



Smart Optimisation Output
Collaboration Plan

May 2024

Foreword

As the Strategy and Growth Director at Electricity North West, I am delighted to present our Smart Optimisation Output Collaboration Plan. This comprehensive document reflects our unwavering commitment to fostering transparency, data sharing, and user-centric approaches, all aimed at supporting the development of local and regional net zero strategies.

At Electricity North West, we recognise the pivotal role collaboration plays in driving the energy transition forward. By actively engaging with key stakeholders, we can collectively shape a more sustainable and resilient energy future for the North West region and beyond.

The Smart Optimisation Output (SOO) established by Ofgem serves as a framework for collaboration between electricity distribution licensees and stakeholders. It fosters transparency, accessibility, and interoperability of network data, all critical for strategic energy sector planning. This Collaboration Plan details how Electricity North West will leverage the SOO framework to achieve these goals.

This Collaboration Plan outlines our strategies for sharing information, taking into account local stakeholder plans and using this information to inform strategic network planning and smart optimisation activities. It is a testament to our dedication to open

communication, inclusivity, and the effective utilisation of data to facilitate the transition towards a more optimised and integrated energy system.

Electricity North West's journey towards a smart and flexible distribution system is driven by enhanced digitalisation and robust Distribution System Operation (DSO) capabilities. These interconnected elements guide our future upgrade plans and flexibility procurement, ensuring we deliver the most efficient and sustainable solutions for our customers and the region.

We are committed to building a resilient and reliable distribution system that can meet the evolving needs of our customers and the region.

We look forward to working with you on this journey.

Warm regards,

Ben Grunfeld
Strategy and Growth Director
Electricity North West



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1. Introduction

Through collaborative efforts with key stakeholders, Electricity North West is proud to present this Collaboration Plan. It focuses on enhancing transparency, data sharing, and user-centric approaches, all aimed at supporting the development of local and regional Net Zero strategies.

The Smart Optimisation Output (SOO) is a framework established by Ofgem, as part of the RIIO-ED2 Licence. It encompasses a set of obligations and guidelines aimed at fostering collaboration between electricity distribution licensees and various stakeholders to enhance the transparency, accessibility, and interoperability of network data and strategic planning for the energy sector.

Key components of the SOO include:

- 1. Collaboration Plan (Part 1):** This part focuses on how Electricity North West will work in partnership with stakeholders. It emphasises a transparent and user-centric approach to sharing data. The Collaboration Plan outlines strategies for sharing information, taking into account local stakeholder plans, and using this information to inform strategic network planning and smart optimisation activities.
- 2. System Visualisation Interface (Part 2):** This is a section of Electricity North West's website that provides access to a range of data, reports and digital network tools. These tools offer representations of existing and future network assets, known constraints, operational and growth challenges, and opportunities for flexibility services.

Overall, the Smart Optimisation Output serves as a structured framework that encourages cooperation, transparency, and the effective utilisation of data to facilitate the transition towards a more optimised and integrated energy system. Distribution System Operation (DSO) at Electricity North West is ensuring that our network can safely and securely support the future demands of our customers on our network, whilst maintaining a high standard of reliability and supporting the move to a smart and flexible energy system aligned to achieve Net Zero carbon emissions at the lowest cost.

2. Approach to data sharing

Electricity North West's approach to sharing data with stakeholders and taking account of local stakeholder plans and requirements, is outlined in our [DSO Transition Plan](#). Fundament to the DSO transition plan is our DSO stakeholder panel.

DSO Stakeholder Panel plays a vital role in shaping how we share data with our community. This independent watchdog has the responsibility to guide our engagement with all customer and stakeholder groups, from residential consumers to specialist flexibility providers, in data discussions. Our plan is to actively involve stakeholders, so we can tailor our data-sharing practices to their specific needs and ensure we're meeting the recommendations of the Energy Data Task Force. This collaborative approach fosters trust and confidence among stakeholders, allowing us to build a robust and inclusive data-sharing ecosystem that supports a successful DSO transition.

We have made a significant amount of data available on our website and data portal, providing easy-to-use visualisation tools. We have created video content to explain how to use the portal and following stakeholder feedback created short videos explaining how stakeholder groups may utilise the data to benefit their organisation. We have now published data journey videos for developers (demand or generation) and flexibility service providers which can be found on our YouTube channel. We aim to open up data to innovators, customers and other stakeholder groups whilst being cognisant of emerging government guidance and the need to protect some elements of our data. We seek guidance from the DSO Stakeholder Panel on the provision of data and data sharing; engaging extensively with regional stakeholders, sharing knowledge and information with partners, communities, and stakeholders, and gaining their feedback to enable better and coordinated decision-making.

Electricity North West is committed to open communication and collaboration with stakeholders. We achieve this through informative webinars and regular, informal forums. These sessions provide a valuable platform for discussing important DSO topics, including the data we share, preferred formatting styles, and data needs specific to stakeholder interests. If you have any comments, questions, or feedback please [contact us](#).

