

MEETINGS
INSPIRED
BY THE LOWRY HOTEL

Smart Optimisation Output Collaboration Plan

May 2025

Contents

1. Introduction	3
2. Our approach to data sharing	4
3. Boundaries and interfaces	6
4. Planning for the future	8
5. Cross-business co-ordination	10
6. Collaborating with our stakeholders	11
7. Building a more reliable and resilient network	12
8. Feedback	14
9. Glossary	15

1. Introduction

Welcome to our Smart Optimisation Output (SOO) Collaboration Plan which sets out our approach to sharing data, and our commitment to collaborating with our stakeholders to support their net zero strategies.

At Electricity North West we recognise that collaboration plays a key role in driving the energy transition forward. So, we are working in partnership with our stakeholders to understand their plans and we are using this information to inform strategic network planning and smart optimisation activities.

The SOO is a framework established by Ofgem, as part of the RIIO-ED2 licence. It outlines obligations and guidelines aimed at fostering collaboration between electricity distribution licensees and their stakeholders to encourage the effective use of network data.

By promoting the transparency, accessibility and interoperability of data the SOO supports strategic planning and will facilitate the transition to a more optimised and integrated energy system.

Enhanced data capture and sharing will:

- Enable us to build smarter networks and prepare for a net zero future
- Support our stakeholders to make informed plans and investment decisions

- Give customers an insight into connection and flexibility opportunities
- Provide our stakeholders with a resource to help them with their planning commitments
- Revolutionise the operation of the network, bringing innovation and greater participation in the energy system.

We are committed to supporting the aims of the SOO and working with our stakeholders to build a more sustainable and reliable distribution system that can meet the future needs of our customers and the North West.

If you have any comments, questions or feedback on our SOO Collaboration Plan please [contact us](#).

Kind regards

Ben Grunfeld
Strategy & Growth Director
Electricity North West



[Back to top](#)

2. Our approach to data sharing

The System Visualisation Interface or [data portal](#) is a section of our 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.

We are committed to open communication and working with our stakeholders in an open and transparent manner to provide improved digital services and open access to network and market information as far as possible while managing the intrinsic security risks.

We have collaborated and continue to collaborate with other network operators to enable data visibility and better access to non-confidential data and to ensure that our information is provided in a common industry standard.

Our approach is to proactively involve stakeholders, so we can tailor our data-sharing practices to their specific and rapidly-evolving needs and ensure we fully implement the recommendations of the UK's [Energy Data Taskforce](#) (EDTF).

This collaborative approach fosters trust and confidence among stakeholders, allowing us to build a robust and inclusive data-sharing ecosystem that supports a successful transition to distribution system operation (DSO).

Our engagement channels

To support capacity planning and to ensure we take account of local stakeholder plans and requirements we have a number of channels in place:

- We regularly share network capacity and planning details including open data availability with a wide range of stakeholders via webinars and with [our six stakeholder advisory panels](#) and [Independent Oversight Group](#) (IOG). Our panels ensure ongoing stakeholder input into our decision-making processes and implementation and include approximately 130 stakeholders across the region.
- We have quarterly strategic bilateral meetings with economic growth leads in our upper tier local authorities, enabling us to regularly review regional economic strategic plans and understand emerging issues.
- We hold bilateral meetings every four months with local government specialist stakeholders across all local authorities in our region to support the development and understanding of Local Area Energy Plans (LAEPs), gain insight into their future plans and forecast scenarios, and to discuss flexibility services and new connections.
- We have regular meetings with large industrial and commercial customers and independent distribution network operators (IDNOs) to understand their future plans and requirements, and we offer surgeries/1-2-1 sessions to potential flexibility providers.

[Back to top](#)

2. Our approach to data sharing

In addition to the above we have a well-established approach to stakeholder engagement which ensures that stakeholder voices continue to be heard. Opportunities to engage with us include interactive stakeholder workshops and webinars, public consultations, online surveys and feedback forms, collaborative working groups, partnership meetings and newsletters.

Progress

Our open data portal now serves more than 1,500 unique stakeholders, providing data in a variety of formats from simple visualisations to dedicated pages adding further value to user interaction. All datasets are available via application programming interface (API) – we now see over 1.2 million API calls per year. We have over 70 datasets available on our website and data portal, providing easy-to-use visualisation tools. We continue to make more datasets available and have created a roadmap on our website which is refreshed regularly to set out which datasets we are planning to publish and when.

