SSEN Distribution

# STRATEGIC DEVELOPMENT PLAN METHODOLOGY

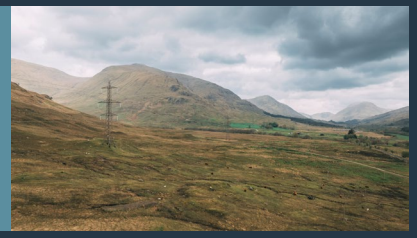
For Consultation
February 2026

Scottish & Southern Electricity Networks

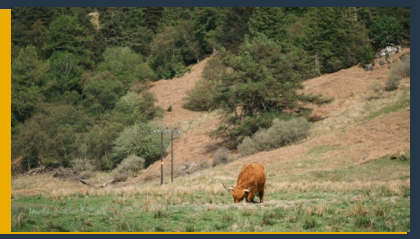
# Contents



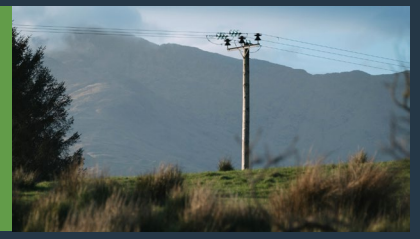






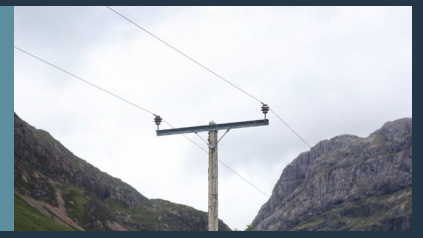




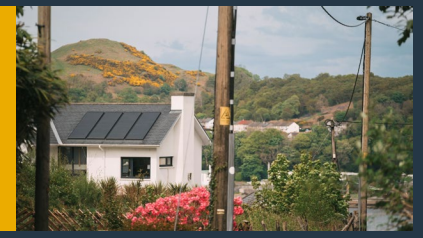




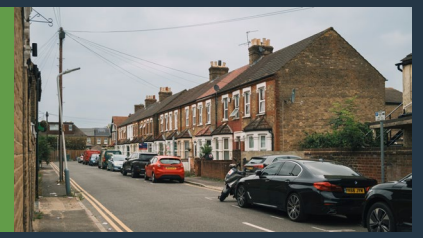














# Executive Summary

We're taking a clear, strategic approach to developing the networks our homes, businesses and communities rely on. By planning smarter and acting earlier, we're helping drive the local energy transition while improving energy security and supporting economic growth.

Our Strategic Development Plans (SDPs) set out what the future electricity system will need, giving us and our partners a shared blueprint to design the local markets and networks that will enable decarbonisation and long-term growth.

## What is an SDP?

An SDP primarily aims to look-ahead to 2050 to identify the areas of our network which will require some form of intervention to be able to allow people to use more electricity and to allow new developments to connect such as new housing developments.

We take the feedback we have received from stakeholders on their future energy needs to understand where and when parts of the network are going to become constrained. We present our insights on how the energy system of the local area is changing alongside data on the current network feeding the area and network needs. This allows us to strategically consider what the network of the future should look like.

## What information can they provide?

- Summary of the stakeholders we have engaged in the area.
- A view of where flexibility has been procured previously and where flexibility has been recommended to be used in the future.
- Overview of the current network including network topology and the geographic area fed by the network covered by the given SDP.
- Insights into what our predictions are for how different technologies such as electric vehicles, heat pumps, solar generation, and air conditioning are expected to grow.
- Projects currently underway to upgrade the network with forecast completion dates.
- A spatial and tabular view of identified near-term and long-term system needs.

## Why are we producing SDPs?

SDPs allow us to strategically plan the build out of the network as part of the energy transition and to meet the requirements of local plans. This enables us to ensure the decisions we make are considering a long-term view of network requirements out to 2050.

SDPs also provide a platform for us to engage on local energy planning with a broad range of stakeholders such as local authorities and industrial and commercial customers.

## Where can I find the SDPs?

Our published SDPs as well as an interactive map with our SDP summaries can be found on this page: SDPs – SSEN

## SDP Timeline 2026

**24th February 2026 – 7th April 2026**
SDP Methodology consultation period.

**February – March 2026**
Early engagement with industrial and commercial customers begins.

**April 2026**
Final SDP Methodology published.

**May – June 2026**
Updated SDPs for 2026 begin to be published.

# 1.1 Foreword - Strengthening our industry-leading approach

We released our first Strategic Development Plans (SDPs) last year with a clear vision to provide a long-term view of network development needs – both investment and flexibility – in each of our regions through to 2050. It's encouraging to see the pioneering approach we have taken to strategic energy planning now picked up more broadly through NESO's Regional Energy Strategic Plans (RESPs) and Ofgem's DNO long term plans in ED3. Our updated SDP methodology considers both of these factors and ensures we are aligned with other industry initiatives.

In creating the SDP process, we recognised that to truly enable whole system development of our energy networks, we needed to identify, analyse and share our current view of network needs and to develop a process around which we can iteratively engage with our stakeholders to inform how we build out the network. We're really proud to be first Distribution System Operator (DSO) to publish comprehensive, long-term strategic plans of this nature and are appreciative of the feedback and input of our stakeholders in that process.

But we're not standing still. Ofgem have subsequently recognised the need for longer term strategic planning by setting out an intention to expect all DSOs to create long-term integrated network development plans in their ED3 Sector Specific Methodology Consultation in September 2025. Our SDPs are already addressing significant sections of this guidance and this year, we've expanded the scope of our SDPs as a response. Our first iteration of the SDPs are now informing our planning for the ED3 price control period (2028/29 – 2032/33) with needs identified within the next 10 years being moved forward to be investigated in more detail.

Recently, the National Energy System Operator (NESO) published its transitional Regional Energy Strategic Plans (tRESPs) which are a key milestone in the strategic planning of electricity distribution networks and is a vital input into our planning for ED3 and beyond. We've aligned our SDP methodology to ensure our SDPs incorporate the outputs of the tRESPs.
Going forwards our SDPs will:

- Be centred around projections from the tRESP pathways and contain sensitivity analysis against the multiple long-term pathways.
- Analyse our networks within GSPs with a Strategic Energy Need identified to ensure our long-term plans are ensuring capacity is available to meet strategic needs.
- Be based on load forecasts which are underpinned by the tRESP Common Planning Assumptions.

In 2025, NESO published a Request for Information on energy needs of regional significance which have been assessed by the RESP team to identify areas with a Strategic Energy Need. We will use these insights from NESO as well as engage on a broader range of projects to capture insights from industrial and commercial customers which are not included in the NESO Pathways or the Distribution Future Energy Scenarios, and which may have a degree of uncertainty. These insights will enhance our forecasts and provide further evidence to our investment decision making. We will also be integrating the results of the Connections Reform to update our SDPs this year and to assess the impact on load growth in local areas.

The key updates to our methodology are as follows:

- Alignment to and integration of tRESP outputs into our SDP process and into each SDP.
- Expansion of the scope of SDPs to include non-load needs.
- Further development of our engagement process for gathering and analysing insights from industrial and commercial customers in coordination with the RESP.
- Insight into how we are increasing the digitalisation of our SDPs.

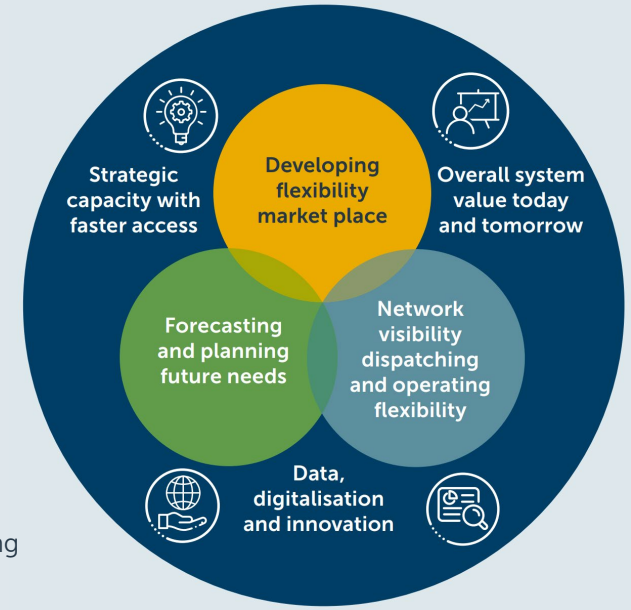
The SDP Methodology refresh for 2026 is part of our approach to continually develop our strategic planning process through the next two years of ED2 and to accelerate forward for ED3. In the development of this document, we've taken into consideration the emerging energy landscape, so our SDPs continue to be reflective of the whole system. We welcome feedback on our methodology to make sure our SDPs serve the needs of a wide range of stakeholders.

Andrew Wainwright – Whole System Manager

# 1.2 Our role as a Distribution System Operator

As the Whole System Team, we're focused on the long-term strategic development of the distribution network and as such, we're accountable for producing SDPs. We're a part of SSEN's DSO Directorate and our SDPs as well as the wider work we do as part of being a Whole System Team contribute to achieving DSO's broader aims and responsibilities.

Our DSO team **strategically plan** and efficiently provide **capacity and faster access** to a **smart energy network, enabling services** from Distributed/Consumer Energy Resources to create a net zero world at optimal **whole system value** for our **customers** today and tomorrow.




- We provide information to customers and enable capacity through our toolbox of **strategic investment, flexibility services** and **access products**.
- We help improve time to connect and keep costs down using **flexibility** and **innovation**.
- We have aligned our DSO organisation to deliver the Ofgem defined **DSO functions, whole system**, innovation and open data requirements to enable **competition**.
- Our Distribution Network Operator organisation has a **separate DSO function** for managing **capacity**. Our decision-making **governance frameworks** enable **transparency** and SSEN to effectively mitigate any **perceived conflicts of interest**.
- We utilise the RIIO-ED2 **Totex Incentive Mechanism** (TIM) to incentivise **efficient investment** and the DSO incentive to drive outcomes delivering **customer** and **societal benefit**.

## Our Stakeholder Priorities

- **Enable** decarbonisation through strategic investment and the application of flexibility, releasing capacity quickly and efficiently
- **Improve** the connections experience by offering; more options, more choice and more insights, driving faster decisions
- **Grow** the number of customers participating in flexibility services, simplifying the process and increasing possible revenues
- **Drive** economic growth by supporting local area energy plans and engaging on SDPs
- **Support** a smart and fair transition

# 1.3 Wider Energy Planning Space

Our SDPs are a product of our 'Whole System' approach to network planning. This means we embrace opportunities to collaborate across the energy sector as we see whole system thinking as a vital pillar to enhancing societal and customer benefits and driving efficient processes.

Our energy system landscape is changing with new players emerging and existing ones taking on new responsibilities as we work to decarbonise the energy system. In recognition of this, we've outlined at a high-level a handful of the players in the energy planning space to aid in contextualising our SDPs. This is not exhaustive but should act as a guide to the primary organisations we collaborate with on strategic energy planning.

## DNOs & DSOs

As a DNO, our role in the energy system is to carry electricity from the higher voltage transmission grid to industrial, commercial and domestic users. In Great Britain, there are six companies which own the fourteen licenced DNOs as well as several Independent Distribution Network Operators which own and operate small sections of the network. SSEN have two licence areas, one in the north of Scotland and one in central southern England.

As SSEN, we also provide DSO Services for the distribution networks we own and operate, this means we're responsible for planning and delivering a smarter electricity system which includes strategically planning the development of our network. We collaborate with other DNOs and DSOs to share best practice and to ensure alignment for other stakeholders. This allows us to optimise investment across system boundaries so that our decisions serve the wider network and energy system.

## Electricity Transmission Operators

The Transmission Operators maintain, own, and invest in the electricity transmission network and there are three TOs in GB. The transmission network takes electricity from large generators and transports it long distances across GB to industrial customers and interfaces with Distribution Networks via Grid Supply Points.

## National Energy System Operator (NESO)

In October 2024, the NESO was established to act as an independent system planner and operator to help accelerate Great Britain's energy transition. NESO was previously the Electricity System Operator (ESO) but has been expanded to enable it to look holistically across electricity, gas and other forms of energy.

NESO act to inform Ofgem's decision making on strategic energy planning of the electricity networks and therefore, we work closely with NESO to develop our plans and incorporate insights. Through being the ESO, NESO already had the responsibility to plan the Transmission network but now also has a role in shaping the Distribution network through the introduction of the Regional Energy Strategic Plans (RESPs) which are discussed further in Section 2.3.

## Other Energy Vectors

Similarly to the electricity networks, the gas networks operate on a national and local level as part of our energy system. The Gas Distribution Networks (GDNs) transport gas at a local level to homes and businesses.

District heating or heat networks can offer an alternative opportunity to decarbonising heat than individual customer solutions. Engaging with heat network developers and local authorities helps us to understand where these are emerging.