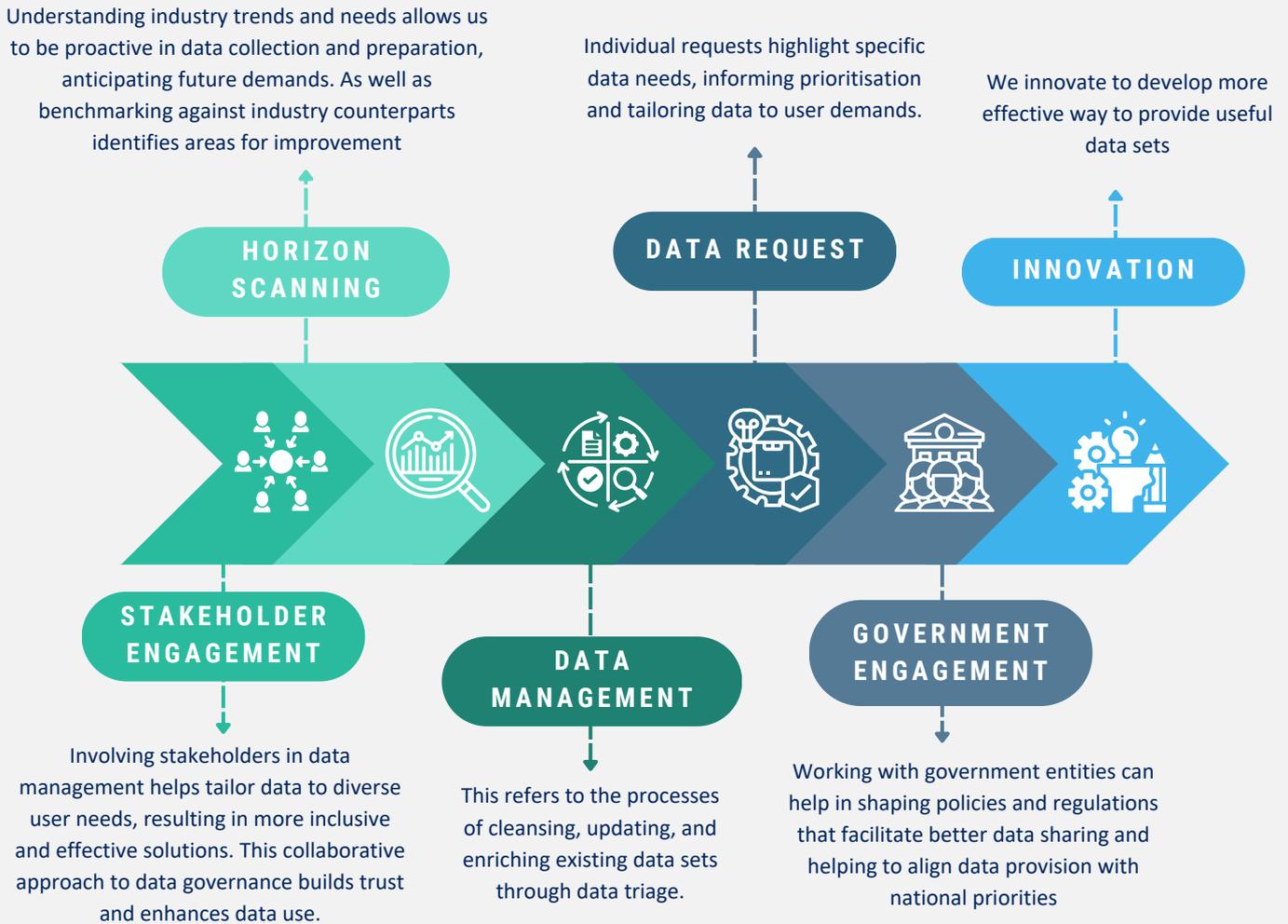
To ensure impactful Local Area Energy Plans (LAEPs) across the North West, we have expanded our team to comprehensively support all local authorities in our region. This robust support includes regular bilateral meetings, proactively assessing future energy impacts, fostering information exchange, and providing technical expertise for whole-system net zero strategies.

As a provider of critical national infrastructure, as well as being a controller of personal and commercially sensitive customer data; it is important that we triage and classify the data we share. We continue to work with the rest of the industry and government departments to ensure that appropriate data triage processes are adopted nationwide.

2.1 Transforming data: Leveraging enhancements, partnerships, and influence for improved provision

Explore the key elements we utilise to build a strong foundation for effective data development

Key elements for effective data development



2.2 How Electricity North West navigates boundaries and interfaces

At Electricity North West we understand that effective electricity distribution is not a solitary endeavour. That's why our approach to boundaries and interfaces is built on a foundation of collaboration and inclusivity. By working together with various stakeholders, we can create a more coordinated, efficient, and sustainable energy future.

Crossing borders, joining hands: Our collaborative spirit extends beyond our network boundaries. We actively partner with neighbouring Distribution Network Operators (DNOs) Northern Powergrid, National Grid Electricity Distribution and SP Energy Networks. Together, we tackle challenges like modelling electric vehicle charging infrastructure and its impact on the grid, ensuring a unified response to the evolving needs of a low-carbon future. By working collaboratively we can achieve significant whole-system benefits, we plan to share a wider range of data across organisations, allowing for more sophisticated planning that considers the impact of local network investments on the wider transmission system. This joined-up approach ensures optimal network investment decisions, avoiding unnecessary reinforcement and minimising costs for customers. Furthermore, it fosters greater certainty for all stakeholders in the energy sector, including renewable energy producers, flexibility providers, and investors.

