

Bringing energy to your door

# Digitalisation Strategy Action Plan

Driving digital transformation, delivering value for customers and enhancing cyber security

December 2024

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# 1. Executive summary

#### At Electricity North West we aim to be the leading digital, and most secure, distribution network operator.

Technology, information and data are becoming increasingly important in our daily lives and it's vital we embrace them to deliver the modern, efficient, digitally enabled electricity network our customers deserve.

In our <u>Digitalisation Strategy</u> we set out how we will use technology to protect our critical infrastructure and keep customers and stakeholders at the heart of our digital transformation journey.

This 'Digitalisation Strategy Action Plan' provides an update on the progress we have made against the objectives set out in our strategy.

The threat of a cyber attack looms ever closer with attackers becoming increasingly more sophisticated. As an operator of critical national infrastructure, it's essential that we continue to invest in our cyber defences to keep our people, places, data and assets safe. Our cyber security plan is a key element of our Digitalisation Strategy and we have a team of experts dedicated to delivering it.

Exceptional customer service is a key objective of our Digitalisation Strategy. We're working hard to understand the needs of our customers so we can deliver the best digital solutions to enhance our customer experience, making it easier for them to contact us and improving the way we communicate with them.

We want all our customers to benefit from our digital services, so part of our strategy focuses on ensuring our customers in vulnerable circumstances are not left behind. Our 'Take charge' campaign and 'Go low' website provide a free service offering energy-saving advice.

Innovation is at the heart of our strategy, and we are continuing to explore innovative approaches and new technologies that could enhance our network.

Award-winning techniques developed as part of our 'Smart Street' innovation project help our networks and customers' appliances work more efficiently – and reduce customer bills.

We are increasingly hearing about artificial intelligence (AI) and the powerful tool it can be. We are continuing to explore how AI can help us improve our service to customers and digitally enable our network.

In March 2025 we will issue our updated Digitalisation Strategy which will set out the next stage of our digital transformation, how we will ensure we meet the needs of all our customers and stakeholders, further enhance cyber protection, grow business resilience and increase transparency.

Dave Roberts Digital & Technology Director

# 2 Digital futures advisory panel

Earlier this year we set up our digital futures advisory panel to advise us and explore how we can improve and keep delivering the best service to customers.

The panel is made up of independent experts who represent a range of stakeholders. Their role is to aid our understanding of our stakeholders' needs and the digital products and services required to meet those needs.

Senior technology leader Matt Stephenson is the chair of our panel:

"The Electricity North West Digital Strategy Action Plan presents a balanced strategy that gives good consideration to cost efficiency, risk reduction, customer satisfaction and sustainability.

"Underpinned by the introduction and continued use of enterprise scale resilient technologies, initiatives are aligned to commitments in the ED2 business plan"



# **3 Cyber security**

As an operator of critical national infrastructure, we have an obligation to our colleagues and the communities we serve to keep our people, places, data and assets safe. Our cyber security plan is a key element of our Digitalisation Strategy and aims to further transform our security culture.

Our customers are becoming increasingly reliant on electricity as they move away from fossil fuels and adopt low carbon technologies. With this increased dependence on the electricity network, and the digital systems which support it, cyber security has become even more important to the resilience of our business and the essential services we provide.

We know that our network is a target and our defences regularly intercept malicious emails and outside attempts to access our systems.

To mitigate the risk of cyber attacks we are focused on enhancing our cyber security capability and embedding a cyber security culture across our business.

Our cyber resilience strategy sets out how we will protect our customers' data and safeguard our network against unauthorised access, as we move to more actively managed systems, to keep costs low for customers and to ensure the safety of our customers, colleagues and contractors.

Our 'protect committee' helps deliver the right level of investment to keep our network and data safe.

One of the first steps for the protect committee was to ensure we met the basic profile requirement under the <u>Cyber Assessment Framework</u> (CAF).

This was achieved in December 2023. We are now well on the way towards achieving the enhanced profile which will help protect us against a sustained and sophisticated level of attack.