## Local Authorities, Customers & Consumers

Local authorities are increasingly undertaking energy planning activities to decarbonise their local areas. This can take the form of producing a Local Area Energy Plan (LAEP) or a Local Heat and Energy Efficiency Strategy (Scotland only) which both have a role in planning how energy is generated and used in their area.

Community energy groups and generators are key stakeholders in understanding local generation on our network.

Businesses and industries are also planning how they will grow as well as decarbonise their operations which includes planning for how they use energy and from what source they get it from.

Domestic customers across the UK have a role in energy planning as we see people examining and changing how they use energy in their homes and daily lives.

## UK Government and The Department for Energy Security & Net Zero

In December 2024, the UK Government published its Clean Power 2030 Action Plan which set out its ambition to deliver clean electricity by 2030. This has shaped how the industry is progressing and accelerating to meet this goal.

## Ofgem - Office of Gas and Electricity Markets

Ofgem are the energy regulator for Great Britain and so regulate SSEN and other energy companies to protect the interests of energy consumers and to make decisions on how the energy system is developed and operated.

We work closely with Ofgem on all aspects of the work we do as a DNO and DSO. In the Strategic Energy Planning space, Ofgem respond to our proposals for projects to decide how and where we invest in the network.

# 2.1 Our Planning Process

Our strategic development process sets out the network capacity we need to reach net zero by 2050. SDPs are central to this, and tRESP now underpins each stage of the planning framework. Its outputs guide and shape all related processes. We will also work closely with NESO on the first RESPs, which build on tRESP and bring wider system coordination. Each process shown is accompanied by a short summary of how it links to tRESP and RESP, along with the relevant publications.

**Planning today, considering long-term whole system needs**

| | Forecasting needs (DFES) | Strategic Development Plans (SDPs) | Distribution Network Options Assessment (DNOA) | Deliver Projects & Flexibility |
|---|---|---|---|---|
| Process Description | ▪ The Distribution Future Energy Scenarios (DFES) provide our generation and demand forecasts out to 2050.<br>▪ Engagement with local authorities and key stakeholders provides spatial insights which are fed into the DFES annually.<br>▪ Collaboration with local authorities on Local Area Energy Plans (LAEPs) and with NESO on RESP allow for forecasts to be cross-referenced with wider energy planning. | ▪ Our SDPs provide an overview of the spatial requirements of our network and high-level options based on the DFES.<br>▪ We provide area specific, local insights based on our engagement with our communities and utilise our electricity load forecast to identify constraints across the SDP area.<br>▪ This acts as a holistic view of our network to feed into more detailed planning processes. | ▪ The Distribution Network Options Assessment Process (DNOA) develops and evaluates detailed options to address capacity needs.<br>▪ The process explores network, flexibility and operational options and assesses the costs and benefits of options to maximise consumer value.<br>▪ Our DNOA methodology is a critical part of our governance, demonstrating transparency as a neutral market facilitator. | ▪ For DNOA outcomes which recommend asset intervention, the work is handed to the wider DNO organisation to enable further development of project works and to start delivery.<br>▪ Where flexibility or operational options are recommended, these are handed over to the relevant teams within DSO for continued assessment and subsequent procurement. |
| tRESP & RESP | The Holistic Transition DFES scenario has fed into the tRESP pathways. Going forward, the tRESP pathways will inform our load forecast and we will continue to engage with stakeholders to reflect any changes between RESP cycles. | The tRESP and our direct engagement provides insights into future energy needs. The tRESP provides detail down to a GSP level which we will leverage to create detailed plans for our network down to a more granular level. | The decisions we make in the DNOA process will be influenced by the Strategic Energy Needs identified by the tRESP and will inform the priority level of different investment needs. Our DNOA outcomes will inform the RESP Spatial Context. | We will coordinate with NESO to provide network data including forecasted headroom capacity and updates from projects underway to feed into the RESP Spatial Context. |
| Assurance and additional related publications | The DFES consists of three reports, an introductory report, and individual results and methodology reports for England and Scotland. The DFES is refreshed on an annual basis.<br>**Time Horizon: Today out to 2050** | Our **SDPs** and our **SDP Methodology** are refreshed annually.<br>**Time Horizon: Out to 2050**<br><br>The **Network Development Plan (NDP)** – consists of the **Network Development Report** (published every two years) and the **Network Scenario Headroom Report** (published annually). They present our best view and three alterative scenarios of network capacity alongside flexibility service needs and a summary of network upgrades.<br>**Time Horizon: 0-10 years** | The DNO will feedback on network options proposed by the DSO. The DSO and DNO work together to reach an agreement prior to an independent audit process. The annual conclusions of the independent assurance will be reviewed by the DSO advisory board.<br><br>The **DNOA Methodology** focuses on how we develop detailed options and provides further detail on both how we achieve transparency but also the role the wider DNO organisation plays within the process. The **DNOA Outcomes report** is published periodically and detail the decisions from our DNOA process. This informs stakeholders of our future developments and opportunities for flexibility provision.<br>**Time Horizon: 0-10 years**<br><br>The **Long-Term Development Statement (LTDS)** provides information for customers looking to connect to the EHV distributed system and the HV busbar of primary substations. It looks at the entire network according to the latest demand forecasts and helps identify potential constraint zones.<br>**Time Horizon: 0-5 years** |

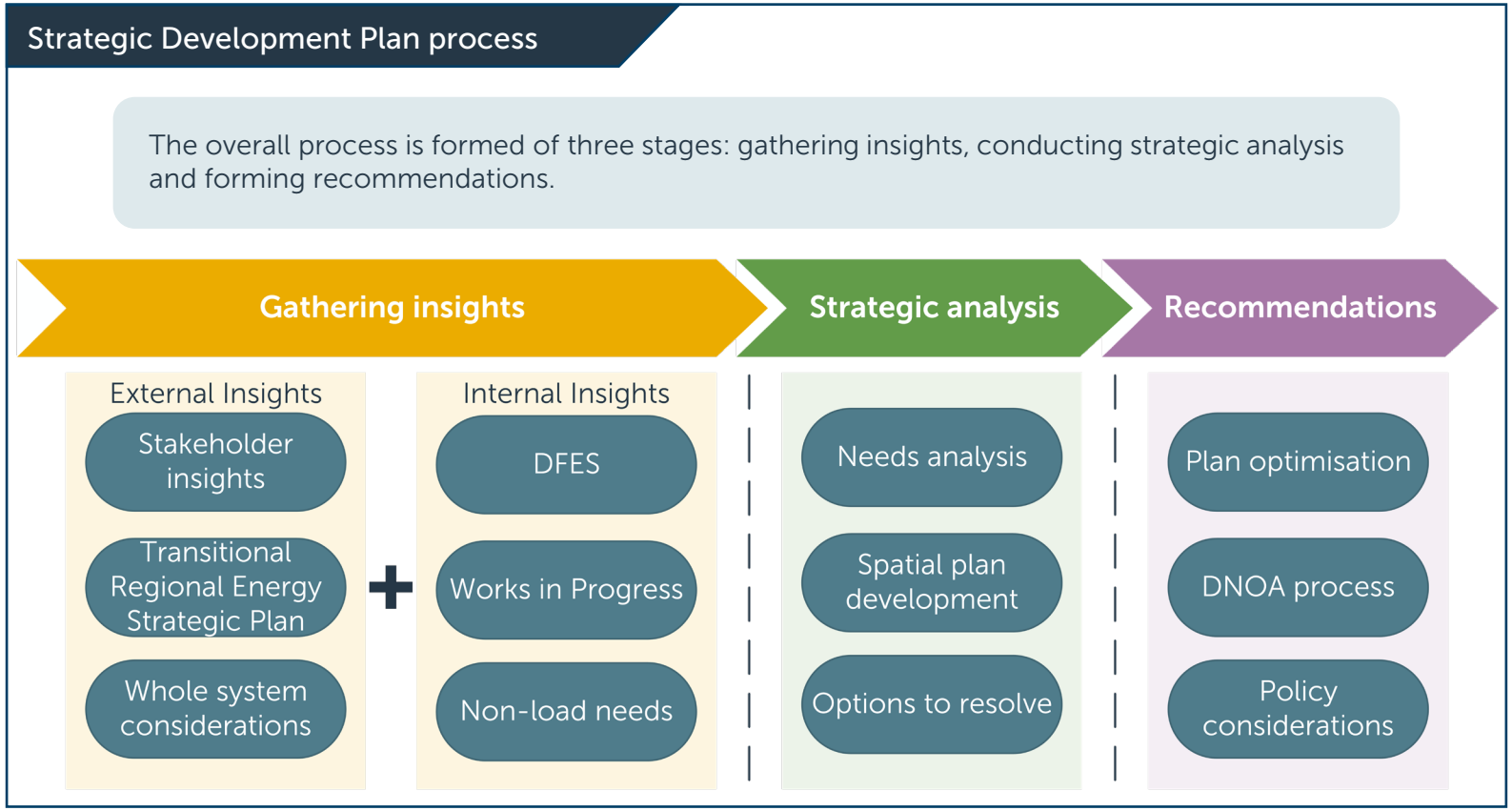
# 2.2 Strategic Development Plan Process

SDPs use our Distribution Future Energy Scenarios and, going forwards, the tRESP to look ahead to 2050 and form the basis of more detailed planning. The diagram below outlines the process and stages in which our SDPs are developed. The components of this process will be explained in more detail through the next two sections of this document.

Our SDPs take the feedback we've gathered from stakeholders on their future energy needs through to 2050 and translate these requirements into plans for the distribution network. This is represented in the insight gathering stage in the diagram to the right.

These help us transparently present our conceptual plans and facilitate discussion with local authorities and other stakeholders on how these could be translated into the local power systems of the future. This is explored in more detail in the strategic analysis section.

Our first set of SDPs are now published and as they are living plans, we shall now be working on our first annual review using our updated DFES forecast and tRESP outputs. They act as blueprints to assist our connections and planning teams with the future network development. The recommendations from the SDPs allow us to respond swiftly to customer needs with works that form critical components of a long-term plan.  Moreover, the first iteration are now the basis of our ED3 price control load-related expenditure plan.



# 2.3 Collaborating with the Regional Energy Strategic Planner

As NESO's role in Regional Energy Strategic Planning develops, we're collaborating closely on ensuring we're aligning our strategic planning processes accordingly.

The first outputs from the RESP were released on 30th January 2026 through the transitional RESP. We're currently ingesting the outputs, and we've laid out here how we're using each of the four components of tRESP. We'll receive the first full RESP outputs in late 2028, and we will continue to enhance and orient our processes over the coming years. For more information on how our engagement aligns with the RESP team, please refer to Section 6.4.

## What are RESPs and tRESPs?

In November 2023, the National Energy System Operator (NESO) was directed by Ofgem to take on a new role in Regional Energy Strategic Planning (RESP). This role involves the production of Regional Energy Strategic Plans (RESPs) which will be whole energy strategic plans shaping the future of local energy systems including the distribution electricity and gas networks.

The RESPs aim to support the energy transition through enabling consistent, transparent, and coordinated whole energy system planning to provide insights on system requirements and where proactive investments should be made.

The first full RESPs are expected towards the end of 2028. Given that electricity distribution networks are in the process of working on their ED3 business plan submissions for the period of 2028 to 2033, it was recognised that there was a need for transitional Regional Energy Strategic Plans (tRESPs) which focused on providing key outputs for DNOs to use more quickly. The tRESPs were published at the end of January.

More information is available here from NESO on Regional Energy Strategic Planning, the RESPs, as well as the published tRESPs.

## Nations and Regions Context

Through our continuing engagement with our communities across both licence areas, we have a strong foundation of knowledge on the areas we serve. The Nations and Regions Context provides a coherent source for datasets relating to our local areas.

Going forwards the full RESP draft methodology indicates that the Nations and Regions Context will also provide a place-based engagement channel which we'll utilise for whole system working as well as for management of external conflicts or trade-offs.

**Nations and Regions Context**
The tRESP Nations and Regions Context provides an initial view of conditions and priorities for each RESP nation and region. Included is an overview of the demographics, energy infrastructure in the area, industry and economic indicators, and local ambitions.

## Pathways & Consistent Planning Assumptions

For DFES 2025, we worked closely with the RESP team to ensure alignment between our forecasts and the pathways. The DFES 2025 Holistic Transition scenario has been an input for the development of tRESP and as such the technology building blocks are well-aligned. We're now in the process of beginning further sensitivities, reconciliation and analysis to ensure the outputs of tRESP are ingested into the DFES and our load forecast for use in our ED3 and long-term planning.
When investigating load-related needs, for the SDPs and in the DNOA process, we'll use the tRESP pathways to create our load forecast and perform sensitivity analysis against the four DFES scenarios. The Common Planning Assumptions (CPAs) from the output of tRESP will be applied when creating our load forecast. We're continuing to work closely with other DNOs and RESP team on this approach and the iterative nature of our SDPs allows us to be flexible to changes at a regulatory level.

