

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

Energy UK response

02/04/2026

About Energy UK

Energy UK is the trade association for the energy industry with over 100 members - from established FTSE 100 companies through to new, growing suppliers, generators and service providers across energy, transport, heat and technology. Our members deliver nearly 80% of the UK's power generation and over 95% of the energy supply for 28 million UK homes as well as businesses.

The sector invests £13bn annually and delivers nearly £30bn in gross value - on top of the nearly £100bn in economic activity through its supply chain and interaction with other sectors. The energy industry is key to delivering growth and plans to invest £100bn over the course of this decade in new energy sources. The energy sector supports 700,000 jobs in every corner of the country. Energy UK plays a key role in ensuring we attract and retain a diverse workforce. In addition to our Young Energy Professionals Forum, which has over 2,000 members representing over 350 organisations, we are a founding member of TIDE, an industry-wide taskforce to tackle Inclusion and Diversity across energy

Executive summary

Energy UK believes that the best way for Distribution Network Operators (DNOs) to support the delivery of low-carbon technologies (LCTs) is to provide assistance through data sharing and network upgrades, aligned with broader retrofit schemes.

Crucially, DNOs should not be mandated to adopt the expanded role as they are inexperienced in delivering LCTs and customer-facing activities but we understand Ofgem's intention to pilot any options for an expanded role in RIIO-ED3 to identify the challenges and opportunities associated with different models or archetypes, both for the operation of the network and for consumers but we maintain the view that DNOs would still be better suited to the enhanced coordination role.

Organisations with historic delivery experience and strong customer relationships, such as energy suppliers and Local Government, have significant experience in LCT delivery and will play a core roles in area-based delivery. At this critical stage for the network, the primary focus of DNOs should naturally be on their core RIIO-ED3 price control activity.

Energy UK does not support DNO funding of LCTs. Increasing costs to consumers via the network charge to support DNO activity in this area would stand in opposition to the Warm Homes Plan's ambition to bring down energy bills.

Finally, the system benefits of low-carbon heating and transport should be recognised, where flexible use of these assets could generate [£5 bn of network savings per year](#) from 2035.

If you would like to discuss anything noted in this response in more detail, please do get in touch.

Sincerely,

Samuel Adekanle

Policy Manager

samuel.adekanle@energy-uk.org.uk

Stephanie Holmes

Policy Executive

stephanie.holmes@energy-uk.org.uk

Consultation response

Q1. 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?

DNOs will play a key role in supporting the rollout of LCTs. A DNO can add value by aligning its strategy with electrification initiatives to minimise barriers to connections.

Energy UK believes that the best way in which DNOs can support the delivery of LCTs is by upgrading the network according to a strategic approach that is aligned with broader retrofit schemes, such as the future low-income scheme announced in the Warm Homes Plan, and combined authority energy plans. DNOs should prioritise upgrading networks in areas where the rollout of LCTs is quickly growing but the network may need to be reinforced to support that rate of growth. DNOs should also focus on ensuring that they are conducting their current duties well and incentivise using flex solutions as opposed to build out.

Under RIIO-ED3, DNOs could be incentivised to do this by having to report on the known rate of adoption of LCTs on their networks and if and how their network plans facilitated this, despite DNOs not be directly responsible for LCT installations this could still give an idea of how well they've played a facilitating role. As DNOs offer a regional view of the energy system, there is potential to coordinate with Heat Networks and provide anticipatory investment to the grid to support the network's supporting infrastructure.

The role of DNOs in enabling LCT delivery in RIIO-ED3 must be focused on how much load-related expenditure and reinforcement can be avoided if DNOs optimise their existing networks to dynamically manage and flatten the load of LCTs connecting at pace.

Crucially, DNOs should not be mandated to direct or take part in LCT delivery. Energy suppliers and/or Local Authorities are better placed to conduct such activities at scale due to their direct relationship with households, the data they hold on energy consumption levels and vulnerability characteristics on a household-level, and existing installation capacity.

Following scheme failures within the Energy Company Obligation 4 (ECO4), it is vital that future delivery is supported by regular and familiar communications to rebuild consumer trust. This is particularly important for low-income and vulnerable households. DNOs do not have the capacity or experience to deliver this fundamental part of successful energy efficiency initiatives at scale.

Moreover, financing DNO involvement in home upgrades through the RIIO-ED3 framework would introduce further complexity into the delivery landscape and

increases the cost on consumer bills without tangible benefit, considering the comparative disadvantages of DNO-led delivery.

