Electricity
Distribution

National Grid DSO Strategic Action Plan: One Year On

Delivering for our stakeholders now and in the future

March 2025

nationalgrid DSO

Executive summary

The UK electricity system is undergoing a fundamental transformation which is picking up pace driven by national policy ambitions to achieve Clean Power by 2030. This transition is rapidly changing how electricity is generated and consumed.

By 2050, annual electricity demand is expected to more than double from 285 TWh in 2023 to up to 700 TWh[1].

This will be driven by demand from electric vehicles, heat pumps and industry, alongside the growth of renewable energy generation and storage, most of which will be connected to the distribution network.

This transformation is set against the backdrop of an increasingly dynamic policy landscape. Essential connections and planning reforms are underway.

New Regional Energy Strategic Planners (RESPs) are set to be introduced this year, and the National Infrastructure Commission (NIC) has called for an increasingly proactive approach to investment in electricity distribution networks, underpinned by long-term strategic plans.

At National Grid Electricity Distribution (NGED), we know that evolution of the distribution networks will be integral in enabling the transition to a cleaner, more secure energy system, amidst a period of significant change.

Through our Distribution System Operator (DSO) business, we are embracing the changing needs of our customers and stakeholders and are delivering clear, tangible benefits at scale.

Whilst our first year as a functionally separate DSO was focused on listening to our stakeholders and building capability, the theme of our second year has been delivery - we have made significant progress across our DSO roles with a rigorous focus on delivering good outcomes for our customers and stakeholders.

>162,500
flexibility assets registered on our industry-leading Market Gateway platform, more than double the total last year

240 GWh
of curtailment avoided through enhanced outage planning processes

287
Net Zero Surgeries delivered with local authorities, to facilitate their decarbonisation journeys

100%
of local authorities that requested support with their decarbonisation and local area energy plans (LAEP) engaged

19 GWh
of flexibility availability procured across our regions

Our delivery objectives are built around five key themes that our customers and stakeholders say are important.

Planning and Network Development	Enable local and regional decarbonisation by supporting ambitious initiatives from planning through to delivery on the ground.
Network Operation	Enhance the visibility of our network by harnessing the latest data and digital solutions to drive smart, whole system outcomes.
Flexibility Market Development	Continue to lead the curve on flexibility, doing all that we can to create market opportunities and simplify access.
Governance	Promote transparent, independent and efficient decision-making through effective DSO governance.
Stakeholder Engagement	Proactively collaborate through partnerships to deliver whole system outcomes, and be transparent with stakeholders how we measure DSO success.

At National Grid DSO, we are committed to ensuring that we deliver enduring value now and in future, and that we continuously monitor our performance and report in a way that is accessible and impactful for our stakeholders.

Through this one year on update report, we set out our progress against the commitments we made in our Strategic Action Plan in the last year and explain the actions we will take going forwards to continue to deliver value for our customers and stakeholders.

[1] https://www.neso.energy/document/321046/download

Foreword

I am pleased to be able to share with you National Grid DSO's Strategic Action Plan: One Year On, an update report that highlights how we have delivered against the DSO commitments we set this time last year. I am immensely proud of the huge strides forwards that we have made in scaling up the benefits we delivered for our stakeholders, consumers and the energy system in the last twelve months.

In March 2024, following an extensive programme of engagement and listening, we launched our DSO Strategic Action Plan, which we had co-created with our stakeholders. The two-year plan demonstrated how stakeholders' voices had directly shaped our DSO vision, plans and priorities, and how these translated into a clear suite of commitments and deliverables.

Over the last year, my team has quickly transitioned from setting ambitions and plans to implementation at scale. Our focus has been firmly on delivery and ensuring that our DSO is creating tangible, meaningful benefits for our customers and stakeholders.
From unlocking long-term, regional and local energy plans to making transparent, efficient and data driven decisions that maximise network capacity, I am confident that National Grid DSO is already delivering positive, enduring outcomes that benefit the whole system.

However, we are not standing still. In this document, we highlight how we have embraced feedback from Ofgem to increasingly quantify the benefits that our DSO delivers, track year on year performance across our regions and embed our pioneering innovation projects into business-as-usual practices. We also outline how we have continuously improved our own performance metrics to ensure we are holding ourselves to account in line with dynamic stakeholder and customer needs.

Looking ahead, we will remain on the front foot and are dedicated to shaping the role that DSO can play in supporting broader transformation of the electricity system. By harnessing the power of data, technology and innovation and through collaboration with our regional and national partners, we will continue to push the boundaries of the value that DSOs can deliver.

Our goal is clear: to enable a smarter, more flexible, and consumer-focused energy system that works for all stakeholders, now and in the future.

I hope you enjoy learning about our progress over the last year. My team and I look forward to hearing your reflections on our future plans.

Cathy McClay
Managing Director of National Grid Distribution System Operator

Introduction

NGED is the UK's largest electricity distribution network, with over eight million customer connections serving more than 18 million people across the East and West Midlands, South West, and South Wales.

As the regional distribution division of National Grid, we are responsible for operating and maintaining the infrastructure that connects homes, businesses, and communities to a secure and reliable electricity supply.

Our DSO business is a functionally separate part of NGED responsible for Planning and Network Development, Network Operation, and Flexibility Market Development.

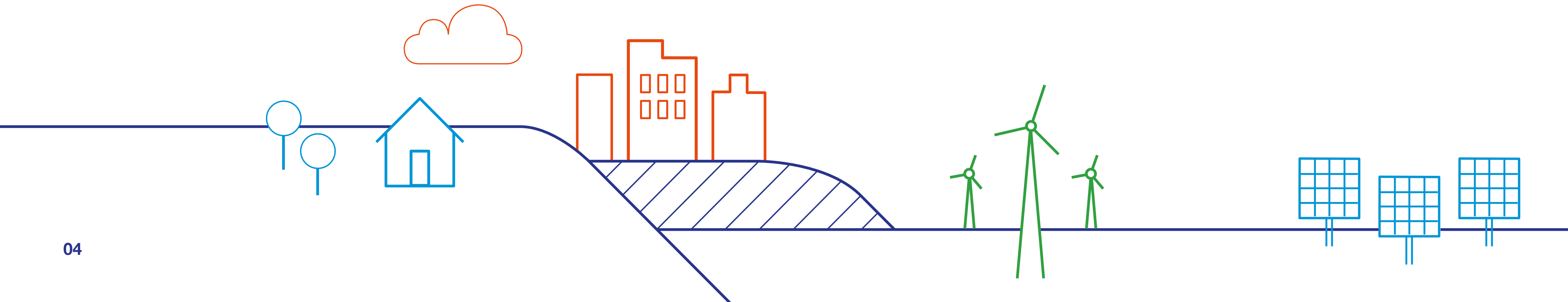
Our DSO vision is to enable and coordinate a smart, flexible energy system that facilitates local decarbonisation for all customers and communities at the right time and the lowest cost.