**Pathways**
The tRESP outputs provide a single pathway for the period 2025-2035 which splits into three long-term pathways for the period 2035-2050. This consists of volume predictions of selected technologies at a Grid Supply Point level as well as by tRESP area and indicatively by local authority area.

**Common Planning Assumptions (CPAs)**
The CPAs allow for consistent translation of the technology volumes from the tRESP Pathways into a load forecast. We've been engaging closely with NESO on the CPAs so that we can integrate them into our load forecast for use in our SDPs and wider network modelling. The tRESP includes CPAs for EVs, residential heat pumps and residential energy efficiency.

## Strategic Energy Need

The tRESP outputs include information for DSOs on Strategic Energy Need (SEN). These will be incorporated into our investment decision-making and hence will be included in the strategic analysis for our SDPs. Considering these in our planning allows us to understand the network requirements of areas with SEN and to subsequently justify strategic investment needs where intervention is required. The tRESP identifies GSPs or, in Scotland, groups of GSPs with a SEN. These align to our SDP areas enabling us to align well with the tRESP process.

NESO has focused on projects which are strategic and significant on a regional or national level and have a high level of certainty. These are referred to as needs that may support a case for proactive investment. As the DSO, we will be considering these needs in our SDPs, but we're also interested in a broader range of energy needs to inform our longer term strategic plans. The RESP SEN will form an important input into this process. We will engage with relevant stakeholders as needed to gather updated and additional evidence so that they can be considered at the appropriate point in our planning process – see section 4.2 for more detail.

**Strategic Energy Need**
In the summer of 2025, NESO launched a request for information (RFI) to invite a variety of stakeholders to submit evidence of energy needs. This fed into the development of the Strategic Energy Need (SEN) outcomes which have identified areas within each RESP nation and region where a strategic approach to investment is needed if the network cannot accommodate the capacity required by the SEN.

# 3.1 Gathering insights – Wider Energy Actors

Our SDPs are externally facing so that they can form part of a wider strategic energy space. The actors referred to here are not an exhaustive list but demonstrate how our SDPs influence and are influenced by the evolving space they live in. We work closely with other organisations in the energy sector to align our strategic energy planning processes and to work collaboratively towards GB net zero targets and ambitions.

| | |
|---|---|
| **NESO**<br>For our SDPs, we'll align to and incorporate insights from the Transitional Regional Energy Strategic Plan and from the outcomes of Connections Reform and Clean Power 2030. We're continuing to engage closely with NESO on the RESPs as they develop. | **Connections Reform** – NESO has been working to align reforms to the connections process to the needs of the UK Government's Clean Power 2030 Action Plan. The outputs of the Connections Reform process will result in a reordering of the connections queue for generation and storage projects requiring a Transmission Impact Assessment. As a result, some projects will be brought forward, pushed back or may no longer be moving forward and therefore, there will be impacts on our load forecast and generation insights provided in our SDPs which will be reflected in the next iteration. |
| | **Strategic Energy Planning** – NESO are undergoing strategic long-term energy planning which is being shaped through three core areas: the Regional Energy Strategic Planning (RESP), Strategic Spatial Energy Planning (SSEP), and the Centralised Strategic Network Plan (CSNP). **In Section 2.3, we discuss further how we're aligning with NESO as their role in RESP develop.** |
| **Transmission Operators (TO)**<br>National Grid Electricity Transmission (NGET) and SSEN – Transmission are the TOs for our Central Southern and North of Scotland licence areas, respectively. | **Working collaboratively** – we regularly hold bilateral meetings with SSEN-T and NGET to discuss alignment of future plans and impacts of the transmission network. We also hold workshops regularly with both TOs to deep-dive into specific regions of our network. This allows us to provide early insights to the TO on where we see needs arising on the distribution network which require coordinated decision making between distribution and transmission. |
| **Ofgem**<br>As the regulator for Distribution Network Operators, guidance from Ofgem including the Sector Specific Methodology Consultation and the ED3 Framework will provide direction for our strategic planning as we prepare for ED3. | **Preparing for ED3** – Distribution Network Operators receive funding from Ofgem via 5-year long price controls and the next price control will be ED3 which will run from 2028 to 2033. The first iteration of our SDPs have provided a basis for the preparations our system planning teams are doing for ED3. The ED3 Framework and Sector Specific Methodology Consultation is guidance from Ofgem to guide DNOs in their preparations for ED3. |
| | **Your voice in ED3** – We're currently engaging a wide range of stakeholders to gather views on what we should be doing in ED3 and what we should be considering in our decision-making. For more information on how to have your say, see Section 6. |
| **National Infrastructure & Service Transformation Authority**<br>In February 2025, NISTA, formerly the National Infrastructure Commission (NIC), produced a key report on electricity distribution networks with key recommendations for future planning. | **'Electricity distribution networks: Creating capacity for the future' Report recommendations** – The NIC report stresses the importance of proactive investment and strategic energy planning as the country moves to decarbonise the energy system. It also supports a programmatic view to projects as well as the development of flexibility markets. The recommendations have fed into how we're planning for ED3 and as such, the five priority areas we have identified for ED3 each align to a recommendation within the report – more information can be found in our Emerging Thinking for ED3. |

# 3.2 Gathering Insights – Local, Community, and Customer Plans

## The local context of our SDPs

We operate the network across both a varied customer base and contrasting geographies when considering both the SEPD (Southern England) and SHEPD (North of Scotland) regions. Due to this, we see a diverse mix of demand and generation drivers specific to local industries and communities as well as unique local considerations.

This only increases the importance of contextualising load growth through unique stakeholder insight, whether that be through facilitating decarbonisation of distilleries on the Scottish Islands or marine transport on the south coast. An important part of our SDPs is the local context provided alongside the technical components to provide commentary on how load may develop further outside of the ENA agreed DFES technology building blocks.

The context provided through this helps strengthen our justification for network investment across the regions in which we operate. For more information on how we engage, see Section 6.

## Local Authority and Regional Authority Plans

Our local authorities are a vital input into our long-term strategic planning processes so that we can ensure we're creating a network our communities need. We engage closely with organisations across both licence areas to understand their net zero ambitions, their wider development plans, and how the network can help facilitate these ambitions.

Understanding ambitions for growth at a local level is important to allow us to understand where demand and generation is likely to increase and what types of technologies are driving this increase. To collect these insights, we review published material from local authorities alongside directly engaging through bilateral discussions to ensure we're correctly representing their views and targets.

### Local Energy Net Zero Accelerator (LENZA)

The Local Energy Net Zero Accelerator (LENZA) tool is a geospatial planning platform powered by Advanced Infrastructure Technology Limited's (AITL) LAEP+ software. It has been developed through SSEN Distribution's Project RESOP. LENZA is designed to support users in their strategic energy planning endeavours, including LAEPs and, where relevant, LHEES. The tool empowers users to plan decarbonisation pathways, which in turn drive our longer-term strategic network planning that will power local net zero ambition. Insights shared with SSEN Distribution through the platform will be included in future iterations of the DFES and therefore improve the insights presented within our SDPs. For more information on LENZA and information on how to get involved, please visit this link or get in touch to arrange a demo.

### Local Area Energy Plans (LAEPs)

Over the last year, there has been an uptake in local authorities pursuing to Local Area Energy Plan development. LAEPs provide a valuable avenue to understanding how local energy systems will need to grow and develop to achieve local and national decarbonisation targets. As such they are a valuable input into our SDPs so that our network is being developed in line with local plans.
We've been working alongside Winchester District Council on the first Digital LAEP using our LENZA tool which we aim will pave a more accessible route for local authorities to undertake further local area energy planning activities. The second Digital LAEP is also now underway with Southampton City Council.

## Regional and National Bodies

As well as local authorities, we are actively working with wider regional and national bodies including the Scottish Government, the Greater London Authority and the Oxford Growth Commission.

Understanding regional and national strategies is critical to realising their ambitions within our future network needs. We work closely with regional and national bodies to help overcome issues and inform strategic policy development. This then feeds into local LAEPs and LHEES ensuring overall alignment.

# 3.2 Gathering Insights – Local, Community, and Customer Plans

## Industrial & Commercial Customers

Cross energy vector collaboration is key to enable us to build a more whole system view of the area being studied. We're therefore interested in seeking insights from wider stakeholders including water companies, large demand users, and large generation operators.

We're interested to learn more about the needs of local industrial and commercial customers and so we'll be reaching out to understand stakeholder growth and decarbonisation plans. Our engagement with industrial and commercial customers will be supplementary to engagement as part of NESO's SEN process (as outlined in Section 2.3). Our approach to how we're engaging and gathering information in relation to these needs will follow an annual process and hence be complementary to the RESP process which operates as a three-year cycle. This information will be a key input into understanding the growth in our licence areas and what associated electricity requirements will need to be met. We're interested in growth and decarbonisation plans to understand the scale and timing of future energy requirements associated with such plans. Insights are then assessed to determine how they are incorporated into our SDPs – see Section 4.2 for more detail on the data we would like to gather from industrial and commercial customers. More information on how we engage can be found in Section 6.

When we engage with industrial and commercial customers, we're looking at insights which sit outside of the DFES technology building blocks, and which connect at 33kV or above. As part of this, there are ongoing innovation projects looking at the energy transition of specific industries. Notably, the Future Agricultural Resilience Mapping (FARM) project focuses on the decarbonisation of domestic farming industry; SeaChange works with ports to identify energy transition pathways; and the FORTRESS (flexibility and optimisation for resilience in energy systems) project which looks to accelerate the decarbonisation of important sites like hospitals.

## Community Energy

Community energy projects involve generation or energy management at a local level and create opportunities for communities to benefit through generating income, providing resilience, and reducing emissions.

Responding to stakeholder feedback, industry changes, and national best practices, SSEN's DSO has broadened its support for community energy schemes. We aim to work with national partners to deliver guidance, tools, and learning events, strengthening local initiatives. By the end of 2026, we will have a single contact point and a published programme of learning workshops to help community energy schemes navigate electricity network services.

Through our 2026 SDP programme, we look to engage further with community energy groups incorporate future plans into our approach and planning.

# 3.3 Gathering Insights – Demand and Generation Load Forecast

Our projection of demand and generation growth through to 2050 is a crucial input to our SDPs, as well as to all network and system planning activities. We draw on our Distribution Future Energy Scenarios (DFES), together with the connections pipeline, to produce the demand and generation load forecasts used in our SDPs.

## Distribution Future Energy Scenarios

Through the Distribution Future Energy Scenarios (DFES) we leverage the National Energy System Operator's (NESO's) Future Energy Scenarios (FES) alongside these local insights to develop future forecasts for the deployment of generation and low carbon technologies. NESO update the FES as part of a three-yearly cycle and our DFES are updated annually based on the latest iteration and incorporates granular stakeholder insights from agencies such as local authorities, and new distribution demand and generation connections. This includes calibration to Local Area Energy Plans (LAEPs) and Local Heat and Energy Efficiency Strategies (LHEES).

The DFES outputs provide three credible scenarios of how different technologies are forecast to grow or reduce out to 2050 and a 'Falling Behind' scenario where net zero targets are not met. The four DFES scenarios are created from the four NESO pathways, as shown in the figure on the right. The technology projections include solar PV generation, electric vehicle charger and heat pump forecasts, and are used in our analytical work to understand the future capacity requirements on the system for the energy transition.

The tRESP has been built from the 'Holistic Transition' (HT) scenario and we currently take HT as our central case scenario for future requirements. We use this scenario as the basis of our planning processes but test the sensitivity of this model by modelling system needs arising from the other three scenarios. Study of the four DFES scenarios mitigates some of the uncertainty of long-term projections and allows us to understand the distribution network impacts of three credible decarbonisation scenarios against the 'Falling Behind' case.

DFES 2025 built on DFES 2024 and used an accelerated process to provide input into the tRESP. Therefore DFES 2025 operated with a reduced scope to focus on tRESP and to analyse the impact of CP2030. feeding into

For more information, please see the DFES 2025 reports.

## Connections, DFES & Clean Power 2030

Alongside using the latest DFES, we gain an up-to-date view of contracted connections in the SDP area to ensure our planning and forecast reflects the latest view of network requirements. Information summarising the interest in connections and applications by substation is available through the Long Term Development Statement as well as our interactive Network Map.

The CP2030 Action Plan provides generation and storage technology capacity allocations required to achieve a low-carbon power system by 2030. Connections Reform is reordering the queue based on project readiness to accelerate progress towards delivering CP2030 in GB and is due to conclude in 2027. As such this impacts the forecast of how we see generation and storage technologies growing on our network. DFES 2025 has focused on analysing the impacts of CP2030 and Connections Reform on generation and storage projections through looking at the potential results of the reform process while recognising that this process is ongoing.

In December 2025, NESO announced the updated connections queue which began the process for us as a DNO to go through and revise connection agreements. DFES 2025 does not currently reflect the latest updates but once all updated contracts have been accepted, we'll work with Regen to incorporate this into DFES 2026. For reference, DFES 2025 contains data from connections in the queue as of August 2025.

