SSEN Distribution

COLLABORATION PLAN

May 2025

Scottish & Southern Electricity Networks

DSO Powering Change

Purpose

As part of RIIO-ED2 Final Determinations for the electricity distribution price control, Ofgem asked Distribution Network Operators (DNOs) to coordinate related activities through the Smart Optimisation Output (SOO).

The SOO facilitates collaboration and partnerships between DNOs and their local stakeholders by structuring and packaging network and strategic development data to make them more accessible, transparent and interoperable.

The Smart Optimisation Output is comprised of two parts:

Part 1: Collaboration Plan (this document): Which will describe how Scottish & Southern Electricity Networks (SSEN) is collaborating with stakeholders through a more transparent and user-centric approach to the sharing of data and how we will work in partnership with stakeholders to support the development of local and regional net zero strategies.

Part 2: System Visualisation Interface; A combination of digital network tools on our website and our open data portal.

Contents

Our approach to sharing data

2.1.1 Describe the licensee's approach to sharing data with stakeholders, as a minimum through the System Visualisation Interface, and describe how the licensee will take account of local stakeholder plans and/or requirements (eg changes in demand, generation, storage or services), to inform its own strategic network planning and smart optimisation activities.

Within the Distribution Digital Strategy published March 2025, we have committed to operating an open data ecosystem.

Building on our last collaboration plan we are adopting an **enhanced data sharing approach**. Last year we built an **open data ecosystem** and now we are driving forward operating it with more data updates, improved data quality, and accessibility with analysis fuelled by collaboration and stakeholder engagement. The integration of this open data ecosystem will be supported by the **digital-first culture** to create a more user-centric approach to data sharing. Through updates to the System Visualisation Interface and datasets, we will ensure interoperability of data between difference licensees' system visualisation interfaces through data best practice and data standards.

DATA PORTAL

Our data portal is a single interface for customers and stakeholders to access the data they need. We are continuously developing the portal with the help of our stakeholders, informed by their needs and priorities. The portal now includes features such as the ability to publish data directly from our internal data platform, automate updates, and display Power BI dashboards.

ICEBREAKER ONE DATA ASSURANCE

The Icebreaker One Dataset Assurance Framework helps us ensure that our data is suitable for publication and enables trust in the data we share. The framework provides a structured approach to dataset assurance, including legal, practical, technical, and social aspects and by adhering to this, we can ensure that our data is published in content-appropriate formats, includes necessary metadata and is available for feedback and questions.

DATA REQUESTS AND TRIAGE

We have a data triage process, that allows data consumers to request, feedback, and share successes on data. This process ensures we are sharing data appropriately, managing risks with sharing data, and considering how we make data more accessible.

STAKEHOLDER ENGAGEMENT AND DATA SURGERIES

We continuously engage our stakeholders to improve the customer experience for accessing our data, their priorities for future data releases and how we can improve data quality and accessibility. Over the last year we have carried out several data surgery events to improve stakeholder understanding of our data. Our team also issued a user feedback survey to around 1000 data portal users and carried out internal expert workshops to help enhance our data sharing activity.

DATA INTEROPERABILITY

SSEN Distribution is leading the way in collaboration with other Distribution Network Operators (DNOs), including NGED and UKPN, to enable interoperability of published open data. By working together, we ensure that data published by each DNO is consistently understood and can be used in conjunction with data from other operators. This collaborative effort includes developing and delivering a framework for creating and publishing interoperable datasets on our Open Data Portals.

SOO interaction and interface

2.1.4 Explain how the activities from their DSO, LRE (Load Related Expenditure- work to release more network capacity) and Digitalisation Strategy and Action Plan interact with one another and interface with the SOO.

Strategy & Vision

DSO Strategy

Our DSO Strategic Objectives

Forecasting and planning future needs

Planning strategic investment with local needs in mind to avoid unnecessary delays and reduce costs for customers.

Developing an inclusive flexibility marketplace

Expanding range of services available to stakeholders including low voltage (LV) and Grid Edge and encouraging participation in the marketplace.

Delivering network flexibility at scale

Supporting delivery of flexibility with a range of options for dispatch and co-ordination with National Energy System Operator (NESO) to meet network needs.

Driving transparency and coordination

Increasing visibility of our networks by sharing real-time network and planning data, and building transparency and trust in our operations.

Digital Strategy

Why do we need to become more Digital?

Digital Architecture that builds a connected community

Building on the digital foundations we laid in our previous strategy we will move from products to capabilities, aligned with innovation that are easy to access and maintain. Guided by a strong user experience and aligned with both short and long-term solutions for efficiency and sustainability.

Operating an open data ecosystem

As part of our last strategy, we built an open data ecosystem and now we are driving forward operating it with more data updates and analysis fuelled by collaboration and stakeholder engagement. This will lead to improved data quality, data led decisions and ultimately improved insights and service for our customers through tools such as Power Track and Local Energy Net Zero Accelerator (LENZA).

Driving the future whole system and partnerships

The future whole system plans for widening delivery and effects through smart skill and technology sharing. A strategic partnership plan that offers commercial opportunities and external product support linking our current tools and extending our ability to support businesses, local authorities and decision makers, and our communities.

