



STRATEGIC ENERGY PLANNING FOR LOCAL DECISION MAKERS

Southampton Seminar



**Scottish & Southern
Electricity Networks**

DSO Powering Change



AGENDA

DSO Journey
SSEN
Breakout Session 1

Break – 11:15

Policy
NESO and SSEN
Breakout Session 2

Lunch – 12:30

Strategic Planning Delivery
ESC
Breakout Session 3

Break – 14:30

Strategic Plan Creation
Dorset Council and Winchester Council
Breakout Session 4





WELCOME

Sarah Kerr



Scottish & Southern
Electricity Networks

DSO Powering Change



HOUSEKEEPING

- There are no fire drills planned. Should the alarm sound please evacuate the building and proceed to the assembly point in the car park.
- If you have a car in the car park, please remember to register it at reception.
- You will need your phone to take part in Slido, but please keep it on silent during the event. Slido will be open for comments throughout the day so please add any thoughts or suggestions as we progress.
- Please share with us your requests for future engagement events through Slido





AIMS

1. Cross collaboration and knowledge sharing
2. Update on the strategic planning work we are doing and what this means for you
3. Gather your feedback so we can continually improve





WHO WE ARE

We are **Scottish and Southern Electricity Networks Distribution**.

Our electricity distribution network delivers power to over 3.9 million homes and businesses across the diverse and unique geographies of the north of Scotland and central southern England.

OUR NETWORK AT A GLANCE

Over 3.9 million homes and businesses

More than 1,003,300 customers on our Priority Services Register

Over 128,000km of overhead lines and underground cables

460km subsea cables powering island communities

Over 4,400 employees across the country

Figures as of October 2024

NORTHERN SCOTLAND (SHEPD)



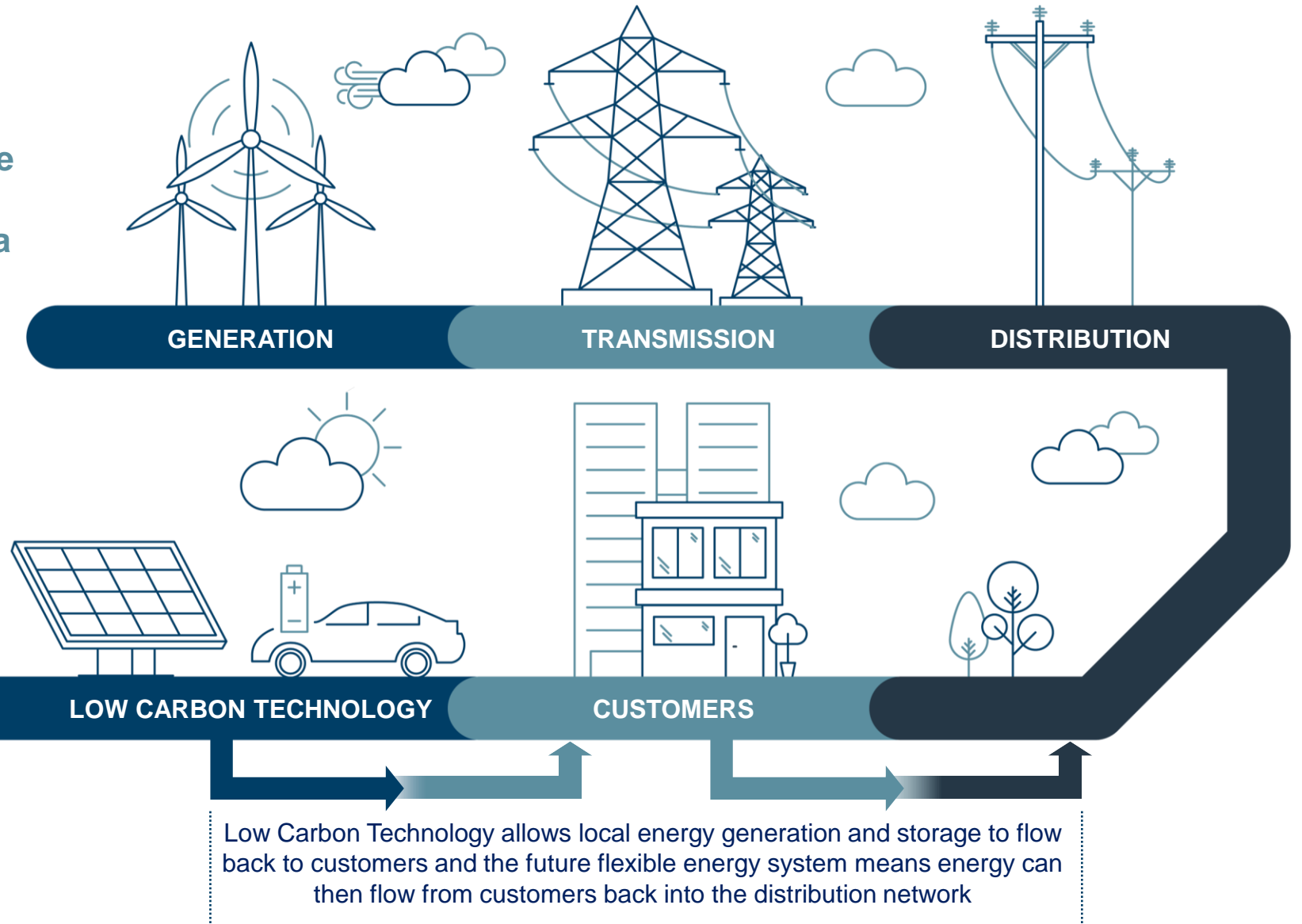
CENTRAL SOUTHERN ENGLAND (SEPD)



OUR ROLE IN THE ENERGY SYSTEM

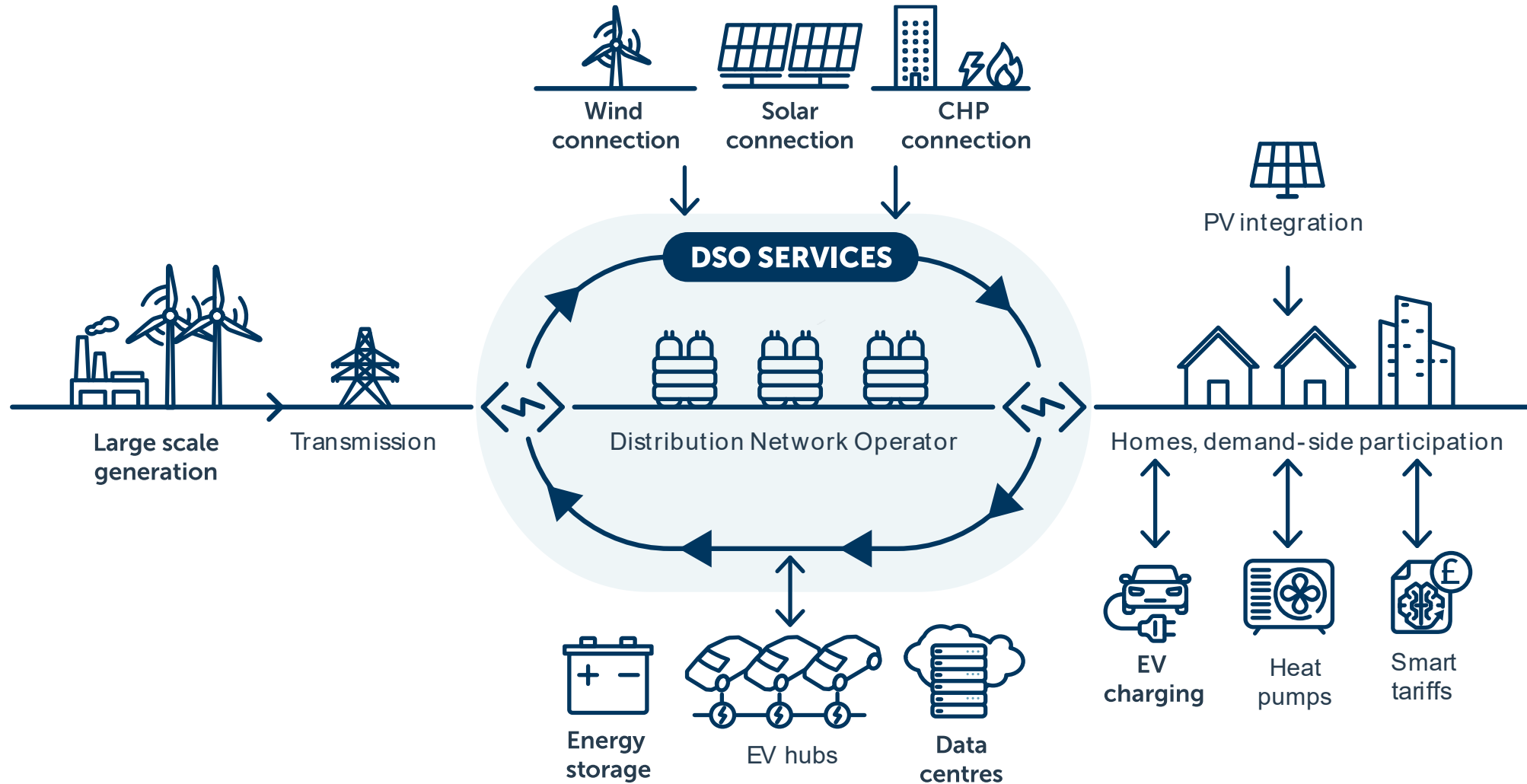
As a Distribution Network Operator, our role in the energy system is to carry electricity from the high voltage transmission grid to industrial, commercial and domestic users via a network of cables and poles.

We provide this service for every home and business in the north of Scotland and central southern England regardless of who you pay your energy bills to.





WHAT IS A DISTRIBUTION SYSTEMS OPERATOR (DSO)?





WHOLE SYSTEM TEAM

SSEN's Whole System team focuses on the long-term strategic development of the distribution network.

On our team, we have:



Net Zero Engagement Specialists building relationships with key stakeholders across our network areas to understand local planning, development, and decarbonisation pathways



Strategic Development Engineers planning for the long-term capacity needs of the network with an eye to net zero



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On a scale of 1 to 5 (1 is strongly disagree, 5 is strongly agree, how would you rate the following statement?

"I am very familiar with SSEN's strategic network planning process"

① Start presenting to display the poll results on this slide.

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On a scale of 1 to 5 (1 is strongly disagree, 5 is strongly agree, how would you rate the following statement?

"SSEN's DSO is a trusted partner in our efforts to achieve net-zero"

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On a scale of 1 to 5 (1 is low, 5 is high), how well do you understand the role of DFES in guiding investment in the electricity network and the significance of your engagement in the DFES process?

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DSO JOURNEY



THE WHOLE SYSTEM JOURNEY

Michael Baker
Pedro Aspiazu



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THE SSEN STRATEGIC PLANNING PROCESS

Making decisions today in light of long-term and whole system needs.

Forecasting needs



Create strategic plan



Develop detailed options



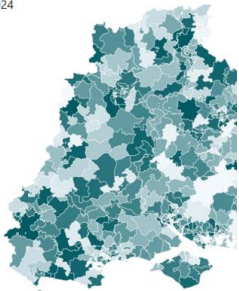
Deliver projects



SSEN DISTRIBUTION FUTURE ENERGY SCENARIOS 202

Results and methodology report for the Southern England

March 2024



SSEN Distribution STRATEGIC DEVELOPMENT PLANS METHODOLOGY

Draft for consultation September 2024



JUST TRANSITION, VULNERABILITY AND FUTURE ENERGY SCENARIOS

Planning for a fairer net zero future
September 2024



COWLEY GRID SUPPLY POINT: STRATEGIC DEVELOPMENT PLAN

High Wycombe
Draft for consultation
12/2024



SSEN Distribution DISTRIBUTION NETWORK OPTIONS ASSESSMENT (DNOA) METHODOLOGY

March 2024



SSEN Distribution DNOA OUTCOMES REPORT

November 2024



Scottish & Southern Electricity Networks
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COWLEY GSP EXAMPLE

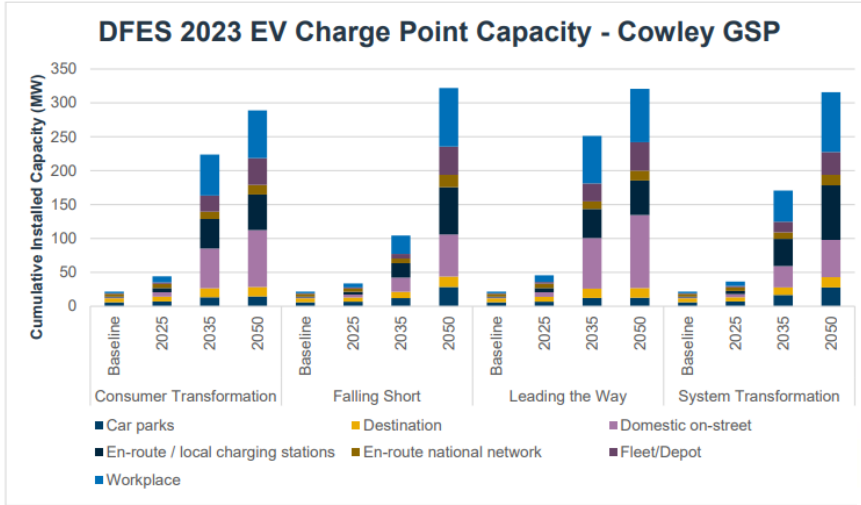


Figure 9 Projected EV charge point capacity across Cowley GSP. Source: SEN DFES 2023.



DNOA Outcome Report

North Oxfordshire (Yarnton & Witney BSP)

Scheme description

- The reinforcement of the Cowley GSP - Yarnton BSP circuits will increase capacity in the north Oxfordshire area. Postcode(s): GL54, OX (1-5, 7, 13-15, 18, 20, 25, 27-29), SN7.
- Local Authority: West Oxfordshire, Cotswold, Vale of White Horse, Oxford, Cherwell
- Load related - circuits overload during FCO conditions due to forecasted demand growth.

Proposed option

- Flexibility/Asset Solution: Installation of an additional 132kV circuit between Cowley GSP and Yarnton BSP.
- This option addresses the forecasted demand growth on the Cowley/Yarnton network out to 2050.
- Capacity released: 282MVA

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
Initial assessment				

Indicative flexibility price (if available):

- Availability price: £150/MWh
- Utilisation price: £200/MWh

Reinforcement timeline

- Flexibility solution utilised in 2024/25 and 2026/27 to 2028/29.
- Reinforcement delivery by the end of 2028/29.