## The pathway framework

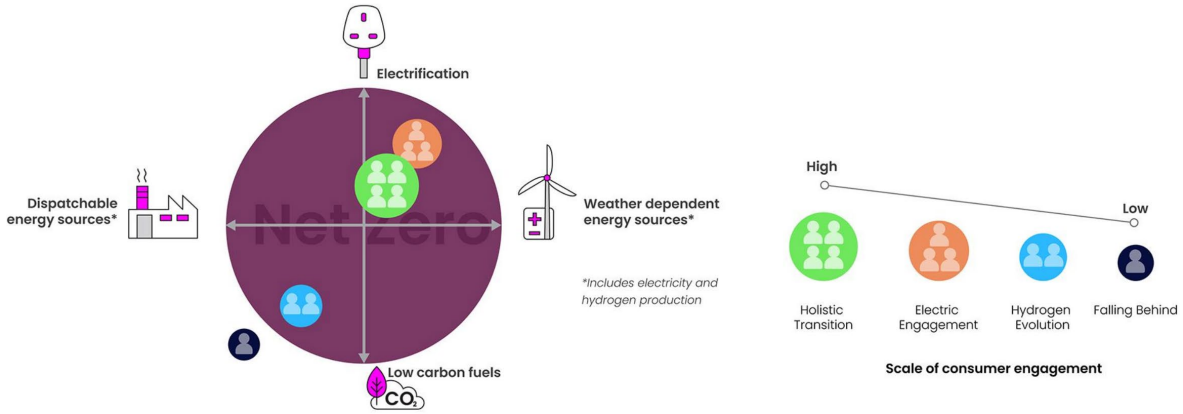



Figure source: NESO, FES 2025: NESO Pathways to Net Zero webinar, link.

## DSO/DNO Coordination

The DSO function feeds into the development of the DFES through engagement with local authorities and key stakeholders in different regions.

The DNO function provides an overview of the connection queues and contracted projects to refine the DFES scenarios.

# 3.4 Gathering insights – Internal Co-ordination and Transparency

Alongside insights from our local communities and the wider energy sector, we also gather input from our internal teams to better understand future network needs and to bring together, in one place, a view of our committed plans and the current baseline of our network.

## Works in progress

An important input into our SDPs is to capture all triggered works to upgrade the network already underway. This allows us to understand the gap between the network of today and the network we need for 2050.

We use the Network Development Plan (NDP) to identify projects currently underway to upgrade our network. This is crosschecked against internal systems to ensure that works triggered since publication of the NDP are included. The works in progress may be needed for a variety of drivers for example, load growth in an area, a customer connection, to address poor asset health, or for potential environmental concerns.

These changes are then built into the model before constraint analysis is carried out. By doing this, we're not re-identifying works that have already been triggered but identifying the system needs that must be mitigated to achieve the energy transition. Following the collation of this information, we're then able to move forward to our strategic analysis.

## Alignment of load and asset health drivers

In Section 3.3, we described how we produce our DFES to inform our forecast for load growth on the network. How the need for electricity is going to grow out to 2050 is one piece of the puzzle but an important consideration is the network we have today and its ability to perform safely, reliably, and efficiently.

Our first iteration of SDPs focused on addressing needs relating to forecast load growth. Our next step forward in our whole system approach is to highlight where there are synergies between identified load-related needs and asset health needs. Enabling this conversation at an early stage will allow for long-term integrated planning between the DSO and DNO parts of the business to ensure we're not only releasing capacity for our customers in a timely matter, but we're being efficient in our delivery.

This is a key development which will further align to the requirements of the Long Term Integrated Network Development Plan set out by Ofgem.

## Flexibility and operational arrangements

Flexibility services are a vital part of our DSO toolkit and can allow us to release capacity sooner and in a more cost-effective manner to deliver greater value to customers.

The scope of SDPs in relation to flexibility has been expanded upon to additionally visualise the flexibility requirements identified in the DNOA process while continuing to indicate where flexibility has been historically procured. In areas of our network where there are unique operational arrangements and considerations, these are referred to in our recommendations, including how they may relate to the use of flexibility services. This is particularly pertinent for load managed areas of our network.

You can read more about where we're already targeting flexible services in our most recent DNOA Outcome reports.

For more information about flexibility and the services we offer, please see our DSO webpage: Flexibility - SSEN

## DSO/DNO Coordination

The DSO function is responsible for identifying and triggering capacity related system requirements.
The DNO function is responsible for triggering works based on asset health, the design and delivery of work, and the operation of the network. Through integrating asset health drivers into our SDPs, we're enhancing the coordination between DSO and DNO while maintaining functional separation.

# 4.1 Strategic Analysis

Using long-term forecasts, we carry out power system analysis to identify capacity requirements and constraints through to 2050. This provides a forward view of our investment needs, enabling us to plan strategic network upgrades that release capacity at the right time and align with other essential activities such as maintenance and asset health work.

As homes move to use more electricity through heat pumps and EVs, industries decarbonise through electrification, and new developments want to connect, the amount of electricity flowing through our network increases. Just as our roads can only take so many cars at one time before there is congestion, our electricity network of overhead lines, underground cables, transformers and other components can only handle a certain amount of load before we need to intervene. When our assets cannot take any further increase in power, we call this a constraint.

Our SDPs provide a "first pass" network assessment, to identify and prioritise constraints in advance of them arising on the network. We identify constraints through our network model where we can utilise our forecast of demand and generation to simulate how power will flow through the network and hence which assets will become constrained. The results of the constraint analysis, along with already committed projects (arising from customer connection applications or engineering justification papers) and insights from our technical experts, provide the basis of the SDPs.

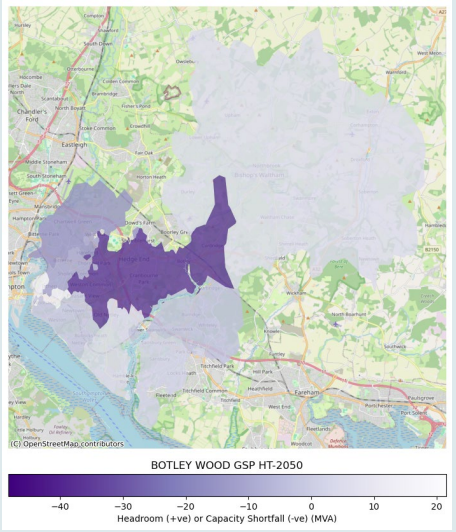
Understanding when constraints are projected to arise across an entire Grid Supply Point (GSP) area means that complementary solutions can be proposed. This prevents each system need being considered in isolation. Options may also highlight the need for further engagement with other network operators to ensure a whole systems view can be considered. For the extra high voltage (EHV) network, we look at the constraints and propose options for intervention on specific assets. For the high voltage (HV) and low voltage (LV) network, we present the forecasted volume of constraints per area over time. This is because on the lower voltage parts of the network, there are a high number of assets. Our approach to strategic analysis for the EHV network and the HV/LV network are described further in Sections 4.3 and 4.4, respectively.

The needs case identification is triggered annually by the update of the DFES report and capacity needs are forecasted out to 2050, with increasing uncertainty beyond 10 years. Therefore, the needs identified beyond the 10-year time horizon will not routinely go through the DNOA process; instead, they will trigger an update in the SDP and will be reassessed and re-evaluated in the following year. An exception is where when we believe there is a possibility that solutions may require longer than ten years of lead time for design and construction (for example, large substations requiring transmission upgrades). All constraints forecast to arise within the next 10 years will be put forward to the DNOA process to be integrated into our ED3 planning or to be monitored for future detailed planning. During the year, we also use SDPs to understand the longer-term picture and may bring elements of the plan forward if driven by customer needs.

Presented alongside the system needs identified are any over-arching dependencies, risks, and mitigations in place related to our long-term strategy.

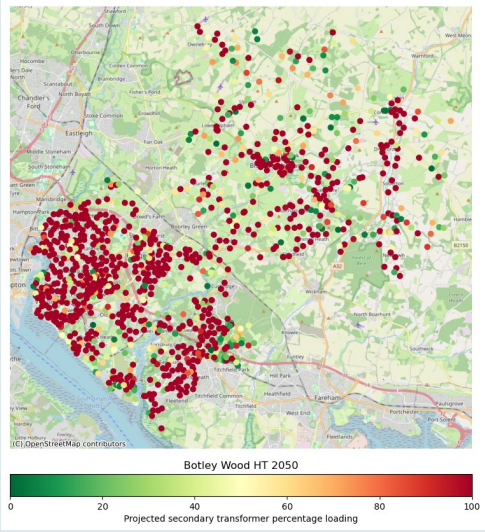
### Primary Substation Spatial Plans

**To understand how we expect demand to grow spatially across primary substations, we leverage the Network Scenario Headroom Report (NSHR) alongside illustrative primary substation electricity supply areas.**
The NSHR quantifies primary substation firm capacity using DFES projections coupled with accepted jobs. The capacity is spatially visualised across the area relevant to the SDP. Darker shades of purple represent a larger capacity shortfall (more negative) whereas lighter shades of blue indicate either headroom or a small capacity shortfall.




### Secondary Substation Spatial Plans

**To understand how we expect demand to grow spatially across secondary substations, we leverage the SSEN load model.**
Secondary transformer rating is compared against projected demand from our load model at each specific secondary substation. These figures then allow us to understand how demand is expected to grow spatially and to identify high-level trends across our HV and LV networks. Often volume drives these demand increases, and this can be seen through clustering of higher loaded secondary transformers around population centres.



# 4.2 Assessment of Industrial & Commercial Insights

Our DFES forecast provides projections for a defined set of technology types, which means that more bespoke demand requirements (such as process decarbonisation) are not routinely captured within the standard DFES building blocks. In addition, there are increasingly 'speculative' demand and generation projects considering network connection but not yet mature enough to submit a formal application. To address this, we have enhanced our insights-gathering process to incorporate forecasts for demand and generation that are more unique, uncertain, or not fully represented in the core DFES framework.

Additional insights gathered through our engagement with local stakeholders as well as supplementary engagement following the RESP Strategic Energy Needs process (as described in Sections 2.3 and 3.3) will undergo an insight assessment to determine how they will be included in our strategic analysis. This includes triage to avoid double counting with the DFES and ensures annual update to our forecasts within RESP cycles. The assessment will conclude with insights either being included in the strategic analysis for the SDP and/or referred to internal teams for consideration in future detailed analysis as well as subsequent updates of the SDP. The insight assessment process is as follows and summarised in the figure below.

Developer maturity will be based on the current operations of the party including whether they have an existing electricity connection. The project certainty assessment criteria will be as follows:

- **Technology involved** – what is looking to connect to the network.
- **Year of need** – whether it is known when the electricity connection will be needed.
- **Capacity requirement** – is there an approximate value for the electricity demand and/or generation load required and what season/time of day will the asset/s require to import or export to the network.
- **Location of need** – is the site of the electricity need known.

The project certainty and developer maturity will assign the need a confidence level as shown in the chart below. This then determines how we apply the insights we've gathered and whether it is appropriate to include them in our baseline projections.

### Case Study: Whisky Distilleries on Islay and Jura

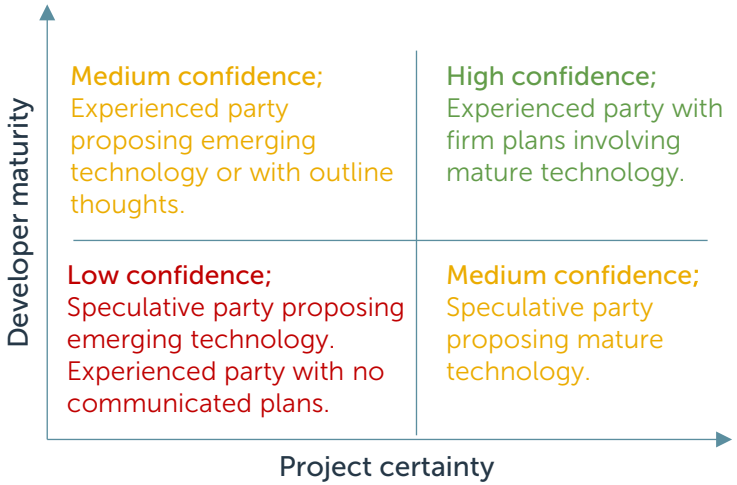
Engagement with Scottish distilleries has provided vital evidence on how the whisky industry on Islay and Jura look to decarbonise. We could form a high confidence demand forecast for the near-term (to 2028) based on existing demands and firm plans, then a medium confidence forecast (to 2033) based on outlined plans then two alternative low confidence long-term pathways out (to 2040+). This allowed us to plan against a central case out to 2050 and perform sensitivity analysis on our options. These insights were included in our Hebrides and Orkney Whole System Uncertainty Mechanism (HOWSUM) submissions to Ofgem and ensured our plan for the islands were appropriate to meet local ambitions.

