearer

mechanisms to support alignment between network-led insights and local delivery decisions would therefore help unlock wider consumer benefits, including lower long-term network costs.

Entities that would particularly benefit from this structured support include:

- Local and combined authorities leading retrofit and net-zero programmes.
- Social housing providers and housing associations.
- Retrofit coordinators and delivery bodies.
- Emerging national bodies (for example, a Warm Homes Agency) if place-based coordination is centralised.

Overall, UK Power Networks considers that a targeted, advisory coordination role for DNOs, supported by effective alignment of local delivery, would materially improve the efficiency, affordability, and fairness of heat pump and LCT deployment, while remaining consistent with DNOs' core responsibilities.

However, we would draw Ofgem's attention again to our answer to question 2 above. There is a limit to what can be achieved through coordination alone. Without the ability to target resources at concentrated deployment of a combination of LCTs in particular areas, real world evidence of potential network efficiency gains at peak times in a world of electrified heat combined with demand flexibility will remain lacking. Critically also, the benefits of integrated LCT deployment in disadvantaged homes will be under-explored and the value of totex deployment for this purpose will be untested.

7) *How could iDNOs support the proposals in this portion of the consultation? How could either private wire connected properties or license-exempt networks feature in these proposals?*

We have no comment on this question.

8) *We are keen to understand how these proposed Enhanced Co-ordination activities could best integrate with NESO's RESP processes in the near and long term, and how these proposals could complement, or be in tension with, RESP development?*

At some point in the future, there may be merit in seeking to feed into future RESP outputs any material impacts from Enhanced Co-ordination activities. It may be as simple as RESP updating their process to consume any place-based plans from DNOs and local authorities in this space and reflecting that in their forecast. Given that any Enhanced Co-ordination role is likely to start in ED3 and pilots for an Expanded Role are also lined up to take effect in the first half of ED3, the results are unlikely to be ready for inclusion in the 2028 RESP.

Enhanced Co-ordination should lead to somewhat greater predictability of timing and impact of LCT adoption in these localities and this could improve the quality of the inputs for RESP planning, but probably only marginally, because local authorities would lead the prioritisation for place-based investment and the impacts would still probably be spread over many localities.

The greater impact would come from an Expanded Role - our "Ambitious Approach" as described below, where we would also have funding leverage to support high intensity deployment (target 60% penetration) of solar PV, batteries and heat pumps in a small number of specific localities. Improved data from these localities on the impact of smart LCT adoption at scale on demand, especially at peak, should allow findings to be extrapolated across the country as a whole and assumptions about effective demand increases and capacity needs could be revisited.

The ambitious approach would also reveal where and to what extent network and wider system savings from household solar PV and domestic batteries and smart control of heat pumps, might justify further social interventions to support vulnerable consumers.

Expanded role

9) Do you think if DNOs adopted the type of Expanded Role described above this would add value and support the rollout of LCTs and EE? Could this model provide an effective and viable way to deliver network and system benefits? If so, could this be achieved while also prioritising support for low-income households?

UK Power Networks considers that an Expanded Role for DNOs could add material value to the rollout of low carbon technologies (LCTs) and energy efficiency, provided that it is explicitly designed to prioritise support for low-income and vulnerable households, with network and system benefits acting as an enabler rather than the primary objective.

We see strong value in an Expanded Role where delivery is targeted, area-based and co-ordinated, particularly in locations where households are least able to participate in the transition through market-led routes alone. In this context, DNO involvement can help ensure that decarbonisation progresses in a way that is both fair and affordable, while also reducing long-term costs for all consumers.

DNOs are uniquely placed to identify where interventions can deliver the greatest value for low-income households while also improving electricity system efficiency. Using detailed network data alongside publicly available and regulated social indicators (such as fuel poverty, tenure, EPC ratings and Priority Services Register data), DNOs can help identify locations where targeted intervention delivers dual value: reducing bills and improving outcomes for vulnerable customers, while also alleviating network constraints that would otherwise drive higher costs.