To ensure swift and effective response to potential power emergencies, Electricity North West actively collaborates with other DNOs, Independent Distribution network Operators (IDNOs), Transmission Operators, and the National Energy System Operator (NESO). We work together to identify risks, develop mitigation strategies, share best practices and conduct training exercises. During emergencies, we coordinate through forums like the [ENA's Emergency Planning Managers Forum](#) and the NEWSAC agreement, which facilitates resource sharing across the energy sector. Through this collaborative approach, we are able to improve the safety and well-being of our customers and communities.

Connecting transportation and energy: We recognise the vital link between transportation and energy, and we actively engage with Transport for the North (TfN). This collaboration transcends local borders, bringing together stakeholders from across the region to discuss and plan for the electrification of transport. By aligning future transportation needs with our network capacity, we strive for holistic, system-wide outcomes. Notably, the support provided to TfN with the development of a [visualisation tool for local authorities](#), helping them anticipate the growth of electric vehicles and plan accordingly.

We have established a strong collaborative partnership with the Greater Manchester Combined Authority (GMCA). This partnership directly supports their ambitious net zero goals, most recently their initiative to bring bus operations back in-house. To facilitate GMCA's transition to a net zero, we are developing our network to support electric bus charging at depots and other key locations. Additionally, we actively engage Transport for Greater Manchester (TfGM) and other regional transport operators to support their bus depot electrification efforts.

Collaboration with local Gas Distribution Network Operators and development agencies: Electricity North West has begun working with local gas distribution network operators, Cadent and Northern Gas Networks and local development agencies supporting their regional pathways to net zero and their collaborative efforts on LAEPs. Furthermore, we have a senior representative of the gas distribution network on our [DSO panel](#), fostering open communication and cross-sector dialogue.

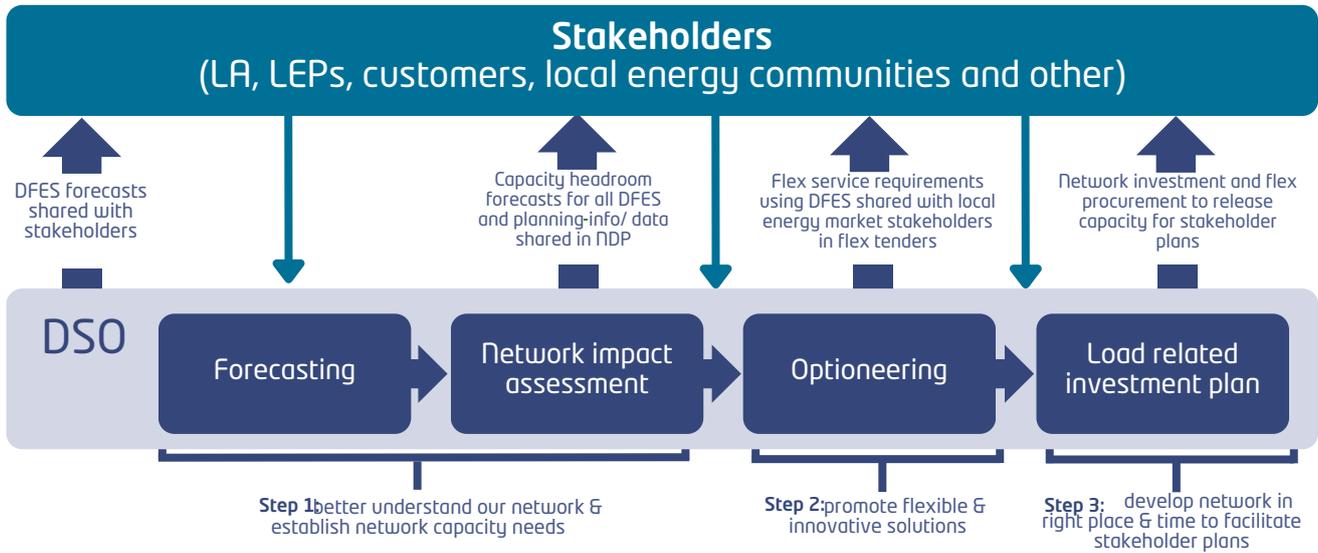
Empowering local communities: Closer to home, we dedicate resources to supporting the development of LAEPs across all local authorities within our area. We understand that each community has unique needs, and by providing additional personnel, sharing information, and collaborating on local energy plans, we empower communities to shape their sustainable future. Furthermore, we have been supporting community-led projects or initiatives to reduce, manage, generate or purchase energy through our designated Community Energy Manager and have awarded a combined total close to £500,000 since the inception of the [Powering our Communities Fund](#).

Our LAEP work forms part of a wider programme of support for our local government partners, across 35 district-level local authorities, five county councils and combined authorities. The ['Our Support for Local Authorities'](#) web page provides a single online portal for local authorities to ensure we are transparent and consistent with the support we offer. We maintain an ongoing understanding of local authority needs through a range of channels, including our annual [Regional Stakeholder Engagement](#) events, our annual Stakeholder Satisfaction Survey, and our quarterly Stakeholder Newsletter. We also provide bespoke briefings to local authorities on key energy transition topics, including on [Ofgem/NESO's new Regional Energy Strategic Planner initiative](#).