Estimated peak MW outside firm network capacity under each scenario

Grey text relates to estimated peak MW without reinforcement delivery

	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
CT	7.65	-	17.44	28.05	38.78	-(89.01)	-(101.70)
ST	4.44	-	8.6	15.82	22.06	-(68.20)	-(74.71)
	05	53.34	-(107.45)	-(122.20)			
	16	14.45	-(59.03)	-(64.40)			

Constraint management timeline

Network constraint becomes active: 2024/25 to 2026/27

Network constraint removed: 2028/29 to 2030/31

Timeline phases: Flexibility utilisation, Flexibility procurement, Flexibility utilisation, Network reinforced

Outcomes Report November 2024 - Ref. 1124-17

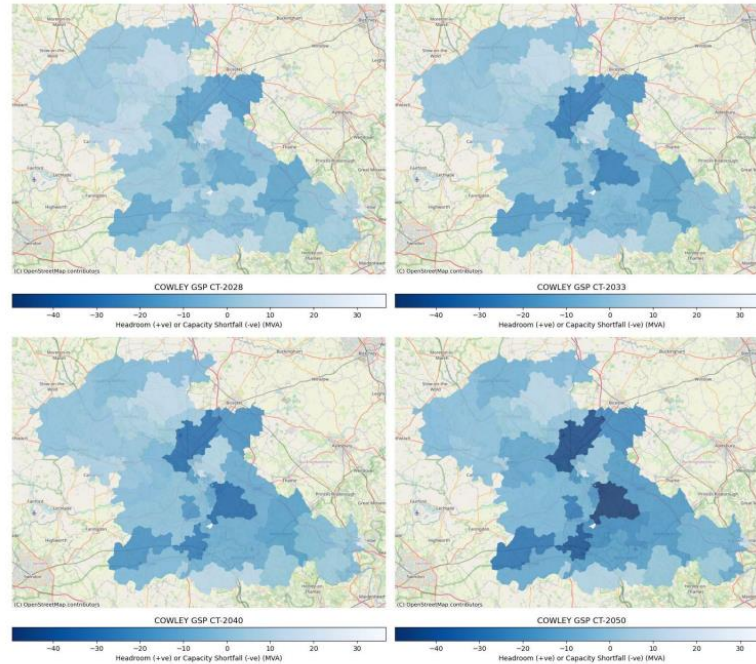
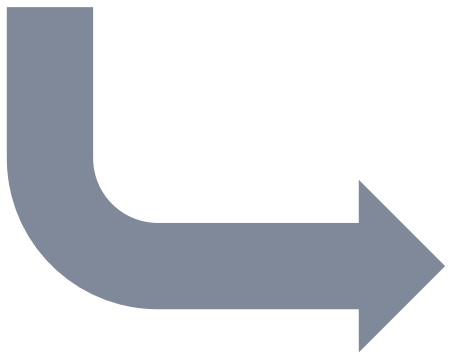


Figure 13 Cowley GSP - EHV/HV Spatial Plan - Consumer Transformation





SDP PRODUCTION



Published/Consulting	Q4 2024/25	Q1 2025/26	Q2 2025/26
<ul style="list-style-type: none">• Ealing (SEPD)• Fawley (SEPD)• Port Ann (Islay & Jura, Colonsay) (SHEPD)• Taynuilt (Mull, Coll, Tiree) (SHEPD)• Thurso South (SHEPD)• Cowley (SEPD)• North Hyde (SEPD)	<ul style="list-style-type: none">• Shetland (SHEPD)• Kintore (SHEPD)• Persley (SHEPD)• Fleet (SEPD)• Beaully (SHEPD)• Lovedean (SEPD)• Iver 66kV (SEPD)• Skye & Western Isles (SHEPD)• Iver 132kV (SEPD)• Fort Augustus (SHEPD)	<ul style="list-style-type: none">• Keith (SHEPD)• Errochty (SHEPD)• Mannington (SEPD)• Melksham (SEPD)• Mybster (SHEPD)• Botley Wood (SEPD)• Laleham (SEPD)• Willesden (SEPD)• Tealing (SHEPD)• Bramley (Basingstoke) (SEPD)• Nursling (SEPD)	<ul style="list-style-type: none">• Braco (SHEPD)• East Claydon (SEPD)• Axminster (SEPD)• Chickerell (SEPD)• Inverarnan (SHEPD)• Amersham (SEPD)• Dounreay (SHEPD)• Peterhead (SHEPD)• Inverness (SHEPD)• Minety (SEPD)• Bramley (Thatcham) (SEPD)



COMMUNICATION OF PLANS – DISTRIBUTION NETWORKS OPTIONS ASSESSMENTS OUTCOMES

We have made a number of improvements to the way we present DNOA outcomes and would value your feedback as to the merits of these changes. We would also value your views on further adaptations.

- 1 ■ The DNOA Outcome is now made clearer at the top of the page.
- 2 ■ Time horizons have been extended to 10 years to allow longer term visibility of plans.
- 3 ■ Removed areas of duplication to allow more space to describe the proposed interventions.
- 4 ■ Addition of the DNOA's corresponding SDP in the title.

DNOA Outcome Report

4 Related SDP: Cowley

Area Served (GSP/BSP/PSS)

DNOA outcome: Operational management followed by asset solution.

Scheme description

- The reinforcement of the XXXX PSS/BSP/GSP will increase capacity in the XXX area. Postcode(s): [insert].
- Local authority:
- Load related – substation/circuit thermal overload/voltage issues during FCO/SCO/intact conditions due to forecasted demand growth.

Proposed option

- Flexibility/Asset Solution: Describe reinforcement works
- This option addresses the forecasted thermal overload/voltage issues at XXXX PSS/BSP/GSP out to 20XX.
- Capacity released: XXMVA

Indicative flexibility price (if available):

- Availability price: N/A £XX/MWh Utilisation price: N/A £XX/MWh

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

DNOA History

	2024/25	2025/26	2026/27	2027/28	2028/29
Initial assessment					

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	XX	XX	XX	XX	XX	XX	XX	XX
ST	-	-	-	-	XX	XX	XX	XX	XX	XX
LTW	-	-	XX	XX	XX	XX	XX	XX	XX	XX
FS	-	-	-	-	-	XX	XX	XX	XX	XX

Constraint management timeline

1 | Scottish and Southern Electricity Networks Distribution | DNOA Outcomes Report XXXX 2025 – Ref XXXX-XX



WHAT WE'VE HEARD SO FAR

Key insights from 2024



Barriers

- Capacity & skills shortages
- Lack of funding
- Departmental silos
- Limited buy-in at the top
- No statutory requirement
- Short-termism
- No data standard



Opportunities

- National policies
- Regional collaboration
- Best practice available
- Cost-effective technologies
- Delivery plans and energy partners
- Improved coordination between spatial and network planning



Needs

- Strong governance
- Dedicated teams
- Defined roles & skills
- Earmarked budgets
- Trusted, useful data
- Importance of early engagement
- Use of frameworks



SSEN Support

- Access and transparency to data and insights
- Targeted, quality engagement through various forums
- Enable collaboration & information sharing
- Assist with advocacy





WHAT WE'RE DELIVERING

How we're responding to feedback so far

LENZA



- Opened access to all local authorities
- Customer success plan
- 5 live onboarding sessions
- 2 live training sessions a month

Focused Engagement



- Dedicated Whole System contact
- Participation in working/steering groups
- Assist with strategic energy planning
- Support with LAEP creation

Newsletter & Events



- Monthly newsletter launched
- Online webinars, surveys, in-person seminars

Programme Delivery



- DFES annual reports
- Strategic Development Plans for GSP areas
- Quarterly DNOA outcomes reports



ENGAGEMENT PLANS 2025

DFES 2024

Planning policy workshops

LENZA year 2

Whole System website refresh

LAEP creation/delivery support

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On a scale of 1 to 5 (1 is low, 5 is high), how well do you think that SSEN's Whole System Team are listening to and acting on your feedback?

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What impact have we made on your work over the last year?

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Going forward, what further opportunities are there for us to collaborate?

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FORECASTING FUTURE NEEDS

How your data helps us forecast
future requirements

Andy Wainwright



Scottish & Southern
Electricity Networks

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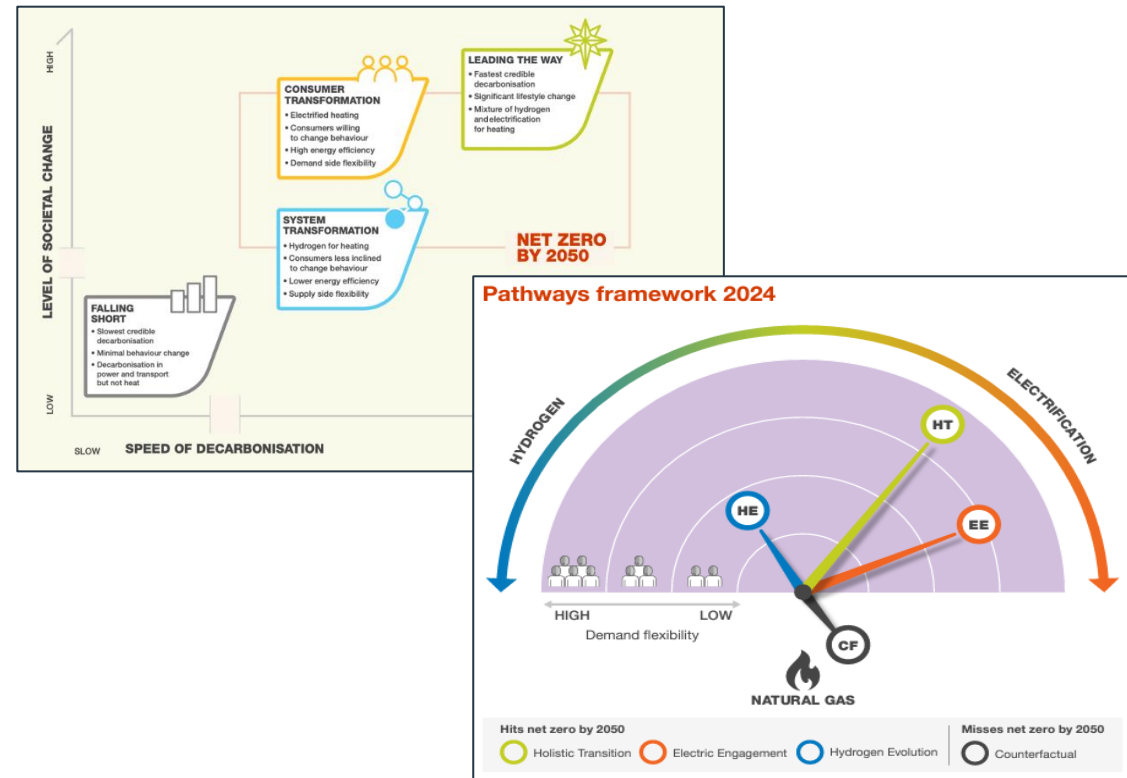


DISTRIBUTION FUTURE ENERGY SCENARIOS (DFES)

What are they?

The Distribution Future Energy Scenarios (DFES) outline a range of credible futures for load growth on the distribution network.

- Historically, we looked at the past to provide a view of future load growth on our network. However, to achieve Net Zero targets, the need for credible energy scenarios became apparent.
- Since 2019, SSEN have been gradually implementing DFES scenarios into our strategic plans and more recently, have embedded them into BAU planning functions and compliance reporting.
- The 2023 DFES consists of four scenarios, with varying speeds of decarbonisation and levels of societal change. To mirror changes in NESO's FES, these will be revised in 2024 with a set of new scenarios, with varying mixes of Hydrogen and Electrification.
- Currently, the DFES is being used to forecast peak demand and generation load out to 2050.





DISTRIBUTION FUTURE ENERGY SCENARIOS (DFES)

What are our inputs?