To ensure our compliance with the enhanced profile we have appointed a delivery partner to assess our capabilities and put in place a remediation plan to address any gaps by December 2025.

In summer 2024 we launched our 'Be sure. Be secure' campaign – an internal programme of cyber awareness to drive and embed a security conscious culture across our business.

# Be sure 🕽 Be secure

Protecting our people, places, data and assets.

Since then, we have rolled out two phases of cyber awareness and phishing e-learning to all colleagues and we have embedded cyber awareness into our induction training for new starters. We are also carrying out a survey to assess awareness, knowledge and response to potential cyber threats, and we are providing further training to improve and strengthen our attitude towards cyber security.

# 4. Customer service

At Electricity North West, we believe that exceptional customer service is the foundation of a successful digitalisation journey. By prioritising customer engagement and feedback, we strive to deliver a 10/10 customer service experience that meets the evolving needs of our customers.

- Our customer-centric approach is embedded in our business planning process, ensuring that customer perspectives are at the forefront of every decision.
- We seek customer input via focus groups and targeted customer segmentation research.
- Our understanding of customer needs and priorities enables us to tailor our digitalisation initiatives to deliver a seamless and positive customer experience.

See our customer service action update



#### 4.1 Customer service action update

Service improvement objective	Actions	Target completion date	Status	Measure	Notes
Make our claiming processes for compensation payments easier	• Improve claim process for guaranteed standards payments with online payment system. This gives the customer option to make real time payments without the delay of cheque or BACS	FY2025/26	New	Improved CSAT score	<ul> <li>Project is in discovery phase</li> <li>Online information to explain when and why compensation is due, live by December 24</li> </ul>
Provide more tailored communications to customers	<ul> <li>Create digital customer journeys based on persona mapping</li> <li>Launch a focused improvement project (FIP) to action specific recommendations</li> </ul>	July 2025	Ongoing	Improved CSAT score	<ul> <li>FIP ongoing</li> <li>Actions to be determined following review of digital customer journeys</li> </ul>
Enhance communications to customers so they can prepare for planned supply interruptions (PSIs)	• Add more detail to website on PSIs	August 2024	Ongoing	<ul><li>Improved CSAT score</li><li>Better feedback from</li></ul>	• New PSI homepage in January 2025 with info on reason for PSI and how to prepare
	Add start/finish times to comms	August 2024	Ongoing	stakeholder panels and customers affected by PSIs	
	• Update cards with reason for PSI		Ongoing		<ul> <li>Notification of PSIs will be added to an ecard to customers</li> </ul>
	Update customer comms to include link to electronic PSI	September 2024	Ongoing		<ul> <li>PSI reminders now enhanced to include reason and timing</li> </ul>

#### 4.1 Customer service action update

Service improvement objective	Actions	Target completion date	Status	Measure	Notes
Provide proactive notifications of high voltage (HV) faults to customers	• Launch trial of SMS/email notification with data from our operational systems	September 2024	New	<ul> <li>Percentage of SMS messages delivered for HV faults</li> </ul>	• We now contact customers by SMS within 15 minutes of being notified of an HV fault
	• Launch phone auto-dialler system to contact Extra Care register customers during a power cut	May 2024	Complete		
Review communication channels to ensure they are accessible to all customers	• Establish focus group to collect feedback on our communications channels (fault channels and general communications)	November 2024	Ongoing	Improved CSAT score	<ul> <li>Reworded IVR to make ease of contact easier.</li> <li>Gone live with 'log a fault online'</li> <li>New text message reminders – requested by customers to keep them updated</li> </ul>
Provide on-site quotes for first time service alterations to customers	<ul> <li>Hold feedback sessions to focus on improvements</li> <li>Assess feasibility and affordability</li> <li>Develop engagement and trial plan</li> </ul>	September 2025	Ongoing	• Percentage of first- time service alternations with on- site quote	<ul> <li>Prep work to be carried out in January-June 2025</li> </ul>

# 5. Customers in vulnerable circumstances

Our strategy is designed to address the unique challenges faced by customers in vulnerable circumstances, including those experiencing fuel poverty, living with disabilities, belonging to ethnic minority communities, elderly individuals, low-income households, rural communities, single-parent families, LGBTQ+ individuals, and refugees and asylum seekers.