In essence, Electricity North West's approach to boundaries and interfaces is about building relationships. Through active collaboration with neighbouring DNOs, engagement with regional transport authorities, and support for LAEP, we strive to create a network that is not only efficient and reliable but also adaptable and responsive to the evolving needs of our customers and the environment.

3 Collaboration with stakeholders

We engage and collaborate with our stakeholders on the details of our investment process



3.1 Participation in developing strategies and solutions.

Electricity North West is actively participating in the development of LAEPs, Net Zero roadmaps, and other strategies and cross-utility solutions led by local authorities and supported by the communities they serve. Our involvement is material in the successful planning and delivery of such strategies and solutions, and we are committed to enabling the lowest-cost decarbonisation pathways for power, heat, and transport.

Supporting Local Authorities with LAEPs: We are dedicated to supporting local authorities in their journey towards net zero and are proud that our dedicated engineers have engaged with all of the local authorities in our region on their LAEPs. We offer unwavering support through various channels: regular meetings with each authority, with dedicated point-of-contact engineers for LAEPs, and even helpful templates which outline the [LAEP process on our website](#). Our commitment to transparency and technical assistance extends beyond these initiatives, ensuring local authorities have the resources and data needed to craft successful Net Zero strategies. We do this by ensuring the electricity network can handle the anticipated growth in capacity and connections, while simultaneously promoting peak demand reduction through smart and flexible electricity systems, as well as promoting energy efficiency.

Strategic partnerships: Electricity North West is actively engaged with a network of institutions, technology providers, and local authorities across the region. Our strategic partnerships, such as [Bee Net Zero](#), [Green Economy](#), [Pro Manchester](#), [BOOST](#), [Cumbria Tourism](#), [CAFS](#), [Zero Carbon Cumbria](#), and the [UK Business Climate Hub](#), facilitate comprehensive discussions on regional and national decarbonisation needs. This collaborative approach ensures a common language for stakeholders and formalises whole-system changes in planning processes, ultimately driving us towards Net Zero.

Commitment to Flexibility first: Our approach to procuring flexibility services continues to evolve as markets develop and confidence builds in the use of these services. By utilising a flexibility-first approach to deliver DSO functionality, we are ensuring that the most economical solutions are utilised. Adopting standardised approaches with other UK network operators; we are collaborating with other network and system operators, sharing data and coordinating the use of flexibility services to drive efficient whole system outcomes. In our latest [tender for flexibility](#) and the first time, we have taken a dual-platform approach with [ElectronConnect](#) end to end platform or [Piclo Max](#) platform to register and participate in the tender. This innovative approach aims to remove barriers and provides participative choice.

Whole Heat System: We have had early and significant involvement in the process of decarbonising heating through our work with the Greater Manchester Combined Authority (GMCA). We are engaging at strategic and operational levels, openly supporting GMCA's Net Zero strategy and aligning our plans for becoming a Net Zero organisation with their 2038 timescales.

We are also leading the Net Zero Terrace Innovation Project, working with Rossendale Borough Council, Rossendale Valley Energy and Buro Happold. The project aims to show how to decarbonise terraced streets of mixed tenure where there is not room for air-source heat pumps. The solution will offer affordable warmth, at no upfront costs to households and aims to maximise community benefits. The project is funded by Ofgem's Strategic Innovation Fund and round 2 'Alpha Phase' has recently completed.

Digitalisation and data sharing: Electricity North West is committed to the digitalisation of the energy system and ensuring all stakeholders have open access to the data they need. We aim to increase the sharing of network data as it will bring significant benefits to customers and stakeholders, such as enabling the coordinated use of flexibility resources, assisting customers and developers to efficiently site renewable and low-carbon technologies onto the network, and enabling the development of LAEPs.

3.2 Opportunities to engage

DISTRIBUTION SYSTEM OPERATION 2024-25 ENGAGEMENT AND COMMUNICATIONS



Electricity North West takes pride in its collaborative approach to stakeholder engagement. We actively involve stakeholders in developing user-centric solutions, including data sharing approaches, Net Zero roadmaps, and cross-utility initiatives. This ensures our solutions are aligned with their needs and expectations. We have been continuously enhancing and refining our engagement practices over the past years, demonstrating a commitment to ongoing improvement. This active process ensures that stakeholder voices are heard and reflected in our decisions, ultimately leading to better outcomes for all. We will continue to offer the following opportunities to engage.

