

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

## **Consultation Response**

Feedback on outcomes including:

- Expanded Role
- Future Pilots



Ofgem's consultation on the future role of Distribution Network Operators (DNOs) in supporting the rollout of low-carbon technologies (LCTs) and energy efficiency (EE) comes at a critical point for the electricity distribution sector. As the UK accelerates towards its Clean Power 2030 target and prepares for the RIIO-ED3 price control period, electricity networks need to respond to increasing demand from electrification of heat and transport, while also supporting affordability, reliability, and resilience.

This response reflects over a year of ongoing engagement by Guidehouse on the role of networks in supporting area-based approaches for LCT and EE rollout. This included an initial stakeholder event held in November 2025, which explored the wider opportunities for area-based partnerships and locally led efforts. Insights from this initial engagement have informed our thinking on how more proactive, coordinated delivery could help address the challenges that previous government funding has encountered.

As part of our engagement on this topic, Guidehouse hosted a stakeholder roundtable on 26th March 2026, bringing together a range of perspectives including electricity and gas network operators, housing associations, community energy organisations, suppliers, local authorities, and other delivery partners. The discussion focused on the practical challenges and opportunities associated with different models of coordination, delivery and governance, and explored where an expanded role for DNOs could add value in enabling LCT and EE rollout.

This consultation response draws together insights from that roundtable alongside wider stakeholder engagement and evidence from previous projects and pilots. Our responses focus on three questions (Q9, Q11 and Q12), with a central theme running throughout: how improved coordination, increased DNO involvement, and evidence-led piloting can help address barriers to delivery and maximise value for consumers.

### **Strategic Recommendations for Ofgem:**

In addition to our answers to Q9, Q11, and Q12, we have identified five strategic recommendations that would support a coordinated programme of learning, within delivery at scale. These include:

1. In coordination with DESNZ, undertake a meta-analysis of previous projects, exploring where existing evidence can support decisions and identifying where there are clear gaps that pilots should explore.
2. From this analysis, develop, agree and socialise a programme of agreed evidence gaps that DNOs should target with pilots.
3. In coordination with DESNZ, ensure that DNOs can (in coordination with Local, Combined, or Strategic Authorities) readily access Warm Homes Plan funding to include the hardware costs of LCTs and wider EE measures within these pilots (a current barrier with existing innovation funding).
4. Work with broader innovation funding pots within Ofgem (and the Warm Homes Plan) to determine how DNOs can scale up their efforts in the space ahead of the beginning of ED3 (April 2028).
5. In coordination with DESNZ, encourage DNOs to design pilots and deliver them as part of larger efforts to test at scale, looking to learn across projects of 000's of homes, rather than 10s or 100s.

At Guidehouse, we work at the intersection of energy infrastructure, public policy and sustainability strategy. We support network operators, public bodies and delivery partners on the design, evaluation and governance of energy efficiency and decarbonisation pilots and programmes in the UK and internationally. We welcome the opportunity to contribute to this consultation and would be happy to discuss any aspect of our response further with Ofgem and other stakeholders as work on this topic progresses.

## Expanded Role

**Q9: 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?**

An expanded role for DNOs could add significant value in supporting the rollout of low carbon technologies (LCTs) and energy efficiency (EE), particularly given growing recognition that a purely demand-led approach has not delivered the scale or pace of uptake required.

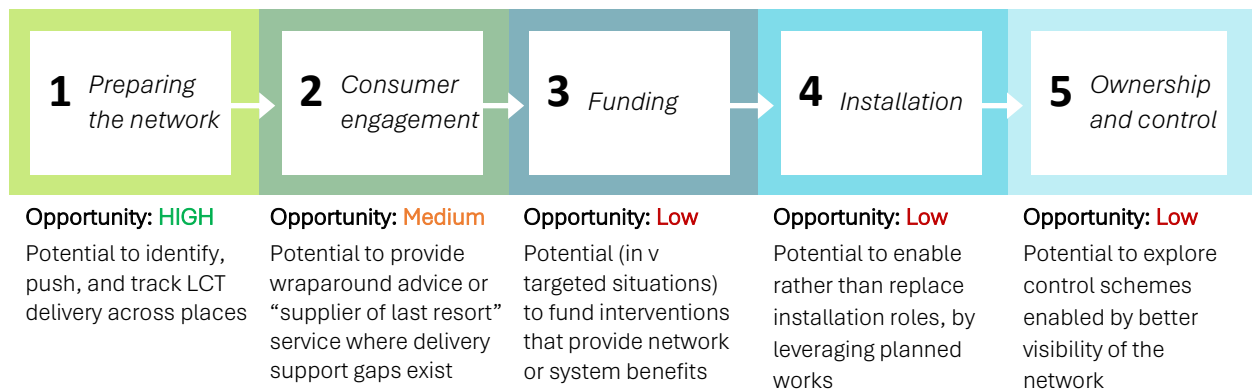
DNOs are uniquely positioned to play a more proactive, system facing role because of their visibility of the network and their spatial understanding of constraints and opportunities. DNOs are well placed to identify where proactive network interventions, such as unlooping, would unlock wider deployment of LCTs and reduce future costs. An expanded role focused on coordination and anticipatory planning could address several persistent barriers to deployment by helping to align network readiness with the activities of local authorities, housing providers, suppliers and installers.