Across our regions, we are seeing widespread investment in renewable generation and storage, alongside increasing deployment of low carbon technologies (LCT) such as heat pumps and electric vehicles.

Amidst a fundamental transformation of the electricity system, which is accelerating, **we are already delivering significant value for our stakeholders, customers and consumers.**

We have continued to enable local and regional decarbonisation from planning through to delivery, collaborating and coordinating across the whole energy system – and we stand ready to shape long-term regional plans following the introduction of RESPs this year.

Our **market leading ninth Distribution Future Energy Scenarios** (DFES) combine over **8,000 local authority strategy projects**, whilst through our focus on continuous improvement of our network planning, we have directed an additional **135 MVA of capacity** from transformer replacements and identified over 400 km of circuit reinforcement across low and high voltage networks.



Introduction

We have continued to improve our data, technology, and processes as we move towards operating a smarter, more dynamic electricity network.

We are proud to have launched our new **Network Opportunity Map**, helping stakeholders to identify areas of the network with potential connection opportunities, whilst our first ever **Operational Decision Making Framework** is shaping transparent and optimum decisions for the energy system.

Through our continuous focus on improving data transparency and accessibility, we are making it easier for our stakeholders to use the information they need to engage with the system effectively.

In parallel, we have expanded access to flexibility markets, more than doubling the capacity of assets registered on our industry-leading Market Gateway platform and procured over **19 GWh of flexibility** availability through both our long term and short term markets, we remain focused on enabling the broad system benefits that demand side solutions in our regions can deliver, beyond simply deferring reinforcement of the network.

Effective governance remains central to our delivery, and we have continued to refine our approach to managing performance and navigating actual or perceived conflicts of interest.

We are confident that our approach to functional separation remains the right one, bringing together expertise from across our DSO and Distribution Network Operator (DNO) businesses to deliver good outcomes for our stakeholders – underpinned by the launch of our latest update to our **Guide to Governance**.

Equally, in its first full year of operation, our **independent DSO Panel** has played a significant role in providing independent, strategic challenge, and its recommendations have directly shaped our DSO delivery over the last year.

Our progress in 2024/25

Timeline of key DSO milestones

April 2024

Switched On! Local Authority Newsletter
(Stakeholder Engagement)
As part of our ongoing collaboration with local authorities, launched a quarterly newsletter that provides useful guidance and best practice for our 120 authority areas.

May 2024

Network Development Plan
(Planning and Network Development)
Published our Network Development Plan with 136 detailed technical reports, producing a comprehensive strategic plan for all parts of our primary network for the first time. These plans identify future network constraints, analyse potential options and make recommendations underpinned by a higher granularity of data for stakeholders than other DSO/DNO Network Development Plan reports.

July 2024

National Grid DSO Performance Metrics
(Governance)
Published our Key Performance Indicators for the first time to demonstrate how we are monitoring our progress as a DSO, with a commitment to provide quarterly updates.

September 2024

Flexibility Market Guidance document for Local Authorities
(Flexibility Market Development)

8th Distribution Network Options Assessment
(Planning and Network Development)
Developed our Distribution Network Options Assessment (DNOA), outlining how we plan to invest in our network to solve constraints through a combination of build and flexible solutions.

October 2024

Switched On! Stakeholder Workshop
(Stakeholder Engagement)

Electricity Futures NOW! DSO Stakeholder Workshop
(Stakeholder Engagement)
Delivered a DSO Online Stakeholder Workshop Event for 100+ stakeholders, providing a mid-year update on our performance and Key Performance Indicators (KPIs), including how we are actioning feedback from our stakeholder survey.

November 2024

Learning Together Joint Consultation with UK Power Networks (UKPN)
(Flexibility Market Development)
Delivered a joint consultation with UKPN on flexibility market design and actioned stakeholder feedback which included implementing common timelines for dispatch and day-ahead markets across. All findings were shared with other DSOs and our stakeholders.

Our progress in 2024/25

December 2024

DSO-DNO Functional Separation Steering Group
(Governance)

January 2025

Operational Decision Making Framework
(Network Operations)
Issued a stakeholder consultation report outlining approaches that support the growth of flexibility markets, utilise data to improve network modelling, and provide strategies for dynamically managing demand and generation. It also aims to highlight how we are leveraging transparent and efficient decision making to maximise network capacity.

9th Distribution Future Energy Scenarios
(Planning and Network Development)
Published our 9th DFES report which incorporated over 8,000 local authority strategic projects (our highest number yet). This included an enhanced scope of data to cover new technologies and sectors such as agriculture, aviation, maritime and rail.

Flexibility Market Insights Report
(Flexibility Market Development)
Launched a report outlining the awarded flexibility trades across 525 locations in the regions we serve.

Independent DSO Panel Report
(Governance)

Demand Turn Up trades awarded
(Flexibility Market Development)

February 2025

DFES Local Authority Workbook published
(Planning and Network Development)

DFES Local Authority Webinar
(Stakeholder Engagement)

March 2025

Suite of DSO Policy Documents published
(Governance)

Weekly Dispatch Data published
(Network Operations)

Network Opportunities Map
(Network Operations)
Published a new Network Opportunities Map, combining our existing Network Capacity Map and our electric vehicle (EV) capacity map, to provide stakeholders with more information on where there is capacity to connect to both our primary and secondary network.

Updated Guide to DNO-DSO Governance
(Governance)

Centre for Sustainable Energy (CSE) Accessibility of Flexibility Service report
(Flexibility Market Development)
Launched report commissioned with CSE that conducted detailed research into our current flexibility markets to identify tangible steps for widening participation and improving the ability of low income households to access demand flexibility services.