- **Stakeholder workshops:** Organise interactive workshops to discuss data-sharing mechanisms, local stakeholder plans, and strategies for collaboration. These workshops gather input on stakeholder requirements and expectations. In 2023 we launched our first DSO in-person event with a focus on co-creation to feed into our DSO strategy. Our latest events can be found on our [events calendar](#)
- **Public consultation:** We conduct public consultations proactively to seek feedback from communities, local authorities, and interest groups. These consultations provide a platform for sharing information about network data, gathering feedback, and addressing concerns. One example is our annual Flexibility consultation, the results of which are available on our [Flexible Services Document Library \(enwl.co.uk\)](#)
- **Online surveys and feedback forms:** Create online surveys or feedback forms accessible through our event and website. These tools collect input on data accessibility, user-friendliness of digital tools, and suggestions for improvement
- **Interactive online forums:** Where stakeholders engage, share ideas, and provide ongoing feedback on network data accessibility and future planning. We host bimonthly DSO forums to facilitate lively conversation, idea exchange, and relationship-building on DSO topics
- **Information sessions and webinars:** We host informational sessions to educate stakeholders about the data we share, how to use the tools and strategic planning initiatives. Allowing for Q&A sessions to address queries and gather input. Examples of our DSO webinars can be found on our [YouTube channel](#)
- **Collaborative working groups:** We have been involved in working groups to collaboratively develop strategies, plans, and initiatives. These groups can focus on areas like Net Zero roadmaps or specific regional projects
- **Partnership meetings:** Regular meetings with local authorities, community representatives, and other utility providers to align strategies, share insights, and collaborate on cross-utility solutions
- **Advisory panels:** We manage several stakeholder advisory panels which are made up of experts in their field who provide advice, guidance and oversight of our current and future performance and investment. [Our advisory panels \(enwl.co.uk\)](#)
- **Newsletters:** We offer a wide range of regular newsletters to keep our stakeholders informed on the latest news and views. [Sign up to a distribution list.](#)

3.3 Synergy in Action: How our strategies work together to ensure coherent planning and decision-making processes

Electricity North West's commitment to deliver Net Zero in the North West is driven by a multifaceted approach that seamlessly integrates diverse strategies into a coherent whole. This cohesive structure ensures strategic planning and informed decision-making processes, ultimately providing a robust and flexible distribution system. With the SOO facilitating more meaningful collaboration and partnerships with our local stakeholders .

The interlinking and mutual informing of the four strategies can be summarised as follows:

1. DSO Transition Plan: Our DSO Transition Plan lays the groundwork for a smooth transition to Distribution System Operation, with our ground breaking Network Management System (NMS) and Active Network Management (ANM) system as a cornerstone of our digital strategy and our vision of being the most digital DNO. This paves the way for:

- the integration of renewable and low-carbon technologies advocated in our DSO Transition Plan relies on precise planning and forecasting, aligning with the objective of Load-Related Expenditure savings
- digitalisation and data sharing in our DSO Transition Plan is facilitated by network monitoring delivering enhanced efficiency, reducing costs and Load-Related Expenditure savings
- the focus on efficient resource management in our strategies leads to a streamlined and cost-effective network operation
- our strategies contribute to a resilient and adaptable network, necessary for the evolving demands of renewable technologies and load management driven by a change in customer behaviours.

2. Load-Related Expenditure: Our Load-Related Expenditure strategy outlines how investments in the electricity network will be made to accommodate changing demands. Optimising network performance through:

- advanced forecasting methodologies in our Load-Related Expenditure strategy are complemented by data-driven insights provided by our Digitalisation Strategy.
- smart metering and network monitoring support the System Visualisation Interface's goal of providing near real-time data and network transparency.
- our DSO and Load-Related Expenditure strategies aim to optimise network performance through digital and data-centric approaches, leading to cost savings and efficiency gains.
- the focus on informed decision-making and resource allocation in our strategies aligns with the overarching goal of maximising network efficiency.

Adopting a flexibility-first approach to decision-making, as articulated through our [Operational Decision-Making Framework](#).



3. Digitalisation Strategy and Action Plan: Championing the power of digital solutions:

- our DSO Transition Plan's emphasis on renewable integration is bolstered by digital tools and data-driven insights from our Digitalisation Strategy.
- digitalisation and data sharing are directly supported by System Visualisation Interface and Open Data initiatives.
- Electricity North West has raised a grid code modification (GC0139) to increase data sharing utilising the CIM format.
- our strategies prioritise stakeholder engagement and transparency, fostering a collaborative approach to energy management and societal changes.
- the goal of seamless network connection is enhanced by the flexibility resources unlocked through the Digitalisation Strategy.

4. Customers in Vulnerable Circumstances: Building a resilient and inclusive energy system for Vulnerable Customers:

- our DSO Transition Plan's commitment to inclusivity ensures that the integration of renewable and low-carbon technologies benefits all customers, including those in vulnerable circumstances
- leaving no one behind in the energy transition means actively listening to and empowering diverse voices. Engaging with councils and representative organisations in capacity planning ensures that the needs of vulnerable customers are considered and addressed
- precision planning and forecasting methodologies can be used to identify and prioritise investments in areas with a high concentration of vulnerable customers, ensuring they benefit from enhanced network performance. As seen in our [Smart Street project](#), a ground breaking programme that utilises Conservation Voltage Reduction (CVR) technology to reduce energy consumption and emissions on its low voltage (LV) network
- data-driven insights can be used to identify and address the specific needs of vulnerable customers, ensuring that digital solutions are inclusive and beneficial to this group
- launched in February 2024, our Low Carbon Transition project helps customers at risk of falling behind in the transition to Net Zero make informed choices about clean energy solutions. Our advisory service offers expert advice on electric vehicles, solar panels, smart meters, and LED lighting, tailored to the needs of customers in vulnerable circumstances.