Our strategy outlines four key priorities:

- Streamline the registration process: Simplify the registration process for our Extra Care register to ensure easy and quick access for eligible customers.
- Enhance network reliability: Improve the reliability of the local network, particularly for customers in vulnerable circumstances, to ensure consistent and dependable service.
- Strengthen partnerships: Develop and refresh our network of partners to provide comprehensive and additional support to customers in vulnerable circumstances.
- Eliminate service barriers: Minimise the risk of creating barriers to services, especially in the transition towards net zero, ensuring inclusivity and accessibility for all.

See our customers in vulnerable circumstances action update



### 5.1 Customers in vulnerable circumstances action update

Service improvement objective	Actions	Target completion date	Status	Measure	Notes
Provide low carbon advice service to customers	<ul> <li>Launch 'Go low today' microsite to help customers shape their energy future</li> <li>www.golowtoday.co.uk</li> </ul>	December 2024	Phase 1 complete	<ul> <li>Improved CSAT score</li> <li>Number of customers accessing microsite</li> </ul>	Microsite developed and launched

### 5.2 Case study: Go low today customer website

In summer 2024 Electricity North West successfully launched a new dedicated website for our customers with free expert advice on how to 'go low', save money and play their part in a net zero future.

In April 2023 we launched our 'Take charge' campaign – a free advice service offering energy-saving advice for our customers.

Working with Energy Saving Trust (EST) and Citizens Advice, the programme aims to help customers save over £300 a year on their energy bills and is set to benefit 125,000 customers across the region.

The second part of the campaign was to launch the <u>Go low today - Shape</u> <u>your energy future</u> website. The dedicated site offers links to phone or email support, free appointments and a reminder for people to sign up to our Extra Care service. It also sets out key options such as solar panels where customers can save up to £410 a year, EV opportunities and savings, heat pumps and grant funding. The site will be further improved with the addition of EST's digital homewise low carbon tool.

So far we've supported 40,000 customers with energy-saving advice, debt support and help accessing grants.

#### What our customers think

*"It was outstanding, I didn't realise the help was there. He explained everything and he was so helpful. I didn't know about half the stuff I could have".* 

"They listened to everything I had to say. They were quite respectful and made sure I received all the help I needed ... I received funding to help with my electricity and extra hardship."

*"It was really, really helpful ... he was telling me things about energy saving. He said if I'm ever struggling in the future I can ring back and explain the situation and access another fuel voucher."* 





# 6. Network management & resilience

We recognise the strategic value of digitising the management of our network as this enhances its operational efficiency and enables us to better manage its reliability and resilience in the face of increasing demand and changing climatic conditions.

- During RIIO-ED1 we digitised our network at all voltages into a connected network model.
- We have installed enhanced monitoring and remote switching devices which allows us to respond to faults as they develop.
- We fuse information about our assets to target investment in areas where power cuts are most likely and have the greatest impact on customers.
- We are taking measures to enhance the resilience of our infrastructure, investing in flood defences, vegetation management and cyber security.
- In our Storm Arwen reopener submission we proposed a new framework to better target investment to improve the resilience of our network. We were the only DNO to have everything we asked for approved by Ofgem.
- Digital tools are being used in our safety initiatives and to enhance training and awareness.