Key outcomes we have delivered for consumers and the energy system in the last year

Planning and Network Development

- Directed **135 MVA** of additional capacity for transformer replacements and identified over 400 km of circuit reinforcement across low and high voltage networks
- **8,000** local authority strategic projects incorporated into our 9th Distribution Future Energy Scenarios annual forecast
- **Engaged 100%** of local authorities that requested support with their decarbonisation and local energy plans

Network Operation

- **240 GWh** of curtailment avoided, enhancing grid efficiency, maximising utilisation, reducing carbon emissions, and avoiding energy wastage
- **0.93kgCO2/MWh** Carbon Intensity of the Flexibility Services Dispatched
- **49.7 MW** Distributed Energy Resources Volume now available to the National Energy System Operator (NESO) through MW Dispatch Project

Flexibility Market Development

- **50%** of EV charge points connected to our network are registered to provide flexibility
- **Over 162,500 flexibility assets** registered in Market Gateway
- **19 GWh** of flexibility availability procured in our regions
- **>2x** the number of total assets registered last year
- **>90%** of volume accepted Long Term Procurement Round is from low carbon, domestic assets

Governance

- **1st report received from our independent DSO Panel**
- **Updated Guide to Governance** report delivered
- **Our suite of DSO policy documents published**

Stakeholder Engagement

- **287** engagement surgeries held to support local energy planning and decarbonisation projects
- Shared bespoke information on local Network Development Plans with **all 120 of our local authorities**

Delivering progress against our commitments

As part of our DSO Charter in November 2023, we made key commitments based on our stakeholders' needs. We outlined clear actions for each commitment through our Strategic Action Plan, and over the past year, have focused on delivering on these commitments to create clear and positive benefits for our stakeholders and the energy system.

Theme	Commitment	FY2024/25 action	Status
Planning and Network Development	**We will maximise the use of 'hidden' capacity on the network, whilst ensuring network investment is delivered when it's needed, at the lowest cost to consumers**	Present Network Development Plans back to local stakeholders, demonstrating where we have incorporated their plans so that network capacity is ready when they need it	
		Create a register of system constraints and network solutions in the Network Development Planning process that can be ranked to increase network utilisation in the right places on the network	
		Enhance our modelling capability to assess more complex network constraints and solutions	
		Provide more accurate load data by evolving access to smart meter data, and advancing the coverage and capability of substation monitoring on our low voltage network	
	We will collaborate and coordinate across the whole system, to help stakeholders achieve their decarbonisation plans	Enhance engagement with local authorities to deliver network data education sessions to strengthen understanding of DSO data and to share best practice and guidance for LAEP planning	
		Continue to enhance our data offer to make it easy to access and interpret for local authorities	
		Apply to extend the scope of our PRIDE LAEP-Plus tool project so more local authorities can benefit from its use	
		Extend our engagement support for flagship decarbonisation programmes in our regions, by building on the proactive support provided to two leading initiatives in year one (Bristol Mission Net Zero and UK Central Hub) and reach at least four decarbonisation programmes in year two	
		Actively coordinate with Ofgem, NESO and other local and regional stakeholders to shape and influence the development of the RESP	
Network Operation	**We will facilitate whole system coordination that improves efficiency, and transparency of decision-making**	Consult on and publish a roadmap explaining how we will improve our decision-making systems and capabilities over the next two years	
		Identify the consumer value of curtailment to help inform our curtailment decision-making (via our Whole System Headroom innovation project)	
		Continue to lead Open Networks primacy group, collaborating with NESO and other DSOs to trial, and implement new processes that set out operational decision-making priorities between the national and local level	
		Publish weekly flexibility dispatch data including data on location, price and carbon intensity	
	We will continuously improve our data, technology, and processes to operate a responsive and dynamic network	Introduce short-term load forecasting with use of weather data to feed into flexibility dispatch decisions and curtailment modelling	
		Develop enhanced outage planning modelling processes to target use of curtailment	
		Continue to review data visible on the Connected Data Portal and update this based on stakeholder feedback	

Delivering progress against our commitments

Theme	Commitment	FY2024/25 action	Status
Flexibility Market Development	We will collaborate with industry stakeholders to simplify and standardise how we procure our flexibility services	Digitalise the trading function in Market Gateway and begin a programme of further platform evolution, considering other platform partnerships to facilitate wider and easier market participation	Completed later than planned
		Proactively collaborate with other DSOs through the Open Networks Forum to implement the standardisation actions agreed with other DSOs as soon as possible. This includes standard contracts, pre-qualification criteria, products and settlement processes	Completed
	We will coordinate across the whole system to deliver new market opportunities and reduce barriers to entry for all customers	Take a leading role to coordinate with DSOs and NESO to implement high-priority actions from the Cornwall Insight stackability report	Completed
		Implement revenue stacking across our flexibility zones	Completed
		Widen the scope of flexibility use cases (e.g. demand turn-up for generation led-constraints), resulting in an increase in market opportunities	Ongoing on track
		Continue to support third party integrations to our Market Gateway to support new routes to market	Ongoing on track
		Collaborate with Flexibility Service Providers (FSPs) and other stakeholders to review access to flexibility products	Ongoing on track
Governance	We will continue to prioritise effective governance measures to ensure independent, transparent and efficient DSO decision-making	Fully operationalise our DSO Panel and establish integration with existing governance processes	Completed
		Work with stakeholders to establish a DSO KPI scorecard and agree frequency of reporting	Completed
		Evolve our 'Guide to Governance' document with stakeholder input to include our decision-making frameworks	Completed later than planned
		Further develop our DSO controls framework to progress towards an external audit	Ongoing later than planned

Completed | Completed later than planned | Ongoing on track | Ongoing later than planned | Not started

Planning and Network Development

We have made significant progress over the last year in meeting our commitments and delivering impactful outcomes through our work on Planning and Network Development.

By enhancing the quality of our network planning outputs, we have directed an additional **135 MVA of capacity** from transformer replacements and identified over **400km of circuit reinforcement on our secondary networks**, which all positively contribute to connecting customers to the network more quickly.

Our plans translate into action in practice. For example, we have identified an opportunity for the installation of 33 kV of additional circuits and network reconfiguration of the Ely/Highmead/Fairwater substation group that will **address a projected network constraint that could affect over 25,000 customers in the Cardiff area**.

The work that we're doing as a DSO is driving positive outcomes in practice, by identifying cost effective and deliverable solutions for constraints, whilst unlocking capacity on the network.