These individual strategies are not siloed entities; they interweave and the SOO centralises and leverages the data sharing and collaboration aspects of all strategies, enhancing the overall effectiveness of each. Here's how the SOO facilitates this collaboration:

- the data-driven insights from the SOO enable precise planning and forecasting for Load-Related Expenditure Savings and digital innovation in the DSO Transition Plan and Digitalisation Strategy
- the SOO's role in fostering partnerships and providing accessible data is integral to the stakeholder engagement and transparency goals of all strategies
- through the SOO, strategies can be developed and implemented to specifically address the challenges faced by vulnerable customers, ensuring they are not left behind in the transition to a more efficient and sustainable energy system
- the convergence of these strategies through the SOO empowers informed decision-making, essential for achieving Net Zero objectives and optimising network performance.

This dynamic interplay exemplifies the complex connections between our strategies. The DSO Transition Plan prepares us for the future energy system while saving money through load-related expenditure, and harnessing data with our Digitalisation Strategy. We're ensuring that no one is left behind in the energy transition through our Customers in Vulnerable Circumstances strategy and the SOO guides collaboration to reach Net Zero.

4 Our digital tools

At Electricity North West we are leveraging digital tools to benefit our employees, stakeholders, and customers. Our digital strategy aligns with our business objectives, supporting our commitment to deliver Net Zero at the lowest cost and enabling the transition to DSO.

Central to our digitalisation is our approach to network data. We have a continually updated, fully connected GIS model of our network from 132kV all the way through to individual low voltage locations, and full alignment between our GIS data and our asset register holding technical details of the equipment we have installed. Our leading-edge Network Management System (NMS) uses this combined data as the basis for the network model and combined with real-time measurements from the network, performs continuous state estimation analysis to model the power flows around the network in real-time. All of our customers are linked to their point of supply within our GIS (and therefore NMS) models giving us excellent visibility of how network performance affects each customer, both during outages and also over time. This approach means that our operational data is related to the common spine of the network model. This allows data from different areas (such as load data, fault data and capacity data) to be presented in relation to common references and geographical areas that are more familiar to stakeholders.

One of the key applications we utilise is OpenDataSoft, a platform that standardises, enriches and publishes multi-source and multi-format data such as tables and maps and API all in one place. Additionally, users have the option to export the data for their convenience. This platform provides data visualisation with enhanced customisation helping us to democratise data sharing and create understandable data experiences adapted to all our audiences. We are currently collaborating with fellow Distribution Network Operators to explore the integration of an accessibility tool within OpenDataSoft, further solidifying our commitment to inclusivity and collaboration.

We also provide geospatial data through our [Network Asset Viewer](#) with advanced tools for use by stakeholders such as network tracing which is built as a mature open source geospatial software including GeoServer, OpenLayers and Python.

When we digitalise a process, it is not a like-for-like process change but an opportunity to review and improve the process. This approach allows us to rethink and optimise our workflows, leading to increased efficiency and improved outcomes. Internally, we make use of Extract Transform and Load (ETL) tools such as Azure Data Factory and Feature Manipulation Engine (FME) to ensure that data sets we produce are consistent and reproducible over time. We combine best-in-class productivity apps with advanced security, compliance, voice, and analytical capabilities. Utilising tools such as Microsoft Teams, Forms, and Sway for engagement and gaining feedback. These tools are secure, allow for third-party security, and facilitate collaborative working across the sector. They also help streamline processes, unifying communication tools, and engaging employees in a secure ecosystem.

We utilise Tractivity, a stakeholder management system built for effective engagement. Tractivity allows us to import all our existing stakeholder data, improve our data integrity and quality, and automatically track and notify users of any changes in a contact's data. It also supports stakeholder mapping, communication campaigns, surveys, and events.

Our digital tools and platforms are more than just technological advancements; they represent a strategic investment in enhancing our operations, stakeholder engagement, and customer service. We leverage these platforms to transform processes, optimise workflows, and prioritise customer needs, ensuring we remain at the forefront of the energy sector. A key differentiator is our technical expertise and advanced data science capabilities, allowing us to analyse, develop, and improve data-driven products.

4.1 Smart decisions, flexible solutions: How digitalisation and DSO capabilities shape Electricity North West's future

Electricity North West's journey towards a smart and adaptable distribution system is driven by two key pillars: enhanced digitalisation and robust DSO capabilities. These interconnected elements act as the guiding force behind our future upgrade plans and flexibility procurement, ensuring we deliver the most efficient and sustainable solutions for our customers and the region.

Whole System focus: Collaboration for optimal outcomes

At the heart of our approach lies the principle of whole system outcomes. We understand that decisions made at one voltage level can impact the entire network. Therefore, our DSO Transition Plan emphasises comprehensive data sharing, forecasting, and planning across all voltage levels. This collaborative approach, aligned with the whole system licence condition, allows us to optimise investments and deliver solutions that benefit the entire electricity ecosystem. Further details can be found in our [Distribution Network Options Assessment \(DNOA\) Report](#).

Unlocking flexibility: A market-driven approach

Electricity North West champions flexibility as a cornerstone of a future-proof grid. We are committed to developing open and efficient flexibility markets, initially targeting 300MW of flexibility services across all voltage levels. As smart meter and network monitoring data becomes available, we will continuously refine this target, ensuring we tap into the full potential of flexible resources. This market-driven approach, coupled with coordinated collaboration with other network operators through initiatives such as the ENAs Open Network Project, leads to efficient utilisation of flexibility services for optimal whole system outcomes. Visit our [Flexibility hub](#) for more information.