By not mandating DNO involvement in the coordination or delivery of LCTs, and instead offering flexible pathways for involvement in delivery, such as through the supply of data, this could create a win-win relationship between delivery partners and DNOs. However, any additional data sharing outside what DNOs already provide would have to be realistic in terms of feasibility as there could be legal hurdles towards sharing some data.

This is where DNOs can benefit from initiatives being reflective of grid constraints, while delivery benefits could benefit from faster connections. Similarly, energy suppliers could use this data to support the strategic targeting of households that would benefit from use of LCTs in combination with flexible tariffs, helping to increase delivery while reducing peak demand on the grid in areas that need it.

Crucially, increasing costs to consumers via the network charge to support DNO activity in this area would stand in opposition to the Warm Homes Plan's ambition to bring down energy bills for households through the rollout of LCTs. Financial support for the rollout is therefore best funded by the Government.

Furthermore, there should also be a focus towards improving the connection process at the distribution level, which could be achieved through initiatives such as greater alignment/standardisation of DNO processes to address regional inconsistencies, along with faster G99/G100 approvals and the introduction of Service Level Agreements (SLAs) for DNOs. The bulk of these reforms rely on the outcome of the end-to-end review on the connections process, and we think it is important that Ofgem continually recognise the link between these reforms and increasing the adoption rate of LCTs on the distribution network.

Q2. Do you agree with the overall rationale and scope of 'Enhanced Coordination'?

Yes, however, some of the components of enhanced coordination should be obligatory and the rest optional, as the DNOs' extensive workload to prepare the network for growing demand and Clean Power 2030 (CP30) should be taken into account. This is the primary task of DNOs, and what they will be judged on for RIIO-ED3. Only the "network planning for electrification" and the "supporting flexibility", as DNOs adopt more Distribution System Operation functions, should be made mandatory.

Ofgem should also consider the following factors in determining the scope and viability of enhanced coordination:

- How to ensure that enhanced coordination will not adversely affect the ability of DNOs to perform their existing responsibilities efficiently and to a high standard.
- What the consequences will be if DNOs fail to deliver on the requirements of the enhanced co-ordination role.
- What rewards will be available to DNOs if they deliver above minimum requirements.
- How to ensure equitable delivery, so how to ensure that DNO co-ordinating roles are delivered equitably across all DNO geographical areas (including iDNOs) to ensure that there is not a regional lottery.
- How interoperability can be supported by providing access to DNO data sharing and software tools on a national and local basis. This could include supporting data sharing between DNOs, energy suppliers and installers.
 - Introducing standardisation between DNOs to support this.
- How DNOs can enable new local flexibility solutions through facilitating alternative solutions to load-related grid reinforcement requirements
- How DNOs can forecast and publish anticipated grid reinforcement requirements and associated costs, and how the market could propose alternative solutions and commercial models under this forecast.
- How DNOs can be encouraged to act proactively using their data to provide advice to stakeholders able to support and expedite workarounds to connection blockages or assist the development of innovative solutions in this space.
 - Some DNOs have taken part in similar activities. For example, UK Power Networks and National Grid Electricity Distribution (NGED) have enabled third parties to carry out fuse upgrades. However, this has not been taken up further.
- How householders and developers can be supported to connect multiple residences with a cable outside the DNO's purview during RIIO-ED3.
 - This is permitted in the EU and has supported competition, lower costs and the development of innovative solutions.

Q3. 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?

The current collaboration plan requirements should be understood as a starting point. As the UK looks to achieve CP30 and utilise transitional Regional Energy System Plans (tRESPs) to aid in this mission it has become increasingly important that DNOs extensively engage with stakeholders to assist the creation of an optimal energy system. RIIO-ED3 should allow them the capacity to enhance their collaboration plans easily. The collaboration plans should primarily focus on enabling the DNOs to conduct effective demand forecasting and network planning to support Low Carbon Technology (LCT) installations.

The enhanced Community Collaboration Plans would be helpful to stakeholders in theory. Proactive stakeholder identification and forward-looking engagement plans would allow stakeholders to prepare for DNO engagement and understand their role in creating the new energy system.

However, the prospective changes to support Community Collaboration Plans set out in the consultation, such as changes to Scheduling and Co-ordination agreements, require further detail.

Please see the response to Question 6 for more detail on Energy UK's view on the relationship between DNOs and Local Authorities.

Q4. How useful is the data currently published by DNOs, and is it presented adequately?

Data portals established during RIIO-ED2 will act as the foundation for improving the DNO's ability to enable the roll-out of LCTs.