See our network management & resilience action update



### 6.1 Network management & resilience action update

Service improvement objective	Actions	Target completion date	Status	Measure	Notes	
Enable remote diagnosis of supply disruption to improve customer service	• The self-service smart meter 'ping' capability from our website was trialled during Storm Ashley	October 2024	Complete	<ul> <li>Reduction in abortive site visits</li> <li>Reduction in phone calls to contact centre</li> </ul>	<ul> <li>Contact centre agents can now 'ping' customers to identify the cause of a fault</li> <li>Customers can use the same system to check their supply</li> </ul>	
	• Assess live trial and make fully live to all customers	November 2024	Complete			
Detect and repair network damage more quickly to improve customer service and safety	• Roll-out LV PRESence 'fault radar' to 95% of our customers by end of RIIO-ED2	March 2028	Ongoing	<ul> <li>Improved CSAT</li> <li>Reduction in customer interruptions and</li> </ul>	<ul> <li>We have installed 2,843 PRESence units</li> <li>We have installed 883 LineSIGHT sensors</li> </ul>	
	• Install LineSIGHT sensors at 900 sites on 3,500 circuits by the end of RIIO-ED2	March 2028	Ongoing	customer minutes lost		
Regulate voltage on low voltage networks to reduce costs to customers	• Roll-out 'Smart Street' low voltage regulation system	Spring 2023	Complete	<ul><li>Equipment installed</li><li>Improved CSAT</li></ul>	<ul> <li>297 OLTCs installed by December 2024</li> <li>We will continue to improve the solution</li> </ul>	
	• Install 1,180 on-load tapchangers (OLTCs) by the end of RIIO-ED2	December 2028	Ongoing			
Upgrade geographical information system (GIS) to improve customer service and safety	• Replace legacy applications with one GIS to improve the user experience for our colleagues and reduce the complexity of our applications	March 2026	Ongoing	<ul> <li>GIS implementation</li> <li>Data flows available to other key systems using geospatial</li> </ul>	Procurement phase complete	
	Develop proof-of-concept		Ongoing	information		

### 6.2 Case study: Smart Street

Using intelligent software to control smart devices installed on our low voltage network, Smart Street stabilises and lowers voltage levels, which saves money for customers by making appliances perform more efficiently.

Smart Street demonstrates a step change in the co-ordination and operation of electricity networks in Great Britain and is the first demonstration of a fully centralised low voltage network management and automation system.

Using new controllable transformers which can both respond to local network changes and be controlled by our network management system, Smart Street stabilises voltage and maintains it within statutory limits.

We can then reduce the supply voltage to our customers to an optimum level so that our networks and our customers' appliances work more efficiently, a technique known as conservation voltage reduction.

Smart Street has proved that controlling voltage on our low voltage network brings a number of benefits to customers. It can reduce electricity bills by up to £60 a year, reduce carbon emissions and will provide more flexible solutions to help us connect low carbon technologies to the network – all without impacting power quality.

Following the success of the Smart Street trials, Ofgem granted £18 million funding under the Innovation Rollout Mechanism (IRM) to install on load tap changers (OLTCs) at 180 substations, bringing benefits to approximately 45,000 customers, reducing consumption by 5-8% and reducing electricity bills.

In ED2 we are installing Smart Street at 1,000 sites which will benefit a further 250,000 customers across the region.

#### **Benefits**

- Increased network capacity
- Easier connection of low carbon technologies
- Reduced reinforcement costs
- Improved carbon efficiency
- Reduced overall energy consumption
- Lower bills for customers



# 7. Distribution system operation

Distribution system operation (DSO) represents a transformation in network management, propelling the North West towards a future defined by customer-centric benefits, cost-efficient operations and enhanced network accessibility.

- As the North West's network operator, we are uniquely positioned to drive the transition to net zero.
- Our goal is to provide customers with reliable and affordable access to network capacity, ensuring the seamless integration of renewable energy sources and distributed energy resources while enabling the transition to net zero.
- Through our commitment to digitalisation, we will empower our customers to begin their decarbonisation journeys.
- We will increase optimised network performance and accelerate the transition to net zero.