Promoting a digital first culture

Combining the other three focus areas lay solid foundations for us to drive forward a digital-first approach with tools and support to ensure nobody gets left behind. We value our stakeholders and customers so open communications will allow us to improve our digital footprint, data quality, and standards while improving our customer satisfaction performance.

Action Plan

How do we become more Digital?

PARTNERS AND PEERS

Work together with a wide range of organisations to deliver the energy transition. This means we need to develop new partnerships and share data with others.

CUSTOMER EXPERIENCE

Put the customer at the heart of everything we do so we can serve customers who have more complex needs and do this better than in the past.

PLATFORMS AND DATA

Make sure our IT systems and processes are up to date and ready to deal with the future energy system. They need to be able to receive, process, analyse and share much bigger volumes of data and do so much faster.

PEOPLE AND WAYS OF WORKING

Change how we organise our business and how we work to deal with a bigger and more complicated network and customers' needs.

Delivery

Outcomes

Our DSO Strategic Objectives

The outcomes we are targeting

- Our DNOA outcomes will give clear line of sight to our plans and timelines for our investment decisions.
- Our data portal will improve our customer's experience when accessing the planning data they need.
- A robust needs case based on high quality data and input from our stakeholders will decrease risk and reduce delays and costs.
- Whole system solutions will increase deliverability and ensure the changes we make to our network are efficient and fit for purpose.

The outcomes we are targeting

- Increased participation in flexibility markets and market liquidity through the right product mix and greater awareness of our forward plans.
- Improved provider experience for flexibility procurement through process improvements and our move to a third-party market platform.
- Increased volumes of flexibility procured and dispatched, reducing reinforcement costs and enabling faster network access.

The outcomes we are targeting

- Providing our customers, flexibility providers, and stakeholders with clarity and confidence in how we will schedule and dispatch flexibility, to stimulate participation.
- Provide clarity on the system services we will need in future to assist flexibility service providers in planning their operations and investments.
- Enabling the optimal use of flexibility on the network to create capacity for connections, enable Distributed Energy Resource to participate in NESO markets, and reduce network costs for all.

The outcomes we are targeting

- Consulting on and publishing our Net Zero First investment strategy.
- Regular and broad-reaching data publications and network visibility.
- Supporting our DSO Advisory Board and annual audit of decision-making.
- Leading services for Local Authority engagement – including our Local Area Energy Planning service and LENZA tools.
- Cross-vector and whole system engagement through our options assessment approach.

Our approach to boundaries and interfaces

2.1.2 Explain the licensee's approach to considering boundaries and interfaces (through the SOO, such as with adjacent licensees, embedded IDNOs, other utilities eg water, gas networks, electricity Transmission Owners (TOs) and the Electricity System Operator (NESO) and detail how the licensee is working across different energy vectors, including heat and transport, to facilitate whole system optimisation.)

Boundaries & Interfaces

SSEN Distribution is committed to enhancing the accessibility and usability of data by linking out to additional datasets and materials produced and published by other network operators and industries.

By integrating these third-party resources into our data portal, we provide our stakeholders with a comprehensive view of the energy landscape. This approach facilitates better comparison, integration, and analysis of data across different sources, supporting more informed decision-making and fostering collaboration within the industry. Our partnerships with other network operators and industry leaders ensure that our data offerings are enriched with valuable external insights, driving innovation and efficiency in network operations and planning.

SSEN Distribution is actively collaborating with other Distribution Network Operators (DNOs) to standardise the preparation and publication of open datasets within our data portals.

This collaborative effort aims to ensure that data consumers can easily compare and integrate data published by different Network Operators. By aligning our data practices, we enhance the interoperability and usability of the data, facilitating more effective analysis and decision-making across the industry. This approach not only supports transparency but also drives innovation and efficiency in network operations and planning.

SSEN Distribution is committed to enhancing data accessibility and interoperability by linking to other data portals within the energy sector.

By integrating datasets and resources from various network operators and industry leaders, we provide our stakeholders with a comprehensive and cohesive view of the energy landscape. This approach facilitates seamless data comparison and integration, supporting more informed decision-making and fostering collaboration across the industry. Our partnerships with other data portals ensure that our stakeholders have access to a wide range of valuable insights and information, driving innovation and efficiency in network operations and planning.

Heat & Transport

SSEN will focus on data sharing and collaboration agreements to enable heat and transport.

TIMED CONNECTIONS TO ENABLE ELECTRIC BUSES:

As the demand for new connections continues to rise, we have collaborated with an industry energy data specialist to develop a proof of concept to make Timed Access available on a temporary basis.

This option has been developed through engagement with a large regional bus operator to utilise metering insights and offer customers flexible connections based on when they need power, rather than imposing expensive hardware. Several bus companies have expressed interest in these options and there is potential to expand to other similar transport operators who operating patterns can be scheduled and agreed in advance.

Why buses? Only ~4.9% of GB bus fleet operators are fully electric with over 95% of bus fleets potentially moving to electric in the coming years. 2017-2023 saw a tenfold increase in electrification of buses.

Leveraging real-time metering and settlement data, we can ensure customers with these types of agreements operate within their agreements' limits. This capability makes new options, like Timed Access, more feasible by providing clear oversight of network usage patterns without the need for excess technology which would otherwise become unnecessary once work to release full capacity is completed.