Whilst significant progress has been made, this progress is not consistent across DNOs and so the following could be improved to support the roll-out:

- DNOs could publish standardised, machine-readable CIM data to support network topology, services, and tooling to be developed by the market. For instance, the partnership between NGED and Squid that uses NGED's CIM data/published technical network model to provide a visual, interactive interface and CIM explorer.
- DNOs should work with non-network data sets to improve forecasting, planning and operations. For instance, demand and asset data and behaviour could be provided by stakeholders such as suppliers and aggregators who have flexible response data and demand profiles from a variety of customer profiles.
- DNOs should provide real-time visibility and forecasts of local headroom, constraints and curtailment. This could include heat maps of capacity, when and where reinforcements are due to begin and finish, flexibility market and dynamic overlay signals.
- The existing role that DNOs have in approving and carrying out works for LCTs applied for could be clearer with limited data published by the DNOs or the ENA's Connect Direct platform. DNOs should publish this information on a connections webpage to provide installers with information about potential lead times their customers will face in waiting for an approval, connection date or required works, which Ofgem should consolidate.

Q5. 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?

DNOs are network specialists, so it is important to highlight that their role in non-network data should strictly be to collate it and not to collect and own it. The role of DNOs should be to coordinate with stakeholders who already hold the non-network data, ensure it is accessible and interoperable, and integrate the relevant datasets into network planning. The key is that they act as a system integrator rather than a data owner, avoiding duplication while still enabling better local planning and more efficient investment

Data on social housing, fuel poverty as well as heat network plans would be crucial to helping the design of a network that is cost-effective, especially in low-income areas, and can support by solar and clean heat installations to support the ambition of the Warm Homes Plan to lower household energy bills.

Q6. 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?

Energy UK understands that DNOs have long engaged with Local Authorities, and the development of RESPs will encourage continued collaboration.

Developments in favour of improved data sharing between DNOs and organisations responsible for LCT delivery, including but not limited to Local Authorities, are welcome. This data can support the strategic planning of area-based delivery, encouraging faster connections and support for grid capacity.

Energy UK recognises that the use of software to unlock enhanced coordination between LCT rollout and the performance of the grid would further support these benefits.

However, there is not enough information set out in the consultation at this stage to evaluate whether DNOs are best placed to offer these services. Similarly, the prospective changes to support Community Collaboration Plans set out in the consultation, such as changes to Scheduling and Co-ordination agreements, require further detail.

How DNO data would be managed alongside data from Local Authorities requires further consideration.

Another aspect to consider is ensuring that all stakeholders involved avoid duplication. DNO collaboration plans or data sharing must not duplicate other regional plans, including Local Area Energy Plans (LAEPs), Regional Energy System

Plans (RESPs), tRESPs, Warm Homes Agency, and Network Development Plans. Otherwise, the proposals risk inconsistency, unnecessary complexity, and unjustified additional costs.

Q7. 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?

iDNOs could add significant value by sharing anonymised, spatial data on LCT uptake by technology type. This would help installers target high-potential areas, reduce failed connections, and support local authorities' energy planning. It would also improve system-wide visibility, as iDNO networks are currently a data gap. However, to enable this, Ofgem would likely need to standardise data formats and introduce incentives or obligations for iDNO participation.

Private wire networks should be incentivised to share data with DNOs on existing and potential low carbon technology capacity. This would improve system visibility and allow DNOs to work collaboratively with these networks to unlock additional LCT deployment. In return, private wire operators could benefit from exporting surplus energy or participating in flexibility markets.

Q8. 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?

Enhanced coordination by DNOs should act as a bottom-up input into RESP processes, providing granular, local insights on constraints, LCT uptake, and stakeholder needs.

In the near term, DNO-led coordination can fill gaps where RESP coverage is still developing, particularly at the low-voltage level. In the long term, RESPs should provide the strategic framework, with DNO activities aligning to and operationalising these plans. However, clear roles, consistent data standards, and governance will be essential to avoid duplication, conflicting signals, and inefficiencies.

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?

No. Energy UK does not see the Expanded Role as a viable option for DNOs. As set out in Question 1, Energy UK believes that the best way in which DNOs can support the delivery of energy efficiency and low-carbon measures is by upgrading the network according to a strategic approach that is aligned with broader retrofit schemes, such as the future low-income scheme announced in the Warm Homes Plan, and combined authority energy plans, and by supporting LCT connections in a way that keeps overall costs down. We maintain the view that the Expanded Role is not suitable for DNOs but if this option was to be seriously considered it would have to come from a very strong benefits case realised from a pilot scheme which includes electricity suppliers, installers and flexibility providers.