See our distribution system operation action update



#### 7.1 Distribution system operation action update

Service improvement objective	Actions	Target completion date	Status	Measure	Notes
Simplify the process for capturing local authority development plans	<ul> <li>Share templates via our dedicated local area energy planning (LAEP) webpage</li> <li>Hold bilateral meetings with every council in our licence area</li> <li>Gather data for the facilitation of LAEPs and other developments</li> </ul>	March 2025	Ongoing	• Number of councils who have shared data through our exchange framework	<ul> <li>Bilaterals held with all councils and regular bilaterals with over 370 officers</li> <li>In the last 12 months we have gathered data on nearly 100 planned development areas</li> </ul>
Grow the market for BiTrader, our curtailment trading platform	Complete end-to-end system testing	July 2024	Complete	<ul> <li>Trading activity on the platform</li> <li>Increase in overall capacity</li> </ul>	<ul> <li>Testing of solution complete</li> <li>Now ready to begin simulation trials</li> </ul>
	• Complete the build of the BiTrader system to allow live trading	July 2026	On track		
Allow better sharing of asset information to other systems, especially external systems	<ul> <li>Create common information model (CIM) format models across all voltage levels</li> </ul>	June 2024 (single supply point)	Ongoing	<ul> <li>Ofgem confirm compliance with licence conditions</li> <li>Successful transfer of CIM compliant models</li> </ul>	<ul> <li>One part of model complete (GSP EQ)</li> <li>Partly achieved goal of data- sharing across the company and other DNOs</li> <li>Full CIM model not yet implemented</li> <li>One year extension granted by Ofgem</li> </ul>
	• Trial exchange of asset information with external party (SPEN)	October 2024 (entire licence area)	Ongoing		

# 8. Open data

Our data portal is a valuable resource for our stakeholders. It's shared across UK DNOs and third parties and offers stakeholders common access. We continue to enrich the portal with additional content and there are now 49 open datasets accessible by registered users in various formats.

Part of our data strategy involves maximising the value of our data for community benefit. This includes handling requests for data swiftly, aiming for transparency, fairness and consistency. All requests are triaged promptly so we can understand the individual's requirements and manage their expectations about what can be provided and in what timescales. Whenever feasible, we use commonly available data to ensure consistency in our responses.

Our <u>data portal</u> is open to all stakeholders (through registration) and offers access to a diverse catalogue of datasets, custom portal pages and links to expanded information. Stakeholders can contact us directly with queries or suggestions on content via an online form. Data can be exported in a variety of formats or accessed via an application programming interface.

In 2023, we hosted a DSO discussion forum on data sharing. Half the session was used to present the current open data portal sets and use cases. The response to this approach from stakeholders was positive with requests to develop more use cases. We have since started to develop digital customer 'personas' and customer journeys to demonstrate how different types of customers might utilise our data sets. These will be available on our website in the next 12 months.

We have made strides on a whole system perspective via the ENA's data & digitalisation steering group on items such as standardising metadata, licensing and exploring future dataset interoperability.

We have also taken part in Open Network Project technical groups to enhance whole system data-sharing. We have joined a new electricity system operator (ESO) and Capgemini group focusing on future data needs for informed decision-making and collaboration.

Our industry-wide data sharing efforts provide the ESO with visibility of distribution network assets, processes and activities. This visibility enhances operational decisions, as seen with flexible services utilising distribution network resources. Ensuring data access on contracts, boundary flow, forecasting, outage planning and operational restrictions allows for informed network operating decisions, critical system support and efficient network management.

Collaborating with the ENA, DNOs and Ofgem, we have helped improve the reporting of flexible services SLC31A data. Identifying and implementing changes in reporting templates and guidance aims to standardise reporting across DNOs for better comparison and insights from this data. We are committed to adopting these changes in annual and bi-annual reporting on our data portal.

# 9. Internal operations

We continue to transform our internal operations, covering procurement, safety, fleet management, digital workplace, management information (MI) reporting, workforce skills development, work and asset management, authorisation processes, digital training capability, integration hub and strategic data platform.

Creating more streamlined and efficient internal operations is key to our digital transformation and we continue to progress initiatives in line with our Digitalisation Strategy to support this. This includes:

- Removal of inefficient legacy applications and modernising our key business applications
- Investment in operational systems
- Continued transformation of data and information management
- Continuous improvement of processes.