The portal also has a mechanism which provides a channel of communication for our stakeholders, allowing them to contact us directly to ask about the published data, or request datasets not currently available.

As a result of our work to gather data and to understand the needs of our stakeholders we are able to forecast granular future energy scenarios tailored to distribution planning in our annual [Distribution Future Electricity Scenarios](#) (DFES) report. The DFES details our view of the North West's future electricity and energy landscape and contains a best view as well as a range of possible views of the future that capture uncertainties around the electrification of transport and heating, as well as the decarbonisation of local electricity supply and storage.

There are multiple DFES datasets available on the portal split into six areas for ease of understanding for our stakeholders: bulk supply point, primary substation, local authority, county and individual councils, the Lake District national park and our whole network. Our data portal also includes our dedicated SOO resource page which groups relevant datasets and documentation specifically referenced in the SOO.

We have created video content on our [data education hub](#) to explain how to use the portal and to explain how stakeholder groups can use the data to benefit their organisation. We have also published data journey videos for developers (demand or generation) and flexibility service providers.

Next steps

As a provider of critical national infrastructure and a controller of personal and commercially sensitive customer data, it is important that we triage and classify the data we share. We will continue to work with the rest of the industry and government departments to ensure that appropriate data triage processes are adopted nationwide. We will open up data to innovators, customers and other stakeholder groups, taking into account emerging government guidance and the need to protect some elements of our data.

We will continue to seek guidance from our DSO Stakeholder Panel on the provision of data and data sharing. We will engage extensively with regional stakeholders, to share knowledge and gain feedback to enable better and more coordinated decision-making.

[Back to top](#)

3. Boundaries and interfaces

How we consider boundaries and interfaces and work across different energy vectors

Our approach to boundaries and interfaces is about building relationships and sharing information. Through active collaboration with neighbouring distribution network operators (DNOs), engagement with regional transport authorities and other utilities, we can achieve significant whole system benefits and create a network that is efficient, reliable and adaptable.

Electricity network operators

Collaboration with other network operators is well-established in our industry. To prepare for emergencies we already work with other DNOs, IDNOs, transmission operators and the National Energy System Operator (NESO) to identify risks, share best practice and carry out training exercises.

We proactively engaged and led the ENA working group set up to design and embed standardised scheduled data exchanges between IDNOs and DNOs (via a Distribution Code modification leading to EREC G111).

In our [Storm Arwen re-opener](#) we proposed and facilitated a collaboration initiative with our neighbouring DNOs (Northern Powergrid, SP Energy Networks and National Grid Electricity Distribution) to interconnect DNO networks across our boundaries as an efficient and cost-effective way of providing security of supply for remote communities. As a result most GB DNOs proposed HV interconnections in their Storm Arwen re-opener submissions. We carried out a detailed assessment to identify opportunities and arrived at a set of proposals for the interconnections. Our proposals have now been accepted by Ofgem and we will begin work to connect neighbouring HV networks in 2025-26.

We are also working with neighbouring DNOs to tackle challenges like modelling electric vehicle charging infrastructure and its impact on the grid. We are sharing a wider range of data, 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, avoids unnecessary reinforcement and minimises costs for customers.

As part of the [Open Networks Project](#) we have worked with other network operators to standardise the way demand forecasts are created and presented. We are committed to this collaboration, and our DFES reports now incorporate the common GB electricity industry decarbonisation scenario framework which standardises high-level assumptions across the industry, allowing us to support whole system thinking and deliver a consistent approach for our stakeholders.



3. Boundaries and interfaces

As part of the Open Networks Project we also led a project, working with other DNOs, to develop a common evaluation methodology (CEM) for flexibility services, based on our Real Options Cost Benefit Analysis tool. The tool is now used by all DNOs, promoting consistency and transparency on the decision-making process to meet network needs, choose the most economical solution between traditional network asset solutions and procure flexibility services.

Transport

We actively engage with Transport for the North (TfN), bringing together stakeholders from across the region to discuss and plan for the electrification of transport. To help align future transportation needs with our network capacity, we have worked with TfN to develop a [visualisation tool for local authorities](#), which helps stakeholders anticipate the growth of electric vehicles and plan accordingly. We have supported Westmorland & Furness Council to develop an online portal to identify locations for electric vehicle (EV) charge points under Local Electric Vehicle Infrastructure (LEVI) funding; we are now looking to expand this to the other local authorities in our region.