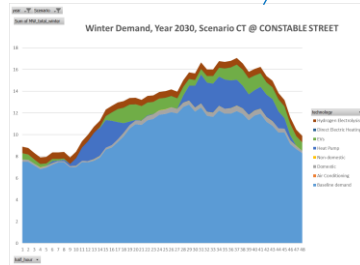
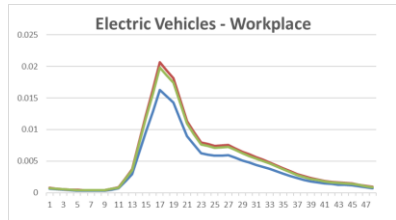
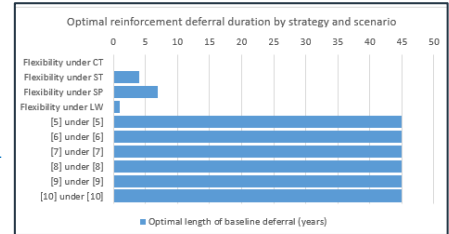
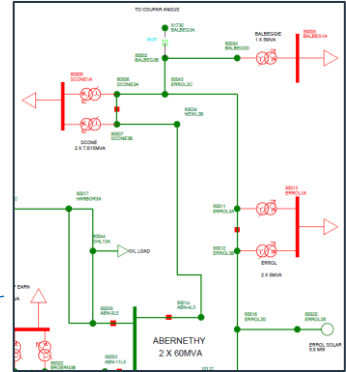
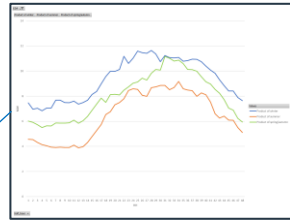
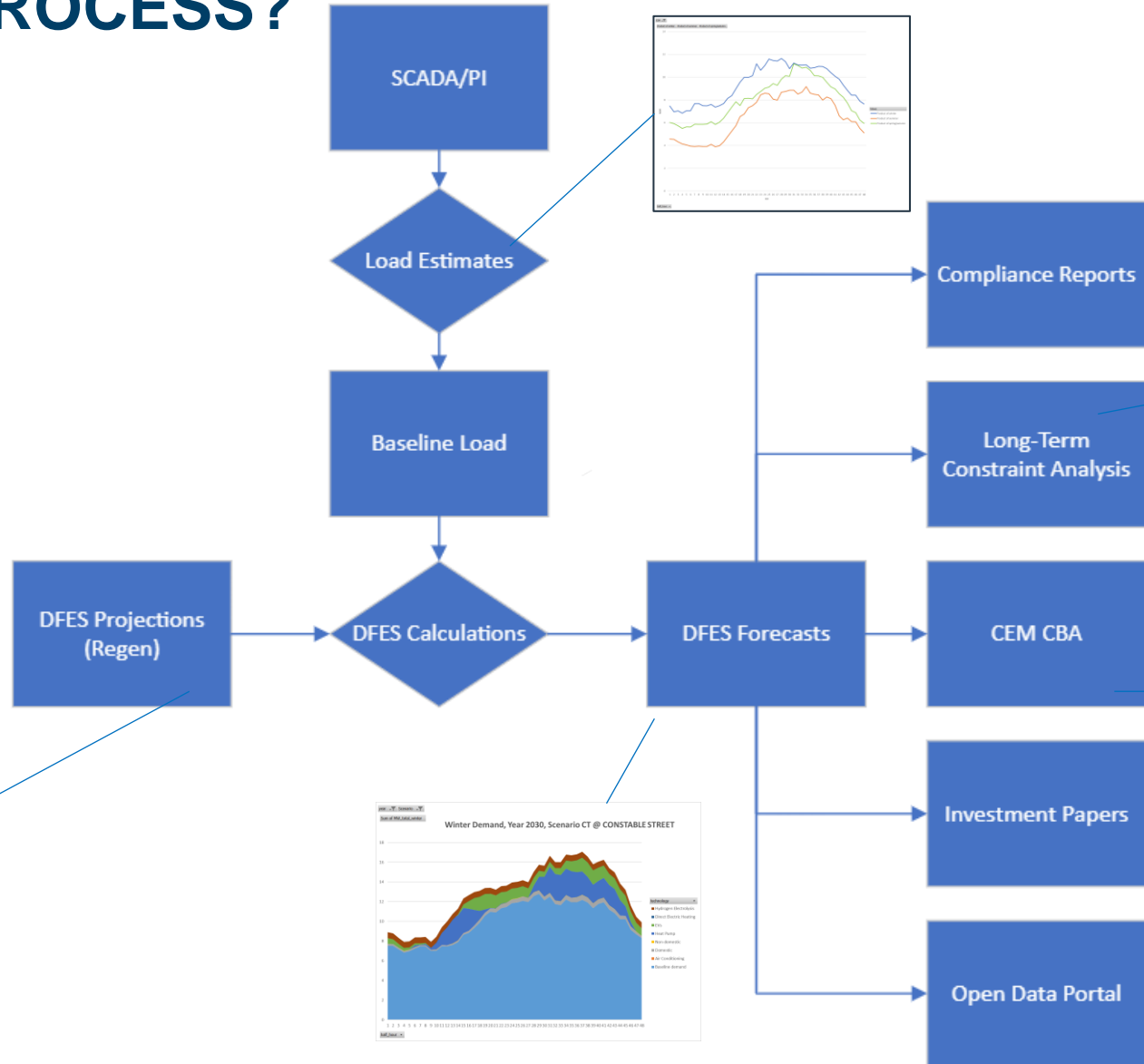
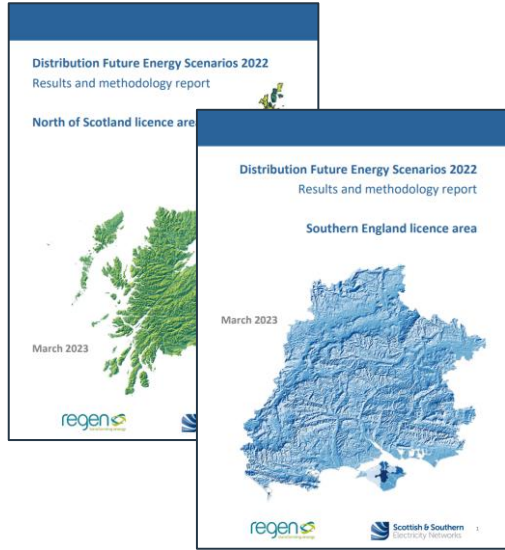
SSEN and Regen gather data inputs from three main sources;

- The Future Energy Scenarios (FES) – this is in the form of ‘building blocks’ for a range of demand and generation technology types as agreed through the Energy Networks Association (ENA).
- Connection Data – Information on generation and demand connections is passed through from the Connections teams data sources. This is used to cross check against NESO’s FES data, and local authority targets.
- External engagement – We engage extensively with stakeholders in both our licence areas to understand where they are with their climate strategies and gather a view of pipeline developments. This includes bilateral meetings and review of published material. We also undertake webinars to promote engagement/participation in the DFES process.





WHAT IS OUR PROCESS?





TRANSITIONING FROM 2023 DFES TO 2024 DFES

When you will see revised DFES outcomes in our processes

Draft

**Strategic
Development Plans**



DFES projections

Will change in April

**Network needs and
options**

Will change in June



Final

**Strategic
Development Plans**



DFES projections

Will change in April

**Network needs and
options**

Will not be updated
from published drafts



DNOA Outcomes



Will change from the
Q2 2025/26 report
(published by
September)





DFES 2025 production

We are now working with Regen on how best to develop DFES 2025

- We want to utilise LENZA to;
 - Streamline the data ingestion process
 - Allow you to provide most currently available data
 - Facilitate policy changes as quickly as possible (e.g. housing reform)
- However, we recognise that not all LAs would be able to take this approach and we will continue our traditional approach with Regen.



Q&A





BREAKOUT SESSION 1



DISCUSSION QUESTIONS

How can we make our data collection process easier and more convenient for you?

- How do you see LENZA fitting into this process?
- How soon could you move to using LENZA for DFES submissions and what support would you require?
- Can you share your thoughts on how often and when we should ask for data to make it as convenient as possible?
- Is there a specific time period or format that works best for you?



TIME FOR A BREAK





POLICY



NESO UPDATE ON STRATEGIC ENERGY PLANNING (SEP)

Kieran Highman
NESO



Scottish & Southern
Electricity Networks

DSO Powering Change

Public

NESO update on Strategic Energy Planning (SEP)

11th February 2025

SSEN Strategic Development and Net Zero Planning Seminar

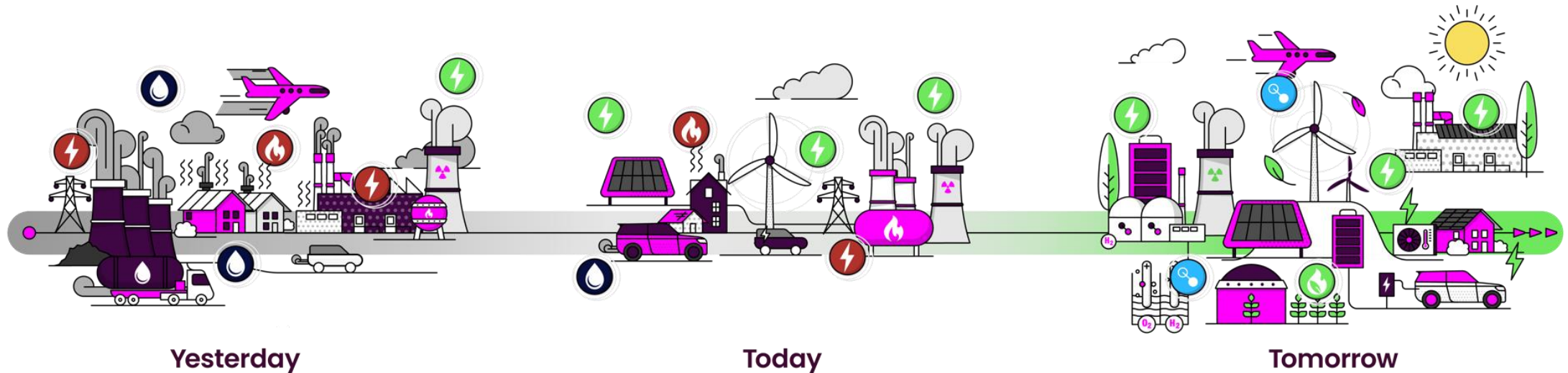
Kieran Highman, SW RESP Manager
kieran.highman@nationalenergyso.com

Overview

1. National Energy System Operator overview
2. Strategic energy planning (SEP) overview
3. Next steps (milestones)

A changing energy landscape

- The energy system is critical to almost all aspects of our daily lives and fundamental to decarbonising the economy.
- **The way we use, store and source energy is significantly changing** and we have an opportunity in this period of change to shape an energy system that fosters economic growth and prosperity for Great Britain, creating jobs and building skills.
- This valuable opportunity will help **protect the environment** for current and future generations and ensure energy is **affordable** for everyone.



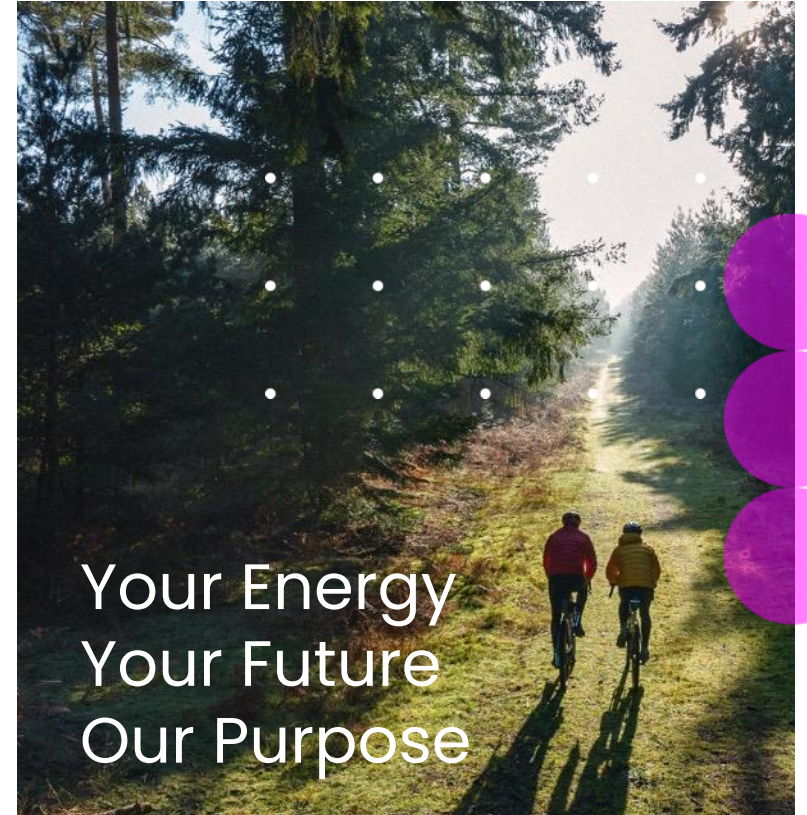
We must work collectively at a **local, regional and national scale** to realise the benefits of the energy transition for Great Britain, and the people who live here.

1. National Energy System Operator overview

Who we are:

The National Energy System Operator, NESO, is an independent, public corporation at the centre of the energy system taking a **whole system view** to create a world where everyone has access to **reliable, clean and affordable energy**.

Our work will be the **catalyst for change** across the global community, forging the path to a **sustainable future for everyone**.



The challenge

Tackling climate change is the challenge of our generation

Our role

Transform the whole energy system and transition to a low carbon future



Our Governance

NESO is operationally independent of government. We plan the electricity and gas systems and operate the electricity system.

Being independent means we can give impartial recommendations to the government and the regulator.

Our shareholder



The Department for Energy Security & Net Zero is responsible for national policy and providing strategic direction and targets in relation to UK energy

Our regulator



Ofgem is the energy regulator for Great Britain

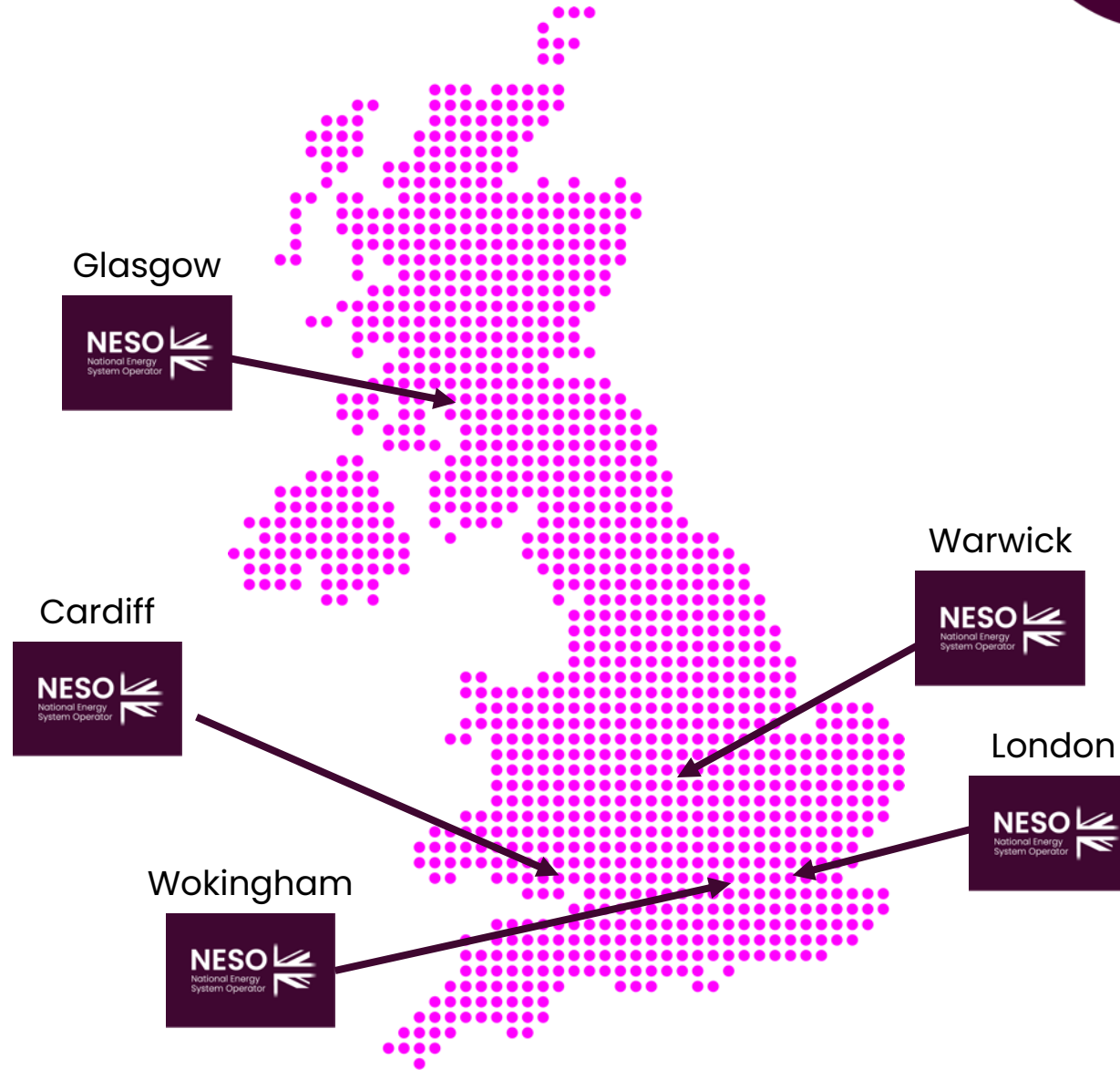
Independent NESO Board

The NESO Board oversees our strategic direction, ensuring compliance with regulations and mitigation of corporate risks.