Our early analysis, shared with Ofgem, indicates that a network-informed but socially-led targeting approach can unlock benefits earlier and at lower overall cost than a purely demand-led model. Desktop analysis of representative substations indicates that co-ordinated deployment of measures such as solar PV, battery storage, smart controls, heat pumps and smart tariffs can materially reduce peak demand, improve utilisation of existing assets and optimise reinforcement planning. In practical terms, this reduces the risk of premature or inefficient network investment, helping to keep costs down for all consumers.

Crucially, this approach does not dilute the focus on low-income households. Instead, by reducing system costs and improving network readiness in priority locations, it should hopefully create headroom to support more vulnerable customers sooner. Under the assessed targeting framework that we have been developing, substations with moderate to high utilisation would be considered alongside indicators of deprivation and vulnerability, enabling area-based delivery that would support fuel-poor households while simultaneously improving reliability, voltage compliance and hosting capacity for electrified heat, transport and domestic generation.

Within this Expanded Role, UK Power Networks does not currently envisage physically delivering measures or displacing existing market actors or local delivery bodies. Rather, the role is best framed as directing, enabling and assuring delivery where it creates the greatest social and system value, through:

- Network-informed identification of priority locations with high social need.
- Coordination with local authorities, housing providers and delivery partners, who would continue to lead on activities such as insulation.

- Alignment of network investment and readiness works with place-based retrofit and electrification programmes.
- Assuring delivery of network-aligned measures (such as solar PV, battery storage and smart controls) via competitively procured, accredited installers, ensuring appropriate consumer protection and quality assurance.

Overall, UK Power Networks considers that an Expanded Role, explicitly driven by the objective of supporting low-income and vulnerable households, could materially improve the efficiency, affordability and equity of LCT and energy efficiency deployment. By aligning social outcomes with network and system optimisation, this approach should support Ofgem's objective of delivering net zero at lowest cost to consumers.

10) What are your views on us considering these proposals using a network benefit and wider system benefits approach? Do you have relevant information on the likely network, system, consumer or efficiency benefits of such an approach?

UK Power Networks supports assessing any Expanded Role for DNOs through a network benefit and wider system benefits framework. However, we need to be clear that the priorities for any involvement should be addressing the upfront cost of transitioning to low carbon technologies, reducing customer bills and supporting fuel poor and vulnerable households. Network benefit could also be considered as part of an Expanded Role, but network and wider system benefits are secondary in this context.

A targeted, approach enables interventions to be prioritised where they both support lower income customers with bills and with the acquisition of LCTs **and** deliver the greatest impact on the electricity system. In particular, this includes locations where coordinated deployment could potentially:

- Avoid or defer network reinforcement at both low voltage (LV) and high voltage (HV) levels.
- Improve voltage compliance and power quality, reducing customer impacts and operational intervention.
- Increase network headroom to accommodate the electrification of heat and transport and/or reduce losses.
- Reduce peak demand through the coordinated deployment of flexibility enabling assets, including solar PV, battery storage, and smart controls.

Focusing delivery in these locations enables DNOs to optimise the utilisation of existing assets, improve investment efficiency and reduce the risk of premature or inefficient reinforcement. This approach supports more effective sequencing of network investment and helps manage the pace and cost of electrification in a way that benefits all consumers.

Beyond local network benefits, UK Power Networks considers that coordinated deployment, at scale, of heat pumps, energy efficiency, solar PV, batteries, and smart controls could deliver material wider system benefits. These include reduced transmission and generation capacity requirements, lower system balancing and constraint costs, and improved overall system resilience.

Energy efficiency in particular is a foundational system enabler. By reducing baseline and peak electricity demand, energy efficiency improves the cost effectiveness of electrification and increases the capacity of existing networks to host LCTs. A delivery model that explicitly recognises and values these benefits is therefore essential. Crucially, the ability to support fuel poor households at scale is strengthened - not weakened - when interventions are targeted to locations where they also reduce network and system costs.

UK Power Networks considers that this benefits-led framework should be embedded throughout the lifecycle of any Expanded Role, including:

- Pilot design, to ensure activity is focused where there is a high concentration of targeted customers.
- Appraisal and evaluation, with clear metrics linked to customer benefits and any reductions in network/wider system expenditure.