See our internal operations action update



#### 9.1 Internal operations action update

Service improvement objective	Actions	Target completion date	Status	Measure	Notes
Increase operational efficiency for customers and improve driver safety	Roll-out telematics to our fleet vehicles to improve driver behaviour	March 2025	On track	Telematics rolled     out across fleet	<ul> <li>Contract award January 2025</li> <li>Rollout to start January 2025</li> </ul>
Digitise our work and asset management systems to improve customer service	<ul> <li>Digitise process for management of tooling</li> </ul>	September 2024	Ongoing	<ul> <li>Improved management of assets leading to better reliability and efficiency of investment</li> </ul>	• Capturing of electronic tool testing in the corporate asset register now live
	Improve information capture     for key assets	Continuous – no end date	Ongoing		• Improvements made to digital asset inspection processes
	<ul> <li>Integrate overhead line inspections into asset management systems</li> </ul>	December 2024	Ongoing		• Start of rollout of overhead line inspections in corporate asset register systems
	Digitise process for requesting streetworks permits	December 2024	Ongoing	Faster     reinstatement	• Start of large-scale pilot
Create a modern integration hub for providing open data and for sharing data between different business systems	Move integrations from our current integration platform to a new cloud-based platform	March 2025	Ongoing	<ul> <li>Legacy integration platform decommissioned</li> <li>Workloads running via new cloud platform</li> </ul>	<ul> <li>Project positioning and toolset under review and discovery work underway</li> </ul>

#### 9.1 Internal operations action update

Service improvement objective	Actions	Target completion date	Status	Measure	Notes
Move to half hourly settlement to enable more granular charging and better value for customers	<ul> <li>Design, develop, test and deploy new systems to support half hourly settlement</li> </ul>	December 2024	Ongoing	<ul> <li>Half hourly settlement process live</li> <li>Improved granular billing</li> </ul>	• Recalibration of Elexon market half-hourly settlement (MHHS programme in September 2024 extended the timeline by five months.
	Start of migration	September 2025	Ongoing		
	Full industry go-live	March 2027	Ongoing		
Create a new strategic platform for critical data to manage performance and optimise customer service for use with Power BI	• Build initial data 'lakehouse' to cover customer service and fault analysis	September 2024	Ongoing	<ul> <li>Performance management metrics available to customer service teams</li> </ul>	• We are continuing to populate the date 'lakehouse' with key data from all areas of our business
Digitise our work and asset management systems to improve customer service		September 2024	Complete	• Quicker dispatch and reduced travel times for LV and vegetation related faults	• Expanded previous location awareness of HV fault engineers to LV engineers and tree cutting teams

#### 9.2 Case study: Location awareness

To improve the service we provide to our customers we have introduced 'Locate' which is helping drive down our fault response times and get the lights back on faster for our customers.

In 2021 we developed an all-in-one IT solution to replace our outdated work and asset management systems and enable new and improved ways of working.

As part of the new mobile app, we introduced 'Locate' to provide location data to our control centre via our network management system. Our engineers can now let us know if they're available to respond to a fault with a simple tap of the mobile app.

This enables our control centre to quickly identify the engineer closest to a fault, reducing travel time and avoiding the need to make multiple calls.

After rolling out Locate to our high voltage engineers, the system is now used by low voltage engineers and our tree-cutting teams.

As part of the rollout we have held several internal engagement sessions to listen to feedback and suggestions from colleagues on how Locate could be improved. As a result we have made a number of changes to the app.

Our successful implementation of Locate means we can respond to faults faster than ever before – and is a great example of how we're using technology to make a real difference to the service we provide for our customers.

#### **Benefits**

- Reduced customer minutes lost
- Gets the lights back on faster for customers
- More efficient use of time for our engineers and control centre teams
- Helps maximise incentive revenue for our stakeholders



## 10. Have your say

Stakeholder feedback is crucial to ensure informed decision-making. We welcome your views on our action plan and our digital progress. Please send your thoughts to <u>StakeholderEngagement@enwl.co.uk</u>.

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