The Board ensures that we build strong relationships with customers and it evaluates performance.

Our Locations

We have offices in Glasgow, Warwick, Wokingham and London but our people work across Great Britain and internationally.

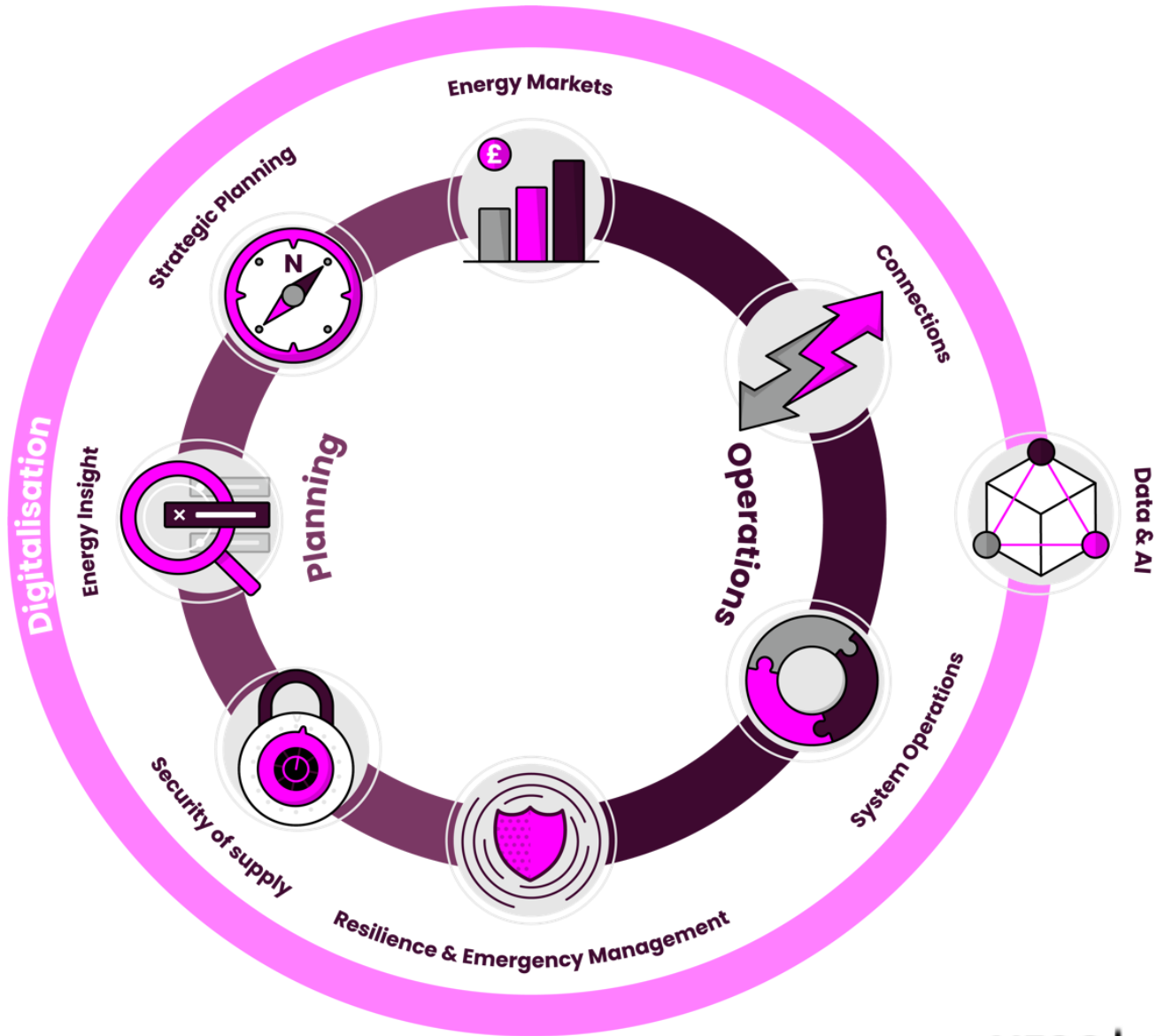


What we do:

We bring together **eight activities** required to deliver the plans, markets and operations of the energy system of today and the future.

Bringing these activities together in one organisation encourages **holistic thinking** on the most **cost-efficient and sustainable solutions** to the needs of our customers.

<https://www.neso.energy/what-we-do>



Strategic planner role

NESO will act as a body independent of asset owners to coordinate system design and planning efforts across the energy system



For the first time in industry, we will **coordinate system design and planning efforts across the whole energy industry** so planning and investment decisions can be optimised to deliver GB's net zero objectives at the most equitable cost to consumers.

Our three overarching roles are the following:

- **Strategic Spatial Energy Planning**
- **Centralised Strategic Network Planning**
- **Regional Energy Strategic Planning**



Facilitate Net Zero target while ensuring energy security



Deliver regional and national whole energy solutions



Consider the impact on communities



Consider the impact on the environment



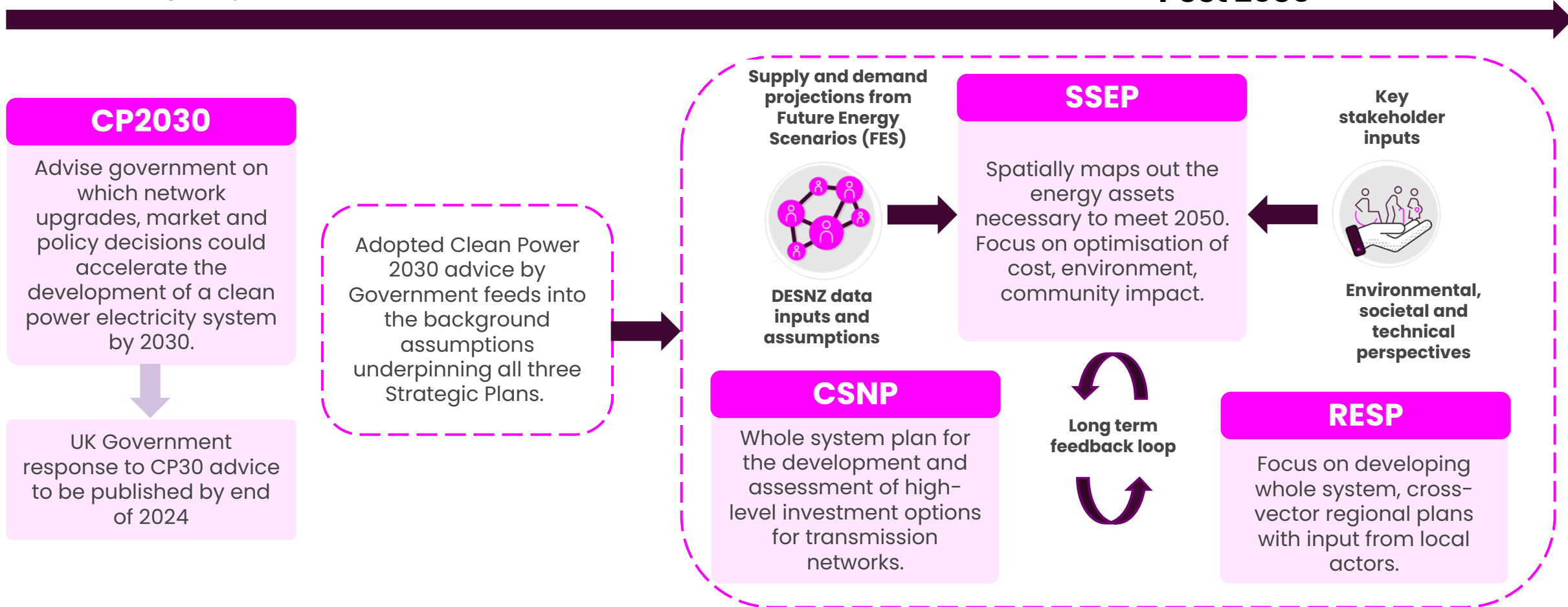
Consider costs to consumers and deliver economic strategies



2. Strategic Energy Planning (SEP) overview

Pre 2030

Post 2030



Strategic Spatial Energy Plan (SSEP) overview

Accelerate clean, affordable, secure energy through certainty

The SSEP will accelerate and optimise Great Britain's transition to clean, affordable and secure energy by taking a holistic approach and providing greater certainty for key stakeholders.

Zonal approach, taking account of environment and communities

Splitting Great Britain's energy system into zones to assess the optimal locations for electricity generation and storage of electricity and hydrogen.

Options identified using economic, environmental and technical input, with considerable societal, stakeholder and political engagement planned.

SSEP will not focus on specific projects, leaving the energy market or subsequent processes to determine the specific projects and exact locations.

CSNP framework

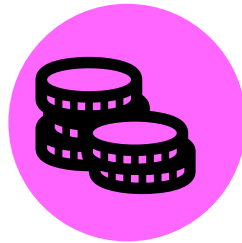
Our vision

Provide an **independent, coordinated, and longer-term approach to wider network planning** in GB to help meet the government's net zero ambitions

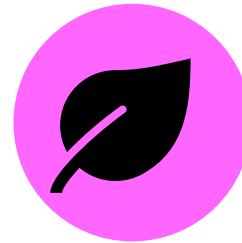
Provides a **network blueprint for the country**, mapping demand and optimal locations for onshore and offshore transmission infrastructure to support a decarbonised energy grid.



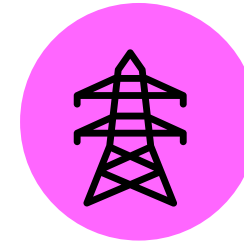
25-year horizon, on a three-year cycle



Co-ordinate reinforcements and anticipate investments ahead of infrastructure delivery



Balance development against **environment/community impacts** to maximise benefits



Understand transmission infrastructure needed for **onshore/offshore electricity transmission** and **interconnectors**

Regional Energy Strategic Plans (RESP)

Why?

To achieve local and national net zero targets we need:

- 1. To accelerate electricity network investment** – enable heat & transport decarbonisation
- 2. Consistency** – same approach for all network companies
- 3. Whole system** – joined-up plan for all aspects of energy system

Where? (proposed)

Map A1 – Ofgem's preferred GB RESP settlement



Who? (proposed)

Ofgem – defining role

NESO – delivering role

Strategic Boards & Working Groups

Local authorities:

England: CAs, CCs, unitaries
Scotland & Wales: unitaries

Networks: DNOs & GDNs

Other local actors: relevant to energy system & spatial planning

Draft RESP Outputs

Ofgem have outlined 3 building blocks that NESO's RESP role must deliver. The NESO RESP Team is responsible for these outputs and will be producing them in collaboration with stakeholders. We have identified 6 key outputs that will enable the delivery of credible whole energy regional plans. These outputs will be refined and validated when developing the RESP Methodology.

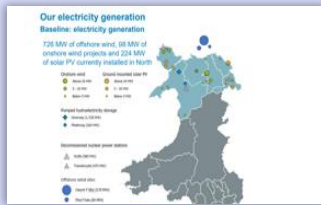
The Regional Energy Strategic Plans

The RESPs will develop future energy pathways and identify hotspots where strategic investment need is likely to arise to meet the regional energy visions

1

Regional Energy Vision

Develop and establish Regional Energy Visions, reflecting local needs, to collectively support national objectives

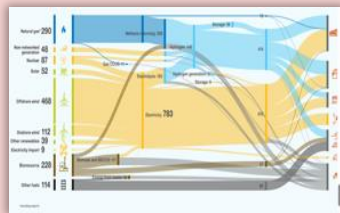


a

2

Regional Pathways

Create Regional Pathways – built from the bottom-up and which are coherent with national needs. NESO will also develop consistent planning assumptions



a b

3

Spatial System Need

Following from the pathways and considering network constraints, identify strategic investment needs as well as spatial cross-vector system needs



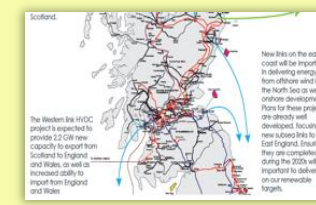
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4

Support for price controls

Network plan Technical coordination

Assure that network companies' investment plans are integrated across vectors, built on consistent assumptions and deliver regional needs at pace, within national constraints

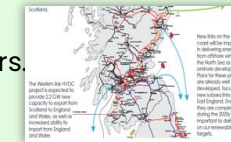


c

5

Regional Geospatial Energy Plan

Develop publicly available geospatial regional plans that provide transparency and visibility to all stakeholders. The plans will track and monitor the delivery of the RESPs, including Strategic Investments.



b c

6

Societal Impact Assessment

Review the societal impact at a local level of the energy transition (including jobs, transport, industry, environment etc.)