We are also working in partnership with the Greater Manchester Combined Authority (GMCA) and Transport for Greater Manchester (TfGM) to develop our network to support electric bus charging.

Heating

Through our work with GMCA we are supporting the decarbonisation of heating. We are engaging at strategic and operational levels, openly supporting GMCA's net zero strategy and have aligned our plans for becoming a net zero organisation with their 2038 timescales.

As part of our award-winning '[Net Zero Terrace](#)' project we are carrying out a trial to decarbonise a street of terraced houses in Rossendale using a smart local energy system which helps avoid load reinforcement and is affordable for customers.

Gas distribution network operators and development agencies

We are working with local gas distribution network operators, Cadent and Northern Gas Networks, and local development agencies to support their regional pathways to net zero and their collaborative efforts on LAEPs. A senior representative of the gas distribution network is a member of our [DSO Stakeholder Panel](#), which fosters open communication and cross-sector dialogue.

Other utilities

We have worked with other utility companies, sharing data to launch a cross-utility [national priority services register](#) to make it as simple as possible for energy customers to sign up. The website is designed to be a simple, single reference point to which the NHS, local authorities, charities and other partners can direct their service users.

4. Planning for the future

How our enhanced digitalisation and DSO capabilities inform our future upgrade plans and flexibility procurement

Enhanced digitalisation tools and robust DSO capabilities will ensure we deliver the most efficient and sustainable solutions for our stakeholders and a network fit for the future.

Using our technical expertise and advanced data science capabilities, we will analyse, develop and improve data-driven products. We will leverage our digital tools and platforms to transform processes and optimise workflows, enhancing our operations, stakeholder engagement and customer service.

Digital grid

One of the ways we will continue to provide our customers with reliable, efficient and sustainable electricity services in the future is through the continued investment and acceleration of our digital grid – an advanced electricity network that uses digital technologies, sensors and software to better match the supply and demand of electricity in real-time.

As part of our digital grid development in 2021 we launched our new network management system (NMS) to replace our legacy in-house systems with a brand new, technologically advanced system to support our transition to net zero and DSO. Our NMS allows us to control and run our network as a smart power grid so that we can restore the network, connect generators, wind farms, solar panels, EV charge points and heat pumps far more safely and efficiently.

Our [Digitalisation Strategy](#) sets out how we will continue investing in our digital grid to create a smarter, more resilient and efficient distribution system.

Geographic Information Systems (GIS)

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. We are now implementing a modern GIS platform, which includes significant changes to the way we manage and store one of our most valuable data sets: the location of everything we own and operate. By facilitating the real-time handling of spatial data and events, we will enhance decision-making and ultimately provide more reliable services to our customers.

Network modelling

We have implemented the latest technology in real time network management tools – our groundbreaking active network management (ANM) system. The system carries out network modelling activities in real time to manage network constraints using flexible network assets, flexible connections and flexibility services.



4. Planning for the future

We are currently in the process of upgrading our HV network modelling capability to use more modern tools and enable the build of HV network models directly from our asset data. This will streamline the planning process by ensuring up-to-date network models are available to assess network changes (such as new connections) and pave the way for the generation of CIM models at HV level in the future.

Flexibility procurement

Embracing innovative technologies is crucial to unlocking the full potential of flexibility and delivering real benefits to our customers. We have deployed ElectronConnect, a technology platform which streamlines the tendering and trading of flexibility services. The user-friendly interface empowers providers with a single access point to take part in diverse electricity markets and is integrated with our NMS and ANM systems. We have also made extensive flexibility data available on our data portal showing what we have procured and dispatched and providing information on our latest tender requirements.

Forecasting and monitoring

Accurate forecasting is crucial for informed decision-making. Our ForeSight programme of projects goes beyond the traditional annual forecasting and planning cycle and introduces an automated and high-frequency (weekly) tool for the whole network. This allows us to capture the dynamic landscape of connections activity, optimise our load-related investment and provide our customers/stakeholders with better pre-connection tools and more frequently updated data. Successors to our Foresight programme will enable all stakeholders to access real-time and future digital twins, facilitating flexibility trading, automated connections and optimised investment planning.