### Insight Assessment Process

**1. Classification of confidence:** we'll assess the insights to understand whether they have high, medium or low confidence in a demand forecast (see chart).

**2. Application in forecasts:** we'll assess whether the insights should be added to our baseline projections based on the confidence level (see table).

**3. SDP Development and Detailed Network Options:** depending on the confidence level, the insights may be fed into our SDPs and detailed optioneering for the area in the DNOA process.




| Confidence | Forecast demand growth |
|---|---|
| High | Included in baseline projections in SDP and through the DNOA process. |
| Medium | Applied as part of sensitivity analysis in the SDP and reevaluated during DNOA process. |
| Low | May be used in some sensitivity analysis, else, will continue to review the status of the project and confidence level. |

# 4.3 EHV Network Development

The Extra High Voltage (EHV) network, takes electricity from our interfaces with the Transmission network which are known as Grid Supply Points. As SSEN Distribution, we look after the 33kV EHV network in our Scottish licence area, and the 132kV, 66kV and 33kV EHV networks in our Central Southern England licence area.

### Identifying system needs

To identify system needs arising on the network, we model the entire SDP area out to 2050 for the three DFES scenarios and the 'Falling Behind' scenario. We model the network to identify thermal and voltage constraints and the year they arise. The geographic area covered by the parts of the network where constraints are identified is also considered to collate a spatial context as well as the timing of identified needs.

### Transmission Interactions

While our SDPs focus on distribution system needs, there is an intrinsic interaction with the transmission system. Even with intervention at the distribution level, there may be further works required on the transmission network to release capacity. This is why transmission level interactions are an important input into our strategic analysis and considered at this stage alongside identified needs on the distribution network. Alongside this, innovative solutions have been deployed and will continue to be explored further. An example of this is the ramping solution which was initially deployed in West London but has now been rolled out across our central southern England Licence area.

### Options to resolve system needs

The identified system needs are collated with consideration to the current operation of the network, interconnections to other GSPs and interactions with transmission. Options available to resolve system needs are then considered with a focus on providing indicative asset solutions (i.e., options which result in assets being added or replaced on the network) rather than operational solutions at this stage. This is to focus on the long-term vision of what the network topology will consist of, however, operational solutions including using flexibility services are taken into account during the DNOA process to ensure flexibility is used were appropriate. For needs forecasted to arise ahead of 2036, potential options are explored in more detail. For system needs arising in from 2036 to 2050, a longer-term view is provided with options outlined for future development and consideration. In both cases, potential synergies and efficiencies between options are identified where possible.

### Next steps

Identified system needs and their respective potential options are presented in the SDP. System needs arising in the next 10 years due to load growth are subsequently passing into the DNOA process, the non-load needs for the next 10 years are presented in tandem for coordination with DNO colleagues during detailed optioneering . Where potential options are dependent on the transmission network, the outputs of the EHV Network Development section form the basis of our engagement with TOs to collaborate on the development of a strategic energy system.

# 4.4 HV/LV Network Development

The High Voltage (HV) and Low Voltage (LV) network carries electricity across local areas, delivering power down to streets and individual homes. Because these networks contain a large number of assets, visibility is improving but still limited. As more low-carbon technologies (LCTs) connect to the distribution network, we are taking a proactive approach to ensure we are ready to meet the new operational and system requirements emerging on both the HV and LV networks.

To provide a view on the impact of these technologies on the distribution network, we utilise the load model that is produced by our Data and Analytics team. The load model is a machine learning product which estimates a half-hourly annual demand profile for each household based on a series of demographic, geographic and heating type factors. These views are then aggregated up the network hierarchy based on the combinations of customers associated with each asset. This view is supplemented by the DFES to highlight the projected impact of LCTs on the network.

In addition, we're leveraging innovation work through Project LEO (Local Energy Oxfordshire) and My Electric Avenue. Through our network visibility work, we've installed LV network monitoring and enhanced our capabilities to use smart meter data to better inform power flow analysis at EHV, HV and LV. We have access to over 2.5 million smart meters in our SEPD and SHEPD regions, collecting and receiving data at a granular level, allowing us to monitor parts of the network previously unseen. This level of visibility allows us to plan with more certainty, and to manage our assets more effectively on our network.

For our ED3 LV strategy, we are taking a spatial and proactive approach so that our LV network is ready for 2050. Leveraging advancements in digital tools, we're able to develop a proactive programme of high confidence, low regret LV upgrades. Learnings from the LCT Connections Readiness Indicator project, give customers visibility of their property's potential to connect LCTs, enabling accelerated adoption and identification of customer driven work where required. Our proactive and customer-led approaches, balance load and non-load needs while considering local levels of vulnerability to efficiently deliver an LV network which serves our communities. Going forwards we will embed outputs of this work within our published SDPs.

## HV/LV Network

To resolve the projected HV system needs, it is likely that a combination of flexibility and asset upgrades will be employed. It is important to note that for HV needs, flexibility is likely to be provided through Distributed Energy Resources (DER), Consumer Energy Resources (CER), and domestic/commercial Demand Side Response (DSR). One of the challenges associated with procuring flexibility to High Voltage and Low Voltage system needs is that only a small number of customers can provide a flexible service due to the requirement to be supplied by a specific secondary transformer. As the role of aggregators develops, we may see a shift in the potential for flexibility in an area. Where the magnitude of an overload is too large for flexibility to be feasible, addition of new assets or asset replacement will be necessary.

## LV Network

Drivers for interventions in low voltage networks may be either capacity related or be driven by voltage requirements. From a network perspective the solution typically involves upgrading the number of LV feeders to split/balance the load and improve voltage or to install another substation at the remote end of the LV network to balance load and improve voltage. In both instances, flexibility at a local level, especially voltage management products linked to battery export and embedded generation such as solar are likely to be required alongside traditional reinforcement.

Capacity driven needs – Thermal constraints tend to materialise in the sections of cable leading to the substation (transformer) where multiple customer loads join together. We're modelling requirements out to 2050 leveraging low voltage monitoring and metering equipment combined with analytical techniques. This will demonstrate how the magnitude of the system needs on the LV network changes across scenarios and years out to 2050.

Voltage driven needs – Generally, connection of LCTs and large loads such as heat pumps is limited by voltage constraints before thermal constraints when located more than around 150m from the local secondary transformer. Increased loading on our low voltage networks can reduce the voltages to consumer premises. This is a non-liner relationship and as such requires more complex analysis. We're currently undertaking analysis to better understand the extent of this future need.

## Vulnerability

In our SDPs to date, we cross reference HV/LV needs against our Vulnerability Future Energy Scenarios (VFES) to allow for a spatial view of where needs on secondary transformers align to areas of high vulnerability. A new innovation project, VERIFY, will build on the work done as part of VFES and will combine data on networks, homes, demographics, and smart meters to inform network investment that's fit-for-purpose for the communities to be supported.

# 5.1 Communicating our plans

We've released the first edition of our SDPs, along with one-page summaries that provide an overview of each plan. These are available on our website, and the summaries can also be accessed through the data portal.

Our SDPs are updated annually, and from Spring 2026 we'll begin publishing the refreshed versions. The timeline below provides an indicative schedule for the next iteration of each SDP, though this may be subject to change. Further detail on the 2026 SDP Programme timeline can be found in Section 6.4.

| Spring/Summer 2026 | Autumn 2026 | Winter 2026/27 |
|---|---|---|
| **North of Scotland** | **North of Scotland** | **North of Scotland** |
| ❑ Gremista | ❑ Beauly | ❑ Mybster and Dounreay |
| ❑ Taynuilt | ❑ Fort Augustus | ❑ Outer Hebrides and Skye |
| ❑ Port Ann and Carradale | ❑ Inverarnan | ❑ Persley (including Kintore) |
| ❑ Thurso South | ❑ Inverness and Aviemore | ❑ Peterhead |
| | ❑ Keith | ❑ Tealing |
| | | ❑ Errochty |
| **Central Southern England** | **Central Southern England** | **Central Southern England** |
| ❑ Ealing | ❑ Lovedean | ❑ Amersham |
| ❑ Fawley | ❑ Bramley (Amesbury-Thatcham) | ❑ Axminster |
| ❑ Cowley | ❑ Bramley (Basingstoke) | ❑ Botley Wood |
| ❑ Fleet | ❑ Iver 132kV | ❑ Chickerell |
| ❑ North Hyde | ❑ Iver 66kV | ❑ Laleham |
| | ❑ East Claydon | ❑ Mannington |
| | ❑ Willesden | ❑ Melksham |
| | ❑ Nursling | ❑ Minety |

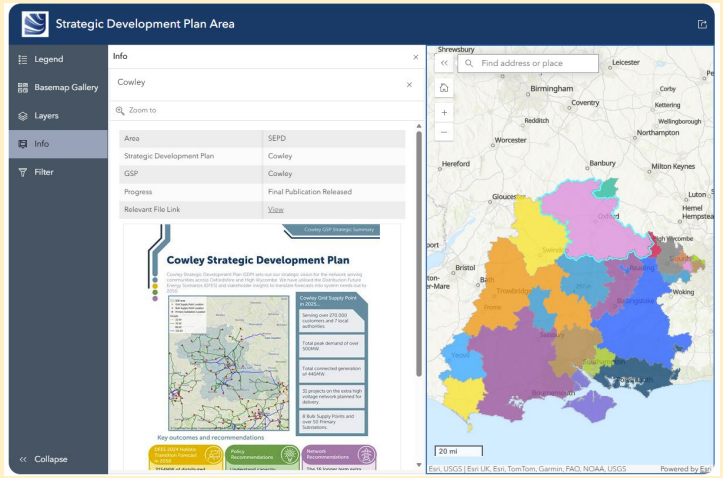
Further information on our system needs in the short and medium term can be found in related published information. This includes:

- Forecasts for our networks five years in advance, see Long Term Development Statement (LTDS);
- Annual network headroom information, see Network Scenario Headroom Report (NSHR);
- Infrastructure and flexibility services plans periodically (Distribution Networks Options Assessment (DNOA) Outcome Reports) with biannual summaries (Network Development Report (NDR)).

## Digitalisation of SDPs

As part of our work to increase digitalisation and availability of our data, for our next iteration of SDPs we'll be providing additional data from the outputs of the constraint analysis conducted. This will include the results of when system needs are expected to arise being made available in a separate tabulated format. We have already added an interactive map to our website (see picture and link below) which allows for greater visibility of the area covered by each SDP alongside information on the GSP(s), a status update on whether the SDP is currently out for consultation, as well as a view of the SDP summary and a link to the full SDP.

We're currently undergoing further development of our SDPs to improve the accessibility of data and to allow greater alignment with the RESP outputs going into ED3.



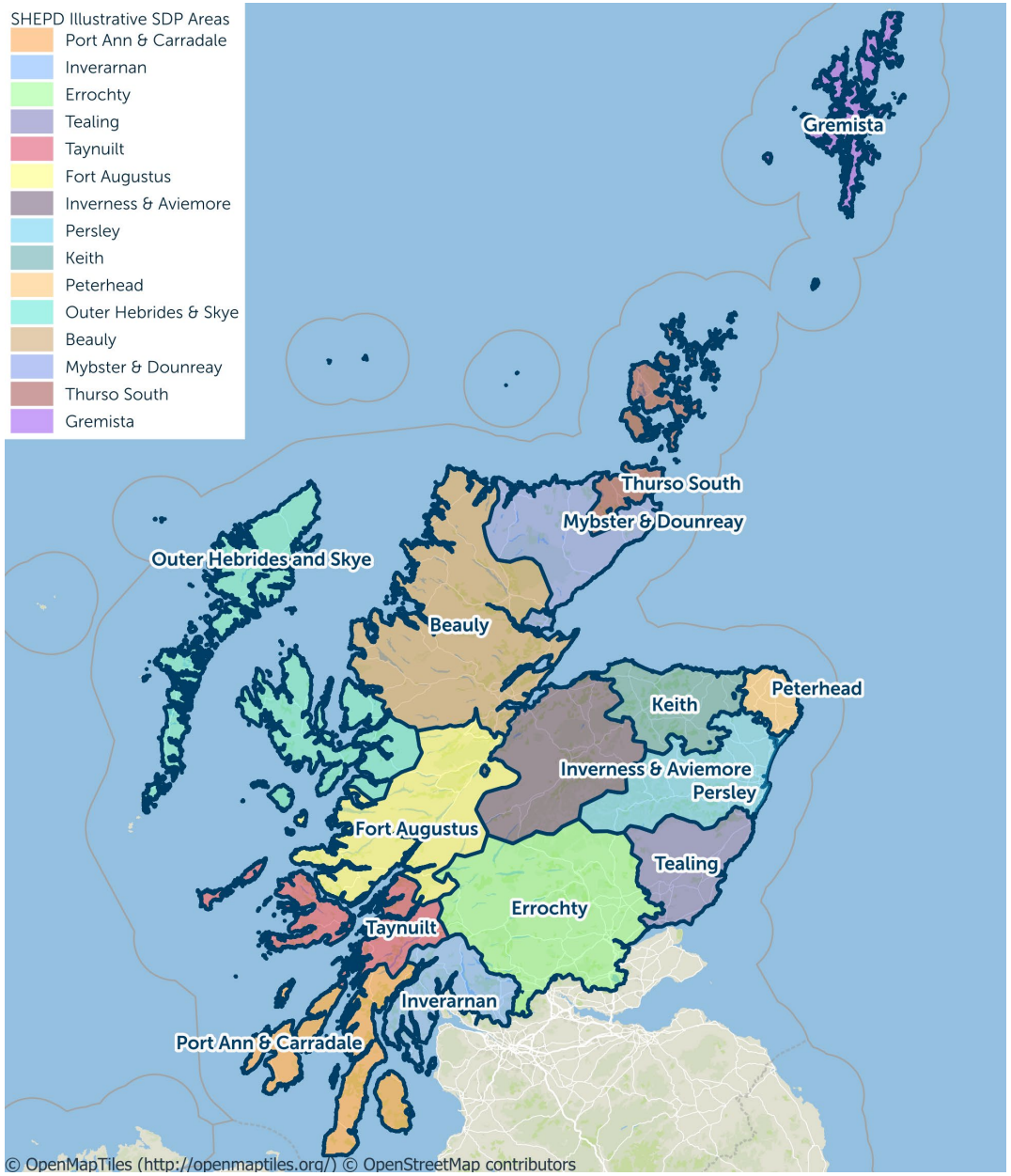

Our interactive map with SDP summary pages for each area is available on our website.