Forecasting and monitoring: Predicting the future, investing wisely

Accurate forecasting is crucial for informed decision-making. We're expanding our forecasting capabilities to encompass all voltage levels with granular detail, incorporating advanced network modelling and third-party data sources. This will allow us to create detailed future demand and generation profiles, informing strategic investments and promoting energy-efficiency measures.

Stakeholder Engagement: Building a collaborative future

We recognise that the success of our transition hinges on close collaboration with stakeholders across our region. Our extensive engagement initiatives help us understand local needs and requirements, supporting the development of LAEPs. We actively invest in energy planning engineers who share knowledge, data, and expertise, fostering a coordinated whole-system approach across different sectors like electricity, energy, heat, and transport, embedded within LAEPs across the region.

In conclusion, Electricity North West's commitment to digitalisation and DSO capabilities empowers us to make smart decisions and implement flexible solutions for the future. By focusing on whole system outcomes, embracing market-driven flexibility, utilising accurate forecasting, and actively engaging with stakeholders, we are building a resilient and adaptable distribution system that can meet the evolving needs of our customers and the region, paving the way for a sustainable and efficient energy future.

4.2 Building a more reliable and resilient network: Key changes feeding the Smart Optimisation Output

The future of a robust and adaptable electricity network lies in smart optimisation. This section delves into the wider data assets and digital tools driving our journey towards achieving this goal. We are leveraging data-driven insights to enhance network reliability, resilience, and ultimately, the customer experience.

Data:

- **digital network assets:** Entire network digitised at all voltages, providing a detailed map of customer connections
- **Automation:** Advanced devices installed, enabling real-time monitoring, proactive fault identification and response
- **Remote control:** Location, condition, connectivity, and loading data integrated for targeted investment decisions.

Digital tools:

- **advanced network management:** Automates fault restoration, optimises voltage and facilitates flexible connection of distributed energy resources
- **real-time data analysis:** Enables active management of distributed energy resources and proactive response to faults.
- **investment targeting:** Data-driven approach to identify areas with the highest potential for improvement and reduce power cuts
- **resilience modelling:** Framework under development to target investments for improved storm resilience
- **safety training:** Digital tools enhance training and awareness programs for safer operations.

Strategic Planning:

- **data-driven decision-making:** leverage data to improve network management, reliability, and customer experience
- **climate resilience:** Proactive measures taken to address extreme weather events and other potential disruptions
- **storm Arwen Re-opener:** As part of our submission for the Storm Arwen Re-opener, we are proposing to develop a resilience modelling framework to enable us to better target investment to improve the resilience of our network to storm events incorporating weather modelling, the ability of the network to cope with damage and the operational response factors to minimise the risk of long duration outages for our customers following severe weather.
- **network resilience:** Investments in flood defences, vegetation management, and cyber security to bolster network resilience

5 Evaluation

The Smart Optimisation Output Collaboration Plan builds upon the success of RIIO-ED1 projects and outlines our vision for the future, focusing on data-driven insights, innovative tools, and collaborative partnerships. The SOO Collaboration Plan has been shared in two key steps before publication:

- 1. Public consultation:** We launched a public consultation to gather diverse perspectives on our approach to data sharing and stakeholder engagement. This provided a chance to learn about the plan and feed into its development. The consultation was open for seven weeks starting on 23 February 2024. Stakeholders were offered the opportunity to participate by:
 - Completing our online survey
 - Attending our online consultation events
 - Submitting feedback by email
- 2. DSO Stakeholder Panel feedback:** Our DSO Stakeholder Panel composed of industry experts and representatives. They were invited to share feedback on the SOO plan to ensure it aligns with industry best practices and addresses key challenges.

The consultation provided positive and constructive feedback. The evaluation focused on three key areas: perceived barriers to engagement, inclusivity of the engagement process, and transparency of data sharing. The SOO consultation found;

High levels of accessibility and inclusivity:

- 91% of respondents reported no barriers to engagement with ENWL indicating a strong foundation for open communication between the organisation and its stakeholders
- our engagement efforts received a 4.33 out of 5 rating for inclusivity suggesting that stakeholders feel heard and valued in the consultation process
- 11% desired improvements in feedback loop transparency
- 100% of respondents agreed that our data-sharing approach ensures transparency and inclusivity, a significant achievement, as clear data access is crucial for collaboration.

Stakeholder feedback drives platform enhancements:

The consultation also provided valuable insights into how we can further improve our digital platform and collaboration efforts

- **data licensing:** Stakeholders requested clear licensing permissions for using our data for commercial purposes, this will facilitate wider data utilisation and innovation within the industry
- **platform usability:** While some users appreciate the detailed nature of our heat map compared to others, initial usability could be improved, a short instructional video had been suggested and is now available on our [website](#)
- **data enhancement:** Stakeholders expressed interest in seeing more generation data information, this would provide a more comprehensive picture of the network for better planning and decision-making
- **collaboration with stakeholders:** There was a strong desire for continued webinars, a higher level breakdown of infrastructure data for easier sharing, and increased availability of one-to-one session.

The feedback received provided valuable insights for further improvements to data accessibility, platform usability, and collaboration strategies. By continuing to prioritise stakeholder engagement, we can ensure the success of our Smart Optimisation Outputs.