Digitalisation of processes

The digitalisation of our processes is crucial for enhancing operational efficiency, improving customer service, supporting our sustainability goals and delivering stakeholder value going forwards. These processes work together with our investment in technology, our focus on innovation and our commitment to security. There are several key initiatives set out in our [Digitalisation Strategy](#) which involve process digitalisation including enhancing customer management systems, improving high-volume call handling, streamlining connections and disconnections and automating our defect management process.



[Back to top](#)

5. Cross-business co-ordination

How our DSO, Load-Related Expenditure Strategy and Digitalisation Strategy and Action Plan interact with one another and interface with the SOO

Our [DSO Transition Plan](#), [Load-Related Expenditure \(LRE\) Strategy](#) and [Digitalisation Strategy and Action Plan](#) are all aligned to our broader strategic goals as set out in our RIIO-ED2 business plan and underpin our strategic vision – to lead the North West to net zero.

This ensures that these diverse strategies have a common agenda and support integrated strategic planning and cohesive decision-making. The strategies are underpinned by the SOO's role in facilitating more meaningful collaboration, fostering partnerships and providing accessible data. This is integral to the stakeholder engagement and transparency goals of all our strategies and enhances the overall effectiveness of each one.

Here are just some of the ways these plans interact with each other and the SOO:

- Our groundbreaking NMS and industry-leading ANM system, the cornerstones of our Digitalisation Strategy, are paving the way for the integration of renewable and low carbon technologies as set out in our DSO Transition Plan.
- Advanced forecasting methodologies in our Load-Related Expenditure Strategy are complemented by data-driven insights supported by our Digitalisation Strategy.
- Our approach to smart metering and network monitoring, outlined in our Digitalisation Strategy, support the goal of the SOO to provide near real-time data and network transparency via our System Visualisation Interface.
- The digital and data-centric approaches outlined in our Digitalisation Strategy help optimise network performance leading to cost savings and efficiencies in our Load-Related Expenditure Strategy.
- Our plans for renewable integration set out in our DSO Transition Plan are bolstered by digital tools and data-driven insights from our Digitalisation Strategy.
- Data-driven insights from the SOO enable precise planning and forecasting for our Load-Related Expenditure Strategy and digital innovation in the DSO Transition Plan and Digitalisation Strategy.

6. Collaborating with our stakeholders

How we are collaborating and partnering with other stakeholders in the co-development of strategic regional projects, plans and net zero strategies

Local authorities and LAEPs

As part of our commitment to support local authorities in their journey to net zero, we are actively participating in the development of a number of their plans and strategies. These include LAEPs, net zero roadmaps and other strategies and cross-utility solutions led by the 35 district-level local authorities, five county councils and combined authorities in our region. Our involvement is key to the successful planning and delivery of these strategies and solutions.

Our wider programme of support includes [Our support for local authorities](#) webpage, our annual [Regional Stakeholder Engagement](#) events, our quarterly stakeholder newsletter, bespoke briefings on key energy transition topics and support from our dedicated engineers for local authority LAEPs.

Strategic partnerships

We are actively engaged with a network of institutions, technology providers and local authorities across the region. Our strategic partnerships include [Bee Net Zero](#), [Green Economy](#), [Pro Manchester](#), [BOOST](#), [Cumbria Tourism](#), [CAfS](#), [Zero Carbon Cumbria](#), and the [UK Business Climate Hub](#). These partnerships facilitate comprehensive discussions on regional and national decarbonisation needs and formalise whole system changes in planning processes, ultimately driving us towards net zero.

Flexibility services

We are collaborating with other network operators to share data and adopt standardised approaches to co-ordinate the use of flexibility services and drive efficient whole system outcomes. We have been actively involved in the ENA Open Networks Project since 2017 driving for industry standardisation. As Elexon take up their new role as market facilitator we will support them to take over from the successful work of the Open Networks Project and support further standardisation and process improvements.

Decarbonisation of heat

As part of the process to decarbonise heating in our region we are working in partnership with GMCA to support their net zero strategy and, as part of our [Net Zero Terrace](#) project, we are working with Rossendale Borough Council, Rossendale Valley Energy and Buro Happold.

If you need support from Electricity North West for a net zero or other strategic project please [contact us](#).