Click here

# 5.2 Aligning boundaries - SHEPD

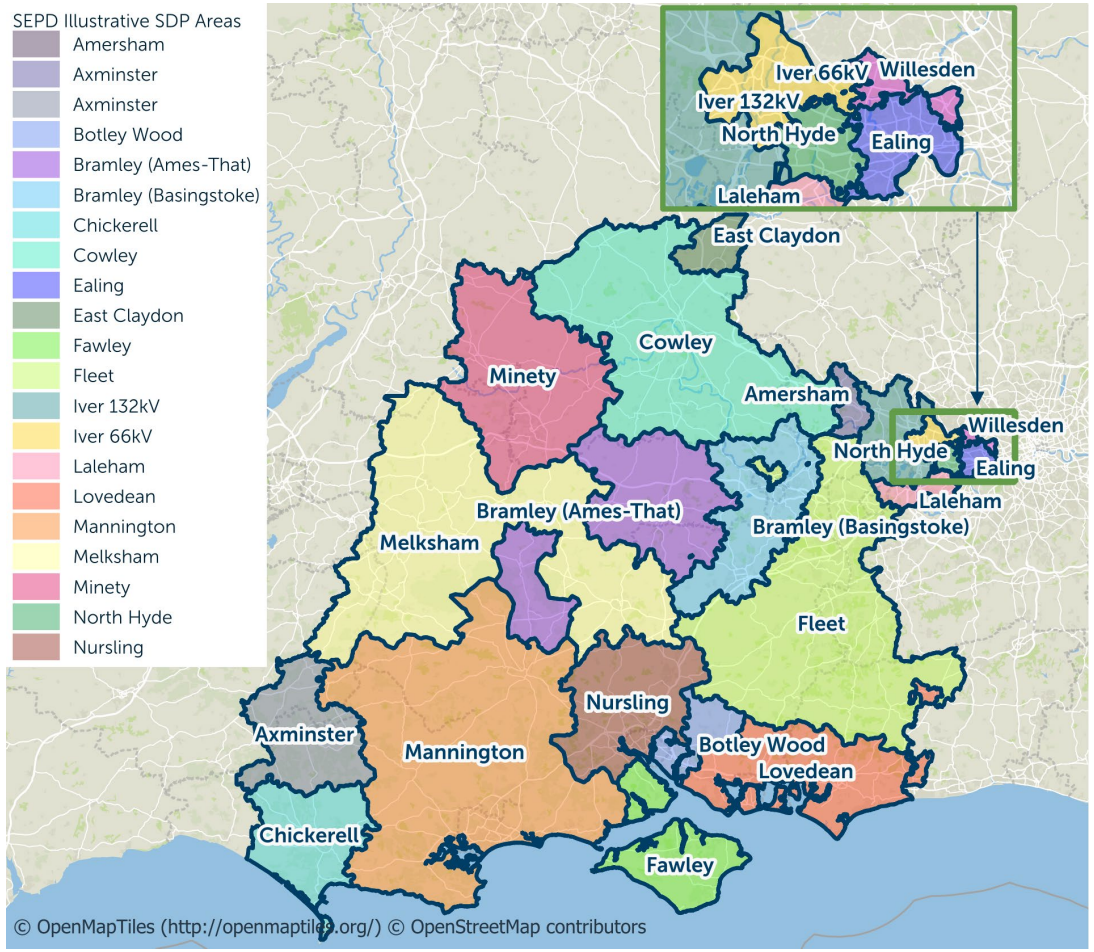
We appreciate the challenge of aligning network areas to local boundaries. Each SHEPD SDP covers an area served by a specific part of the network and each SDP generally covers a group of GSPs fed by the same Transmission 132kV supply point. To make these areas more accessible we've referenced each SDP to the relevant local authorities. All SDPs in SHEPD fall within the Scotland RESP area. Please see the table below for SHEPD SDPs and the relevant local authorities, and the map to the right for an illustrative coverage area of each SDP.

| SDP | Relevant Local Authorities | GSPs |
|---|---|---|
| Beauly | Highland | Alness, Beauly, Cassley, Grudie Bridge, Lairg, Orrin/Fairburn, Shin |
| Errochty | Angus, Clackmannanshire, Perth and Kinross, Stirling | Abernethy, Burghmuir, Coupar Angus, Killin, Rannoch, St Fillans, Tummel Bridge, Braco West |
| Fort Augustus | Highland | Ceannacroc, Fasnakyle, Fort Augustus, Fort William, Kinlochleven, Quoich |
| Gremista | Shetland Islands | Gremista |
| Inverarnan | Argyll and Bute, Stirling, West Dunbartonshire | Clachan Grid, Dumfin, Dunoon, Sloy, Strathleven, Ardkinglas |
| Inverness & Aviemore | Highland, Moray | Boat of Garten, Inverness, Nairn |
| Keith | Aberdeenshire, Moray | Elgin, Keith, MacDuff |
| Mybster & Dounreay | Highland | Dounreay, Brora, Dunbeath Grid, Mybster |
| Outer Hebrides and Skye | Highland, Na h-Eileanan Siar | Ardmore, Broadford, Dunvegan, Harris, Loch Carnan, Stornoway |
| Persley | Aberdeen City, Aberdeenshire | Clayhills, Craigiebuckler, Dyce, Kintore, Persley, Redmoss, Tarland, Willowdale, Woodhill, Rothienorman |
| Peterhead | Aberdeenshire | Fraserburgh, Peterhead, St Fergus Gas, Strichen |
| Port Ann & Carradale | Argyll and Bute, North Ayrshire | Carradale, Port Ann |
| Taynuilt | Argyll and Bute | Taynuilt |
| Tealing | Aberdeenshire, Angus, Dundee City | Arbroath, Bridge of Dun, Charleston, Dudhope, Fiddes, Lunanhead, Lyndhurst, Milton of Craigie, Glenagnes, Fetteresso |
| Thurso South | Highland, Orkney Islands | Thurso South |



# 5.3 Aligning boundaries - SEPD

Each SEPD SDP covers a specific Grid Supply Point (GSP). To make these areas more accessible, we've referenced in the table to the left each SDP to the relevant local authorities and to the relevant RESP area(s).
Please see the map below for an illustrative coverage area of each SDP.




| SDP | Relevant Local Authorities | NESO RESP Region |
|---|---|---|
| Amersham | Buckinghamshire, Windsor and Maidenhead | South East, Central England |
| Axminster | Dorset, Somerset | South West |
| Botley Wood | Eastleigh, Fareham, New Forest, Southampton, Winchester | South East |
| Bramley (Amesbury-Thatcham) | Basingstoke and Deane, Vale of White Horse, West Berkshire | South East, Central England |
| Bramley (Basingstoke) | Basingstoke and Deane, Hart, Wokingham | South East |
| Fleet | Basingstoke and Deane, Bracknell Forest, Chichester, East Hampshire, Guildford, Hart, Horsham, Reading, Runnymede, Rushmoor, South Oxfordshire, Surrey Heath, Waverley, West Berkshire, Winchester, Windsor and Maidenhead, Wokingham | South East, Central England |
| Chickerell | Dorset | South West |
| Cowley | Buckinghamshire, Cherwell, Cotswold, Oxford, South Oxfordshire, Vale of White Horse, West Oxfordshire | Central England |
| Ealing | Ealing, Hounslow | Greater London |
| East Claydon | Cherwell | Central England |
| Fawley | Isle of Wight, New Forest | South East |
| Iver 132kV | Buckinghamshire, Hillingdon, Slough, Spelthorne, Windsor and Maidenhead | Central England, Greater London, South East |
| Iver 66kV | Ealing, Hillingdon | Greater London |
| Laleham | Hounslow, Runnymede, Spelthorne, Windsor and Maidenhead | Greater London, South East |
| Lovedean | Arun, Chichester, East Hampshire, Fareham, Gosport, Havant, Portsmouth, Winchester | South East |
| Mannington | Bournemouth, Christchurch and Poole, Dorset, New Forest, Wiltshire | South West, South East |
| Melksham | Basingstoke and Deane, Somerset, Test Valley, Wiltshire | South West, South East |
| Minety | Cotswold, Swindon, Vale of White Horse, West Oxfordshire, Wiltshire | Central England, South West |
| North Hyde | Ealing, Hillingdon, Hounslow | Greater London |
| Nursling | Eastleigh, New Forest, Southampton, Test Valley, Winchester | South East |
| Willesden | Ealing | Greater London |

# 6.1 Engaging with our stakeholders

## Introduction to our Engagement Strategy

As the Whole System team, working with our stakeholders is an essential part to ensuring that our strategic planning is a part of a coordinated energy transition.

Our engagement strategy outlines why we engage with our stakeholders and what we aim to achieve. This is alongside a summary of the key stakeholders we talk to; however, we welcome input from anyone in our areas who wants to have a say in how the network is shaped in their area.

Through this document, we lay out the purpose of our SDPs and what they aim to achieve. With this, we aim to make it clear what they mean for the wider energy system and the local communities we serve.

In this section, we cover the feedback we've received from stakeholders to date and present our engagement programme for 2026.

| Whole System Engagement Strategy | | | | |
|---|---|---|---|---|
| Our Aims & Objectives | We're working with local authorities, national, regional stakeholders to better understand future electrical requirements (up to 2045/2050 and beyond). These insights help us shape our long-term, strategic plans for the distribution network, making sure community priorities and decarbonisation ambitions are incorporated into our plans.<br><br>We also support local area energy planning efforts through:<br>▪ Engaging directly in these processes, for example, through sitting on local authority working groups dedicated to energy planning.<br>▪ Providing data and tools such as our Local Energy Net Zero Accelerator for use by local authorities and their collaborators. | | | |
| Our stakeholders | ▪ Local authorities within our licence areas<br>▪ Government (UK and Scotland)<br>▪ NESO<br>▪ Transmission Operators<br>▪ National Parks<br>▪ Regional stakeholders | | ▪ Other DNOs<br>▪ GDNs<br>▪ Community energy groups<br>▪ Generation Developers<br>▪ Flexibility Developers<br>▪ Large industrial and commercial customers | |
| Why we're engaging | **Transparency**<br>Opportunity for stakeholders to shape our plans and see how they are evolving over time. | **Build trusted relationships**<br>Build trusted relationships with stakeholders as a fair and reliable Distribution System Operator (DSO). | **Capture local insights**<br>Gather local insights and perspectives to inform network investment decisions. | **Communicate opportunities**<br>Inform our stakeholders on how our distribution network is changing and opportunities arising from the evolving space. |
| Why it matters | **Strategic network investment**<br>Enables strategic network investment ahead of need, reducing connection delays. | **Economic growth**<br>Supports economic growth across regions by enabling new connections, expansion plans and decarbonisation business plans. | **Support local ambitions and plans**<br>Helps deliver decarbonisation ambitions, both locally and nationally, by providing the necessary infrastructure. | **Empowering communities**<br>Empowers communities to play an active role in shaping our future plans. |

# 6.2 2025 Consultations - You said, we did

To date, we've consulted on each of our 37 SDPs, held webinars and bilateral meetings. The feedback from our stakeholders is one of the most valued inputs into this process so that we can shape our plans to meet the needs of the communities we serve.

**How we analyse your feedback** – Feedback we received has been analysed by at least two team members before being acted upon to ensure an objective evaluation of stakeholder views.