We have also continued to actively engage with our stakeholders, including local authorities through our Planning and Network Development processes – our 9th DFES report incorporated over **8,000 local authority strategic projects**, our highest yet. As we continue to collaborate and coordinate across the whole energy system, we stand ready to work with NESO on long-term regional energy plans.

Progress against our commitments

1.1. We will maximise the use of 'hidden' capacity on the network, whilst ensuring network investment is delivered when it's needed, at the lowest cost to consumers.

- Published our **Network Development Plan**, which, for the first time, provides detailed technical reports for all parts of our primary network. This industry-leading plan, consists of 136 in-depth reports, offering stakeholders enhanced granularity and transparency on future network constraints and our plans to address them.
- Delivered **91 tailored Network Development Plan engagement sessions** for local authorities to ensure that our planning insights are accessible and actionable at a local level, and to share how we've incorporated feedback to align our investment plans with local ambitions.
- Created a system constraints and network solutions register based on 2024 Network Development Plan reports. **This register allows us to organise and plan for a forward looking investment programme with our internal delivery teams**.

Additional progress delivered beyond our 2024/25 commitments

- **Expanded the scope of our DFES** to cover agriculture, rail, maritime and aviation, notoriously difficult to decarbonise sectors. Our analysis paves the way for a better understanding of how customers will need our network to evolve to meet their decarbonisation needs and improves the accuracy and usefulness of our forecasts.
- Delivered our **DNOA**, outlining investment strategies that use data from our **DFES** and apply the industry-standard Common Evaluation Methodology tool to ensure that our investment decisions are robust and transparent.

Planning and Network Development

1.2. We will collaborate and coordinate across the whole system, to help stakeholders achieve their decarbonisation plans.

- Shared our **DFES information capture process** and template to streamline data coordination and improve regional planning.
- Launched our **DFES local authority data workbook** to enhance the accessibility of the data and information we provide to our stakeholders on load projections.
- Progressing the development of our pioneering **Planning Regional Infrastructure in a Digital Environment (PRIDE)** project to a beta stage, with a focus on further demonstrating integrated local and regional energy planning between local authorities, networks, regional stakeholders and RESPs in practice. The LAEP+ tool will display a range of useful datasets, including our new **Network Opportunity Map** and **DFES 2024 data**. We are working closely with the developers of the tool to ensure that local authority decarbonisation targets and ambitions can be integrated into DFES volume projections, increasing forecasting accuracy and ultimately informing our strategic investment plan. We have reviewed the tool and identified how to improve data exchange to unlock benefits of digitalised planning to stakeholders. Although slightly behind the intended schedule, we will implement these updates over the coming year.
- Continued to support a range of leading decarbonisation initiatives, including **Mission Net Zero in Bristol**, sharing information with project partners to enable implementation of the city's ambitions to reach carbon neutrality by 2030.
- Engaged extensively with NESO, Ofgem and other DSOs on **RESPs**, sharing processes and models for how we forecast DFES, which are being used to help shape the transitional RESP that will in turn inform our RIIO-ED3 business plan.

Additional progress delivered beyond our 2024/25 commitments

- Developed a **common framework for sharing LAEP data** at overlapping local authority boundaries in partnership with UKPN and Scottish and Southern Electricity Networks (SSEN).

Planning and Network Development

How Stakeholder Engagement has shaped our delivery

Stakeholder Engagement is critical to the delivery of successful Planning and Network Development, especially our work on DFES and Network Development Plans.

By actively collaborating with local authorities, regional groups and industry partners, we ensure that our network planning aligns with real-world decarbonisation ambitions and energy needs.

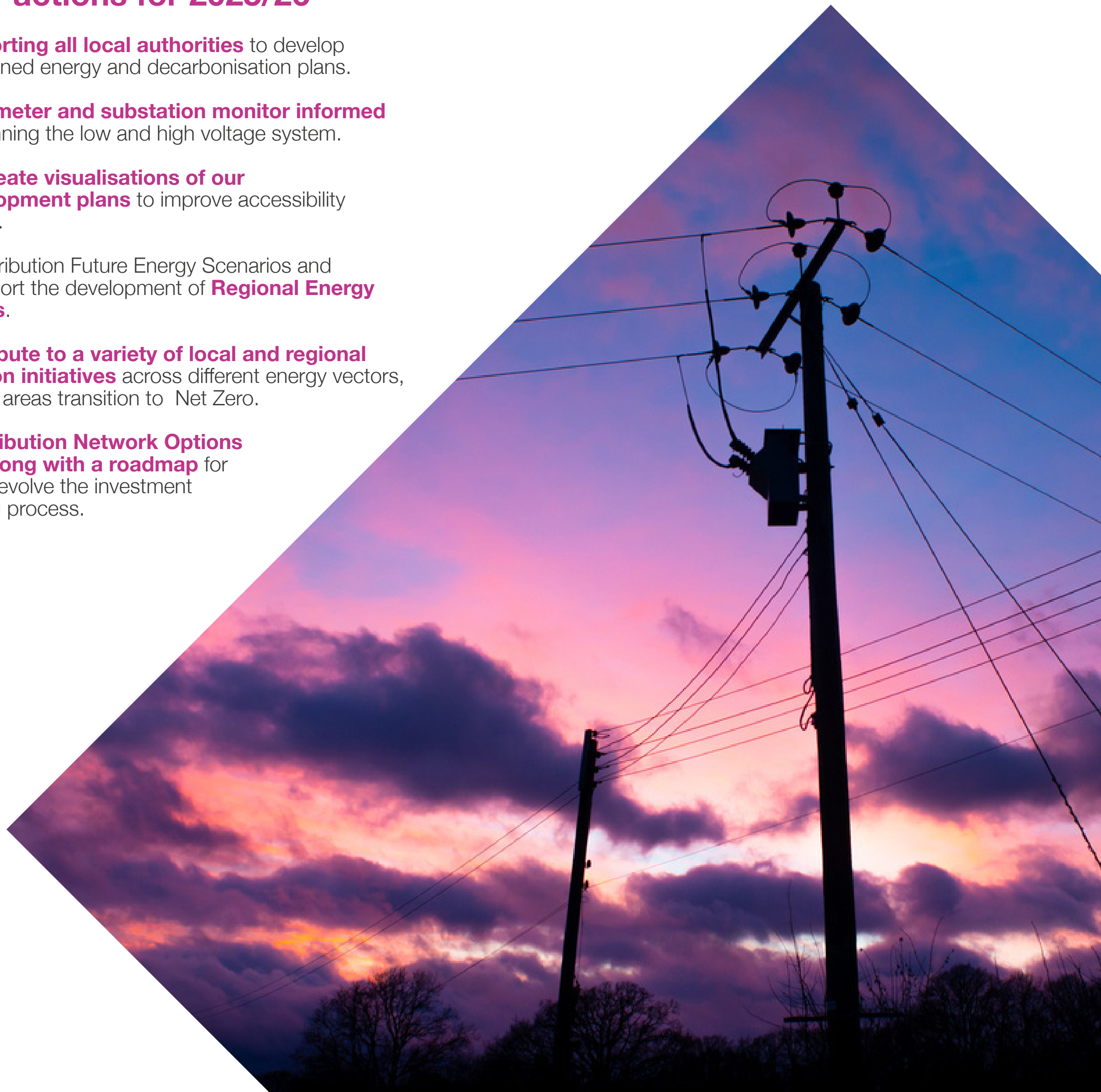
Over the past year, we have engaged with **120 local authorities** who requested DSO support in developing their decarbonisation plans, holding **287 Local Net Zero surgeries** to provide tailored guidance and technical expertise.