7. Building a more reliable, resilient network

Key changes in our wider data assets, digital tools and strategic planning decisions

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

We use data to provide an up-to-date and accurate representation of our network, which is vital for enabling automated and remote operation of our assets:

- **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

We use a range of digital tools that support network planning and management of capacity:

- **Active network management:** Our industry-leading ANM system utilises centralised real-time power flow functions using real-time measurements that allow us to very quickly scale up flexibility services, flexible connections and accelerate connections using existing assets at minimum cost. It automates fault restoration, optimises voltage and facilitates the flexible connection of distributed energy resources
- **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 programmes for safer operations.

[Back to top](#)

Strategic planning

- **Data-driven decision-making:** We 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 Storm Arwen re-opener, we have been granted funding for a resilience modelling framework to better target investment to improve the resilience of our network to storm events. This incorporates weather modelling, the ability of the network to cope with damage and the operational response factors to minimise the risk of long duration outages
- **Network resilience:** Investments in flood defences, vegetation management and cyber security to bolster network resilience.



8 Feedback



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

- Contact the team at development.plans@enwl.co.uk
- Share your thoughts by completing our short [feedback form](#)
- if you want to speak to the team about 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.

9. Glossary

Acronym	Meaning
ANM	Active network management – real time network management tool
API	Application programming interface – a set of protocols and tools that allow different software applications to communicate with each other
CEM	Common evaluation methodology – flexibility cost benefit analysis developed as part of the Open Networks Project, now used by all GB DNOs
CIM	Common information model – standard which aims to allow application software to exchange information about an electrical network
Data triage	Process of systematically finding issues which could inhibit open data, identify the ‘least impact’ mitigation technique(s) and make the process transparent
Decarbonisation	Reduction of carbon intensity in terms of emissions per unit of electricity generated
DFES	Distribution future electricity scenarios – report on our view of the North West’s future electricity and energy landscape
Digital grid	An advanced electricity network that uses digital technologies, sensors and software to better match the supply and demand of electricity in real-time
DNO	Distribution network operator – a company that owns and operates the local network of towers and cables that carry electricity to homes and businesses from the transmission network
DSO	Distribution system operation – the systems and processes needed to operate energy networks in the net zero carbon future
ED2	See RIIO-ED2
EDTF	Energy Data Task Force – set up by government and Ofgem to develop an integrated data and digital strategy to drive the UK energy system towards net zero
ENA	Energy Networks Association – industry body for energy network operators in the UK and Ireland
EV	Electric vehicle – any vehicle that does not rely on a conventional petrol or diesel engine
GB	Great Britain – England, Scotland and Wales

[Back to top](#)

9. Glossary

Acronym	Meaning
GIS	Geographic Information Systems – system for capturing, storing, checking and displaying data related to our assets
GMCA	Greater Manchester Combined Authority – made up of the ten Greater Manchester councils who work together to improve transport, health and social care, planning and housing
HV	High voltage – usually 6.6kV to 33kV
IDNO	Independent distribution network operator
IOG	Electricity North West Independent Oversight Group – provides independent scrutiny of our performance during RIIO-ED2 against the commitments made to customers in our business plan
LAEP	Local Area Energy Plan – action plan to help local communities meet their future energy plans in a sustainable and affordable way
LEVI fund	Local Electric Vehicle Infrastructure – government funding to support local authorities to improve the rollout and commercialisation of local charging infrastructure
LRE	Load-related expenditure – used to fund additional capacity on the electricity network due to new connections or growth in demand and generation
Open data	Data in a machine-readable format that can be freely used, shared and built on by anyone, anywhere, for any purpose
NESO	National Electricity System Operator for Great Britain
NMS	Electricity North West network management system – technologically advanced system to support our transition to net zero and DSO
RIIO-ED2	Ofgem’s energy network price review framework based on Revenue = Incentives + Innovation + Outputs. RIIO-ED2 is the second RIIO price control period specifically for electricity distribution network licensees, running from April 2023 to March 2028
SOO	Smart Optimisation Output – framework established by Ofgem aimed at fostering collaboration between DNOs and their stakeholders to encourage the effective use of network data
TfN	Transport for the North – a partnership of public and private sector representatives working with government and transport bodies to develop strategic transport infrastructure for the north of England

[Back to top](#)