In particular, DNOs are well placed to identify where proactive network interventions, such as unlooping, would unlock wider deployment of LCTs and reduce future costs. Proactive, area-based unlooping informed by network data can reduce disruption to customers by enabling works to be planned and delivered in a coordinated way, rather than on a reactive, case-by-case basis. By taking a whole-street or whole-area view, this approach improves delivery efficiency, allows works to be sequenced alongside wider installation activity, and supports better supply-chain planning through the use of framework agreements. It also addresses a persistent barrier faced by housing associations and other delivery partners, where individual installations are delayed or prevented because unlooping cannot be coordinated at the appropriate spatial scale. While proactive unlooping is just one example, our discussions with DNOs and relevant stakeholders indicates that there are several activities that not only unlock network capacity more efficiently but also improves coordination across delivery.

An expanded role could therefore deliver clear network and system benefits, including improved coordination across delivery partners, and more effective forecasting of future upgrade needs. This potential should be explored in more detail, through testing at scale, coordinating DNOs efforts with the other bodies that are already delivering significant work in this space.

**Q11: 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?**

We support the use of archetypes as a way to explore potential roles for DNOs, but do not consider them to be mutually exclusive or fixed models. Instead, they are best understood as combinations of modular “activities” that can be combined and adapted. Roundtable participants reinforced the importance of focusing less on the archetypes as “options” and more on the specific functions DNOs could perform or help coordinate that add system value. Therefore, we have structured our response around the five functional components where DNOs could conceivably play an integral role.



### Preparing the network:

We believe any expanded role for DNOs should be grounded in a system-led, place-based approach to identifying and preparing the network for LCT deployment. The roundtable discussion highlighted that technology-specific approaches risk reinforcing fragmented delivery, while addressing network constraints and data aggregation upfront enables more coordinated and efficient deployment. A stronger focus on network readiness and anticipatory planning is therefore essential.

In practice, this raises the following considerations:

- **Network-led identification and preparation:** DNOs can use network data to identify where constraints are likely to arise and where early intervention could unlock capacity. An expanded role should therefore focus on preparing the network proactively rather than reactively.
- **Technology agnostic delivery:** DNO involvement should support the optimal combination of measures in a given place, rather than prioritising specific technologies. This includes low-carbon heating, energy efficiency, storage, flexibility and hybrid heating solutions, recognising their interactions and cumulative impact on the network. Guidehouse is currently exploring the interaction between, and potential for coordination of, multiple LCTs across social housing through innovation projects, with promising initial results.
- **Data completeness, consistency and active use:** Gaps in asset and LCT data (for example the current, limited nature of installer notifications), alongside inconsistent processes across DNOs, reduce the effectiveness of planning and coordination. There is a clear need for a more consistent and centralised approach to recording assets and associated data, alongside clarity on how this information is actively used to inform decision-making rather than held passively.
- **Centralised visibility of assets:** A central place where assets are recorded, across technologies, ownership models and locations (for example the German system used to track the roll-out of balcony solar), would support improved planning, forecasting and coordination, particularly where assets contribute to both local and system-level outcomes.

Taken together, this points to a role for DNOs that focuses on anticipating LCT uptake, preparing the network accordingly, and “pushing” planning, funding, and installation actors. This would encourage the right mix of measures from both a consumer and network perspective, in the right places, through improved data visibility, proactive intervention and coordinated local delivery. These principles can be tested through pilots that start from network readiness and layer technologies, data, engagement and physical interventions in a

coordinated way. This aligns with the intention of the archetypes to explore how different functions can be combined to deliver system, network and consumer benefits, rather than prescribing a single delivery model.