OHME:

SSEN have been collaborating with the EV charging company Ohme, to understand how we can potentially utilise voltage that is provided as part of the data sent to Ohme from all EV chargers.

As there are a number of EV chargers installed by Ohme within our license areas, this has the ability to help in identifying areas of the network with high or low voltage.

Development of regional projects, plans, and net zero strategies

2.1.5 Detail how the licensee is collaborating and partnering with other stakeholders in the co-development of certain strategic regional projects, plans and net zero strategies, where these are being led or coordinated by others. Active participation, by licensees, in the development of these strategies is fundamental and the Collaboration Plan should explain how interested stakeholders can access people and information from within the licensee's organisation to support such collaborative projects.

Regional planning

The SSEN Data Portal is a single point of access to all the data Scottish and Southern Electricity Networks publishes.

This catalogue brings visibility of our network assets, their location, their usage, and their performance, which can support the delivery of stakeholders' regional projects and Net Zero planning. All data assets published under a creative commons licence will have a direct link to how the data can be used.

SSEN has been supporting the development of Local Area Energy Plans (LAEPs) by hosting local authority roadshows in both licence areas and providing access and onboarding sessions for the LENZA tool, produced with Advanced Infrastructure, a GIS tool which assists in the creation of a LAEP.

SSEN responds to local authority Infrastructure Delivery Plan consultations with network information and data and meets with regional planning and related organisations to discuss data sharing and collaboration.

Virtual Energy System

SSEN Distribution is actively collaborating with the National Energy System Operator (NESO) and other stakeholders to develop the Virtual Energy System (VirtualES) and the Data Sharing Infrastructure (DSI). This initiative aims to create an ecosystem of connected digital twins representing the entire energy system of Great Britain, including electricity and gas assets, and linking up with other sectors.

- The VirtualES programme supports the transition to net zero by enabling secure and resilient sharing of energy data across organisational and sector boundaries.
- This collaboration ensures that the data sharing framework is robust, secure, and capable of supporting various use cases, including outage planning, network optimisation, and decarbonisation efforts
- By leveraging the VirtualES and DSI, SSEN Distribution aims to enhance system operability, reduce operational costs, and improve network resilience.

Project Perseus

SSEN Distribution continues to work with Icebreaker One on Project Perseus, a whole system project looking to unlock access to finance that reduces emissions faster by automating sustainability reporting for every Small and Medium-sized Enterprise in the UK.

- SSEN Distribution as part of the energy sector can provide vital data and information on energy network capability, capacity, and usage to support net zero development and opportunities.
- This project has now moved into the Pilot Phase.

Open Energy Advisory Group

SSEN Distribution is also leading with Icebreaker One on the Open Energy Advisory Group 1 to: explore, define, and prioritise use cases and case studies that illustrate the potential for market-wide scale; identify and define users and their needs; map data value chains and broader ecosystem(s) linked to use cases; and identify and agree on data requirements that represent the greatest potential for impact.

Through this engagement, SSEN Distribution aims tackle data silos, develop data sharing opportunities, and ensure cyber security measures are managed.

Development of Net Zero Roadmaps

2.2 Licensees must participate fully in the development of LAEPs, net zero roadmaps and other strategies and cross-utility solutions, led by local and regional authorities and supported by the communities they serve, that will enable least cost decarbonisation pathways for power, heat and transport, where the involvement of the licensee is material in the successful planning and delivery of such strategies and solutions.

We are the first DSO to deliver Strategic Development Plans (SDPs) which provide long-term electricity system blueprints out to 2050 with modular build and flexibility options for GSP Groups.

We have rolled out our Local Energy Net Zero Accelerator (LENZA) to local authorities across both licence areas. LENZA is a geospatial planning software that provides access to datasets crucial for making energy planning decisions and to decarbonise heat and transport, including:

- Network topology data
- Locations and supply areas of our substations, from GSP to secondary substation voltage levels
- Headroom at these substations in the form of a RAG status
- Location and capacity of embedded generation
- Non-SSEN datasets on low carbon technology and heat network potential along with datasets on socio-economic demographics, off-gas areas, energy consumption, EV charge point locations, traffic statistics, listed buildings, conservation areas

Over 94% of eligible local authorities have at least one active account supported by a series of workshops with stakeholders to help them understand the tool. We now have 455 active users on LENZA with local authorities already using the tool to support funding applications for government grants and community generation initiatives. Our engagement with LENZA has received national recognition through the Utility Week awards.

We are now piloting data ingestion from Local Area Energy Planning (LAEP) / Local Heat and Energy Efficiency Strategies (LHEES) into LENZA so these plans can be incorporated into SSEN's strategic network development.

We are also working with UKPN and NGED to ensure data interoperability for local authorities spanning more than one DNO's licence area have access to their entire region's network data.

Building DSO capabilities, releasing capacity and connecting customers faster

2.1.3 Explain how the licensees' enhanced digitalisation and DSO capabilities are informing the licensee's future upgrade plans and flexibility procurement

DSO decisions accelerate our journey to net zero. We have significantly grown our capabilities to meet the challenge and continue to invest in our people, tools and systems to ensure we effectively support our customers and communities.