Overall, UK Power Networks currently considers that an Expanded Role should place significant emphasis on support for low-income households in a way that is efficient, equitable and sustainable, while protecting all consumers from unnecessary cost and supporting Ofgem's objective of delivering net zero at lowest overall system cost.

11) Do you have any views on the archetypes presented and their implications? Do you have any other approaches we should consider? Do you have any evidence on key components notably:

- a. On the technologies and measures that should be supported: Do you have evidence on the relative costs and benefits of different technologies? How could heat pumps and other low-carbon heating technologies be included whilst still offering wider system benefits?**
- b. On the identification of suitable properties and consumer engagement: Would DNOs be well placed to proactively identify suitable properties and/or engage with consumers, or are there other actors better placed to perform these functions?**
- c. On the potential funding approaches and implications: what are your views on the feasibility, or risks from these approaches; do you have evidence from other sources that is relevant to these considerations?**
- d. On responsibility for installations: what are the risks and opportunities if DNO's were responsible for installations? What are the options for partnerships and how could different responsibilities offer better outcomes?**
- e. On ownership and control of assets: how can necessary level of network or system benefits be achieved without DNO control and ownership? Does this pose other risks and challenges, and how might these be overcome?**

The proposed archetypes provide a helpful and structured framework for considering the future role of DNOs. We agree with Ofgem that a graduated, evidence led approach is essential to manage risk, protect consumers, and ensure value for money.

In our view, the greatest near-term value lies in Laying the Groundwork and Focused Intervention, with Widening Participation explored through targeted pilots. A clear progression is critical:

1. Build robust evidence of consumer and any network benefits.
2. Demonstrate deliverability and value.
3. Determine future funding and delivery models.

This aligns with Ofgem's emphasis on proportionality, learning through pilots, and avoiding premature socialisation of costs before benefits are proven at scale.

a) Technologies and measures

Evidence consistently indicates that energy efficiency, solar PV, batteries, and smart controls deliver the strongest combined network, system, and consumer benefits, particularly in constrained

LV areas. These measures directly address peak demand, voltage issues, and resilience, while improving customer outcomes by lowering bills.

Trials should evaluate whether heat pumps should be included as part of a coordinated package, or whether there is also merit in deploying them as a standalone intervention. This is because our initial analysis indicates that:

- Energy efficiency reduces peak demand and improves heat pump performance.
- Smart controls should enable flexibility and demand shaping without compromising comfort, however, more analysis is required of customer willingness to retain smart settings in very cold weather and how the controls need to be managed to deliver optimum outcomes in a scenario when most people are using electricity for heat.
- PV and batteries increase hosting capacity, reduce reinforcement needs, and enhance resilience.

This whole system approach reflects Ofgem's growing focus on optimising existing network capacity before reinforcing, and on ensuring that interventions deliver multiple benefits rather than shifting costs or risks elsewhere on the system.

b) Identification of properties and consumer engagement

DNOs are well placed to identify and prioritise suitable locations based on network constraints, forecast demand growth, and planned reinforcement. Ofgem has repeatedly recognised the value of DNO data and spatial insights in enabling effective place-based delivery.

This does not need to be interpreted as DNOs necessarily leading consumer engagement. Collaboration with key actors is essential to build consumer trust and avoid duplication:

- DNOs identify and prioritise locations using network and system data.
- Local authorities, suppliers, housing providers, and trusted local partners co-ordinate engagement with DNOs.
- Roles and accountabilities are clearly defined from the outset.

This approach aligns with Ofgem's expectations around collaboration, place-based delivery, while ensuring that DNOs partner with organisations with established consumer relationships.

c) Funding approaches

Funding models must be proportionate, targeted and benefit led, consistent with Ofgem's statutory duties on consumer protection and value for money.

We believe that it is crucial that the potential for DNOs funding technologies, such as heat pumps, through the Regulated Asset Base to smooth the cost over time is assessed against other alternatives to understand which option achieves the best outcome for consumers overall. We believe that this analysis should be prioritised in the next stage to focus the effort on where it will have the best impact.

d) Responsibility for installations

We do not currently consider it appropriate for DNOs to undertake physical installation of in-home measures directly. This work would be sub-contracted.