As previously set out, DNOs do not have the necessary delivery or customer relations experience to be able to take on the Expanded Role. Energy UK's response to Question 11 details the risk that this poses to the quality of delivery. This is of particular concern, as delivery should focus on low-income and vulnerable households, who may require specialised communication and support throughout the delivery process. Energy UK held its second Future of ECO Stakeholder Event in 2025, bringing together 70+ stakeholders across energy suppliers, Local Authorities, DNOs and installers. The event consistently highlighted the risk posed by the lack of consumer-facing relationships held by DNOs.

Due to this lack of experience, the expanded role could incentivise DNOs to outsource delivery requirements, risking the realisation of the suggested benefits of the role and increasing the cost of delivery. This risk is underscored by the outcome of the Community Energy Savings Scheme (CESP), the last scheme in which a non-customer-facing regulated energy party was obligated to deliver measures in support of energy efficiency. CESP mandated a role for generators, who then outsourced their obligation.

Following the scheme, the then Department for Energy and Climate Change stated that the inclusion of generators "was inappropriate: their lack of in-house expertise on energy efficiency programmes and their lack of interface with household consumers were major challenges." It is important that this risk is not reintroduced by the introduction of the Expanded Role.

Further, the Warm Homes Plan references an ambition for Local Authorities and DNOs to increasingly work together to support the roll-out LCTs. Ofgem should be cognisant that Local Authorities face increasing pressure on their capacity from additional responsibilities being placed upon them in the plan, such as the enforcement of the Minimum Energy Efficiency Standards (MEES) in the private rented sector and adopting the role of Zone Coordinator Body to implement heat network zoning.

Should there be opportunities for partnership working, mandating a role for DNOs, Local Authorities would have to give considerable support, given the relatively lacking experience of DNOs, placing further pressure on their operations.

Ofgem should strongly consider these risks and contrast them with the benefits offered by experienced delivery partners better positioned to take a leading role in end-to-end delivery. The forefront example of this is energy suppliers, which have historically:

- Applied supply chain knowledge to unlock delivery at scale.
- Utilised in-house or trusted installers to deliver LCTs.
- Understood vulnerable customers and those in debt to improve targeting of measures and advice.
- Identified low-income households through interactions with customers in debt, which reduced the need for intermediaries.
- Provided a means to communicate with customers who struggle to pay their bills.
- Provided tariff advice to households in receipt of measures to ensure that they are getting the most out of their upgrades.
- Maximised bill savings by offering smart meter installations and Time of Use tariffs, supporting grid capacity.
- Provided the direction necessary for ensuring strategies deliver on their aims while spending within their means and staying on track.

Any role for DNOs in delivery would not be in place until 2028, and place based. In the meantime, support for the installation of LCTs within low-income and vulnerable households at scale to assist the delivery and bill saving and the Government's fuel poverty targets is needed. Ofgem must emphasise the importance of maintaining existing delivery routes and developing those outlined in the Warm Homes Plan to support delivery at scale.

Q10. 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?

Energy UK understands the need to apply these metrics to assess the benefits to DNO decisions and how it positively affects the network, energy system and consumers. These benefits should be weighed based on their importance to the DNOs obligations and network benefits will be the most important metric for DNOs.

LCTs such as heat networks and heat pumps should be considered as critical tool to alleviate pressure on the grid and provide wider system benefits (See Question 11).

Q11. Do you have any views on the archetypes presented and their implications? Do you have any other approaches we should consider?

DNOs' roles should focus on enabling the uptake of LCTs, not directly engaging in the process themselves. This includes ensuring that the network is sufficiently

expanded to support increasing uptake, that local authority and regional plans for uptake are factored into network design and investment, ensuring that accurate data is available on the state of the network, and ensuring that processes for connection are straightforward and standardised across GB.

The proposed archetypes would require significant consideration of the actual impact on the resources, administrative requirements, upskilling, and wider cost and resource implications within RIIO-ED3. This includes consideration of the cost allocation and recovery implications for consumers given the potential for unintended impacts on fairness and competition.

Do you have any evidence on key components notably:

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?

Low-carbon heating technologies can offer significant system benefits if they are used flexibly.

The Centre for Net Zero (CNZ) estimates that £5 bn of savings per year could be made from 2035 through flexible domestic heat and transport demand. CNZ modelling also estimated that flexible domestic heat and transport demand could reduce distribution capacity requirements by 25%.

Several projects have explored how households can engage with heating flexibility while retaining thermal comfort, and how these initiatives can work most effectively. Nesta and CNZ's HeatFlex project found that heat flexibility was the most effective when heat pumps were remotely controlled using a smart thermostat. The majority of households taking part in the project were content with the level of thermal comfort, indicating that using heat flexibly is beneficial for both consumers and the grid.