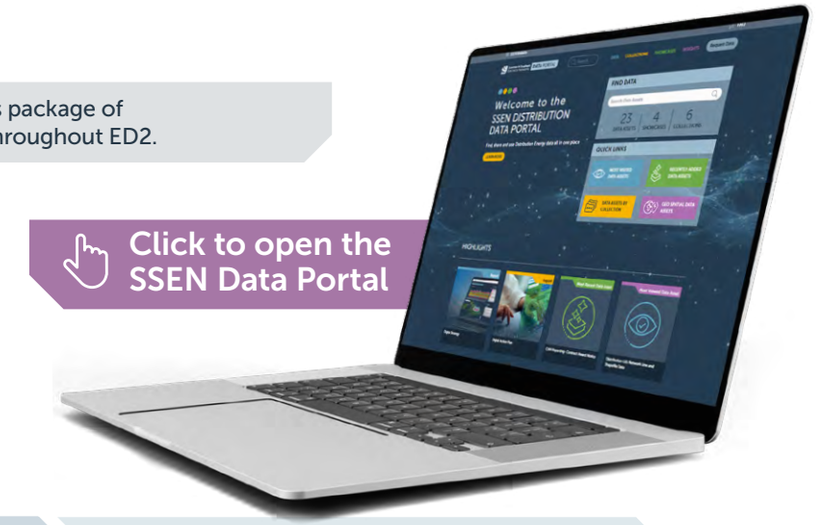
	Strategic Development Plans (SDPs)	Distribution Networks Options Assessment	Network connection planning	Operational decision-making framework	Real-time, open and shared data & reports
					
	Long term electricity system blueprints	**Develop and evaluate detailed options to address capacity needs**	**Identification of point of connection and reinforcement works for new connections**	**Coordination of flexibility dispatch, access rights, outage planning & wider system action**	**Sharing granular data about our network to support coordination and drive innovation**
Process	Our DSO team combine stakeholder insights at a local level with the national Future Energy Scenarios (FES) to develop Distribution Future Energy Scenarios (DFES) and conduct power system analysis to identify capacity needs out to 2050. Each Strategic Development Plan has modular build and flexibility options for a specific network area, typically a Grid Supply Point.	Detailed network reinforcement and flexibility options are prepared, evaluated and compared to maximise consumer value. Our DNOA decisions are shared with stakeholders to increase awareness of future network developments and new opportunities for the use and provision of flexibility.	New connection requirements are served by our DNO Customer team. With the related scheme analysis and design necessary to release new capacity prepared by our DSO System Planning team. Our approach ensures the DSO is fully accountable for network capacity and can make well-informed decisions.	Our Operational Decision-Making (ODM) defines clear dispatch principles to ensure safe, secure and efficient interaction between flexibility services, access rights and outages on our network. It sets out the operational interactions between DSO and DNO teams alongside other System Operators.	We have prioritised the publication of real-time data across our network. We routinely exchange operational and planning data with the NESO and are piloting data sharing infrastructure so that our customers and stakeholders can benefit from a smarter, more flexible, electricity network.
New Capabilities	Our Whole System team and **Net Zero Specialists** support Local Authorities and stakeholders. **Over 400 stakeholders** are using our LENZA tool to support their community energy plans and provide input to our strategic development plans.	Our analysis uses the **Common Evaluation Methodology (CEM)** alongside the **Deterministic Cost Benefit Analysis (CBA)** and **Strategic CBA**. We have developed and refined our **independent assurance** process to give confidence in our outcomes.	Our System Planning team have grown by more than **20 FTE (Full Time Equivalent) since April '24,** through innovative schemes such as **Electrical Power Networks Engineering and Power System Analysts supported by Oxford and Loughborough Universities**. We use industry-leading power flow analysis software and we're unlocking our network modelling data so customers can self-serve.	Our ODM has **set the industry standard.** We report quarterly and refine through stakeholder feedback. Flexibility and access rights are managed using flexibility market, **active network management & dispatch platforms**. Our next generation of tools are being developed through the **Systems for Flexibility Programme.**	Our **NeRDA** and **Smart Metering data** sets provide unrivalled insight into how our network is used from the street level upwards. By applying rigorous internal and external data governance and partnering with **IceBreaker One** we have developed new capabilities in the data needed for system wide coordination.

Our system visualisation interface

Part 2 Develop a system visualisation interface - a section of the licensee's website and open data portal that provides access to this package of forward-looking, open and accessible, digital network tools and related information. Developments should be incremental throughout ED2.

What is it?

The data portal is a single point of access for all SSEN Distribution Data that we publish with our industry peers, partners, regulator, and even our customers and the public. The portal is designed to make finding the right data and accessing it easy for our data consumers. Data consumers are able to browse, search, view, visualise and download data.



How do we decide what data to publish?

We categorised Stakeholders based on 4 main user groups that could interact with the SSEN Data Portal

For each user group we:

- Mapped our DSO Strategy Personas
- Developed use cases based on understanding of your data needs
- Identified how we meet those needs through our data products today and in the longer term
- Published a data roadmap setting out what data we intend to publish

Reader instructions:

Read through the user groups, use cases and data products and validate the assumptions being made about your data needs.