Recognising the need for accessible and ongoing support, we launched the **'Switched On' quarterly newsletter**, designed specifically for local authorities. This publication shares key insights and guidance to support **120 local authority areas** in navigating the energy transition and has received positive feedback from stakeholders.

In response to stakeholder feedback, we also hosted an online event attended by **75 local authority and government stakeholders**, offering a deep dive into our datasets and ensuring decision-makers have the information they need to drive effective planning.

Our priority actions for 2025/26

- Continue **supporting all local authorities** to develop detailed and aligned energy and decarbonisation plans.
- **Embed smart meter and substation monitor informed profiles** for planning the low and high voltage system.
- **Update and create visualisations of our network development plans** to improve accessibility for stakeholders.
- Refresh our Distribution Future Energy Scenarios and proactively support the development of **Regional Energy Strategic Plans**.
- **Actively contribute to a variety of local and regional decarbonisation initiatives** across different energy vectors, supporting local areas transition to Net Zero.
- **Publish a Distribution Network Options Assessment along with a roadmap** for how we plan to evolve the investment decision-making process.



Planning and Network Development

Case study Unlocking local area energy plans in Wales

What is it doing?

We have been supporting 13 local authorities in Wales to develop LAEPs aligned to their local decarbonisation ambitions.

This involves providing technical data, sharing insights and supporting the local authorities to create a comprehensive picture of the future energy system needed in Mid and South Wales.

Who is involved?

We have collaborated with local authorities in Wales, responsible for developing and implementing their LAEPs.

We have also worked closely with regional LAEP steering groups and stakeholders, including gas distribution networks, other DNOs and SP Energy Networks, to ensure a whole system approach.

Outcomes and timescales?

The collaborative effort has resulted in all Welsh local authorities having meaningful action plans in place for delivering Net Zero. This has strengthened relationships between National Grid DSO and local authorities, improved system planning, and integrated LAEP targets into the DFES scenarios. After around 18 months of planning, we are now working with local authorities to implement these plans.

Network Operation

Through our work on Network Operation, we have made significant progress in strengthening transparency, efficiency and innovation in how we manage the electricity system.

As we continue to refine and update our internal processes, we are harnessing the latest data and digital solutions to drive optimum decisions for the network. In the last year, our approach to efficient system operation **avoided 240 GWh of curtailment**, enhancing grid efficiency and maximising the benefits of generation connected to our distribution network. We remain focused on facilitating decarbonisation for the customers and communities we serve and have achieved **a carbon impact of flexibility of only 0.93 kgCO2e/MWh** – as we drive towards operating the network with the lowest carbon intensity flexibility markets in Great Britain.

Equally, in line with feedback from our stakeholders, we have focused on ensuring the datasets we provide are as transparent, accessible and actionable as possible for our stakeholders, enabling them to make informed decisions on how they interact with our network – underlined by our refreshed Connected Data Portal and suite of network visualisation maps.

Data remains a central thread across all of our DSO activities, with network visibility an essential enabler of low carbon technology deployment, LAEPs and whole system coordination.

Progress against our commitments

2.1.
We will facilitate whole system coordination that improves efficiency, and transparency of decision-making.

- Launched a consultation on our first ever **Operational Decision Making Framework**, outlining how data-driven decisions can maximise network capacity and support the transition to a low carbon energy system. The framework focuses on balancing three key objectives of managing the security of supply, minimising cost, and maximising system access – with a roadmap informed by our stakeholders to follow by the end of March 2025.
- Finalising work on our **Whole System Headroom** innovation project, which is helping us to better understand the cost of curtailment to consumers. This data will inform our curtailment decision-making and ensure that network interventions are more targeted and cost-effective.
- Continued to lead the **Open Networks Primacy Group**, working closely with NESO and other DSOs to trial and implement new processes that align operational decision-making priorities at both the national and local levels.
- Started publishing **weekly dispatch data** which informs the utilisation we've instructed for delivery each week across both our short and long-term markets to provide transparency for our stakeholders.

Additional progress delivered beyond our 2024/25 commitments

- Implemented our **MW Dispatch project**, enabling better visibility and control of distribution-connected generation, in collaboration with NESO.
- Continued to progress our **Technical Limits programme**, enabling more customers to connect to our network without needing to wait or major transmission works to be completed. This year, we have developed a reallocation policy with NESO and other DNOs to maximise capacity availability.

Network Operation

2.2.
We will continuously improve our data, technology, and processes to operate a responsive and dynamic network.

- Expanded and refined the data we publish externally, incorporating stakeholder feedback to ensure information available through our **Connected Data Portal** is both granular and useful. This included the launch of our new **Network Opportunities Map**, which combines our Network Capacity Map and EV Capacity Map to provide clearer insights into primary and secondary network capacity for stakeholders.

  The map displays the latent capacity on our network that is provisionally allocated to customers awaiting a connection, providing valuable information to support their connections needs.

- Started to introduce **short-term load forecasting** tools to feed into flexibility dispatch decisions and curtailment modelling. In addition, we will continue to incrementally increase the accuracy of the tooling by improving the source network data that is used, with a view to creating a more integrated tool that works with our network management systems.

