Emotionally Intelligent Communications

NATIONAL GRID ELECTRICITY DISTRIBUTION: SHAPING THE FRAMEWORK TO DELIVER CLEAN POWER 2030

FEEDBACK REPORT

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INTRODUCTION

On 17 December 2024, National Grid Energy Distribution (NGED) held a roundtable discussion on how to shape the ED3 price control framework to deliver clean power by 2030 (CP 2030).

The workshop was hosted in-person at National Grid's office at the Strand, London.

The event was split into three sessions:

1. Delivering for customers
2. Considering the long-term
3. Scale of change needed

Sessions one and three were introduced by Paul Branston, Director of Regulation and session two was introduced by Graham Halladay, Director of ED3. A total of thirteen industry experts were in attendance. The overarching purpose of the workshop was to seek feedback from stakeholders to inform NGED's response to Ofgem's ED3 Framework consultation.

NGED instructed EQ Communications, a specialist stakeholder engagement consultancy, to independently facilitate the event and to take notes of the comments made by stakeholders. This document summarises the feedback given at the workshop. To encourage candour and open debate the discussions were held under the Chatham House Rule, meaning that comments have not been ascribed to individuals or organisations.

DISCUSSION ONE: DELIVERING FOR CUSTOMERS

The focus of the first session was seek feedback from stakeholders on how the ED3 framework could adapt to meet the needs of customers and address the challenges of delivering a just and fair transition to CP 2030. Stakeholders were invited to consider a series of key questions, including: how the framework could ensure customers connecting to the distribution network receive the services they need from DNOs; how it might evolve to ensure no-one is left behind in the energy transition; and what roles DNOs should play in delivering energy efficiency measures to domestic customers.

Additionally, participants were asked to evaluate whether the framework should incorporate wider social value outcomes when assessing the performance of DNOs. Discussions examined the balance between customer-focused outcomes, long-term investment priorities, and societal considerations, emphasising the importance of tailoring solutions to regional needs and leveraging innovation to maximise efficiency and inclusivity. The session provided a platform for stakeholders to share perspectives on embedding these priorities within the regulatory framework, ensuring that ED3 supports the energy transition while addressing consumer and societal need.

How could the ED3 framework adapt to ensure that customers using and connecting to the distribution network are provided with the services they need from the DNOs?

One of the key themes discussed was the need for enhanced connectivity and collaboration with stakeholders such as the National Electricity System Operator (NESO), other DNOs, and supporting service providers. Participants highlighted that many barriers, particularly around capacity and operational issues, stem from the boundaries between the distribution and transmission systems. It was noted that breaking down these barriers will require effective, resilient frameworks that facilitate cooperation and ensure readiness for future challenges.

Participants also explored how incentives could drive collaboration. While no immediate solutions were identified, it was suggested that the ED3 framework could require companies to outline their strategies for engaging with other utilities including broadband providers and other stakeholders as part of their business plans. It was commented that the ED3 Frameworks should place an emphasis on collaboration as a fundamental principle without relying solely on financial incentives.

The discussion also focused on balancing timely customer access to the network with avoiding excessive upfront costs. Flexibility and demand-side management were seen as vital for achieving the energy transition, enabling customers to connect to services such as EV chargers without delays. Drawing on international examples, participants emphasised the risks of both overinvesting in infrastructure before demand materialises and underinvesting, which could lead to long wait times for connections. Stakeholders recommended that the ED3 framework prioritise customer connectivity to unlock future flexibility benefits,

reduce long-term costs, and foster trust in the energy transition. A balanced approach was identified as being necessary to align customer needs with infrastructure investment timelines.

Participants highlighted the importance of improving the quality and accessibility of information shared with developers and other stakeholders. The point was made that, currently, restrictions on data reuse and sharing create inefficiencies, leading to frustration among developers. Suggestions included enhancing digitalisation initiatives and creating systems that provide clear, forward-looking projections of network upgrades and capacity availability. It was commented that better access to such information would enable developers and local authorities to make informed decisions about project planning and prioritisation. Participants noted that this approach would support the broader objectives of transparency and efficiency within the ED3 framework.