What we need from you...

1. Your data needs – in order for us to provide the right data in a usable format for you, it's important you share with us what data you want and how you want it shared.
2. Collaborate with us – making data sharing a two-way relationship, sharing your insights derived from the use of data with us.
3. Tell us the type of insights that you want from our data so you can use the information effectively.

We categorised customers based on 4 main user groups that could interact with the SSEN Data Portal:

DATA PORTAL USER GROUP

Not connected

"I want to connect to the network, and I am not sure where to start and would like to learn more about connecting to the network"

GROUP PERSONAS

Local authority

Cllr. Walker is the Chairman of Shellworth County Council. He wants his Council to make a positive contribution to net zero.

Domestic customer

Kate invested in solar panels on her property when the Feed in Tariff was at its height. She has since installed a battery to store the power she generates.

Commercial business

Claire works for national home builder, 'Harvey Homes' as a Utilities Planner. She needs to understand the potential problems for connecting new homes to the grid well in advance.

Battery storage owner

John's business is installing batteries of different sizes on both the distribution and transmission networks.

Distributed generation customer

Carla is a solar farm owner and operator. She wants to expand her current solar farm and build an investment plan for new projects.

Large energy user

Keith operates a manufacturing plant that consumes large amounts of electricity which can vary significantly throughout the day.

What can SSEN data help me with?

Dataset links open corresponding datasets on our Data portal

Dataset	Understand SSEN connected resources	Understand SSEN network requirements	Anticipate future network demand	Review network development plans	Identify opportunities to engage with SSEN	Understand ability to connect
SHEPD & SEPD Network Development Report				✓		
SHEPD & SEPD Long Term Development Statement				✓	✓	
Embedded Capacity Register	✓	✓				
Smart Meter LV Feeder Usage	✓					
SSEN Substation Data	✓					
NeRDA Opengrid Dashboard	✓		✓			
Real Time Outage & NaFIRS Yearly Export						✓
Generation Availability & Network Capacity						✓
Orkney & Isle of Wight Active Network Management					✓	✓
Distributed Future Energy Scenarios			✓			
Flexibility Services, Flexibility Market Price, & Contract Award Notice	✓	✓			✓	

We categorised customers based on 4 main user groups that could interact with the SSEN Data Portal:

DATA PORTAL USER GROUP

Connected

"I am connected to the network, and I want to learn more about utilising my assets and connection to create value through flexibility and access products"

GROUP PERSONAS

Commercial business

Claire works for national home builder, 'Harvey Homes' as a Utilities Planner. She needs to understand the potential problems for connecting new homes to the grid well in advance.

Battery storage owner

John's business is installing batteries of different sizes on both the distribution and transmission networks.

Distributed generation customer

Carla is a solar farm owner and operator. She wants to expand her current solar farm and build an investment plan for new projects.

Large energy user

Keith operates a manufacturing plant that consumes large amounts of electricity which can vary significantly throughout the day.

Aggregator

David is the CEO of a flex aggregator company. He builds portfolios of flexible energy resources and trades them in energy markets.

What can SSEN data help me with?

Dataset links open corresponding datasets on our Data portal

Dataset	Understand how I can monetise my assets through flexibility services	Review network reinforcements related to my application	See information on past and future outages	See real-time and near real-time connection performance data	Optimise asset usage and efficiency	Assess opportunities to further engage with the network
SHEPD & SEPD Network Development Report						✓
SHEPD & SEPD Long Term Development Statement						✓
Embedded Capacity Register	✓	✓			✓	✓
Smart Meter LV Feeder Usage				✓		
SSEN Substation Data					✓	
NeRDA Opengrid Dashboard				✓		
Real Time Outage & NaFIRS Yearly Export			✓			
Generation Availability & Network Capacity		✓				✓
Orkney & Isle of Wight Active Network Management						✓
Distributed Future Energy Scenarios					✓	✓
Flexibility Services, Flexibility Market Price, & Contract Award Notice	✓	✓				✓

We categorised customers based on 4 main user groups that could interact with the SSEN Data Portal:

DATA PORTAL USER GROUP

Collaborator

"I want to collaborate with other stakeholders e.g. NESO, DNOs/DSOs, local authorities etc"

GROUP PERSONAS

System and network operator

Anish works for the NESO's Control Room team that forward plans what energy flexibility will be necessary to balance the system.

Commercial business

Claire works for national home builder, 'Harvey Homes' as a Utilities Planner. She needs to understand the potential problems for connecting new homes to the grid well in advance.

Battery storage owner

John's business is installing batteries of different sizes on both the distribution and transmission networks.

Distributed generation customer

Carla is a solar farm owner and operator. She wants to expand her current solar farm and build an investment plan for new projects.

Large energy user

Keith operates a manufacturing plant that consumes large amounts of electricity which can vary significantly throughout the day.

Aggregator

David is the CEO of a flex aggregator company. He builds portfolios of flexible energy resources and trades them in energy markets.

Local authority

Cllr. Walker is the Chairman of Shellworth County Council. He wants his Council to make a positive contribution to net zero.