Additional progress delivered beyond our 2024/25 commitments

- Implemented **semi-automated dispatch decision-making** for simpler clearing use cases on our LV network with a plan for expanding this to cover more complex scenarios.

- Established a delivery plan for **integrating flexibility into our network management system**, that we're ready to roll out in the year ahead.

Network Operation

Our priority actions for 2025/26

- Continue **progressing semi-automated dispatch decision-making**.
- Continue to **lead the Open Networks primacy working group** and implement decision-making priorities.
- **Deliver further automated dispatch decision-making** and a clearing framework
- **Continue to review and update data** visible on the Connected Data Portal.
- **Support the enhanced integration of flexibility services** into our network management system.
- **Increase our curtailment modelling capabilities** through automation to further reduce the impact of curtailment on the system.
- **Publish a refreshed Operational Decision-Making Framework** annually.
- **Enhance our data capabilities to improve Distributed Energy Resources (DER) and network visibility** to further increase our operational decision-making capabilities.
- **Provide more open, transparent and accessible data on our activities**, particularly improving the accessibility of published data that informs our decision-making.

Network Operation

Case study: Whole System Headroom Project

What is it doing?

In September 2023, we launched our Whole System Headroom innovation project, which aimed to strengthen our understanding of the value of distribution network headroom. The project involved forecasting distributed generation curtailment across Great Britain, quantifying the carbon and financial benefit for consumers of reducing curtailment and investigating the effect of headroom increases at different voltage levels.

Who is involved?

We collaborated with Baringa, who led detailed and granular analysis on the project, including the investigation of abnormal running arrangements on network curtailment.

We provided essential data and insights, while EA Technology contributed their technical expertise in electricity distribution.

Outcomes and timescales?

The project identified significant accumulated system benefits across Great Britain that could be unlocked through distribution network headroom – largely from lower balancing costs and wholesale prices. Understanding the curtailment forecasts at a distribution level and the associated cost impacts will help us to drive targeted innovation to increase hosting capacity and inform network investment decisions.

This demonstrates the benefit that the DSO brings to customers and the whole energy system.

Flexibility Market Development

Our work over the past year has focused on driving flexibility at scale by growing market opportunities, simplifying our processes, and improving accessibility.

We have unlocked significant growth of assets registered through our **Market Gateway platform**, and procured more than **50GWh of scheduled availability and utilisation** in our latest Long Term Procurement Round, for delivery in 25/26. The total number of registered flexibility assets has more than doubled from 75,000 in the last financial year, to over **162,500 to date**.

Greater visibility and flexibility capacity allow us to minimise costs and drive efficiency as part of our network planning – enabling us to determine where and when to deploy a combination of flexibility and build solutions that will maximise system value.

Of 204 constraints assessed as part of our Distribution Network Options Assessment, 61 relied on flexibility either to defer reinforcement, or provide capacity pre-reinforcement. We expect an **additional 72 constraints to require flexibility services by 2028**.

Higher market competition is also driving customer savings. The increase in participation in our flexibility markets reduced the cost of flexibility we awarded by **34% and 18%** respectively from published ceiling prices across our high voltage (HV) and low voltage (LV) zones as part of our Long Term Procurement Round.

Through this round we were able to pass on around **£75,000 of savings to customers**. Growing participation of domestic, low carbon assets also continues to drive down the **carbon intensity** of our dispatches, progressively supporting the transition to a cleaner energy system.

In parallel, we have diversified our flexibility offerings by introducing a dynamic **Demand Turn-Up market**, enabling consumers to benefit from increasing their demand when intermittent renewable generation, such as solar, is at its peak.

Progress against our commitments

3.1.
We will collaborate with industry

- **Implemented all the required Open Networks standardisations**, including pre-qualification contracts, products, and settlement, as we continue to drive the work on the standardised Dispatch API. We will continue to work with other DSOs and the Market Facilitator as it is introduced on opportunities for standardisation.
- Enhanced our **Market Gateway platform** including improvements to **support revenue stacking across our different voltage levels**.
- **Digitalised our trading function** over the course of the year, completing the latest phase in March 2025, and we are continuing to progress improvements requested by our FSPs, including ease of asset registration and better API documentation.
- **Created robust delivery plans on day-ahead and joint utilisation competitions**, with the aim of deploying these ahead of winter 2025 to support the peak demand in our system.

Additional progress delivered beyond our 2024/25 commitments:

- **Delivered a joint consultation with UKPN** on market design to drive standardisation and flexibility market alignment with other industry stakeholders. We produced a joint report and webinar and shared the findings with all DSOs, Open Networks and the Market Facilitator. The recommended changes to procurement and dispatch timelines have simplified and streamlined the procurement process for FSPs, supporting increased competition and reducing the costs of participation.
- Continued to collaborate with Northern Powergrid (NPG), Scottish and Southern Electricity Networks (SSEN) and SP Energy Networks (SPEN) on the **Flexible Power Portal**, an operational tool which provides a simple and standardised interface for settlement of flexibility, making participation easier for FSPs.
- Progressed our collaboration with Piclo enabling FSPs to access our markets via **Piclo's MAX** product as well as directly via our Market Gateway. This has brought in **250 MW of flexibility capacity** to our markets.

Flexibility Market Development

Progress against our commitments

3.2. We will coordinate across the whole system to deliver new market opportunities and reduce barriers to entry for all customers.

- Shared the recommendations from our **Revenue Stacking report** with other operators in the Open Networks forum and set a plan to implement these. This includes improving stacking website information, developing joint technical requirements for NESO and DSO products and moving the dispatch timescales for local flexibility products to align better with national markets, thereby improving revenue potential for our stakeholders.
- Built functionality to facilitate **revenue stacking** into our Market Gateway platform and demonstrated several successful examples between our HV and LV zones.
- Currently trialling three **Demand Turn-Up/Generation Turn-Down zones**, with the aim of rolling these out more widely in our next round of procurement to widen access to flexibility services.
- Partnered with the **Centre for Sustainable Energy** to conduct detailed research aimed at identifying actions that we can implement to support vulnerable and low-income customers to access flexibility benefits.
- **Improved data transparency and accessibility** in response to feedback from FSPs. This includes a consolidated dataset outlining short-term market procurement needs, improved API access, a simplified zone-based overview of flexibility requirements with a value calculator, and the publication of weekly dispatch data, including delivery performance – having all of this information in one place, makes participation easier and more efficient for FSPs.