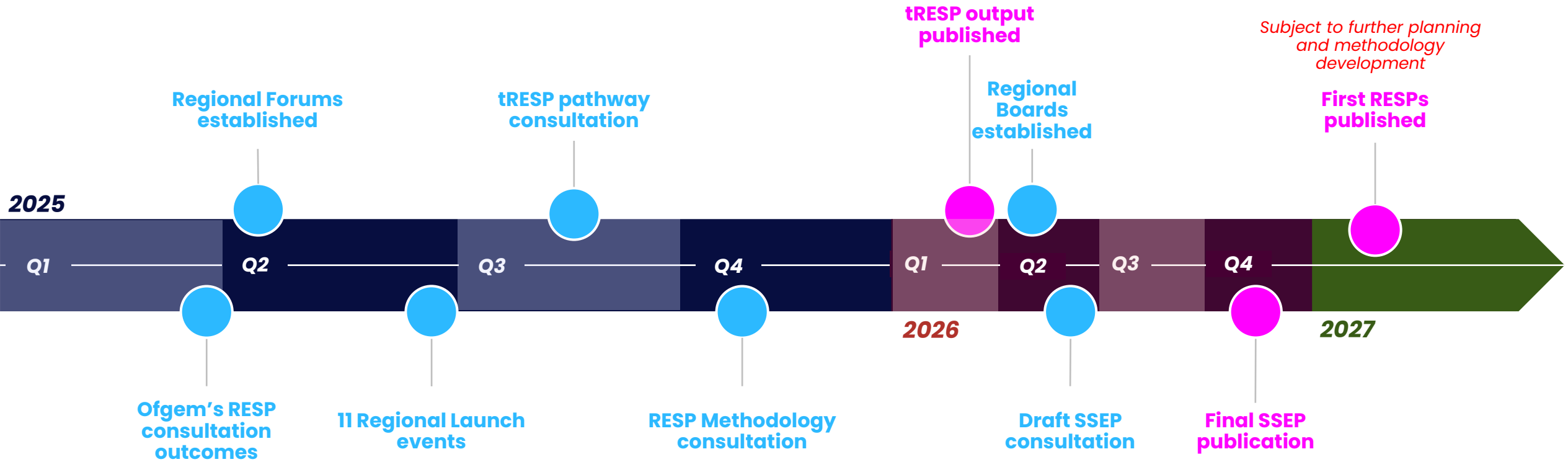
Ofgem consultation building blocks

a Modelling supply and demand

b Identifying system need

c Technical coordination

RESP Key Milestones – Public View



Thank you

NESO

<https://www.neso.energy/what-we-do>

Strategic Energy Planning

<https://www.neso.energy/what-we-do/strategic-planning>

RESP Manager Contact Information

SW - kieran.highman@nationalenergyso.com

SE - rhiannon.calado@nationalenergyso.com



MOVING FROM ED2 TO ED3

Patrick Erwin
Commercial Director



Scottish & Southern
Electricity Networks

DSO Powering Change

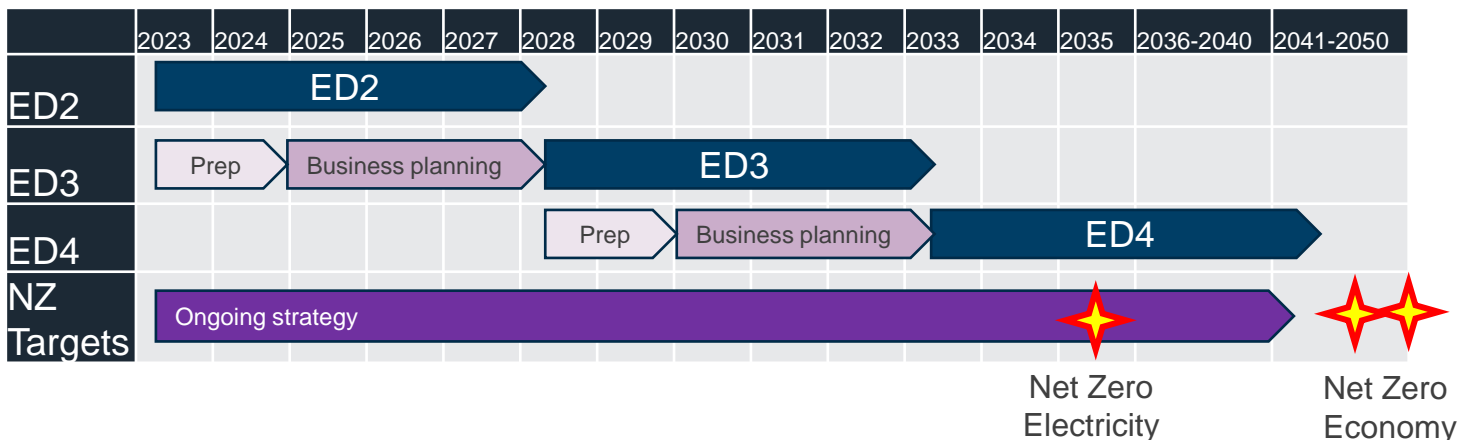


About Distribution

Regulated network focused on supporting the transition to net zero

- Our network serves some of the UK’s **most remote communities** and also some of the most **densely populated**.
- Our two networks cover the greatest land mass of any of the UK’s DNOs, covering **72 local authority areas** and **75,000km²** of extremely diverse terrain.
- The ED2 price control is underway, with **£3.51bn¹ of certain investment**, and up to **£0.7bn* of uncertainty mechanisms**
- We play a key role in addressing the **rising challenge of connections constraints**, optimising network capacity and **progressing industry reform**

RIIO PRICE CONTROL PERIODS



OUR DISTRIBUTION NETWORK AT A GLANCE

Over **3.9 million** homes and businesses across the north of Scotland and central southern England

More than **937,300** customers on our Priority Services Register

Over **128,000km** of overhead lines and underground cables

Over **106,000** substations

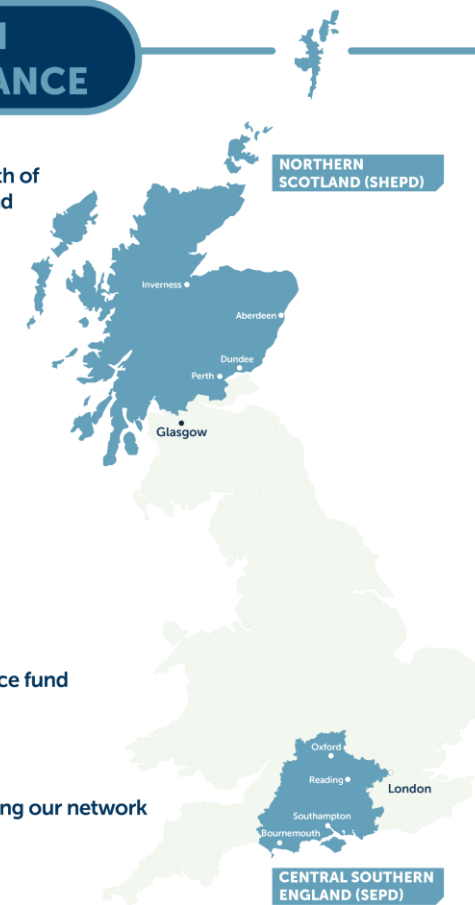
460km subsea cables powering island communities

Over **4,100** employees across the country

£4.7m paid in community resilience fund

£150m invested in innovation

£15m committed to undergrounding our network



* Figures as of May 2024

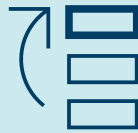
¹ Excludes indirect costs associated with connections that are not subject to the price control. Ofgem published FD fig: £3.6bn
*Credibly accessible

●●●● Current (ED2) Strategy

Improve performance for customers, focus on efficiency, grow our asset value and help deliver the future system

Aims

Improve customer performance and operational efficiency



Grow capacity and underpin net zero transition



Lead on delivering the future system



Transformation



Transformation delivered new governance approach for ED2 outcomes and wider change portfolio

PERFORM initiative launched with improvements to key operational and CSAT metrics



New Large Capital Delivery team established with refreshed commercial strategy in market to improve efficiency and supply chain risk.

Programme-based tender launched (contract award of £1bn+ in Nov)



Making the case for a future regulatory system with **strategic investment** at its core – Isle of Wight proposal to provide ‘test case’ for Ofgem. Also driving flex take up - aim to contract 800MW this year.

People

SKILLS AND SCALABILITY

- Added innovative pipelines for craft, digital apprentices and key skills (e.g. system planning)
- FY22/23 of 4,532, 1162 new appointments, 829 new external and 39% of senior roles are female



CULTURE AND BEHAVIOURS

- **New Operating Model** embedding new ways of working and introducing fresh talent at all levels
- **‘Critical few’ behaviours** key part of ED2 launch
- Improved engagement cadence for all





OUR ED2 KEY PRIORITIES AND GOALS



A SAFE, RESILIENT AND RESPONSIVE NETWORK



Create a **foundation for net zero** by investing **£1bn** in **strategic resilience**



Reduce the **frequency and duration** of **power interruptions** by **20%**



A VALUED AND TRUSTED SERVICE FOR OUR CUSTOMERS AND COMMUNITIES



Achieve **customer satisfaction of 9.2 or above** in every contact area



Support **200,000 customers** with **fuel poverty, personal resilience** or **energy efficiency** measures



ACCELERATE PROGRESS TOWARDS A NET ZERO WORLD



Facilitate **1.3 million electric vehicles** and **800,000 heat pumps** on our network



Cut our business carbon footprint by 35% aligned to 1.5c science-based target

MAKE A POSITIVE IMPACT ON SOCIETY



EVOLVING POLICY ENVIRONMENT

Kick Start Economic Growth (HMG Mission 1)

Make Britain a clean energy superpower (HMG Mission 5)

CP 2030: 29-30% of clean power supply will come from onshore wind and solar with big role for Distribution.

RIIO-ED3: Ofgem consulting on a more proactive approach to network investment, with core objective of enabling network capacity.

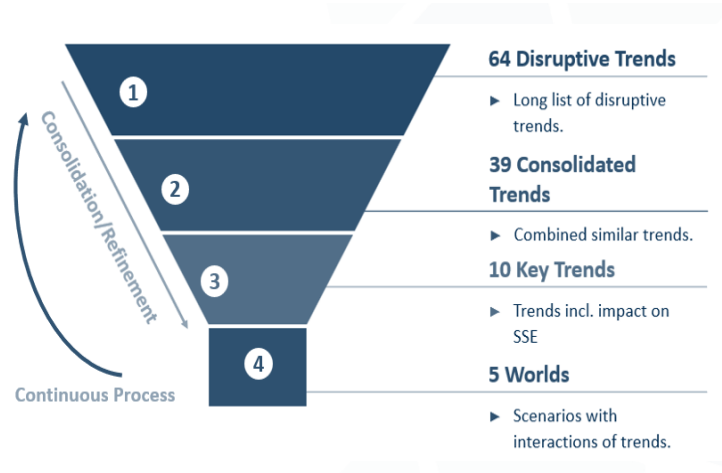
Emerging NIC views: investment needs to be more proactive. Need for long-term focus and higher risk appetite.

Challenge on how to execute proactive investment efficiently, protecting current and future customers and minimising risk of stranded investment



EXTERNAL CONTEXT REMAINS FLUID WITH SOME LONG-TERM UNCERTAINTY

Horizon-scanning helps us stress-test our strategy and ensure we are flexible

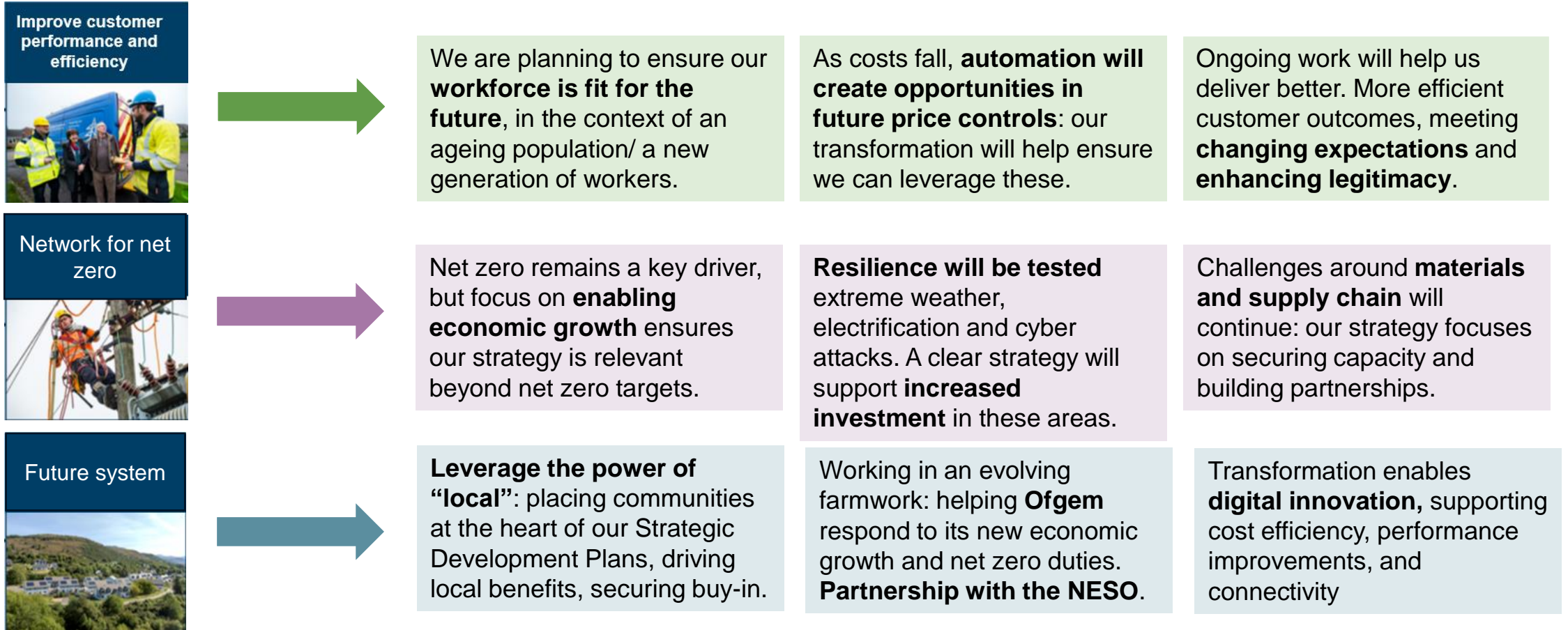


1. Aging population
2. Activism and politicisation
3. Consumer aptitude towards the transition
4. Mis/disinformation & cyber attacks
5. Increasing difficulty to source critical materials and equipment
6. UK energy regulatory model changes
7. Tech automation is introduced at all levels of society
8. Tech disruption
9. Changing weather
10. Black swan global events



Stress-testing our strategy

We want to mitigate long-term risks and seize opportunities for our customers





Key Dates and ED3 Timeline

Date	Detail
Q1 2025	NIC Recommendations following ED Review
Q2 2025	Ofgem Policy Decision on RESP
Spring 2025	Ofgem Published ED3 Framework Decision
Spring 2025	SSEN Publication on ED3
Late 2025	Ofgem Publishes ED3 Business Plan Guidance
Q1 2026	tRESP output
Q2 2026	DNOs submit draft ED3 plans
Q4 2026	DNOs submit final ED3 plans
2026	HMG Decision on hydrogen for heat
Q2 2027	ED3 Draft Determinations
Q4 2027	ED3 Final Determinations
April 2028	ED3 Starts



Q&A





BREAKOUT SESSION 2



DISCUSSION QUESTIONS

What considerations are there to ensure effective alignment between:

- LAEPs and energy industry plans?
- LAEPs and other place-based initiatives such as local plans and strategic transport planning?