Dataset links open corresponding datasets on our Data portal

Dataset	What can SSEN data help me with?					
	Develop flexibility strategy, development, and innovation plans	Understand energy predictions and plan energy usage by area	Understand how your control room will deconflict with NESO control room	Understand network performance and capacity	Identify and understand trends around network usage	Review adoption of renewable energy solutions
SHEPD & SEPD Network Development Report				✓		
SHEPD & SEPD Long Term Development Statement		✓		✓		
Embedded Capacity Register		✓	✓		✓	
Local Area Net Zero Accelerator (LENZA)	✓	✓				
Smart Meter LV Feeder Usage		✓		✓	✓	✓
NeRDA Opengrid Dashboard			✓		✓	
Real Time Outage & NaFIRS Yearly Export			✓	✓		
Generation Availability & Network Capacity				✓	✓	
Orkney & Isle of Wight Active Network Management			✓	✓		
Distributed Future Energy Scenarios		✓	✓		✓	✓
Flexibility Services, Flexibility Market Price, & Contract Award Notice	✓	✓				

We categorised customers based on 4 main user groups that could interact with the SSEN Data Portal:

DATA PORTAL USER GROUP

Researcher: Personal, Scientific, Academic

"I want to conduct research into the network to improve our knowledge, develop new products or help understand my usage"

GROUP PERSONAS

Academic Researcher

Jack is PHD student working for a university. He needs to review the impact of Low Carbon Technologies on the network to assess the impact of renewable energy technology.

Commercial business

Claire works for national home builder, 'Harvey Homes' as a Utilities Planner. She needs to understand the potential problems for connecting new homes to the grid well in advance.

Battery storage owner

John's business is installing batteries of different sizes on both the distribution and transmission networks.

Distributed generation customer

Carla is a solar farm owner and operator. She wants to expand her current solar farm and build an investment plan for new projects.

Large energy user

Keith operates a manufacturing plant that consumes large amounts of electricity which can vary significantly throughout the day.

Aggregator

David is the CEO of a flex aggregator company. He builds portfolios of flexible energy resources and trades them in energy markets.

Domestic Customer

Mary is an energy consumer. She wants to understand how flexible solutions could help bring energy bills down and provide opportunities to earn money by trading capacity / energy.

Dataset links open corresponding datasets on our Data portal

Dataset	What can SSEN data help me with?					
	Understand the network	Identify opportunities to reduce costs as an energy consumer	Review network performance	Identify opportunities for efficiency and grid optimisation	Understand the impact of renewable energy on the grid	Forecast future network demand
SHEPD & SEPD Network Development Report	✓			✓		✓
SHEPD & SEPD Long Term Development Statement	✓			✓		
Embedded Capacity Register	✓			✓		✓
Smart Meter LV Feeder Usage	✓	✓			✓	
SSEN Substation Data	✓			✓	✓	
NeRDA Opengrid Dashboard	✓					
Real Time Outage & NaFIRS Yearly Export	✓		✓			
Generation Availability & Network Capacity	✓			✓	✓	✓
Orkney & Isle of Wight Active Network Management	✓					
Distributed Future Energy Scenarios		✓			✓	✓
Flexibility Services, Flexibility Market Price, & Contract Award Notice		✓		✓	✓	✓

Changes in data assets, digital tools and strategic planning decisions

2.1.6 Highlight and reflect changes in the wider data assets, digital tools and strategic planning decisions and strategic planning decisions that are feeding into the SOO.

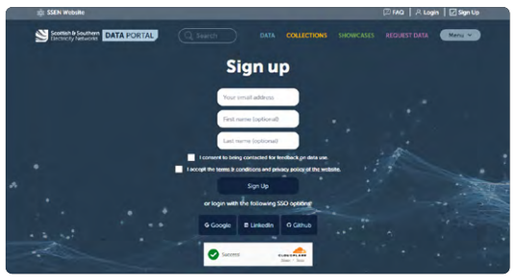
Data Portal Changes

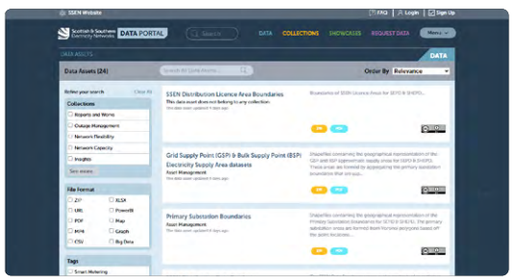
SSEN Distribution is enhancing data accessibility and usability by developing a self-serve environment for generating maps and graphs, as well as implementing improved search functionality. These improvements will help us to align closer with Ofgem Data Best Practice making data more accessible and easier to use.

To keep users informed, SSEN is adding a feed on the portal homepage for new datasets and updates, and re-evaluating button descriptions for better usability. Additionally, we are also going to outline all available resources by file types which aims to support users to understand the data volume.

SSEN is also integrating third-party reports and publications into the data portal, updating the showcases section for better insights, and providing better documentation to reduce barriers for new users. These efforts ensure the portal meets Ofgem data best practice and maximises the value of data.