Additional progress delivered beyond our 2024/25 commitments:

- Published several guidance documents, including **Flex in Five** and **Flexibility Market Guidance** for local authorities to improve understanding of flexibility opportunities among our stakeholders.
- Produced a tool that will help new entrants to better understand the **potential earnings** they could make. This brings together the data we publish in a quickly accessible way, supporting FSPs with their own analysis.

Flexibility Market Development

Our priority actions for 2025/26

- **Deploy day-ahead competitions** to maximise competition and get as close to real time procurement as possible.
- **Deploy the joint utilisation competition** to allow competition between long and short-term procurement.
- **Deliver demand turn-up service** to widen the scope of flexibility use cases.
- Continue to lead implementation of **high priority actions from our revenue stacking report**.
- **Review and diversify the use cases for flexibility** to maximise capacity.
- **Develop flexibility service accessibility roadmap** to increase the equitability of flexibility market access.
- **Continue progressing improvements to our Market Gateway platform** by improving user experience and enabling day-ahead and joint utilisation competition via the platform.

Flexibility Market Development

Case study — Whole System Headroom Project

What is it doing?

We commissioned the CSE to conduct detailed research on the ability of low income households to access demand flexibility services and identify actions we can take to improve the opportunities for vulnerable consumers to participate in flexibility markets.

Who is involved?

We partnered with the CSE to leverage their Smart and Fair programme to assess the accessibility of flexibility markets. CSE has established a Smart Energy Capabilities Lens to understand the factors that affect a household's ability to access and benefit from the low carbon transition, including flexibility markets.

Outcomes and timescales?

Where flexibility revenues are available in lower income or more deprived areas, households struggle to access them. The report identified recommendations to enhance access, including the treatment of direct electric heating as a flexibility asset, and simplification of onboarding processes and market design which present barriers to entry for some today.

We have publicly shared the findings and are committed to developing an action plan for implementing key recommendations – as well as hosting a stakeholder roundtable alongside other DSOs, FSPs and consumer groups on the opportunities to increase the equitability of flexibility market access.

Governance

Our focus over the last year has been to embed and strengthen clear governance measures that address potential real or perceived conflicts, hold ourselves to account, and provide transparency of our decision-making.

We are confident that our approach to functional separation remains the right one, bringing together expertise from across our DSO and DNO businesses to deliver good outcomes for our stakeholders – underpinned by the launch of our latest update to our **Guide to Governance**.

Stakeholders have told us that our governance processes make sense and are transparent, but that there is more to do in making it easy to understand how we interact with the DNO, take decisions and manage conflicts.

Independent challenge has remained central to our approach to governance. Our DSO Panel is now fully operational and over the last year has provided robust challenge to our strategy and thinking across a wide range of topics, providing constructive recommendations for further improvement.

In the last twelve months, we have taken stock of our progress on the governance journey and identified that we needed to adapt our timeline to prioritise full implementation of the National Grid model for internal risk management and compliance.

We have prioritised preparation of our policies for robust assurance and have not yet undertaken the external audit which was our original intention.

Progress against our commitments

- Published our updated **Guide to Governance** between the DNO and DSO in March 2025, outlining the significant progress we have made in developing and integrating our governance structures. This includes formally **launching our DSO Panel**, creating the role of **Managing Director of DSO**, and defining our approach to functional separation, embedded through a **Functional Separation Steering Group**.
- Developed our **KPIs**, with input from our stakeholders, which we now publish quarterly.
- Reviewed our **Conflicts of Interest** process, which we published as part of our **Parent DSO Policy Directive** in November 2024. We shared detailed examples of our approach to managing conflicts of interest with **105 stakeholders** and delivering transparent decision-making as part of the **Electricity Futures Now!** Stakeholder workshop in October 2024.
- **Fully operationalised our Independent DSO Panel** and received the first annual report setting out strategic challenge and recommendations to our leadership team on our governance measures and approach to delivery.

Additional progress delivered beyond our 2024/25 commitments:

- Published our **DSO-DNO Functional Separation Arrangement** which sets out the working practices for managing functional separation of our DSO and DNO businesses and the associated responsibilities of each.

Our priority actions for 2025/26

- **Continue developing DSO controls framework** to progress towards completing an external audit.
- Maintain quarterly **DSO Panel meetings**.
- **Continue reporting on DSO KPIs**.
- **Continue assessing options for external accreditation** of DSO processes.
- **Report progress on implementing the recommendations outlined in the DSO Panel's annual report**.

Governance

Case study DSO Panel

What is it doing?

In March 2024, we launched our independent DSO Panel composed of energy industry experts and thought leaders that are supporting us to deliver effective governance of our DSO. The Panel has played a key role in providing rigorous, independent and strategic advisory challenge to our DSO delivery and ensuring that our activities are reflective of the needs of all of our stakeholders. The Panel meets quarterly engaging with the DSO team both at our offices and through site visits.

Who is involved?

The Panel is composed of industry experts equipped to represent the perspectives of a broad range of our DSO stakeholders – flexibility market participants, local energy consumers and communities, and energy generators. The Panel is chaired by Regina Finn, Director at Lucerna Partners and Chair of the Low Carbon Contracts Company and the Electricity Settlement Company.

Outcomes and timescales?

The DSO Panel provided quarterly feedback and recommendations, which we have started to implement. For example, we now measure the carbon impact of flexibility services and we have focused on scaling up the DSO leadership team in line with strategic workforce plans. Alongside quarterly feedback, the DSO Panel produced an annual report in January 2025 setting out four key themes emerging as particularly important – stakeholder views, governance and decision-making, data and performance framework and KPIs. Recommendations from the panel in these areas are already directly shaping our approach to delivery in the year ahead.