To ensure a cohesive approach to achieving net zero targets and delivery of statutory duties?



TIME FOR LUNCH



Scottish & Southern
Electricity Networks



STRATEGIC PLANNING

DELIVERY



PLACE BASED FINANCING

Tom Elliot

Energy Systems Catapult



**Scottish & Southern
Electricity Networks**

DSO Powering Change

SSEN recording

2025-02-10 08:47 UTC

Recorded by

Tom Elliott

Organized by

Tom Elliott

Accelerate Net Zero
energy innovation

Place Based Financing – Opportunities, Challenges and Bridging the Gap



February 2025

Why is this important

- A place-based approach aligned with national strategies can save costs and offer socio-economic benefits as the UK targets Net Zero.
- Local Authorities play a critical role in driving investment, creating strategies that balance Net Zero goals with local needs, engaging communities, and delivering broader benefits.
- Transforming these strategies into actionable, investable plans is complex.

What are we aiming to achieve

- Energy Systems Catapult and Phoenix Group are partnering to create a series of tools designed to support local stakeholders in developing investable portfolios.
- By combining technical expertise in energy systems with a focus on long-term sustainability and financial viability, these tools aim to bridge the gap between policy ambition and practical implementation.

Who is it for and how can they benefit



Investors

- Understanding of the challenges local authorities are facing
- Understanding of local area energy planning and how it could help target investments



Local leaders and officers

- Understanding of challenges of place-based financing
- Understanding how to use LAEP outputs to attract private finance

What did we do to achieve our aim

- Combine expertise from finance and energy sectors
- Interview range of investors and local authority officers

Energy Systems Catapult have considerable experience working with local authorities to deliver Local Area Energy Plans, with support through Net Zero Go

Phoenix Group, the UK's largest long-term savings and retirement business, has set out its recommendations for increased investment in regional growth

What are we planning to do next

- Test resources developed
- Expand and further develop resources to help close the gap between what local authorities have and what investors need

Local Authorities

Co-benefits

- Reduce costs
- Improved social benefits based on area needs
- Developed local skills and supply chain
- Ability to design and target funds based on area needs

Accelerated delivery

- Aggregation of projects enable wider investor interest
- Coordination of projects within a portfolio improve efficient delivery – e.g. new housing and community energy and infrastructure requirements

Investors

- ESG requirements and impact metrics of investment portfolio
- Decarbonisation of portfolio

- Aggregation and coordination to create more attractive opportunities
- Greater confidence
- Reduced risk – leverage government funding and other sources

Scaling Place Based Financing – The Challenges – Investor perspective

The visibility of different opportunities and disruption across the UK is lacking at local scale

The variability in local conditions is not always well understood by investors which limits their ability to appreciate the different opportunities across different regions.

Investments need to be large and long-term

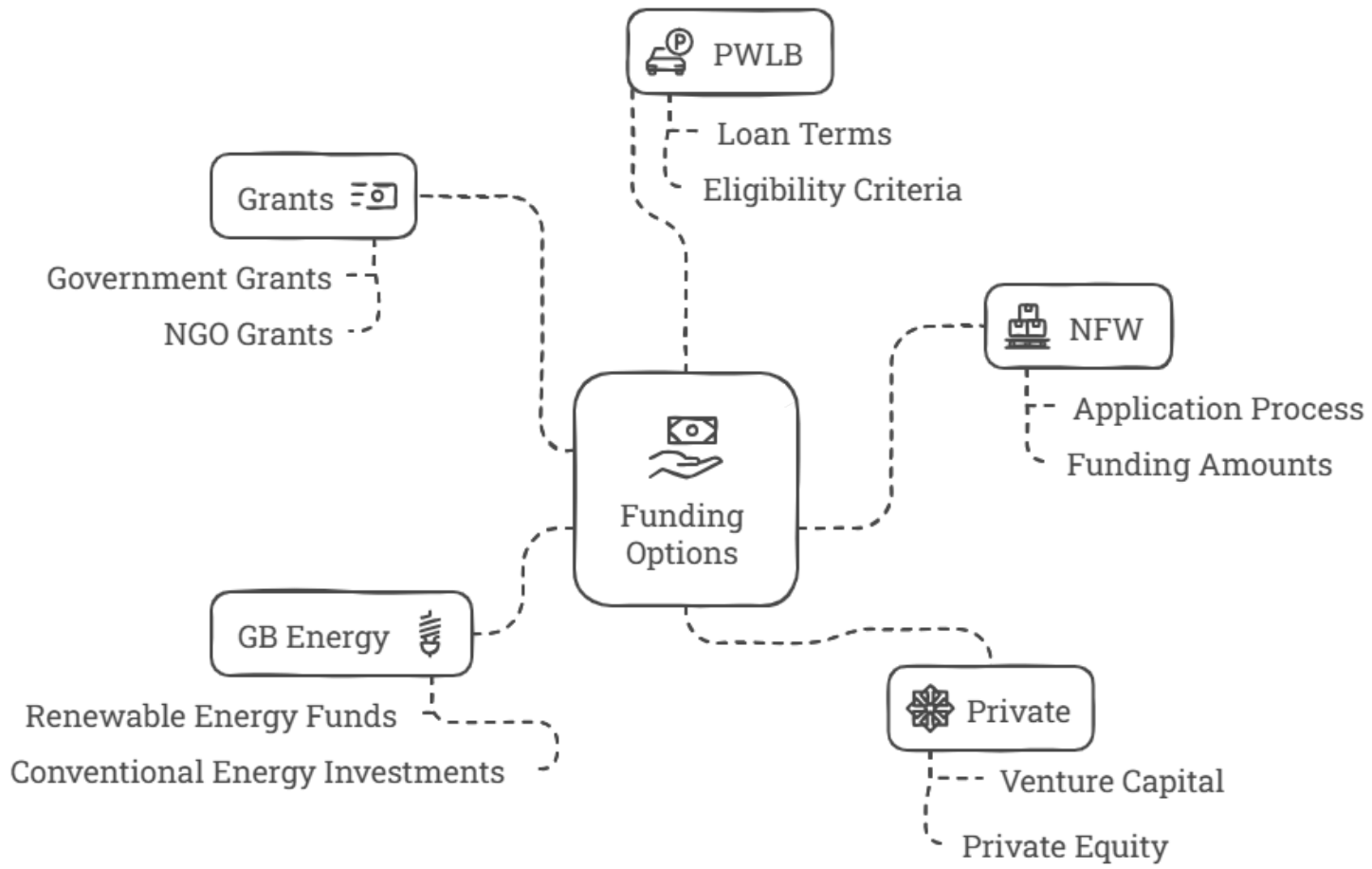
Without a coordinated plan, Net Zero projects are likely to be prioritised by financial returns of investors rather than the strategic area needs. Previous research by the Energy System Catapult estimated that having local energy plans coordinated within a national framework could reduce costs by £89bn.

Non-core UK regions experience external finance premium

There are differences in the perceived financial risk across UK regions, over and above official discount rates.

This “external finance premium” associated with non-core UK regions is discouraging the private sector investment needed in weaker economic regions

Local Authorities have access to multiple funding sources...

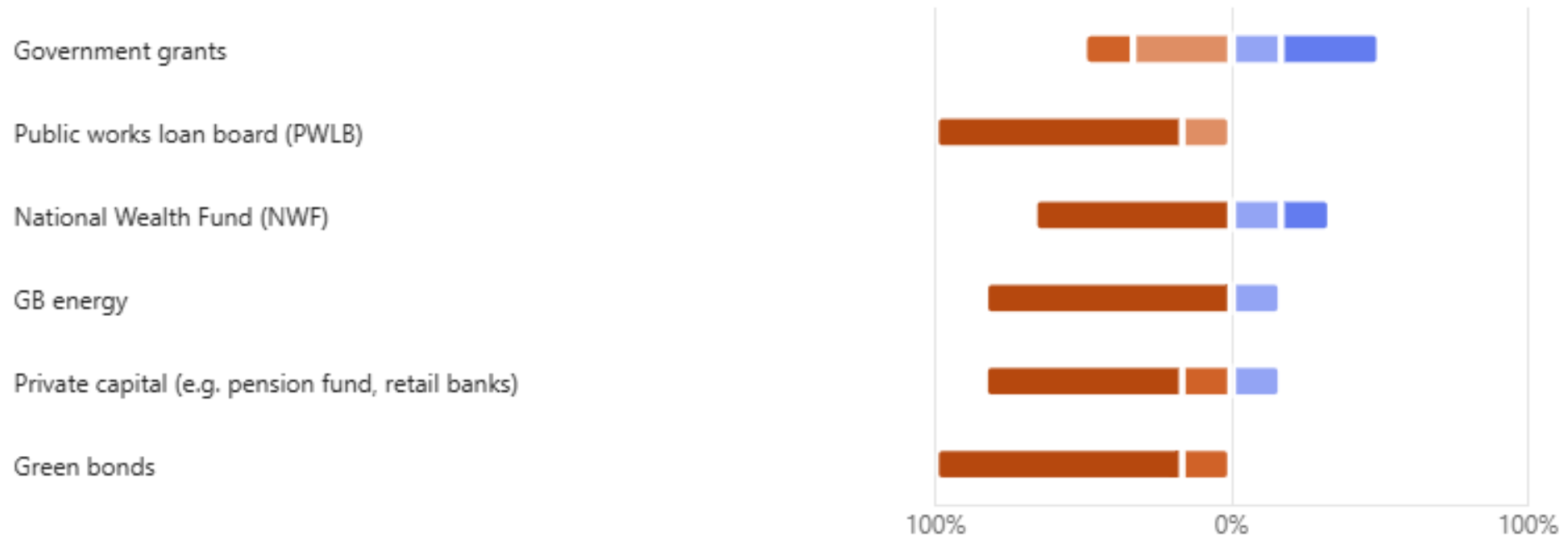


...but have limited expertise in accessing these

1. How would you rate your experience in engaging with the following sources?

[More](#)

● No experience ● Very unsatisfied ● Unsatisfied ● Neither satisfied nor unsatisfied ● Satisfied ● Very satisfied



Local Authority preference towards grants...

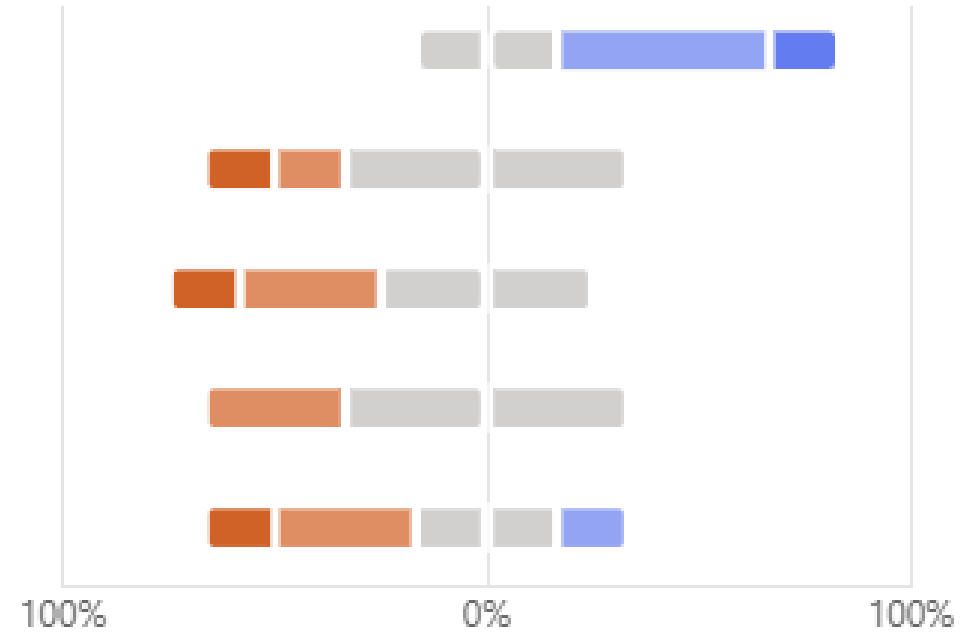
Government grants are the preferred option for financing net zero projects in my organisation

Public Works Loan Board (PWLB) is the preferred option for financing net zero projects in my organisation

National Wealth Fund (NWF) is the preferred option for financing net zero projects in my organisation

GB energy is the preferred option for financing net zero projects in my organisation

Private capital (e.g. pension fund investors) is the preferred option for financing net zero projects in my organisation



A LAEP provides a high-level breakdown of investment needed in an area by technology type

To reach a Net Zero energy system by 2040, Lancaster District requires a total investment of:

£6.3 bn

which represents an 18.4% uplift on the counterfactual 'Do Nothing' scenario which requires investment of £5.3bn.