However, DNOs could add material value by:

- Coordinating delivery windows with network enabling works.
- Setting technical specifications aligned to network needs.

- Procuring delivery through accredited, competitive partners.
- Providing end-to-end consumer assurance that any installations will function as intended.

This model allows Ofgem to maintain a clear separation between regulated network activities and competitive markets, while improving quality, coordination, and system outcomes.

e) Ownership and control of assets

If the purpose of reforms is to reduce the upfront cost of transitioning to low carbon technologies and the involvement of DNOs is explored to use the RAV based model to smooth these costs, the natural consequence of this is that ownership of the assets resides with the DNO. This option needs to be assessed against alternatives to understand the best value for money option for consumers.

How customers use their LCTs and the degree to which they provide flexibility services should ideally remain their choice. We do not believe DNOs should have direct control of these assets.

12. Do you have views on whether pilots of these approaches would be valuable? And, if so, whether the pilots should potentially include a range options across archetypes, or whether the scope should be narrowed in advance? What should be the main focus of any pilots?

We strongly support the use of pilots as a critical next step to build robust, real-world evidence ahead of any wider rollout or enduring regulatory framework. Well-designed pilots will be essential to test delivery models, understand customer impacts, and demonstrate whether and how enhanced DNO roles can deliver value for money, improved customer outcomes, and any network benefits.

Scope and design of pilots

In our view, pilots should initially include a small number of clearly defined archetypes, rather than a broad range of options. Narrowing the scope in advance will help ensure that pilots are manageable, comparable, and capable of generating clear learning that can inform future policy decisions. In particular, pilots should focus on archetypes that most closely align with Ofgem's stated objectives, including equitable outcomes, coordination across delivery partners, and avoidance of inefficient network reinforcement.

However, within each archetype, pilots should allow a degree of flexibility in delivery approaches (for example, differences in partnership models or targeting methodologies) to test what works best in practice without diluting the overall learning.

Focus of early pilots

We consider that the main focus of any pilots should be on place-based, network-aligned delivery models, where DNOs play an active coordination and delivery role alongside local authorities, suppliers, and other partners. This reflects both policy direction and early evidence that whole-area approaches can deliver stronger outcomes than fragmented, scheme-by-scheme interventions.

Specifically, pilots should be designed to test:

- Targeting effectiveness – how well different targeting approaches (e.g. deprivation-based, network-constraint-based, or hybrid models) identify households where interventions deliver the greatest combined customer and system value.

- Customer outcomes – including bill reduction, comfort, and ease of the end-to-end customer journey, particularly for vulnerable and fuel-poor households.
- Network benefits – the extent to which coordinated energy efficiency and LCT deployment can reduce or defer reinforcement, manage peak demand, and improve network resilience.
- Deliverability and scalability – including governance, partner coordination, supply chain readiness, and the ability to scale beyond pilot areas without creating undue complexity or cost.
- Interaction with existing schemes – how DNO-led or DNO-coordinated approaches complement, rather than duplicate or undermine, existing supplier-led and local authority programmes.

Phasing and learning

We agree that pilots should be phased, with early activity focused on evidence-building and learning, rather than immediate large-scale deployment. This is consistent with the need to avoid repeating the shortcomings of previous energy efficiency schemes and to ensure that any future obligations are underpinned by high-quality data and clear accountability.

Learnings from pilots should be shared transparently across DNOs and stakeholders, with common evaluation frameworks agreed upfront to enable comparison across regions and archetypes.

Summary

In summary, pilots are both valuable and necessary. They should be narrowly scoped around a small number of priority archetypes, with a strong emphasis on place-based, network-aligned approaches. The primary purpose should be to generate robust evidence on customer value, fairness, network impact, and scalability, providing Ofgem with a clear and defensible basis for any future decisions on the role of DNOs in delivering energy efficiency and supporting the rollout of low-carbon technologies.

13. How could iDNOs support the proposals in this portion of the consultation?

We have no comment on this question.