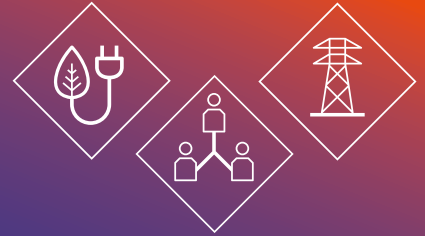


Switched On

Local Authority Newsletter



Network Development

In our last newsletter we discussed Distribution Future Energy Scenarios and how we forecast future growth in electricity demand and generation. It's the first stage of our strategic investment process to ensure that the distribution network in your area meets local need and net zero targets.

Strategic Investment Process



Forecasting



The **Distribution Future Energy Scenarios (DFES)** identify how customers will use our network in future

Network Impact Assessment



The **Network Development Plan (NDP)** uses forecasts to analyse and identify future network constraints

Optioneering



The **Distribution Network Options Assessment (DNOA)** outlines how we plan to invest in our network to solve constraints



This newsletter highlights the second stage, Network Development Plans. In this stage, we apply our most credible distribution future energy scenario (DFES), called Best View, to our network models.

What is a Network Development Plan

Based on credible future energy scenarios, our Network Development Plans assess whether the primary distribution network can continue to deliver for our customers for the next 10 years. We are required to publish them every two years under the Electricity Distribution Licence (25B). The latest plans were published on 1st May 2024 and are available on our website.

How do we work out what is needed?

The DSO engineers use a digital model of the primary distribution network (11kV and above), also known as a digital twin. We then use our Best View DFES projections to determine how much electricity is likely to be required or generated at various times of year. A really sunny day in the summer will likely result in a lot of generation, whereas a cold winter day at 5pm will require a lot of electricity to power homes.

Combining these two input datasets together allows us to simulate how people will be using our network in different years in the future and under various decarbonisation scenarios. We then see what pinch points are created and when, and we call these constraints.

What do we mean by finding constraints?

When designing a distribution system, we have to comply with a number of standards and practices, designed to ensure we keep the lights on and people safe from harm. We use a power system software to identify constraints such as:

- Difficulties ensuring security of supply and ensuring our customers have a resilient supply of electricity. Put simply, keeping the lights on and our essential services running such as hospitals and schools.
- Voltages operating outside of the required range which would be dangerous.
- Making sure our assets continue to operate within their technical design specifications, ensuring they don't fail when we need them most.

Why is this information useful to a Local Authority?

The Network Development Plans give you an informative overview of what work needs to be done on your local electricity network to ensure it continues to work as we all move towards a decarbonised future. It gives you the assurance that we have listened to your plans (as outlined in our DFES survey every year), incorporated them, and have used them to plan the future network.

Finding your Local Network Development Plan

Find out what Network Development Plans are in your local authority on page 33 of the **Network Development Plan Introduction & Methodology Report**. You can download individual Network Development Plans **here**, including summaries by licence area.

We have already spoken with over 50 Local Authorities about their Network Development Plans and how we are strategically planning the electricity network in their area. You can find out more about this **here**. If you would like us to present this to your Local Authority contact your Strategic Engagement Officer or nged.energyplanning@nged.co.uk



Electricity Futures NOW! Our recent stakeholder webinars

Thanks to those of you that were able to attend one or both of our stakeholder workshops in October.

In total we engaged with over 170 of our stakeholders with a keen focus on our performance to date and the exciting developments we are investing in to improve our services to you.

At our dedicated event for local authorities on 2nd October we were pleased to be able to demonstrate how we had been putting stakeholder feedback into action following our first annual stakeholder survey.

The session also featured a spotlight presentation on the various data sets we have available on our website and how it can help local authorities with their decarbonisation plans. We also published our **Local Authority Guide to Flexibility Services** that was requested by some of our LA stakeholders.

The session also featured a useful case study presentation from Huw Lewis who works for Welsh Government as lead on the Local Area Energy Planning Regional Programme, and breakout discussions on topics such as our performance, the introduction of RESP and what more we can be doing to help you with your plans.

Our event on 24th Oct was geared to all DSO stakeholders and covered a more detailed presentation on our performance by our new DSO Managing Director, Cathy McClay and updates on how we are delivering value to stakeholders, as well as our governance processes, flexibility market development and an informative Q&A session with our expert panel.

You can view more information, including the slides and feedback reports **here**.