The potential for local energy trading and enhanced flexibility at the substation level was another key topic of discussion. Participants advocated for better engagement with engineers and improved data transparency to empower customers to make informed decisions about power usage. Aligning localised energy solutions with the principles of a just and fair transition to a decarbonised economy was seen as an essential component of this approach.

Dynamic pricing and live market signals were identified as tools to incentivise customer engagement with flexibility programs. Participants suggested creating rational markets for flexibility, integrating tariffs and rewards to encourage participation while reducing costs for consumer.

How could the framework be evolved to ensure no-one is left behind in the energy transition?

Stakeholders highlighted the critical importance of embedding fairness within the ED3 framework to ensure no-one is left behind in the energy transition. Discussions emphasised the need to address disparities in who benefits from investment in electricity networks, particularly when affluent communities disproportionately gain access to emerging technologies and services. To tackle this, it was noted that the framework should incorporate a stronger focus on understanding and reporting who benefits from projects, ensuring vulnerable communities receive targeted support and measurable outcomes.

Participants noted that existing efforts, such the Customer Vulnerability Incentive (CVI) have made an impact but remain patchy. It was felt that continued evolution is essential to ensure these initiatives address the full spectrum of customer needs. Stakeholders suggested leveraging innovative projects, like the EQUINOX framework for equitable participation in heat pump demand management, as models for expanding access to flexibility and smart energy solutions.

A recurring theme was the importance of generating social value from significant investments in energy infrastructure. Drawing comparisons to the sector deal approach in offshore wind, participants proposed

establishing clear targets and requirements for delivering community benefits. Broad engagement and outreach initiatives were cited as vital tools for understanding and addressing the concerns of customers, particularly those worried about affordability.

Stakeholders stressed the need for flexibility in funding mechanisms to address multi-faceted challenges. It was felt that this could include integrating advice with energy efficiency measures or supporting customers in overcoming initial hurdles to participate in flexibility tariffs. Instead of focusing solely on quantitative measures, it was commented that the ED3 framework should prioritise outcomes, such as the number of supported communities.

Participants highlighted examples of innovative approaches, such as EON's battery trial for vulnerable households in Coventry, which exemplifies how technology can support a just transition. By installing "fit-and-forget" batteries paired with off-peak tariffs, it was explained that vulnerable customers benefit from reduced energy bills. It was noted that extending such initiatives to areas with grid constraints could simultaneously alleviate infrastructure pressures and enhance inclusivity. The discussion also highlighted the importance of identifying funding mechanisms to overcome initial barriers, enabling projects that deliver whole-system benefits. Proposals included reallocating avoided or constraint costs to support such initiatives, ensuring broader participation and alignment with Ofgem's objectives.

Participants highlighted the need to distinguish between vulnerability and fuel poverty, ensuring that frameworks address the specific needs of different groups. While fuel poverty focuses on economic hardship, vulnerability encompasses a wider range of challenges, such as physical or situational disadvantages. By maintaining clarity in definitions and objectives, it was felt that the framework can better target support where it is most needed.

Finally, stakeholders called for greater alignment of flexibility measures with social value outcomes. The point was made that DNOs could pool resources and prioritise projects with both operational and social benefits would help balance infrastructure needs with broader societal goal.

What roles should DNOs have in the delivery of energy efficiency measures to domestic customers?

Participants emphasised the potential benefits of DNO involvement in the delivery of energy efficiency measures, while also raising questions about the most effective and equitable approaches to implementation. Stakeholders suggested that DNOs could play a more proactive role in promoting energy efficiency, particularly in areas where infrastructure upgrades are necessary. By insulating homes and reducing energy demand, it was noted that DNOs could not only alleviate the need for extensive network investment but also address issues of vulnerability and fuel poverty. It was commented that this approach aligns with broader goals, such as reducing whole-system costs and achieving a fairer energy transition.

Examples of DNO-led innovation projects, such as those undertaken by NGED, were cited as successful models. These initiatives demonstrate how DNOs can leverage their expertise and resources to deliver energy efficiency benefits, particularly when aligned with Smart Energy Action Plans or targeted programs for vulnerable communities.