Including up to:

£1.7 bn

in **domestic properties** (including building fabric upgrades and heating systems)

and **£0.4 bn**

investment in local renewable generation between now and 2040

Bringing potential local co-benefits of:

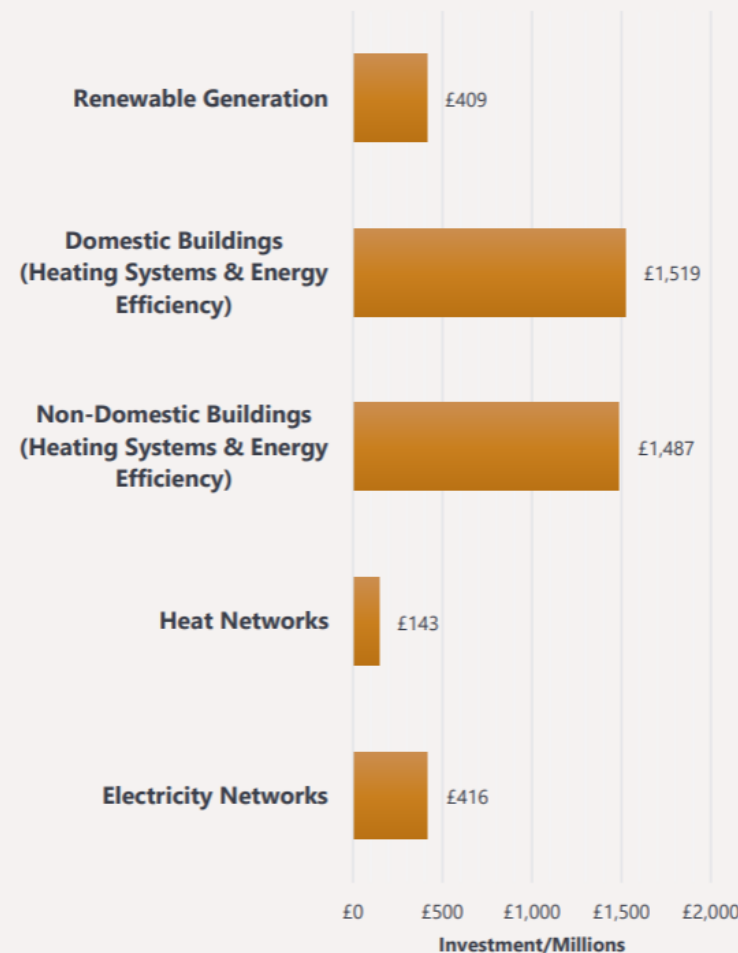
> 500 jobs

Additional Full-Time Equivalents (FTE) supported (to 2050) relative to 'Do Nothing' scenario

and up to **£2m**

in **monetisable air quality health benefits**

Investment Breakdown to 2050 *



In a 2040 Net Zero future, Lancaster District's energy system will have been **transformed**, with:

60,000

heat pumps installed in dwellings

5,400

new domestic connections...

...and at least **175,000 m²**

floor space of **non-domestic buildings** connected to **District Heat Networks**

~38,500 domestic properties

retrofitted with measures to improve **building fabric and energy efficiency** (insulation and glazing)

1,250

public electric vehicle charge points installed

up to **575 GWh**

of annual renewable electricity generation from onshore wind and solar PV

And **3,000 kt CO₂** saved

cumulatively to 2050 relative to 'Do-Nothing'. This is equivalent to 10 return flights from Manchester to New York for every person in Lancaster District **.

Stage 3: Investor engagement

Project investment prospectus template

Title: *Project name, Local/Combined Authority*

Categorisation: Initial conversation, immediate investment

Location:

Technical information:

Asset type:

e.g. renewable energy generation

PROJECT	OVERVIEW	TIME HORIZON FOR PROJECT	NUMBER OF PROJECTS	CAPEX REQUIRED (BN)	OPEX REQUIRED (BN)
Heat Networks		3-5 years	3	£1.1	ESC to add info here

Governing body:

Project maturity: *Feasibility assessment through to final investment decision*

Planning status:

Desired delivery model: *(debt funded, on balance sheet, Project SPV, Equity Share and control provisions).*

Gross development value (£m):



BREAKOUT SESSION 3



DISCUSSION QUESTIONS

How do you foresee the impact of devolution and local government reorganisation on achieving net zero and strategic energy delivery?

What specific challenges and opportunities do you anticipate in this transition, particularly in terms of policy alignment, funding, and stakeholder collaboration?



TIME FOR A BREAK





STRATEGIC PLAN CREATION



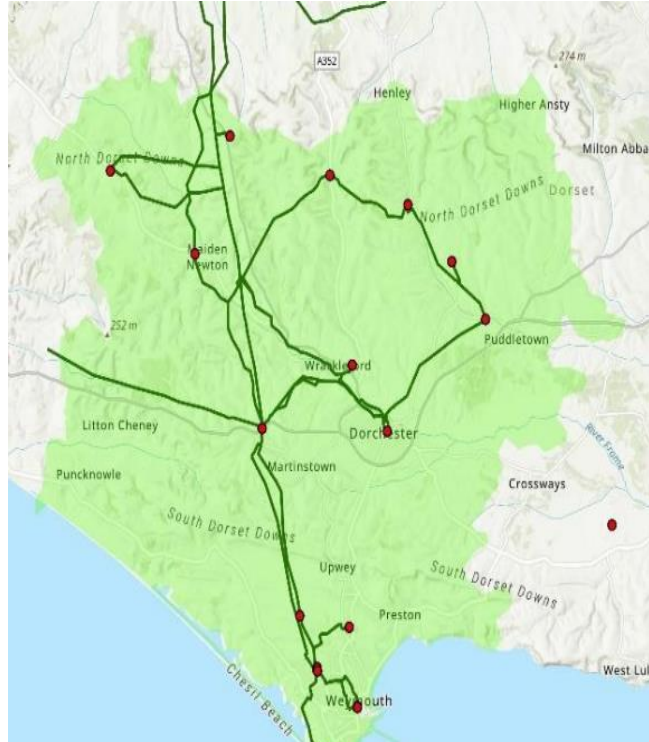
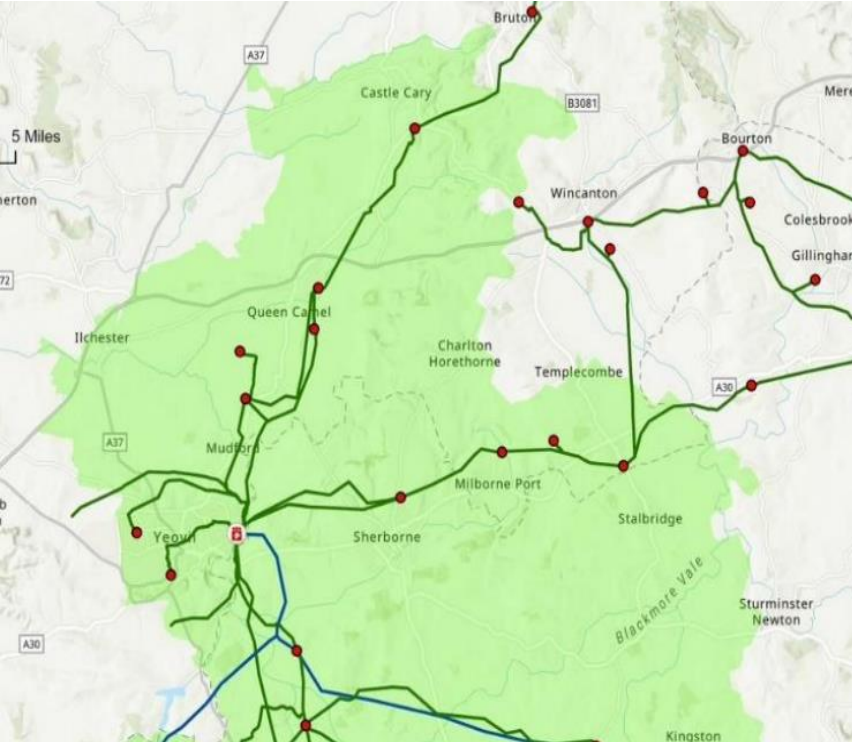
GETTING BUY-IN FOR A LAEP

Carl Warom
Dorset Council



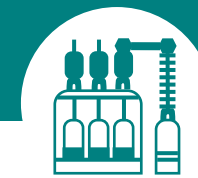
Scottish & Southern
Electricity Networks

DSO Powering Change



GETTING BUY-IN FOR A LAEP: DORSET COUNCIL GRID SCRUTINY INQUIRY

11 FEBRUARY 2025



The problems:

1. Buy-in:

Given the costs and a lack of statutory duty, how can we get buy-in from members and senior leaders to develop a LAEP or get them enthused about RESPs?

2. Upskill and enthuse:

How can we upskill members and officer to be better informed about a very complex topic?

The solution:

A **structured scrutiny activity** – basically a mix of tutorial and oral evidence-gathering. **Not a commissioned technical study/report.**

It's a **simple and replicable approach** for a way **to develop support and enthusiasm for energy planning**, using grid constraints as a route in (rather than, say, renewables).

If you want to do something similar, you could largely lift the template materials with **minor modifications.**

Main objectives:

1

Grow understanding and awareness of the issues to enable better engagement and advocacy;

2

Gather evidence from key stakeholders on local impacts, and possible solutions – and get buy-in to go further through a LAEP

3

Strengthen links with network operators and form a wider view of how the council could best mitigate risks and exploit opportunities for Dorset

It aimed to convey and elaborate on three fundamental points:

1

There's significant strategic risks to the grid, and they threaten to worsen as more sources of demand and supply aims to connect.

2

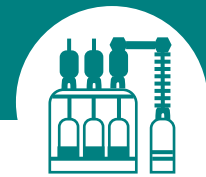
There is a significant programme of reform underway nationally from Government, Ofgem and network companies.

3

This presents significant opportunities for the council to play a more strategic role in the emerging future energy system.

The focus was limited to electricity grid constraints, rather than broader energy system challenges, to keep it manageable. And it wasn't framed just as a net zero issue – but maintained broader focus on development and economic issues/impacts too.

1. Structure of the process
2. Supporting materials
3. Final report:
 - Issues, impacts & solutions
 - Primary diagnoses
 - Key implications & recommendations
 - Appendix on reforms
4. Outcome and next steps



1. Structure of the process



Who?

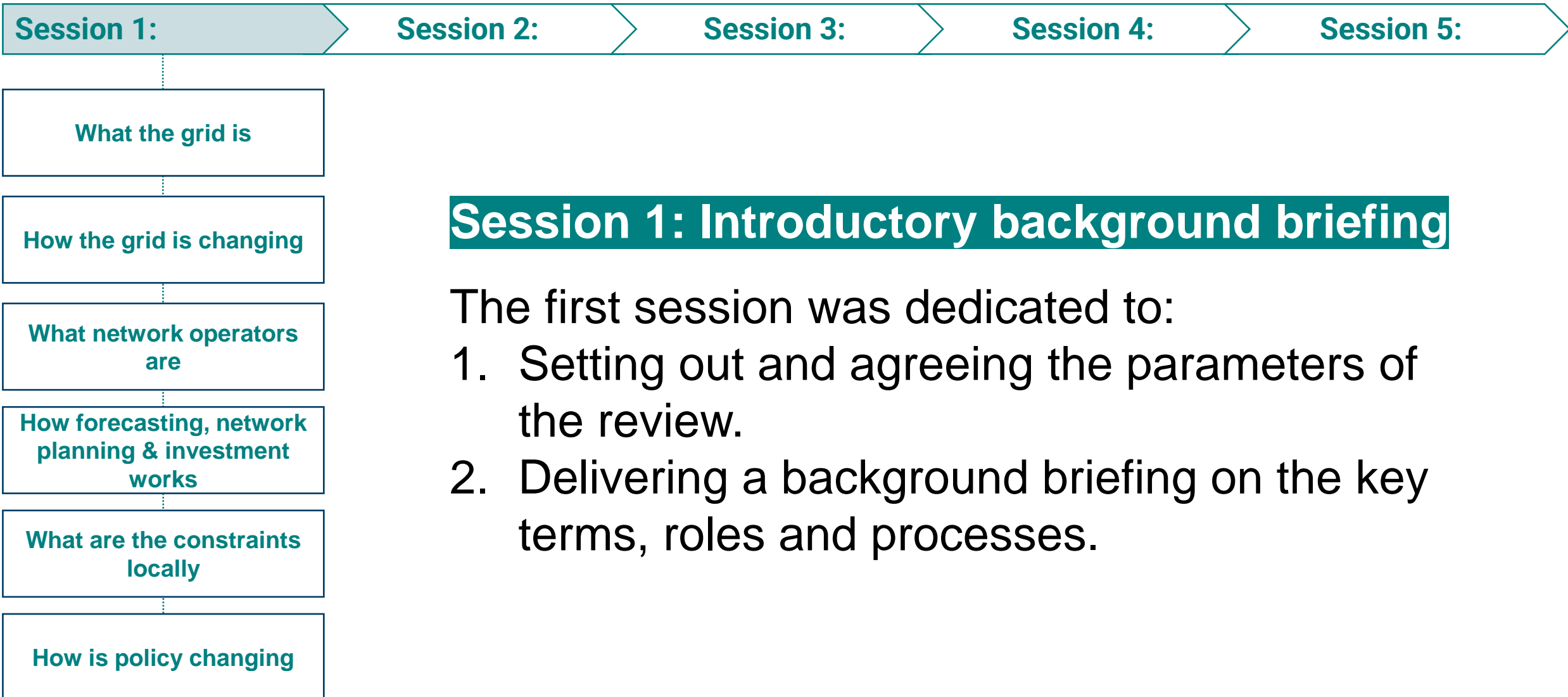
- **8 member, cross-party**, scrutiny task & finish group
- Supported by **1x officer and 2x Corporate Directors** (for Sustainability, and for Planning & Ec Growth)

How?

- **5 sessions totalling 12hrs** (and a bit)
- **Spread over 5 days** across Oct 23 to Jan 24 – but you could condense this into a much shorter timeframe if you wanted to.



*The first four sessions did overrun by 30min to 1hr



Session 1: Introductory background briefing

The first session was dedicated to:

1. Setting out and agreeing the parameters of the review.
2. Delivering a background briefing on the key terms, roles and processes.