### **Consumer engagement:**

Any expanded role for DNOs must recognise that effective consumer engagement is essential to successful delivery, but that consumers have pre-existing relationships with various stakeholders outside of their DNO. Trust, existing relationships and local presence are critical, particularly for low-income and vulnerable households.

In practice, this raises the following considerations:

- **Additional evidence is required to determine the best stakeholder to consumer engagement directly:** Consumer engagement is most effective when delivered by trusted intermediaries including stakeholders such as local authorities, housing associations, suppliers and community energy associations. The trusted intermediary in a given area can vary based on specific experiences by the consumer.
- **Addressing mixed-tenure engagement:** Engagement is particularly challenging in mixed-tenure streets, where households receive different levels of support or have varying motivations. Coordinated approaches are needed to avoid piecemeal uptake and ensure owner-occupiers are not left behind.
- **Ongoing support:** Stakeholder discussion emphasised the importance of advice beyond installation, providing a wraparound service including support on how to maximise the benefit from LCTs effectively, especially for vulnerable households. Coordination can help ensure this support is available and consistent.
- **Education and advice services:** Education plays an important role in supporting effective engagement, particularly in supporting consumers with supporting decisions to install LCTs and in helping households use them effectively. Advice services, the DNOs existing offering across energy efficiency and fuel poverty, can also support households in understand how to operate their LCTs to engage with flexibility programmes, helping to maximise benefits.

Overall, an expanded role should support evidence-based decisions about which stakeholder is best placed to engage consumers in different contexts, rather than positioning DNOs as the primary lead for consumer engagement. Instead, DNOs should play an important coordinating role within and potentially across the wider consumer journey. This approach recognises the importance of trust and existing relationships, while using DNO coordination to reduce fragmentation and improve outcomes, particularly for low-income and vulnerable households.

### **Funding:**

Funding arrangements are critical to determining whether any expanded role is effective, proportionate and equitable. Insights from the roundtable discussion suggest that there are risks of fragmented, short-term funding and a separate need for clearer alignment between network investment and wider retrofit and

decarbonisation schemes. Overall, we do not see a case for a widespread or generalised role for DNOs in funding LCT deployment, as this risks further fragmenting the funding landscape and duplicating existing mechanisms. However, there may be specific, locally targeted areas where DNOs can clearly identify network benefits that could be achieved through the coordinated provision of LCTs. In such cases, limited and governed interventions could be appropriate, provided they are justified by clear evidence of network benefit and aligned with wider delivery schemes.

In practice, this raises the following considerations:

- **Alignment with existing and emerging schemes:** Funding models should complement programmes such as the Warm Homes Plan, avoiding duplication and ensuring continuity for local delivery partners. On crucial example here, is that Ofgem innovation funding does not typically allow for spend on hardware.
- **Quantification of network and system benefits:** There is a need to quantify how an enhanced role for DNOs can create system value in order to justify cost socialisation.

This points to the need for funding frameworks that support delivery across actors, while maintaining clear boundaries around the role of DNOs and protecting consumers.

### **Installations:**

There was limited support for DNOs taking on a primary role in delivering LCT installations at scale. However, roundtable participants recognised that DNOs can add material value by enabling installations more effectively, particularly where this can be aligned with existing or planned network works.

In practice, this raises the following considerations:

- **Enabling rather than replacing delivery roles:** DNOs are not best placed to act as lead installers of customer technologies, but they can reduce friction in delivery by improving certainty around network requirements, sequencing works, and coordinating enabling activities alongside installations delivered by others.
- **Leveraging planned network works to support installation:** Where DNOs are already undertaking activities such as unlooping, reinforcement or other street-level works, there may be opportunities to enable or facilitate associated LCT installations at the same time. This could reduce disruption, lower overall costs, and improve coordination between network and customer-side activity.
- **Pre-approval and fast-track mechanisms:** In suitable areas, DNO-led pre-approval or fast-track processes for certain technologies or solutions could reduce delays, increase installer confidence and accelerate deployment, particularly where network readiness has already been established.

This supports a model in which DNOs act as enablers and coordinators of installation activity, particularly by aligning enabling works with wider delivery programmes, rather than taking on a standalone delivery role themselves. This approach improves efficiency and certainty for delivery partners while maintaining clear roles.