We leverage CKAN, an open-source data management system, to enhance our data portal's capabilities. The open-source nature of CKAN allows us to benefit from a vast international user base, enabling us to adopt existing applications and develop custom plugins tailored to our needs. This collaborative approach not only accelerates development but also ensures that we can implement proven solutions with confidence. For example, we have successfully deployed a native CKAN-based subscription and notification system, like the one used by Transport Data Commons, which has significantly improved our data sharing capabilities.





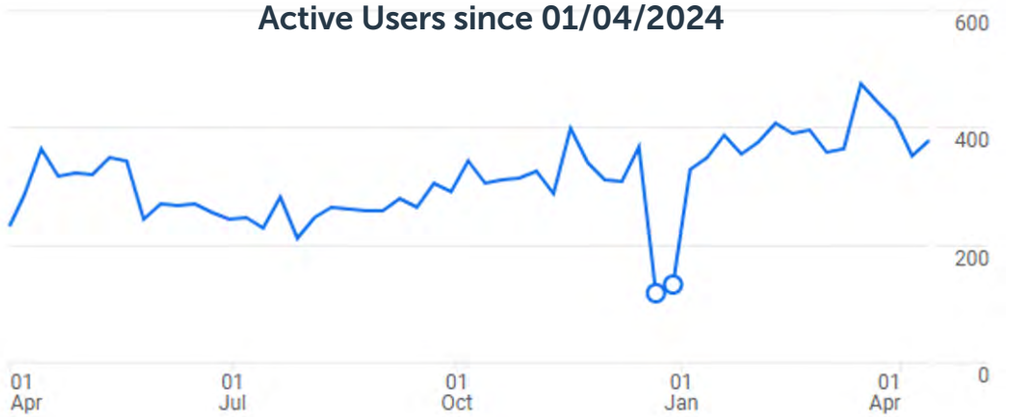
Click to open the Data Portal

Engaging with our stakeholders and how you can get involved

Measuring Engagement

12,000
Active Users since 1st April 2024

126,000
Views since 1st April 2024



3 **Data Surgeries on:**

- Aggregated Smart Meter Data
- Embedded Capacity Register
- Long Term Development Statement

200+
Attendees

38% Confidence Increase on Data Portal Use (Average)

How you can get

What's next?

SSEN is focused on delivering for the communities we serve and doing our part to ensure a just energy transition.

SSEN is focused on delivering for the communities we serve and doing our part to ensure a just energy transition.

We're continually engaging with stakeholders to speak about things that matter to them.

This document shows our commitment to collaborating with an array of stakeholders, from Local authorities and Academia to System Operators. And the work doesn't stop there.

Sign up to our DSO Newsletter where you can receive updates on our latest projects, strategy and action plan development. This is where you will also find our upcoming events and engagements where we will continue to collaborate with other stakeholders in the co-development of strategic regional projects, plans and net zero strategies.

You can also keep up to date with our events at
ssen.engage-360.co.uk

Sign up for our DSO newsletter
SCAN ME

Glossary

Term	Description
Aggregators	A new type of energy service provider which can increase or moderate the electricity consumption of a group of consumers according to total electricity demand on the grid.
BAU	Business As Usual
CKAN	The Comprehensive Kerbal Archive Network is an open-source open data portal for the storage and distribution of open data
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.
DER	Distributed Energy Resources. Any resource on the distribution system that produces or stores electricity. This can include distributed generation, storage, heat pumps and electric vehicles as well as other technologies.
Digital System Map/ Digital Twin	A digital representation of a real-world entity or system.
DNO	Distribution Network Operator
DNOA	Distribution Network Options Assessment
DSO	Distribution Systems Operator. The directorate within SSEN that supports a more flexible network operation. Uniquely placed to ensure simple and consistent access to new markets for our active customers through maximising the utilisation of our existing electrical and communication networks.
DSOAB	DSO Advisory Board
DSAP	Digital Strategy and Action Plan
ENA	Energy Networks Association
EV	Electric Vehicle
GIS	Geographic Information System
HV	High Voltage
IB1	Icebreaker One
IDNO	Independent Distribution Network Operator
KPIs	Key performance indicators
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.
LCT	Low Carbon Technologies
LENZA	Local Energy net zero Accelerator. SSEN's tool for supporting local authority LAEPs.

Term	Description
LHEES	Local Heat and Energy Efficiency Strategies
LSBuD	Line Search Before you Dig
LV	Low Voltage
NDP	Network Development Plan
NeRDA	Near Real-Time Data Access
NESO	Electricity System Operator. The electricity system operator for Great Britain, making sure that Great Britain has the essential energy it needs by ensuring supply meets demand.
NGED	National Grid Electricity Distribution
NGET	National Grid Electricity Transmission
NIA	Network Innovation Allowance
NMF	Neutral Market Facilitator will provide a market for trading use of Distributed Energy Resources (DERs).
NUAR	National Underground Asset Register
OHME	EV charger brand
Open Data	Data in a machine-readable format that can be freely used, shared and built on by anyone, anywhere, for any purpose.
RAG	Red, Amber, Green visual indicator status
RIIO-ED2	Price control for Electricity Distribution (2023-2028)
SEPD	Southern Electric Power Distribution
SHEPD	Scottish Hydro Electric Power Distribution
SIF	Strategic Innovation Fund
SPEN	Scottish Power Energy Networks
SOO	Smart Optimisation Output
SSEN	Scottish and Southern Electricity Networks
SWAN	Southwest Active Network Management
TO	Transmission Owner
UKPN	UK Power Networks. Distribution Network Operator who maintains the electricity networks across London, the South East and East of England.
VFES	Vulnerability Future Energy Scenarios
Vault	Data vault providing access to information on the Location of Underground Pipes and Cables