Attendees also highlighted a number of challenges. Concerns were raised about the risk of inefficiencies and inequities if energy efficiency measures are not carefully targeted. For instance, initiatives are not means-tested, meaning all customers, including those who do not directly benefit, would bear the costs of such programs. It was felt that this could exacerbate existing inequalities and undermine public support for DNO-led initiatives. To address these concerns, stakeholders emphasised the importance of tailoring energy efficiency measures to local needs. The point was made that this would involve conducting cost-benefit analyses and considering the wider societal impacts of interventions. For example, identifying areas with the greatest whole-system value, such as communities with high vulnerability or significant infrastructure constraints as this would ensure that resources are deployed where they can have the greatest impact.

The importance of partnerships with devolved administrations and local authorities was also stressed. In regions like Wales, where Local Area Energy Plans (LAEPs) are more advanced, it was felt that DNOs could play a key role in supporting locally led strategies. By working closely with local stakeholders, it was also felt that DNOs could help identify priority areas for energy efficiency investments and integrate these efforts into broader regional plans.

Additionally, the potential for linking energy efficiency measures with advice and education programs was highlighted. By combining practical interventions with guidance on energy use, the point was made that DNOs could help customers maximise the benefits of efficiency measures and reduce their overall energy cost.

Should the framework adapt to evaluate wider social value outcomes when assessing performance of DNOs?

Participants broadly supported the idea that the framework should adapt to include wider social value outcomes when assessing the performance of DNOs. They emphasised the need for better indicators to measure social impact, noting that current metrics, such the number of customers on the Priority Service Register (PSR), are too simplistic. It was felt that, by tracking social value, the framework could reinforce the narrative that the energy transition is being implemented fairly, helping to maintain public consent and trust. Vulnerability, fuel poverty, and leaving-no-one-behind were identified as distinct but interconnected themes that require more nuanced approaches within the framework.

Stakeholders also stressed the importance of coordination and targeting to maximise social value. While DNOs were not seen as the primary delivery agents for energy efficiency, their role in funding and supporting

these initiatives was highlighted. Participants suggested that where there are clear cost-saving opportunities, such as reducing network strain through efficiency measures and that DNOs could play a facilitating role. Coordinating efforts with local authorities and integrating flexibility with efficiency were seen as key strategies for ensuring that social value is realised without regressive financial impacts on customers.

SESSION TWO: CONSIDERING THE LONG-TERM

The focus of the second session was to explore strategies to align the RIIO-ED3 framework with long-term objectives, ensuring the delivery of a consumer-centric energy transition. Discussions addressed critical questions, including how the framework could adapt to achieve CP 2030 targets, balance net zero ambitions with consumer protections, and incentivise DNOs to pursue ambitious and long-term strategies for decarbonisation.

Participants deliberated on the scale of systemic changes required to accommodate increasing electrification demands while maintaining affordability and reliability for consumers. In the discussions, the need for an integrated approach to planning, leveraging tools like the Customer Value Propositions (CVPs) align investment with overarching policy goals. In doing so, it was noted that stakeholders considered potential methodologies for embedding anticipatory investment, integrating digitalisation, and managing regional variability in energy strategies.

The discussion also highlighted emerging challenges, such as the integration of AI and digital tools to streamline operations and improve system performance. As part of these discussions, participants reflected on the importance of clear and transparent metrics to measure value and drive informed decision-making, particularly in light of accelerating decarbonization pressures and evolving consumer needs

How could the framework adapt to deliver CP 2030 and net zero targets?

Stakeholders emphasised that meeting CP 2030 and net zero targets requires a robust and adaptable framework that prioritises timely investment in the distribution network. A central concern highlighted was the risk of underinvestment in the low-voltage network, which accounts for a significant portion of infrastructure costs. Participants noted that failure to upgrade these networks promptly could lead to widespread capacity bottlenecks as demand for EVs and, heat pumps accelerates in the early 2030s. it was noted that delays in connections could erode public trust and jeopardise net zero goals. Drawing parallels to past challenges in transmission investment, participants stressed the importance of proactive, forward-looking strategies to avoid repeating these mistakes in ED3.