## Ownership and control:

Clear arrangements for ownership, control and use of assets, including data, are essential to ensuring that any expanded role delivers value and avoids unnecessary complexity. The roundtable discussion highlighted that current approaches are often undermined by missing or inconsistent data and variability across DNOs, which limits the ability to optimise outcomes at scale.

We do not expect DNOs to take on a widespread role in owning or maintaining consumer-side assets. However, there may be specific circumstances where it is appropriate to test the system benefits of greater visibility or controls, particularly where this supports network optimisation or flexibility.

In practice, this raises the following considerations:

- **Asset visibility:** Clear visibility of installed assets is important to ensuring an expanded role for DNOs delivers value without complexity. There is an opportunity to strengthen obligations on installers to notify DNOs of installed assets, potentially through a standardised registration process, in order to ensure assets are visible before or at the point of operation.
- **Control of assets:** Pilots could test the benefits of consent-based control or asset coordination in specific contexts. This would help build evidence on when control of assets can deliver clear network or system value and how it can be governed appropriately.
- **Recognition of flexibility and smart controls as core enablers:** Flexibility, storage and smart controls should be treated as integral system assets, particularly where they can add additional value for DNOs.

Overall, this reinforces the importance of using pilots to test ownership and control models in practice, particularly at scale, and to understand how more centralised visibility or coordination of assets could improve outcomes while maintaining appropriate boundaries and protections for consumers.

## Pilots

**Q12: 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?**

Pilots provide an opportunity to collect real-world robust evidence ahead of large-scale changes. The use of pilots would be valuable to test the approaches described above but consider that their value will depend on being designed and sequenced in a way that builds on existing evidence rather than duplicating it. There has already been a significant volume of pilot activity across stakeholders, spanning network-led, supplier-led, local authority-led and community-led initiatives. Collectively, these projects represent a valuable evidence base on coordination models, consumer engagement, data use, network impacts and delivery challenges.

Before launching further pilots, we believe there is therefore a strong case for undertaking a structured meta-analysis of existing and recent pilots to consolidate learning, identify what has already been

demonstrated, and agree where genuine evidence gaps remain. This would help avoid pilot fatigue, reduce duplication, and provide a clear foundation for future pilots.

Building on this, any new pilots should be explicitly designed to address the gaps identified through that meta-analysis. To maximise their value, pilots should be developed within a coordinated programme, with common objectives, aligned evaluation frameworks and consistent success metrics. This would enable results to be shared and compared directly across different approaches and contexts, rather than assessed in isolation, and would support clear conclusions about what roles, functions and delivery models are most effective and scalable.

### Designing a coordinated portfolio of pilots

While pilots are often understood as small scale trials, the roundtable discussion highlighted that the most valuable learning will come from testing approaches at scale. Achieving this scale will require closer alignment between Ofgem-led pilots and DESNZ funding mechanisms, including the Warm Homes Plan, particularly given the limitations of Ofgem innovation funding in supporting hardware. Based on current evidence and discussion with stakeholders, we see a range of potential pilot ideas that could be tested as part of such a programme. These are set out in Table 1 and span areas such as proactive network interventions, coordination and data roles, consumer engagement, contracting models and incentives for collaboration.

*Table 1: List of potential pilots*

Pilot	Physical trial or desktop research	Priority	Description
<b>Proactive unlooping +</b>	Physical trial	High	Pilot proactive, area-based unlooping informed by network data, testing how additional services (e.g. engagement, wraparound support, community assets) can be layered to maximise system and delivery benefits.
<b>DNO as data aggregator</b>	Physical trial	High	Pilot a DNO role in aggregating and sharing place-based data to improve visibility across areas, testing how active this role needs to be to translate data into delivery or wider efficiency value.
<b>Locally led whole-system pilot</b>	Physical trial	High	Pilot a locally led, whole-system approach involving DNOs, GDNs, local authorities and suppliers, using a standard menu of installations with a focus on determining the best placed lead for consumer engagement.
<b>Consumer engagement in mixed-tenure areas</b>	Physical trial	High	Test engagement approaches for mixed-tenure streets, with a focus on the best approaches to reach owner-occupiers.