**How we action your feedback** – Through analysing the feedback, we categorised feedback as being either related to the SDP methodology and the approach taken for all SDPs, to an individual SDP, or to a different process or area of the business. For feedback relating to our methodology, appended to this methodology document are the feedback themes we've received from stakeholders and the action which has been taken as a result. Below we've summarised three of the key actions taken. A summary of specific feedback on individual SDPs and actions taken is provided as an appendix at the end of the final version of each SDP. Further to this, given that SDPs provide visibility of other aspects of our internal processes, such as the DFES, we've also received feedback from stakeholders that goes beyond the immediate scope of our SDP. In these cases, we've passed on feedback to the relevant internal stakeholders.

| You Said – Summary of key feedback theme | We Did – Action taken as a result | Where to find more information |
|---|---|---|
| The SDPs are lengthy and technical documents and so we would welcome they be made more accessible through:<br>• A high-level overview at the start of the document;<br>• A non-technical overview of the key information;<br>• An explanation on what each section and diagram is showing, and which sections are relevant to different stakeholders;<br>• Key information summarised possibly delivered through a webinar;<br>• A summary of the key findings and impacts. | 1) We have published our SDP summaries which provide a one-page overview of the SDP.<br>2) For our next set of SDPs, we will be refreshing the content to review accessibility, and to add an updated executive summary and conclusion.<br>3) We will provide an accompanying document which summarises the most useful sections of our SDPs for different stakeholder groups. | Our SDP summaries can be found on the interactive map on our website here or on the data portal. |
| More opportunities to input during SDP development and to provide feedback would be welcome, specifically:<br>• Provide a view of when the next set of SDPs are due to be published and consider other external consultations when developing the timeline.<br>• Give early notice of when SDPs are due to be published and longer consultation periods to enable more detailed and coordinated responses.<br>• Engagement sessions on the SDP would be helpful during development and during the consultation period. | 1) We have outlined in our SDP Methodology an indicative timeline for when each SDP should be expected and updates to this timeline will be communicated through our Whole System newsletter.<br>2) As a result of feedback, we've provided an alterative consultation process which looks to gather insights at an earlier stage of the SDP development process. We ask for your feedback on whether the alternative consultation process is preferred to our current process. | Section 5.1 indicates which quarter each SDP should be expected as well as the area covered by each SDP.<br>Section 6.3 provides details of our current and alternative engagement processes.<br>Section 6.4 outlines our overall SDP timeline. |
| Clarify how the SDP process links to NESO's RESP process. | Our SDP Methodology update includes additional guidance on how the SDP process links to the tRESP and RESP processes. | See Section 2.3 for information on how we use the tRESP outputs. |

# 6.3 Our SDP engagement process

Following stakeholder feedback to date, we've reviewed how we're engaging with stakeholders on our SDPs. We would like to hear from our stakeholders on how they wish to be engaged with on our individual SDPs and as such we've included a question regarding this on our consultation survey.

You told us that you needed greater forward notice of when you can engage with SDPs. We also recognise that consultations take time to respond to and as such we do not want to over-burden our stakeholders with multiple formal consultations. We're therefore proposing to modify our process to allow for greater engagement with stakeholders throughout the SDP development process. Below we've presented our current engagement process for SDPs where SDPs are published for consultation and then a final version published, and a potential alternative process where stakeholders feed in at an early stage while the SDP is being developed – we would welcome input on which would best suit you and your organisation.

## Current SDP engagement process

**SDP development**
The SDP will be developed utilising gathered insights through our ongoing engagement and through the DFES and RESP processes.

**SDP published for consultation**
We'll publish SDPs as draft for consultation alongside a consultation survey for stakeholders to respond to. There will also be an opportunity for bilateral discussion as required.

**SDP published as final**
Consultation feedback will be assessed and incorporated into the SDP where suitable. Stakeholders will be notified of how their feedback has been fed into the SDP.

## Alternative SDP engagement process

**Ahead of SDP updates**
We'll communicate to stakeholders a minimum of six weeks before commencing SDP updates to allow them to provide updated insights and information. This will be separate to insights gathered through DFES and RESP processes.

**During SDP development**
We'll contact all respondents to our 'call for updates' to offer informal opportunities to understand how their feedback is being taken into account. This could include bilateral conversations and/or sharing of draft material ahead of publication.

**Following SDP publication**
Stakeholders will be notified of how their feedback has been fed into the SDP. There will be opportunity for further bilateral discussion as required.

# 6.4 Our SDP timeline & consultation

Through 2026, we'll be continuing in the development and updates of our SDPs. On this page, we've provided our overall timeline for our SDP programme for 2026 including indicators of when we'll begin publishing the next iteration of the SDPs and seeking input from our stakeholders.

Our SDP 2026 programme will be utilising the outputs of the tRESPs. Our close collaboration with the RESP teams on the tRESPs will continue as the full RESP develops. The SDP process is annual whereas the full RESPs will be created in a three-year cycle with the first of which expected late 2028. Therefore, we'll continue our annual process of engagement and SDP development so that we're iteratively capturing changes to the local energy landscape or new insights and subsequently fine-tuning our plans.

## Overall timeline


Once our methodology is published, we'll hold a webinar to launch the 2026 SDP programme and discuss further our strategic planning for the year ahead.

Ahead of starting our next iteration of SDPs, we would like to invite developers, and industrial and commercial customers to engage with our strategic planning process. We're particularly interested in understanding how customers energy needs are forecast to grow ahead of a formal connection process.

## Our SDP Methodology Consultation

We would like to invite stakeholders to provide feedback on this methodology document to inform our final methodology for creating the next iteration of the SDPs. Our consultation survey will ask the following questions:

1. What are your thoughts on how we are incorporating tRESP outputs and how we are working with NESO? (See Section 2.3)
2. In your view, is our annual process for gathering and assessing industrial and commercial insights complementary to the NESO RESP three-year cycle? If not, what do we need to do to improve our process going forward?
3. Is there anything you think is missing from the scope of our SDPs?
4. What digital tools, data or platforms would make it easier for you to engage with and use our SDPs?
5. What are your views on our proposed process for engaging and consulting on our strategic development plans including the points in the process we will be engaging, the overall timeline and the methods of engagement?
6. Do you agree with our approach to expand the scope of SDPs to consider wider drivers for investment on the network such as asset age-related issues?
7. Are you supportive of us providing greater insights on LV needs through the SDPs as they become available?
8. Do you have any feedback on how we have consulted with you on the SDP methodology?
9. Is there anything else you'd like to add?

The consultation will be open for 6 weeks closing on **7th April 2026**.

# 6.5 How we engage with stakeholders

## What are we planning to do in the future?

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

At every stage of development, we're taking time and care to consider how any changes to the way we manage the electricity distribution system may impact the most vulnerable in our society. We encourage community stakeholders to engage with us in this process, which has the potential to deliver savings for all customers, including vulnerable customers and communities, while also driving the journey towards net zero.

This is our first annual refresh of our SDP methodology document, and we'll publish the updated plans across an annual cycle with our second iteration of SDPs to be released from April 2026. We'll continue to get stakeholders' input on our methodology as well as the level of detail and the granularity we provide in the SDPs to ensure we're delivering the network needed for the future.

Sign up to our DSO mailing list

Access SDP consultations here and final SDP reports here.

Questions or feedback? Get in touch with us at whole.system.distribution@sse.com.

| Engagement method | Frequency | Overview |
|---|---|---|
| Local authority newsletters | Monthly | Monthly newsletter sent to key stakeholders, featuring updates on LENZA, events and SDPs. |
| Events and webinars | Ad-hoc | Events and webinars focused on key strategic planning processes, such as SDPs, DFES and DNOA outputs, keeping stakeholders informed and engaged. |
| Whole System Inbox | Ad-hoc | Our shared Whole System inbox is monitored daily to provide prompt responses to general stakeholder queries. |
| SDP Consultations | Annually | Each year, we publish and consult on SDPs for various grid supply points across our licence areas. The consultations are open for a minimum of 6 weeks. |
| Regular stakeholder calls | Frequency agreed with stakeholders | Our engagement leads coordinate regular calls tailored to stakeholder needs, ensuring continuous collaboration and alignment. |
| Workshops with Industrial & Commercial Customers | Ad-hoc | We arrange workshops with large industrial and commercial customers to understand their future capacity requirements. |
| LENZA Deep Dive Training and Q&A drop ins | Monthly | Monthly training sessions led by Advanced Infrastructure (LENZA developers), offering deep dives into use cases, Q&A drop-in sessions, and LENZA demonstrations upon request. |

# ENGAGE WITH US

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

whole.system.distribution@sse.com

www.ssen.co.uk/about-ssen/dso/whole-system/

twitter.com/ssencommunity

facebook.com/ssencommunity

linkedin.com/company/ssencommunity

SCAN ME

Sign up for our DSO newsletter



Scottish & Southern Electricity Networks

# 2025 Consultations - You said, we did

| **You Said** – Summary of key feedback theme | **We Did** – Action taken as a result | Where to find more information |
|---|---|---|
| The SDPs are lengthy and technical documents and so we would welcome they be made more accessible through:<br>• A high-level overview at the start of the document;<br>• A non-technical overview of the key information;<br>• An explanation on what each section and diagram is showing, and which sections are relevant to different stakeholders;<br>• Key information summarised possibly delivered through a webinar;<br>• A summary of the key findings and impacts. | 1) We have published our SDP summaries which provide a one-page overview of the SDP.<br>2) For our next set of SDPs, we will be refreshing the content to review accessibility, and to add an updated executive summary and conclusion.<br>3) We will provide an accompanying document which summarises the most useful sections of our SDPs for different stakeholder groups. | Our SDP summaries can be found on the interactive map on our website here or on the data portal. |
| Clarify how data gathered including stakeholder data is used within each SDP and the DFES submission used to enable stakeholders to cross-reference the results with their plans and provide a list of developments and projects considered within each local authority. | The DFES used is referenced in each SDP where details of how data is used can be. We cannot include a list of specific developments considered as part of the SDP as this is commercially sensitive however, please get in touch if you wish to understand more about how the data you submit is used in our strategic planning. | Section 3.2 and 3.3 details how we gather insights for our SDP and Section 4 explains how we use these insights for our analysis. More information on how your insights are used to produce the DFES is available in our DFES reports: DFES |
| Clarify how the SDP process links to NESO's RESP process. | Our SDP Methodology update includes additional guidance on how the SDP process links to the tRESP and RESP processes. | See Section 2.3 for information on how we use the tRESP outputs. |
| More opportunities to input during SDP development and to provide feedback would be welcome, specifically:<br>• Provide a view of when the next set of SDPs are due to be published and consider other external consultations when developing the timeline.<br>• Give early notice of when SDPs are due to be published and longer consultation periods to enable more detailed and coordinated responses.<br>• Engagement sessions on the SDP would be helpful during development and during the consultation period. | 1) We have outlined in our SDP Methodology an indicative timeline for when each SDP should be expected and updates to this timeline will be communicated through our Whole System newsletter.<br>2) As a result of feedback, we've provided an alterative consultation process which looks to gather insights at an earlier stage of the SDP development process. We ask for your feedback on whether the alternative consultation process is preferred to our current process. | Section 5.1 indicates which quarter each SDP should be expected as well as the area covered by each SDP.<br>Section 6.3 provides details of our current and alternative engagement processes.<br>Section 6.4 outlines our overall SDP timeline. |
| The report assumes a high level of understanding of the energy system which can make it difficult to be certain of the implications of the results. | We have updated our glossary, and we are in the process of producing a network appreciation guide to help stakeholders better understand implications of outputs. | The guide will be shared on our website and through our Whole System newsletter. |
| Provide greater clarity on roles and responsibilities of different organisations such as Distribution Network Operators and Transmission Operators. | To provide a more detailed context and overview of the strategic energy planning space, within this methodology document we have written a high-level summary of the key players and their respective responsibilities. | See Section 1.3 |