Another key theme that emerged was the importance of balancing technical metrics with broader social and economic outcomes. While participants acknowledged the value of tracking performance through metrics, they cautioned against over-reliance on single measures, which might lead to unintended trade-offs. Instead, it was felt that the framework should focus on delivering comprehensive outcomes that address customer vulnerability, resilience, and equitable access to network benefits. The point was made that metrics should serve as tools for guiding discussions and planning, rather than acting rigid benchmarks for comparing DNO performance.

Stakeholders also highlighted the critical role of effective communication in achieving these goals. It was commented that investments in the network must be framed in terms of tangible benefits for customers, such as enhanced energy security, cost savings, and reduced environmental impact. Participants stressed the need for a compelling narrative that connects network upgrades to everyday concerns, ensuring that customers

understand the value they receive for their contribution. The point was made that tailored messaging is crucial, as priorities vary across regions and demographics. For example, some communities may prioritise cost savings, while others value renewable energy or resilience against outages. Coordinated local engagement and storytelling were seen as essential for fostering energy citizenship and securing public support.

The discussion also touched on the importance of planning for long-term outcomes. Participants recognised that the energy landscape will look significantly different by the end of ED3. As such, the framework must accommodate evolving technologies, customer needs, and societal expectations. This includes addressing the interplay between electrification of heat and transport, network resilience, and energy efficiency. By focusing on whole-system outcomes and integrating flexibility and efficiency measures, it was felt that the framework can maximise the value of investments while supporting a just and inclusive transition.

How can the framework ensure balance between delivery of long-term objectives of net zero and growth with consumer protections?

Participants highlighted the challenges of designing a framework that balances the delivery of long-term objectives, such as net zero and growth, with consumer protections. A recurring theme was the need for clarity and alignment in planning processes. Stakeholders questioned the utility of current five-year load-related reinforcement plans, given the long-term nature of net zero targets and the introduction of Regional Energy Strategic Plans (RESPs). A shift toward a longer-term planning horizon, such as a 25-year investment framework, was proposed as a way to spread costs more evenly, enhance supply chain efficiency, and reduce overall costs. By adopting this approach, it was felt that networks could avoid the inefficiencies caused by fluctuating investment levels and better align with the public-validated pathways to 2050.

At the same time, participants made the point that key performance indicators (KPIs) and frameworks, while essential for tracking progress and managing incentives, often hold little meaning for consumers. To address this disconnect, stakeholders suggested focusing on broader narratives that resonate with consumer priorities, such as cyber resilience, reliability, and cost-effectiveness. By integrating these elements into the framework, it was noted that it may be possible to ensure accountability while maintaining consumer trust and support for the transition to a decarbonised energy system.

How can Ofgem incentivise DNO net zero plans that are ambitious and long term?

To incentivise DNOs to adopt ambitious and long-term plans aligned with net zero goals, stakeholders emphasised the need for a regulatory framework that encourages proactive and strategic investment. The point was made that five-year price control cycles were seen as limiting, particularly when addressing challenges that require multi-decade planning horizons. Participants suggested adopting mechanisms like 25-year investment plans that align with RESPs, allowing for a more holistic and forward-thinking approach. By providing clear pathways and guard rails, it was felt that Ofgem could enable DNOs to make anticipatory investment that balances immediate needs with future demands.

A key aspect of incentivising long-term planning discussed was to addressing uncertainty. Stakeholders highlighted Ofgem's hesitance to approve investments due to insufficient data or confidence in projected outcomes. To overcome this, it was felt that DNOs could leverage historical data to illustrate the long-term efficiencies of proactive investments. For example, examining instances where networks had to reinvest multiple times due to incremental upgrades could demonstrate the cost and time savings of comprehensive, forward-looking strategies. While the future may not perfectly align with past trends, it was felt that this evidence could provide a foundation for informed decision-making and increased regulatory confidence.

Participants also stressed the importance of aligning incentives with customer engagement and public trust. It was commented that ambitious net zero plans must prioritise taking customers along on the journey, ensuring they understand the benefits of network upgrades and how these align with broader sustainability goals. Transparent communication and narratives that connect infrastructure investments to tangible outcomes such as resilience, environmental benefits, and cost savings were seen as critical. It was also noted that, by creating a regulatory framework that rewards both strategic foresight and customer-centric approaches, Ofgem can foster an environment where DNOs confidently pursue ambitious net zero targets while maintaining public and regulatory support.