NGED and Octopus Energy's EQUINOX trial incentivised customers to turn down their great heating by offering financial rewards for doing so at peak times. The findings saw that customers had high engagement in turn-down events, maintaining high levels of comfort, and being rewarded for their participation financially. Participation averaged at 82% in EQUINOX events, and more than 90% of participants reported that they were 'Extremely satisfied' to 'moderately satisfied' with the trial.

The roll out of heat networks will also serve to minimise grid reinforcement requirements and provide critical infrastructure to utilise local high-temperature heat sources. This could create consumer benefits by minimising required retrofit and reducing reliance on marginal fossil fuel production having a positive impact on the consumer bill.

Additionally, DNOs should work with private wire providers proactively to determine a collaborative method of enabling projects that mitigate grid reinforcement requirements while unlocking investor confidence for heat network expansion and heat decarbonisation.

Heat networks provide thermal storage opportunities, which can also be utilised to derive system benefits. UK Power Network's Heatropolis project, for example, aims to integrate smart controls, thermal storage and innovative customer tools to manage heat network loads and reduce the need for "unnecessary" DNO reinforcements. However, when considering this question, Ofgem must be cognisant of the wider benefits of clean heating technologies, beyond their immediate benefits to the network. Notably, how these technologies can improve energy security by reducing the reliance of heat upon volatile fossil fuel markets, decarbonisation goals, and bringing down bills.

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 place to perform these functions?

As set out in Question 1, DNOs do not have the capacity or experience to execute effective communications with households eligible for LCTs.

Following scheme design failures within ECO4, it is vital that future delivery is supported by regular and familiar communications to rebuild consumer trust. This is particularly important for low-income and vulnerable households. DNOs do not have access to enough customer information to be able to identify households that would benefit most from delivery, or to support delivery at scale.

Considering the above, DNOs are not well placed to proactively identify suitable properties and/or engage with consumers.

These activities are better suited to organisations such as energy suppliers and local authorities who have regular communication with customers and have extensive experience with communicating effectively with vulnerable households.

In addition, to realise the energy system benefits of LCT rollout, the promotion of flexible tariffs must be heavily embedded with delivery. Energy suppliers are best placed to integrate this within their communications.

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?

Energy UK does not support DNO funding of LCTs. Increasing costs to consumers via the network charge to support DNO activity in this area would stand in opposition

to the Warm Homes Plan's ambition to bring down energy bills for households through the rollout of LCTs. Financial support for the rollout is therefore best funded by the Government.

However, DNOs could coordinate with prospective heat networks to provide anticipatory investment in the network to allow for a large heat pump installation or an electrified heat network. This reduces the upfront cost for heat networks and socialises the cost of upgrading the electricity network to support them.

DNOs could also provide greater certainty to investors by clearly signalling their future flexibility requirements and, where appropriate, offering longer-term, competitively procured flexibility contracts. This would reduce investment uncertainty, create more predictable revenue streams, and improve the bankability of LCT installations, particularly at scale. In turn, this could help unlock private capital for LCT deployment without DNOs needing to directly finance or deliver assets.

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?

It is imperative that the installation of LCTs is supported by a robust consumer protections framework and beginning-to-end support for households.

In the context of failures within ECO4, ensuring that households are supported must be a key priority for LCT delivery.

DNOs are not best placed to provide or assist in the provision of this support. Notably, the lack of delivery and consumer facing experience renders DNOs relatively unsuitable to conduct this work.

More detail on Energy UK's position on why this is the case can be found in responses to questions 1 and 11.

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?

In regard to control of assets, it is important to mention that a monopoly for DNOs to control assets would distort the market, create an unlevel playing field for other participants, preventing fair competition and potentially limiting beneficial/ optimal outcomes for households.

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?

To better understand the value that DNOs could bring to being more directly engaged in the delivery of energy efficiency and low-carbon measures, there may be merit in Ofgem enabling targeted pilot funding or an extended Network Innovation Allowance (NIA) to DNOs that are looking to actively engage in this work. However, this should not be the primary objective of RIIO-ED3.

Ofgem should note, however, that conductive pilots at the beginning of RIIO-ED3 would be too late to enable DNOs to improve their existing roles, such as in flexibility.

Q13. How could iDNOs support the proposals in this portion of the consultation?

Neither DNOs nor iDNOs should have Expanded Roles. The most sensible option is not expanded roles but enhanced coordination between DNOs and stakeholders to support LCT adoption.