Resources for further exploration

This selection of resources provides deeper insights into specific aspects of Electricity North West's work, complementing the information presented in the main body of this document.

Strategic Documents:

- DSO Transition Plan: This document outlines Electricity North West's comprehensive strategy for transitioning to Distribution System Operation (DSO), ensuring a reliable and efficient network for the future: <https://www.enwl.co.uk/globalassets/about-us/regulatory-information/riio2/december-final-submission/annexes-final/annex-02-dso-transition-plan.pdf>
- Load-Related Expenditure - Investment Plan: This document details the planned investments in network infrastructure to accommodate changing load patterns and support future growth: <https://www.enwl.co.uk/globalassets/about-us/regulatory-information/riio2/december-final-submission/annexes-final/annex-03a-load-related-expenditure--investment-plan.pdf>
- Digitalisation Strategy Action Plan: This action plan outlines the roadmap for Electricity North West's digital transformation journey, leveraging technology to enhance efficiency and customer experience. <https://www.enwl.co.uk/globalassets/about-us/regulatory-information/documents/digital-strategy/digitalisation-strategy-action-plan---december-2023.pdf>

Supporting Customers in Vulnerable Circumstances:

- Electricity Users in Vulnerable Circumstances: This document details the initiatives and strategies in place to support customers facing financial hardship or other vulnerabilities, ensuring access to affordable and reliable energy: <https://www.enwl.co.uk/globalassets/about-us/regulatory-information/riio2/december-final-submission/annexes-final/annex-08-electricity-users-in-vulnerable-circumstances.pdf>

Collaboration and Engagement:

- Regional Stakeholder Engagement: This webpage provides an overview of Electricity North West's regional engagement activities: <https://www.enwl.co.uk/about-us/engaging-with-our-stakeholders/>
- Flexible Services Document Library: This library houses various documents related to flexible services offered by Electricity North West, including our past consultations: <https://www.enwl.co.uk/future-energy/flexibility-hub/document-library/>
- LAEP process on our website: Provides an overview of the support available and templates for the LAEP process: <https://www.enwl.co.uk/future-energy/facilitating-net-zero/local-area-energy-planning/>
- Our Support for Local Authorities: This section outlines the various ways Electricity North West collaborates with local authorities, supporting community development and sustainable energy initiatives: <https://www.enwl.co.uk/advice-and-support/our-support-for-local-authorities/>
- Electric Vehicle Charging Infrastructure | Transport for the North: This page describes the joint efforts between Electricity North West and Transport for the North to develop a robust electric vehicle charging infrastructure across the region: <https://transportforthenorth.com/major-roads-network/electric-vehicle-charging-infrastructure/>
- Community and local energy: This section explores Electricity North West's engagement with communities and local energy initiatives, fostering collaboration and renewable energy development: <https://www.enwl.co.uk/future-energy/community-and-local-energy/>
- Net Zero Terrace Innovation Project: This page details the innovative Net Zero Terrace project: <https://www.enwl.co.uk/future-energy/innovation/strategic-innovation-fund/net-zero-terrace/>

Additional Resources:

- Network Asset Viewer: This interactive tool allows users to explore Electricity North West's network infrastructure in detail: <https://enwl.gis-cdn.net/network-asset-viewer/login.html>
- YouTube channel: Subscribe to Electricity North West's YouTube channel for informative videos and updates: <https://www.youtube.com/@ElectricityNorthWest>
- Distribution Network Options Assessment: [Distribution Network Options Assessment \(DNOA\) Report \(enwl.co.uk\)](#)
- Operation decision making framework: enwl.co.uk/globalassets/future-energy/dso/operational-decision-making-framework/operational-decision-making-framework.pdf
- Energy Data Task Force: The recommendations of the Energy Data Task Force report for further context. (<https://es.catapult.org.uk/report/energy-data-taskforce-report/>)

Glossary

Term	Description
Data triage	Systematically find issues which should inhibit open data, identify the 'least impact' mitigation technique(s) and make the process transparent
Decarbonisation	Reducing the carbon intensity in terms of emissions per unit of electricity generated
DNO	Distribution Network Operator
DSO	Distribution Systems Operation
DSAP	Digitalisation Strategy and Action Plan
EV	Electric Vehicle
IDNO	Independent Distribution Network Operator
LAEP	Local Area Energy Plan. A data-driven and whole energy system, evidence-based approach that sets out to identify the most effective route for the local area to contribute towards meeting the national net zero target, as well as meeting its local net zero target
LRE	Load Related Expenditure
LCT	Low Carbon Technology
NAV	Network Asset Viewer displays assets in our electricity distribution network
Open Data	Data in a machine-readable format that can be freely used, shared and built on by anyone, anywhere, for any purpose.
R110-ED2	Price control for Electricity Distribution (2023-2028).
SOO	Smart Optimisation Output

9 Feedback



We value your insights and encourage you to share your feedback through the following channels

- contact the team - Feedback to development.plans@enwl.co.uk
- share your thoughts by completing our short [feedback form](#).
- if you want to speak to the team about the Collaboration Plans – [book a slot today](#).

Be part of the conversation and join our next DSO event, visit our [events calendar](#) to secure your place.