DISCUSSION THREE: SCALE OF CHANGE NEEDED

This session focused on exploring stakeholder perspectives regarding the scale of change anticipated by Ofgem for ED3, compared to ED2, across a range of policy areas. The primary aim was to assess whether participants agreed with the scope and degree of proposed changes, including those related to digitalisation, flexibility, resilience, and network investment. Discussions centred on the practicality of implementing significant transformations within the regulatory framework and the potential challenges of integrating long-term objectives with immediate operational requirements.

Agreement with the degree of change Ofgem anticipates across policy areas in ED3?

Participants largely agreed with the scale of change outlined in Ofgem's ED3 consultation document, emphasising that the proposed framework needs to reflect the urgency and scope required to support the energy transition and achieve net zero targets. However, stakeholders stressed the importance of ensuring that these changes are implemented in a fair and equitable manner, taking into account societal consent and the varying needs of communities. Strategic energy planning, particularly the role of RESPs, was identified as a critical element for driving this transformation. While RESP offers exciting potential, there were concerns that it is being treated as a "silver bullet," when in reality, it needs to complement existing planning mechanisms and evolve iteratively.

A recurring theme was the need for stronger leadership from Ofgem in addressing key areas like climate resilience and digitisation. Stakeholders highlighted a gap between the urgency of these issues and the actions currently being taken. Climate resilience, in particular, was identified as under-prioritised within the ED3 framework. Participants warned that without embedding climate resilience into investment planning and decision-making processes, networks risk falling behind, leaving insufficient time to adapt to worsening extreme weather events. It was felt that this lack of leadership could result in last-minute reactions and suboptimal investments, undermining long-term resilience.

Data, digitalisation and flexibility

The shift toward data-driven and digitalised systems was seen as essential for modernising networks and achieving net zero by 2050. Stakeholders expressed concern about the current reliance on outdated IT systems, which are inadequate for managing the complexities of future demands. They called for significant investment in digital infrastructure to enable active monitoring, better management of losses and voltage, and more precise decision-making. It was commented that this would also support broader goals, such as improving service delivery for vulnerable customers and enhancing network resilience.

The role of flexibility in the ED3 framework was also debated. While "flexibility first" has historically addressed the tendency to prioritise reinforcement over flexibility solutions, stakeholders emphasised that flexibility and reinforcement should be seen as complementary rather than competing strategies. It was felt that investment in flexibility should be optimised to manage constraints effectively and reduce costs, but this

should not come at the expense of necessary reinforcement to meet the growing demand for EVs and heat pumps. A balanced approach, leveraging both strategies, was seen as critical for long-term success.

Investment and the consumer value narrative

Participants stressed the importance of framing investment in a way that aligns with consumer outcomes and societal priorities. The consultation document's focus on outcomes such as resilience, environmental benefits, and cost savings resonated with stakeholders but they emphasised the need for clear communication to maintain public trust. It was commented that consumers must understand how network upgrades translate into tangible benefits for them, particularly as energy costs rise. Stakeholders noted the importance of narratives that connect technical changes with real-world impacts, ensuring transparency and fostering energy citizenship.

Future-ready planning

Looking ahead, stakeholders urged Ofgem to develop methodologies that allow DNOs to make investments with long-term value across multiple streams. For example, technologies like LV monitoring systems could deliver insights on network resilience, enhance service for vulnerable customers, and improve operational efficiency. By adopting metrics that reflect whole-system value, it was felt that Ofgem could incentivise investments that support broader objectives, helping to avoid a "car crash" scenario in the 2030s when demand surges from widespread adoption of EVs and heat pumps.

The need to address climate resilience and plan for extreme weather events was also emphasised. Participants suggested modelling future scenarios, such as a Storm Darragh-type event in 2033, to evaluate the network's ability to withstand increasing challenges. This forward-looking approach would provide valuable insights into required investments and guide adaptive strategies to mitigate risks.