# 2025 Consultations - You said, we did

| **You Said** – Summary of key feedback theme | **We Did** – Action taken as a result | Where to find more information |
|---|---|---|
| Where can stakeholders engage at each stage of the strategic development process and with project delivery once the project goes through the DNOA process and is underway. | In our methodology, we've outlined the SDP process (Section 6.4) and how we are looking to engage at different stages of our SDP programme (Section 6.3) as well as providing more detail on the different ways we engage with stakeholders (Section 6.5). Section 2.1 details our overall planning process and the outputs produced at each stage. We will continue to work closely with our colleagues in Large Capital Delivery who deliver network upgrades so that stakeholders understand the work happening now as well as future plans. If you would like to find out more about a particular stage, please get in touch. | • Section 2.1 for information on each stage of our planning process.<br>• Section 6.3 provides details of our current and alternative engagement processes.<br>• Section 6.4 outlines our overall SDP timeline.<br>• Section 6.5 for information on how we engage with stakeholders in the Whole System team. |
| Continue to include vulnerability and the just transition in our plans and provide further information on how this is being used to inform network investment. | The work conducted as part of producing the Vulnerability Future Energy Scenarios (VFES) is currently being built upon through project VERIFY (Vulnerability Evaluation for Resilience Investment and Flexibility). As this work progresses, we will incorporate insights into our SDP process. Vulnerability and just transition considerations are incorporated into our ED3 planning including in our LV Strategy (referred to in Section 4.4) – as our ED3 plans progress, more information on this will be made available. | See Section 4.4 |
| Further digitalisation of outputs of the SDP, including:<br>• Expand the availability and accessibility of data such as adding GIS layers;<br>• Additional spatial visualisation of DFES data;<br>• Clearer maps & diagrams;<br>• Integrate data into LENZA;<br>• Additional interactivity. | We are currently reviewing the data we have available on the data portal and on our website relating to our SDPs and looking to make the outputs of our SDPs available in more formats. Alignment with the tRESP and future RESP outputs are also being considered here to allow for cross-referencing between plans. A further update will be provided in the final publication of the SDP methodology. | See Section 5.1 |
| Understand how the SDPs have fed into development of the grid and the impact on future grid capacity. | Our first set of SDPs have fed into our ED3 planning with needs arising in the next 10 years passing into detailed development which has been outlined in Sections 2.1 and 4.1. In the next iteration of the SDPs, we will provide an update on how the previous SDPs have been used to further progress network development. | • See Section 2.1 for information on how our SDPs fit into the wider process.<br>• See Section 4.1 for information on how our SDP analysis is used for more detailed planning. |
| Add further explanation to the section on flexibility in the SDP, particularly around the implications of the graph particularly if there has been no flexibility procured. It would be helpful to have more information on flexibility service opportunities available. | We are refreshing our section on flexibility services for our next iterations of SDPs including to add areas where DNOA outcomes have recommended that flexibility be used to address network constraints. | See Section 3.4 for more details. |

# 2025 Consultations - You said, we did

| **You Said** – Summary of key feedback theme | **We Did** – Action taken as a result | Where to find more information |
|---|---|---|
| Improve the accessibility of Section 8: Specific System Needs and Options to Resolve in the SDP through:<br>• Explaining the implications of the results for a non-technical audience.<br>• Adding a location reference to understand the geographical areas relating to the results. | Section 8 of each SDP provides our internal teams with a view of network constraints to inform detailed optioneering and to ensure outcomes from the DNOA process are aligned to a 2050 vision. As a result, this section is orientated to provide the technical detail required for those teams. We recognise though that there is more we can do to make insights from the technical analysis more accessible and to provide a view of what resolving these constraints will mean for local communities.<br>We will therefore:<br>• Provide a non-technical summary of the results of the network.<br>• Review how results are referenced in the system need tables.<br>• Provide maps of primary substation areas and bulk supply point areas to allow cross-reference between the system needs and the area covered by that part of the network. | See Section 4 for more information about our strategic analysis. |
| In Section 5: Future Electricity Load, it would be useful to see a spatial representation of the data be provided and to understand how these figures have been derived to be able to compare the figures with local plans and to better understand the distribution of demand and generation growth across the SDP area.<br>It would also be good to understand the benefits associated with network development - for example, the number of EVs or heat pumps enabled. | On our Data Portal, we provide more granular breakdowns of the DFES data where users can view data by local authority area, primary substation area, or SDP area.<br>To supplement this, we will provide further maps of primary substation areas and bulk supply point areas alongside this data so that the DFES growth can be viewed alongside a view of the geographic area. This will also allow stakeholders to see what technologies are being enabled through network upgrades in that area. | See Section 3.3 for how we use the DFES and Section 4 for how we use it in our strategic analysis. |
| Do you provide additional information on capacity released and on capacity constraints? | Our Network Scenario Headroom Report is where we provide current and forecast capacity data. Capacity released is not included in the future system needs section as the proposed options are yet to go through detailed analysis in the DNOA process and as such, it would not be appropriate to speculate. However, our system analysis conducted as part of creating each SDP is based on our current best view of how capacity is going to grow and so the dates of system needs are in line which when we think additional work will need to be done to release capacity. | See Section 2.1 |
| What are the impacts of connections reform and how are they being taken into account in SDPs? | We have added a section to our methodology to explain how Connections Reform impacts our SDPs and our next iteration of the SDPs will reference further updates on this. | See Section 3.3 |

# 2025 Consultations - You said, we did

| **You Said** – Summary of key feedback theme | **We Did** – Action taken as a result | Where to find more information |
|---|---|---|
| Through updates to the National Planning Policy Framework made in December 2024, there have been new housing targets for multiple local authorities in our licence areas which should be accounted for. | Impacts of this policy update have been accounted for in our DFES 2025 updates, and therefore these will be reflected in our next iteration of the SDPs. | - |
| How are constraints on the HV and LV networks going to be addressed? | The SDP currently provides a high-level overview of HV and LV constraints to analyse trends and correlations. Due to the volume of assets on these parts of the network, we do not go into detail in our SDP publications. However, work is underway on our strategies to upgrade our HV and LV networks in ED3 and further insights from this work will be made available in the SDP when available. | See Section 4.4 |
| There are opportunities to gain further insights from community groups. | We welcome insights from a wide range of stakeholders and have provided further information on our engagement timeline so that it is clearer how organisations can engage at each stage of the SDP programme. We have broadened our support for community energy groups which we have included detail of in this methodology. | • See Section 3.2 for more information on how we are working with community energy groups.<br>• Section 6.3 provides details of our current and alternative engagement processes.<br>• Section 6.4 outlines our overall SDP timeline. |
| How are the impacts of local authority reorganisation accounted for? | Through our engagement with local authorities, we are maintaining close working relationships with local authorities to understand the potential impacts of reorganisation as changes are progressed. | See Sections 3.2 and 6 for more information on how we engage with local authorities. |
| Provide additional information on the impacts of district heating/heat networks. | District heating has been added as a DFES building block for 2025 and as such, more insights on district heating in your areas will be available in our next iteration of SDPs. | See our DFES 2025 Technology Change Logs for more details: DFES |

# Glossary

| Term | Definition |
|---|---|
| BSP | Bulk Supply Point - A type of electricity substation in our SEPD licence area that receives power from a Grid Supply Point (GSP) and distributes it to multiple primary substations. BSPs typically step voltage down from 132kV to 33kV. |
| Connections Reform | A GB-wide programme led by the National Energy System Operator (NESO) to overhaul the electricity connections process. Its aim is to reduce queue backlogs, ensure that projects progress based on readiness rather than position in the queue, and accelerate delivery of new generation and network infrastructure needed to meet the Clean Power 2030 target. |
| Constraint | A limitation on the network where capacity or operational conditions restrict power flows and hence require intervention on the network to allow additional connections to the network or to allow further import/export to the network. Network constraints can be caused due to generation or demand. |
| CP2030 | Clean Power 2030 - A plan created by the UK government setting out the pathway to a predominantly low-carbon electricity system by 2030, used to inform demand, generation, and network planning assumptions as well as Connections Reform. |
| Decarbonisation | The process of reducing or eliminating carbon emissions associated with a system, process, or product, typically through improved efficiency, low-carbon technologies, and cleaner energy sources. |
| Demand | The amount of electrical power required by customers or by the wider system at a given moment or over a specified period. It reflects how much electricity is being drawn from the network to meet consumption needs. |
| DER | Distributed Energy Resources - Generation, storage, or controllable demand connected to the distribution network. |
| DESNZ | UK Government Department for Energy Security and Net Zero |
| DFES | Distribution Future Energy Scenarios - A set of scenarios describing how energy demand, generation and storage may evolve on distribution networks up to 2050 to achieve net zero. |
| DNO | Distribution Network Operator – A DNO is responsible for building, operating, and maintaining the electricity distribution network in their licence area. |
| DNOA | Distribution Network Options Assessment - A process used to assess the most efficient options to meet forecast network requirements. |

| Term | Definition |
|---|---|
| DSO | Distribution System Operator – DSOs provide services for distribution networks which includes responsibilities in planning and delivering a smarter electricity system. |
| ED2/ED3 | Electricity Distribution Price Control 2 / 3 - Ofgem's regulatory price control periods governing allowed investment and revenues for distribution networks. ED2 runs until the end of 2027/28 and ED3 will run from 2028/29-2032/33. |
| EHV, HV & LV | Extra High / High / Low Voltage |
| ENA | Energy Networks Association - The industry body representing energy networks in the UK and Ireland. |
| Energy transition | The shift from a fossil-fuel-based energy system to a more electrified, low-carbon, and decentralised system. |
| EV | Electric Vehicle |
| FCO (N-1) & SCO (N-2) | First circuit outage/N-1 and second circuit outage/N-2 refer to the network state. FCO/N-1 refers to a scenario where an outage is taken on the network, or a fault occurs. SCO/N-2 refers to a scenario where an outage is taken on the network and a fault occurs. |
| FES | Future Energy Scenarios - NESO publications that model and describe a set of credible pathways for how Great Britain's energy system (demand, generation and infrastructure) could evolve to achieve net-zero by 2050. |
| Flexibility | The ability to adjust electricity generation or demand in response to system needs, often delivered through flexibility markets where providers are paid to help manage network constraints. |
| GSP | Grid Supply Point – A connection point between the transmission and distribution networks. |
| LAEP | Local Area Energy Plan -. A data-driven, whole energy system, and 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 – e.g. electric vehicles and heat pumps. |

# Glossary

| Term | Definition |
|---|---|
| LENZA | Local Energy Net Zero Accelerator – A geospatial planning tool that helps local authorities in their strategic energy planning endeavours, including the creation of Local Area Energy Plans (LAEPs) and, where relevant, Local Heat and Energy Efficiency Strategies (LHEES). |
| LHEES | Local Heat and Energy Efficiency Strategies - Statutory strategies developed by Scottish local authorities that set out how heat will be decarbonised and energy efficiency improved across homes, businesses, and public buildings. LHEES provide a long-term, area-based plan for reducing emissions, improving building performance, and supporting a fair transition to low-carbon heat. |
| LTDS | Long Term Development Statement - provides information for customers looking to connect to the EHV distributed system and the HV busbar of primary substations. |
| MW & MVA | Megawatt & Megavolt-Ampere - Units used to measure real power and apparent power. |
| NDP, NDR & NSHR | The Network Development Plan is a set of three documents which present our best view and three alterative scenarios of network capacity alongside flexibility service needs and a summary of network upgrades. The Network Development Report (NDR) provides information on key projects set for delivery in terms of new infrastructure to be installed and upcoming flexible services. The Network Scenario Headroom Report (NSHR) provides information on network capacity. The NDP Methodology & Assumptions document is to ensure that the reports, forecasts, and calculations that make up the NDP are clear to the reader. |
| NESO | National Energy System Operator - The organisation responsible for coordinating and planning GB's whole energy system. |
| NGET | National Grid Electricity Transmission - The transmission owner operating the higher-voltage electricity network in England and Wales. |
| Ofgem | Office of Gas and Electricity Markets – The energy regulator for Great Britain. |
| PSS | Primary Substation - A substation where voltage is transformed from higher to lower distribution levels – typically from 33kV to 11kV. |
| RESP | Regional Energy Strategic Plan - A whole-energy strategic plan that sets out the long-term development needs of local energy systems, covering electricity distribution, gas networks, and wider energy infrastructure. RESP aims to coordinate investment, decarbonisation, and system planning at a regional level. |

| Term | Definition |
|---|---|
| SEPD | Southern Electric Power Distribution - The SSEN distribution licence area covering central southern England. |
| SHEPD | Scottish Hydro Electric Power Distribution - The SSEN distribution licence area covering the north of Scotland. |
| SSEN | Scottish and Southern Electricity Networks |
| SSEN-T | Scottish and Southern Electricity Networks – Transmission - The transmission owner operating the higher-voltage electricity network in the north of Scotland. |
| TO | Transmission Owner – An organisation licensed to own and maintain the electricity transmission network within a defined geographic area. TOs are responsible for the long-term development, operation, and upkeep of transmission assets such as overhead lines, underground cables, and substations. |
| TIA | Transmission Impact Assessment - An assessment of how a proposed distribution-connected scheme may affect the transmission network. A TIA is required for connections above certain capacity thresholds to ensure that any impacts on transmission assets, system stability, or wider network operation are understood and can be managed. |
| tRESP | Transitional Regional Energy Strategic Plan – An interim version of a Regional Energy Strategic Plan, developed to guide near-term decision-making while the full RESP framework is being established. tRESPs provide early whole-energy insights to support electricity planning during the transition period. |
| VERIFY | Vulnerability Evaluation for Resilience Investment and Flexibility - A Strategic Innovation Fund project that combines network, property, demographic and smart meter data to tailor electricity network investment to local consumer needs and support a just energy transition. |
| VFES | Vulnerability Future Energy Scenarios – A programme of work which explored how future energy system pathways could impact customers in vulnerable circumstances. VFES helped identify the actions, planning approaches, and system changes needed to ensure the transition to net zero is fair, inclusive, and accessible for all. |