Spotlight on South Gloucestershire

Since Autumn 2023, our Strategic Engagement Team has been supporting South Gloucestershire Council's decarbonisation plans. During this time, we have met regularly with them to assist them with understanding their local electricity network and, more recently, we have worked together on the Mission Net Zero innovation project. This project will create a climate investment plan for the West of England Authorities, similar to a Local Area Energy Plan, but including an investment pipeline.



Lucy Rees, Senior Climate and Nature Emergency Officer at South Gloucestershire Council, and **Barry Wyatt**, Climate Emergency Manager at South Gloucestershire Council, tell us more about South Gloucestershire Council's decarbonisation plans.

South Gloucestershire Council - Responding to the Climate and Nature Emergency

In July 2019 South Gloucestershire Council declared a Climate Emergency pledging to provide leadership to enable South Gloucestershire as an area to become carbon neutral. Along with many other local authorities up and down the country we rightly set ourselves this herculean task to respond to the challenge of our generation, showing leadership by making this declaration and expressing a commitment to work with our partners, residents and businesses towards this goal.

But what steps within the powers and opportunities afforded to us as a unitary authority could we take to begin to enable the necessary changes?

Planning policy

To begin to approach this task, working with our neighbouring authorities, we carried out a Renewable Energy Resource Assessment Study (RERAS) and this looked at the opportunities for renewable energy across the area, **creating this report**.

We are fortunate to have neighbouring authorities who are leaders in this space, and we have a history of collaboration, producing joint studies across the West of England looking at the carbon cost of net zero energy in residential and non-residential development including **"The cost of Carbon Reduction in New Buildings"** report.

We are also fortunate to have a strong renewable energy policy for housing through our existing local plan, the (PSP6 2017) which requires 20% renewables on major developments as a percentage of both regulated and unregulated energy.

These studies have enabled us to provide the necessary evidence for the development of our new Local Plan where we are moving towards the Regulation 19 stage.

Our emerging policies include safeguarding sites for wind, heat network development, and net zero housing and a policy on overheating. Alongside this our colleagues in property have developed a number of Passivhaus schools including what we think is likely the largest Passivhaus school in the country, currently under construction.

We are also working with local developers to look at opportunities for heat networks that can tie into the planned development of a Strategic Heat Network across the wider region.

Existing homes

As we know for most authorities who have declared a climate emergency, existing homes make up the bulk of the buildings we need to decarbonise. We run several programmes to support energy efficiency home retrofit and renewable energy uptake of our **'Warm and Well'** service, as well as participating in the regional Retrofit West Scheme that supports the whole retrofit journey and in a regional group buying scheme for solar. We also loan thermal imaging cameras to householders through our library service. We are incredibly lucky to have a thriving community renewable energy sector with some highly motivated individuals and community groups who are supporting our engagement with residents.

Innovation

We are currently exploring the use of former mine workings and the potential to provide not only heat but also coolth (the official term for providing cooling!) to areas of South Gloucestershire where mine locations match areas of housing unsuitable for conventional retrofit. We are working with neighbouring authorities and the West of England Combined Authority who have provided funding for the next stages of exploration.

We have also invested in a local renewable energy generation and battery storage scheme at the WAVE inland surfing destination which generates income for the Council. (See photo) The support of NGED has been central to our understanding of the local picture on the network, where the pinch points are and what actions we can take as an authority to drive change, this has included helping us to shape our renewable energy policy. In addition, partnership working across the region is a huge part of the journey to scale up action, we are working with Bristol City Council, leaders on the Mission Net Zero project and others across the region on a regional energy strategy to help bring private investment into the region.



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You said, we did

Feedback is really important to us. It helps us make better decisions, improve the way we work with you and share the right information with you. During our engagement events and through the DSO stakeholder survey, we actively gathered your feedback and have identified key themes. We will share a different theme with you each newsletter and tell you what we are doing.

Data

Even though stakeholders have generally been pleased with the data we have made available on our website, we have been asked to make it clearer where and how to access it. Here are three things we're doing in this space:

- **A new section of our website** has been created and is dedicated to local area energy planning. The pages explain the different data we have available and include an explanation of how to use our DFES interactive map.
- We explained some key data sets that support Local Area Energy planning at our Local Authority workshop on 2 October. If you missed this event you can watch a recording [here](#).
- We are currently creating our new DSO website that will contain clear links to our data and videos explaining how to use different data maps and sources.

Get in touch

Strategic Engagement Team

We have established a dedicated team of Strategic Engagement Officers focussed on supporting your local area energy planning and decarbonisation plans.

They can help you find the information you need about your electricity network needs now and in the future.



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