Appendix 1: Engagement and change logs

We've expanded our data provision for customers

Insights	Action
Greater granularity of data needed to help unlock flexibility *(Data for flexibility roundtable date).*	**We published data from two million smart meters, updating it daily with figures on half hourly consumption, as well as near real time data from LV, HV and EHV monitors in substations across our network.**
Want accessible data to develop future energy predictions, scenarios and plans for their communities *(repeat request from local authorities, at events and bilaterals).*	**We developed our LENZA tool so local authorities could directly pull our data for their Local Area Energy Plans and offered it at zero cost to all the local authorities in our license areas.**
Need standardisation of the definitions and datasets between DNOs to facilitate the path to net zero *(request in workshops and in Data Roadmap Consultation response).*	**We led an ENA session with the other DNOs to agree a Data Collaboration Plan. This has delivered a clear and consistent structure and approach across all DNOs, enhancing clarity and ease of use.**

We've put flexibility at the heart of our strategy

Insights	Action
Need confidence in our end-to-end process as a key prerequisite for facilitating market participation *(Flexibility webinars).*	**We published our flexibility roadmap which outlines why and when we use flexibility as well as our plans for flexibility in the future.**
Increased data sharing needed to drive reduced delays in delivery and to develop business cases for new energy assets at our flexibility data workshop *(Flexibility providers bilaterals*).	**We launched our data portal and have shared a data roadmap committing to sharing more and more open data for use by our stakeholders.**
Want clarity and coordination on the compatibility of different flexibility opportunities *(Multiple stakeholders, multiple channels).*	**We engaged with the NESO to ensure the use of standardised products and promote non-exclusivity.**
Need confidence in our ability to manage large volumes of trade as the market grows *(Flexibility providers).*	**We've invested in new platforms and increased the conversion rate from what's contracted to what's delivered.**

Options assessment and conflict of interest mitigation

Insights	Action
We must consider the broader benefits of network investment *(Multiple stakeholders).*	**We enhanced our cost-benefit analysis to consider the wider socio-economic benefits that can arise from network interventions.**
Want greater openness and transparency when evaluating network needs *(Scottish Islands Whole System Webinars).*	**We consulted on our DNOA process and published the outcomes of decisions as well as using an independent third-party to produce load growth evidence studies.**
There is a need for ability to assess network options holistically *(Local authorities – LAEP bilaterals).*	**We updated our DNOA methodology to give clear insight and description of the factors influencing a decision as well as outlining all the credible options.**

DER dispatch decision making framework

Insights	Action
Key priority for transparency and purposeful decision-making during dispatch *(Flexibility providers).*	**We published our Operational Decision- Making framework which demonstrates how we make fair and efficient decisions for a resilient network when dispatching DER.**
Seeking confidence that control rooms could easily operationalise our decision-making Framework *(ODM Consultation response).*	**We engaged both our control rooms during the development of our decision making framework and published a control room vision that underpins the interaction between our DSO and DNO teams.**

ENGAGE WITH US

For any queries or to request further information, please contact us on:

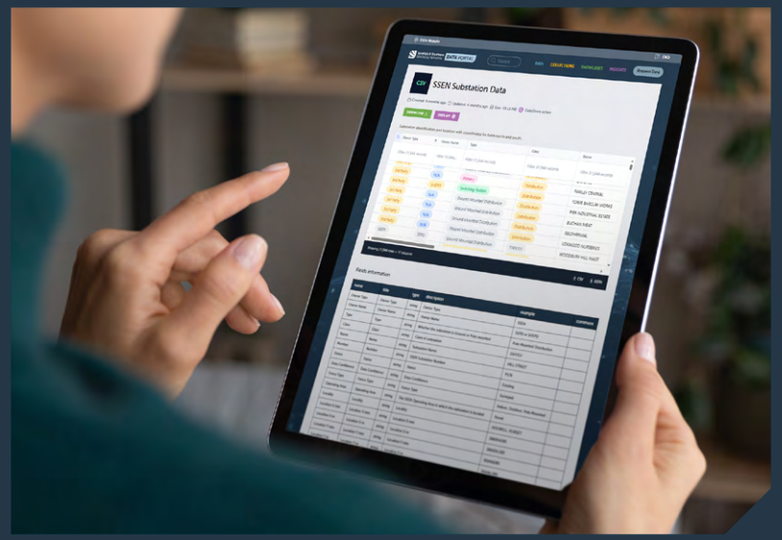
stakeholder.engagement@sse.com

www.ssen.co.uk

x.com/ssencommunity

facebook.com/ssencommunity

linkedin.com/company/ssencommunity



SCAN ME

Sign up for our DSO newsletter

Scottish & Southern Electricity Networks

DSO Powering Change