Looking to the year ahead

Action plan to deliver DSO commitments in 2025/26

<table>
<tr><th>FY 2025/26</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr>
<tr><td rowspan="6">Planning and Network Development</td><td colspan="4">Continue supporting all local authorities to develop detailed and aligned energy and decarbonisation plans</td></tr>
<tr><td colspan="4">Actively contribute to local and regional decarbonisation initiatives</td></tr>
<tr><td colspan="4">Refresh our DFES and proactively support development of RESPs</td></tr>
<tr><td colspan="3">Embed smart meter and substation data into low and high voltage system planning</td><td></td></tr>
<tr><td colspan="2">Update and create visualisations of our Network Development Plans to improve accessibility</td><td></td><td></td></tr>
<tr><td colspan="3">Publish a DNOA and roadmap for how we plan to evolve investment decision making</td><td></td></tr>
<tr><td rowspan="6">Network Operation</td><td colspan="4">Continue to lead the Open Networks primacy working group</td></tr>
<tr><td colspan="2">Deliver semi-automated dispatch decision making and a clearing framework</td><td></td><td></td></tr>
<tr><td colspan="2">Review and update data visible on the Connected Data Portal</td><td></td><td></td></tr>
<tr><td></td><td colspan="3">Enhance the integration of flexibility services into our network management system</td></tr>
<tr><td colspan="4">Develop modelling capabilities for reducing curtailment during planned outages</td></tr>
<tr><td colspan="4">Publish a refreshed Operational Decision-Making Framework annually</td></tr>
<tr><td rowspan="6">Flexibility Market Development</td><td colspan="3">Deploy day ahead competitions to maximise competition</td><td></td></tr>
<tr><td colspan="3">Deploy the joint utilisation competition</td><td></td></tr>
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<tr><td colspan="2">Lead implementation of high priority actions from revenue stacking report</td><td></td><td></td></tr>
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<tr><td colspan="2">Develop flexibility service accessibility roadmap</td><td></td><td></td></tr>
</table>

Looking to the year ahead

FY 2025/26	Q1	Q2	Q3	Q4
Governance	Maintain quarterly DSO Panel meetings			
	Continue quarterly reporting on DSO KPIs			
	Further develop DSO controls framework to complete external audit			
	Assess options for external accreditation of DSO processes			
Stakeholder engagement		Maintain Electricity Future Series events for all stakeholders twice a year		
	Continue targeted engagement with FSPs through flexibility forums			
	Continue engagement with local authorities via net zero surgeries, regional engagement events, and webinars			
	Continue engagement with identified local and regional decarbonisation programmes			

Refreshing our DSO performance metrics in line with stakeholder needs

As the role of DSOs continue to evolve, we are committed to being proactive in how we measure and evaluate our performance. By leading by example, setting best practices, and maintaining transparency, we aim to ensure our performance metrics reflect the priorities of our stakeholders and provide meaningful insights on our impact.

A key part of this commitment is our ongoing review of the metrics we track to ensure they remain accessible, useful, and aligned with our stakeholders' priorities.

We provide quarterly performance summaries on our website, giving stakeholders clear visibility into how we are performing against our KPIs.

However, we recognise that performance measurement must be an evolving process, shaped by engagement and feedback. We are therefore working closely with stakeholders to refine our approach, ensuring that our KPIs provide valuable insights and drive accountability.

In response to feedback from our DSO Panel, we are enhancing our external KPIs to be more reflective of consumer outcomes and provide a clearer understanding of our relative position to other DSOs. Collaboration across the industry is crucial to achieving this, and we are actively working with other DSOs to standardise our metrics, ensuring consistency and comparability.

For example, as the role of flexibility evolves to focus on delivering broader system benefits, shifting away from a 'flexibility first' approach, we are deprioritising metrics that set targets for deferral of investments through flexibility – such as the % of DNOA investments where flexibility was recommended to defer investment and the total investment deferred through the targeted use of flexibility.

As part of our commitment to transparency and continuous improvement, we will continue to report our KPIs through the **Quarterly Scorecard** and for flexibility market activities share additional metrics in a new Market Information Report. These reports will keep stakeholders informed of our progress and impact.

After fully implementing these metrics, we will continue engaging with stakeholders to assess their effectiveness. The most impactful metrics will be added to the external Scorecard, ensuring it aligns with stakeholder needs and supports informed decision-making. Through this approach, we aim to enhance transparency, stakeholder engagement, and long-term value for all involved.

We have set out below an overview on how we are amending our performance metrics to dynamically align with our stakeholders' changing needs.

Role	Commitment in Charter	New KPI	Impact for stakeholders
Planning and Network Development	We will maximise the use of 'hidden' capacity on the network, whilst ensuring network investment is delivered when it's needed, at the lowest cost to consumers	**Distribution transformer capacity directed vs added**	Supports faster connections for customers and facilitates decarbonisation by directing capacity in the right places
	We will collaborate and coordinate across the whole system, to help stakeholders achieve their decarbonisation plans	**EV and heat pump uptake tracker**	Ensures the network is ready for low carbon technologies without delay or extra cost
		Secondary network visibility	Increases confidence for customers and developers to connect new low carbon technologies

Refreshing our DSO performance metrics in line with stakeholder needs

Role	Commitment in Charter	New KPI	Impact for stakeholders
Network Operation	We will facilitate whole electricity system coordination that improves efficiency and transparency of decision-making	**Proportion of GSP site strategies agreed with NESO and NGET**	Supports whole system efficiency and avoids conflicting plans, helping large and small customers alike
	We will continuously improve our data, technology and processes to operate a responsive and dynamic network	**Short-term load forecast mean average percentage error (MAPE)**	Reliable forecasting reduces the risk of outages, supports efficient system operation, and helps manage costs
Flexibility Market Development	We will collaborate with industry stakeholders to simplify and standardise how we procure our flexibility services	**Carbon impact of flexibility**	Supports Net Zero and helps customers and communities benefit from low carbon solutions
	We will coordinate across the whole system to deliver new market opportunities and reduce barriers to entry for all customers	**Zones with sufficient liquidity**	Makes flexibility opportunities available to a wide range of providers, including community groups and innovators
Transmission Distribution Interface	We will aim to accelerate connections for renewable generation and storage through technical limits and maximise production of this generation when it is connected	**Accelerated offers issued**	Enables quicker connections for customers needing urgent access to the network
		Accelerated offers accepted	Helps customers connect faster, supporting decarbonisation and local growth

Electricity
Distribution

Thank you

f you would like to refer to any of the documents referenced in this report, please visit our website: **dso.nationalgrid.co.uk**

We'd really like to hear from you – our communities, consumers, customers, employees, investors and stakeholders.

We want to make sure we're continuing to focus on the right areas and delivering the right outcomes.

Email: nged.energyplanning@nationalgrid.co.uk

LinkedIn: National Grid Electricity Distribution

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