<b>Low-voltage network visibility</b>	Desktop research	High	Define what level of low-voltage data visibility is required for effective forecasting and planning, and what is proportionate for different use cases.
<b>Incentives for coordination and collaboration</b>	Desktop research	High	Test what incentives and commercial frameworks are needed for DNOs, local authorities and suppliers to collaborate effectively over time.
<b>Community readiness mechanism</b>	Physical trial	Medium	Test a mechanism to identify communities that are ready to lead or participate in place-based delivery, including assessing local capacity, governance and stakeholder alignment.
<b>Pre-approval for selected technologies</b>	Physical trial	Medium	Trial pre-approval or fast-track processes (e.g. for batteries) in defined areas to reduce uncertainty, speed up deployment and improve installer and consumer confidence.
<b>Smoothing local authority capacity / capability gaps</b>	Desktop research	Medium	Research areas where DNOs could help smooth geographic variation in local authority capability, including filling gaps where MSAs or local delivery capacity are absent.
<b>Disaggregated LCT data for network planning</b>	Physical trial	Medium	Collect and analyse disaggregated LCT data to identify network benefits, improve forecasting of upgrades, and test governance approaches for operating behind the meter.
<b>Contracting models for enabling works</b>	Physical trial	Medium	Explore alternative contracting and framework models for enabling works such as unlooping, drawing on approaches used by suppliers or other infrastructure sectors.
<b>Interaction with Warm Homes Plan</b>	Desktop research	Medium	Assess how DNO-led coordination could interact with the Warm Homes Plan funding pots and successor schemes to ensure alignment, equity and efficient sequencing of activity.
<b>DNO–supplier interaction on smart meter data</b>	Desktop research	Low	Examine how DNOs and suppliers could better share and use smart meter data, including implications for flexibility, vulnerability and network planning.

Taken together, these pilots should not be run as standalone experiments, but as part of a coordinated portfolio that is actively managed to ensure consistency, learning and comparability. This should include

central programme management support, shared evaluation approaches, and mechanisms for real-time learning and iteration across pilots. To ensure the evidence generated is robust and decision-ready, pilots should be designed with consistent evaluation methodologies, comparable sample sizes, aligned baselines and shared success metrics, allowing results to be compared meaningfully across different variables.

Central programme management would ensure coherence across pilots, including coordination of design, governance, data standards and evaluation, as well as mechanisms for shared learning and iteration. This would support a shift away from fragmented, place-specific experimentation towards a portfolio of pilots that collectively test how expanded DNO roles can be implemented at scale.

### **How Guidehouse can support on moving forward:**

Guidehouse has extensive experience supporting the design, delivery and evaluation of complex pilot programmes across energy networks, local authorities and delivery partners. We regularly work with DNOs, gas networks, suppliers, public bodies and community organisations to design pilots that are evidence-led, proportionate and scalable, and that generate decision-ready insights for regulators and policymakers. In particular, Guidehouse has supported large-scale trials including EQUINOX, CoolDown and Heatropolis, working with DNO partners to design, deliver and evaluate these trials.

In the context of piloting expanded roles for DNOs, Guidehouse would be happy to discuss:

- **How to design pilots and pilot portfolios that are clearly aligned to agreed evidence gaps**, with defined objectives, success metrics and evaluation frameworks from the outset.
- **What PMO support would be required to derisk delivery**, including governance, coordination across delivery partners, and sequencing, to ensure pilots are efficient and complementary rather than duplicative or competitive.
- **Where consistent evaluation approaches are needed**, including aligned baselines, sample sizes and metrics, to enable meaningful comparison across pilots and locations.
- **And how to facilitate cross-pilot learning and iteration**, ensuring insights are shared in real time and used to refine approaches as pilots progress.

#### **Contact**

Nye Gordon – Director  
Energy, Sustainability &  
Infrastructure

[ngordon@guidehouse.com](mailto:ngordon@guidehouse.com)

#### **About Guidehouse**

Guidehouse is a global consultancy providing advisory, digital, and managed services to the commercial and public sectors. In the UK energy sector, Guidehouse regularly works with DNOs, gas networks, suppliers, public bodies and community organisations on topics including network planning, flexibility and energy efficiency. Our work spans pilot design and evaluation, programme management, and evidence generation to support regulatory and policy decision-making. With high-quality standards and a relentless pursuit of client success, Guidehouse's more than 18,000 employees collaborate with leaders to outwit complexity and achieve transformational changes that meaningfully shape the future.



[guidehouse.com/regions/emec](https://guidehouse.com/regions/emec)



[linkedin.com/showcase/guidehouse-united-kingdom/](https://linkedin.com/showcase/guidehouse-united-kingdom/)