Structure of the process

Session 1:

Session 2:

Session 3:

Session 4:

Session 5:

What the grid is

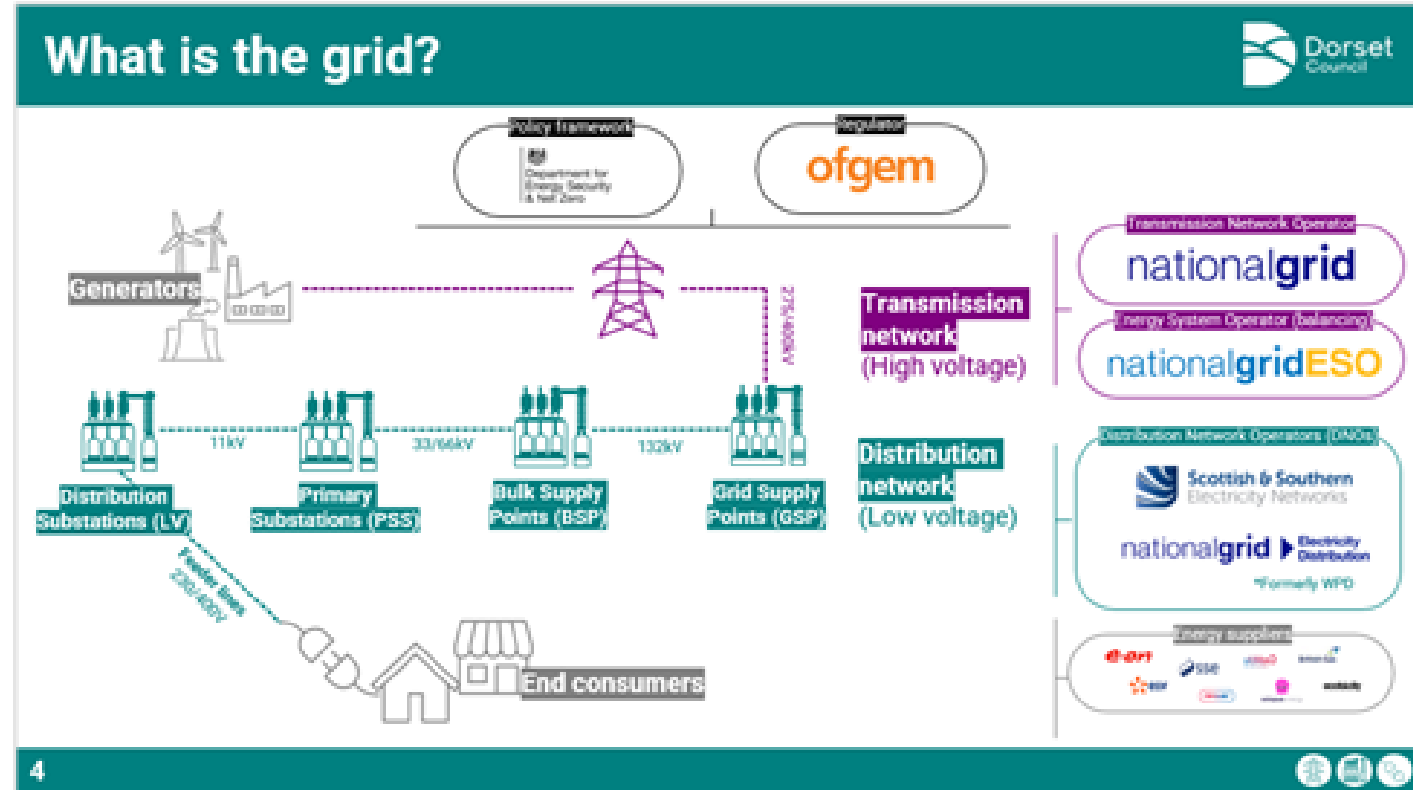
How the grid is changing

What network operators are

How forecasting, network planning & investment works

What are the constraints locally

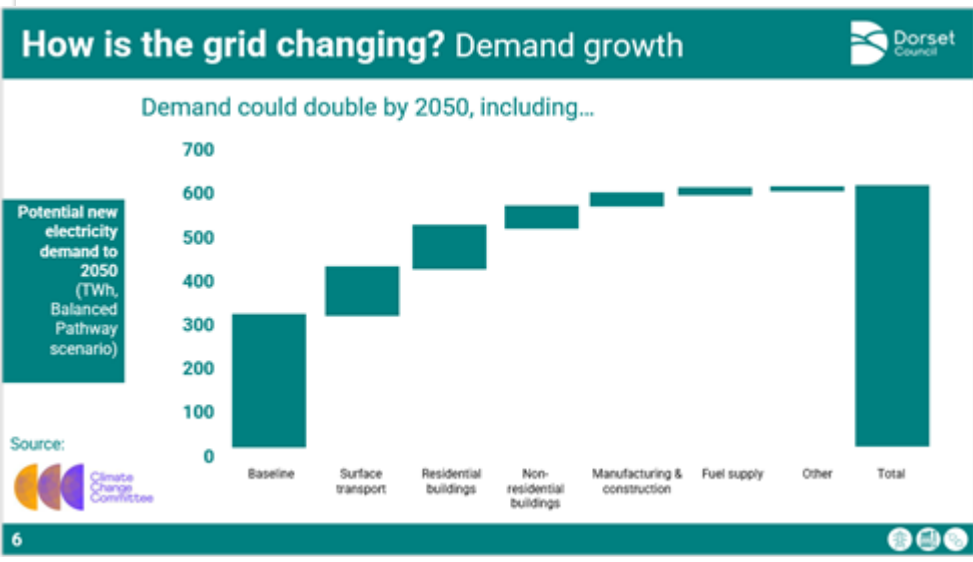
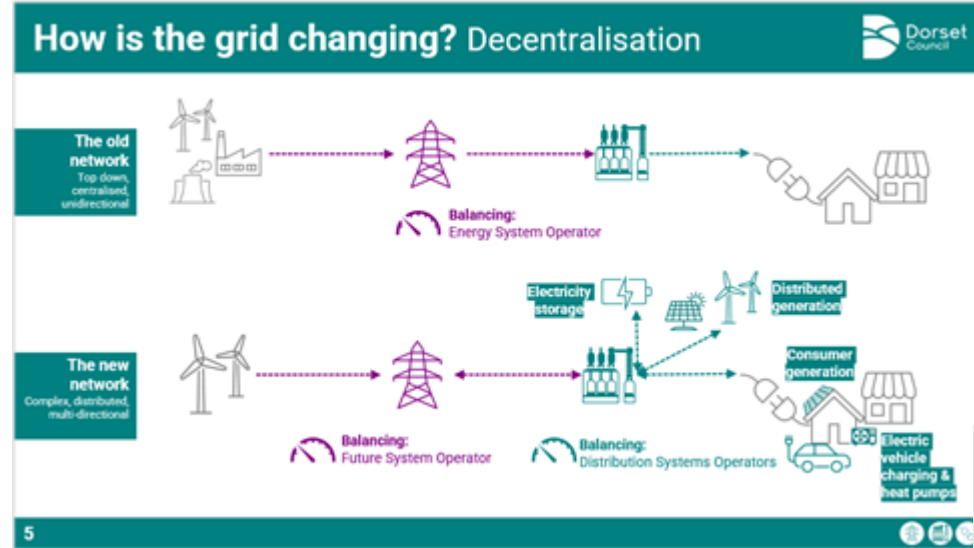
How is policy changing



Structure of the process



- What the grid is
- How the grid is changing
- What network operators are
- How forecasting, network planning & investment works
- What are the constraints locally
- How is policy changing



Structure of the process



- What the grid is
- How the grid is changing
- What network operators are
- How forecasting, network planning & investment works
- What are the constraints locally
- How is policy changing

What are DNOs? License areas

Dorset's Distribution Network Operators (DNOs) are

- Scottish & Southern Electricity Networks (SSEN)
- National Grid Electricity Distribution (NGED)

What are DNOs? Upgrades and costs

DNOs have a responsibility to ensure **capacity and cost-effective reinforcement** to lines, cables or substations. That may result from...

- Incremental demand growth
- New connection requests
- Forecast demand growth

Customers partly bear the costs for upgrades through...

Distribution Use of System (DUoS) charges:
Ongoing charges paid by all network users for ongoing operations and reinforcements needed for incremental increases

Connection charges:
One-off costs invoiced to customers directly to recover part of the costs of requested new connections

What are DNOs? DSOs and flexibility

Local operators will take on a larger role in balancing supply and demand on the distribution network. This is called the 'DNO-DSO transition', as they're moving from Distribution Network Operators to Distribution System Operators.

Flexibility, smart tech and demand-side response solutions will be important to consider alongside reinforcements as a factor in managing capacity.



Structure of the process



What the grid is

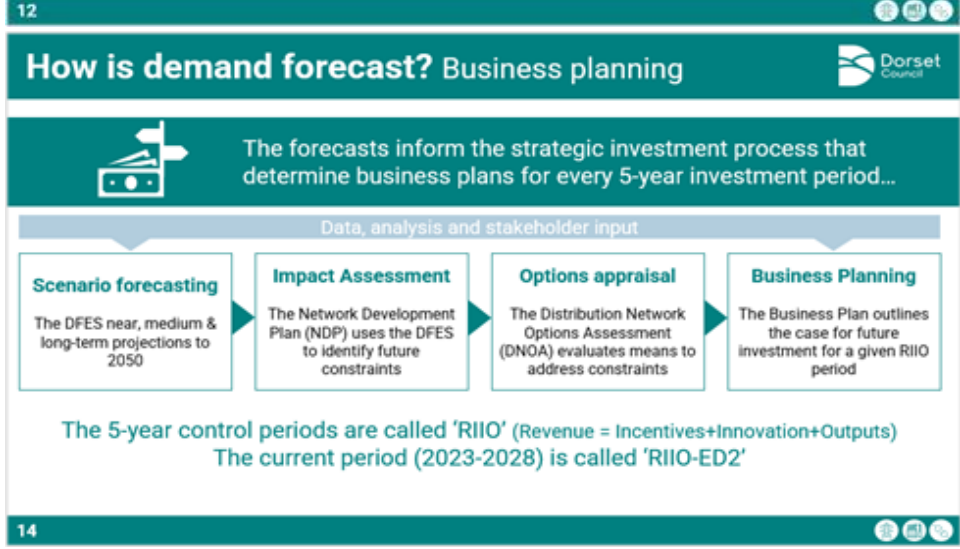
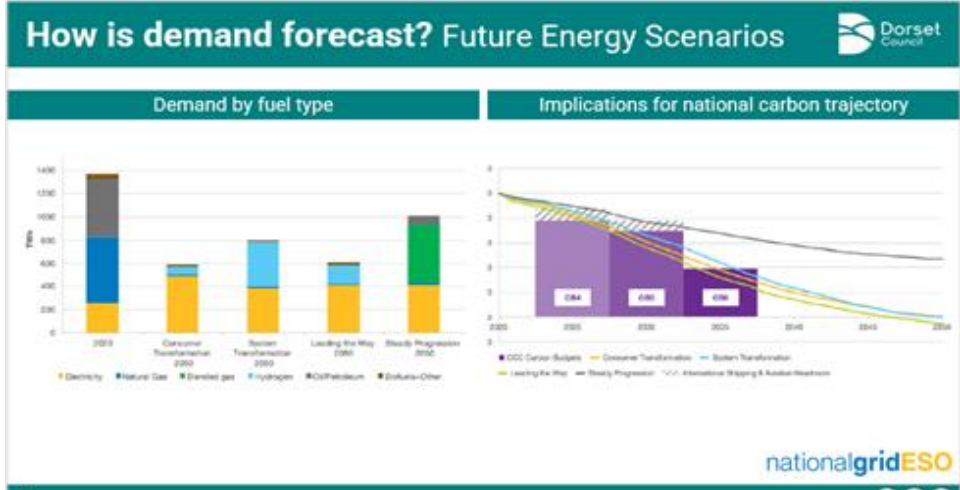
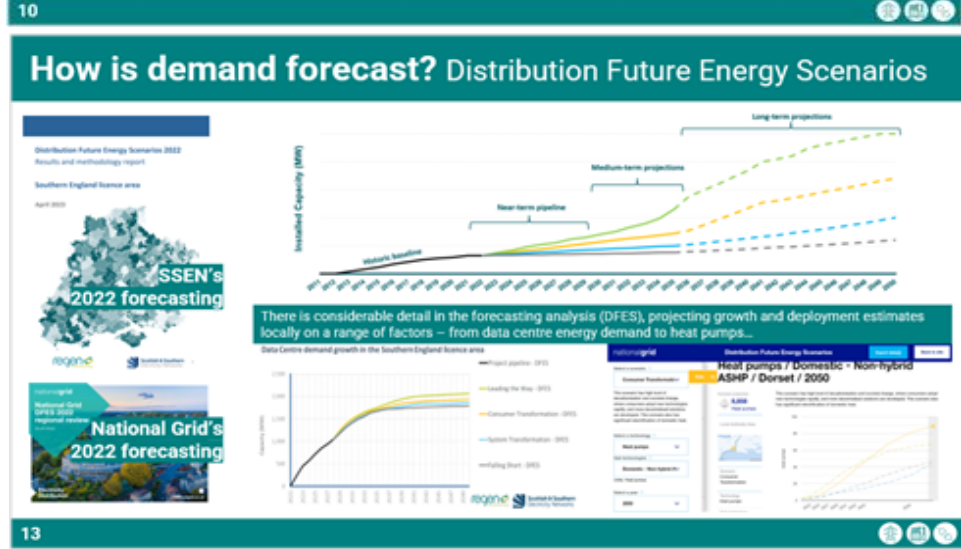
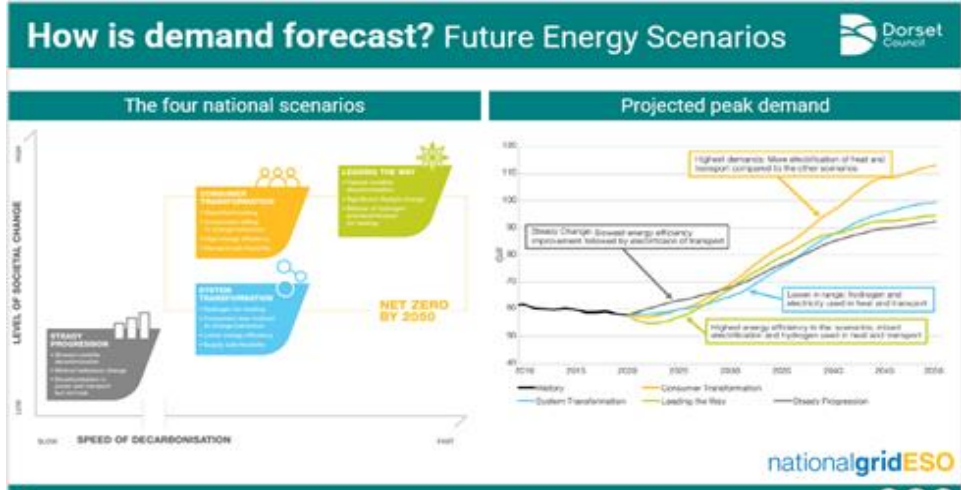
How the grid is changing

What network operators are

How forecasting, network planning & investment works

What are the constraints locally

How is policy changing



Structure of the process

Session 1:

Session 2:

Session 3:

Session 4:

Session 5:

What the grid is

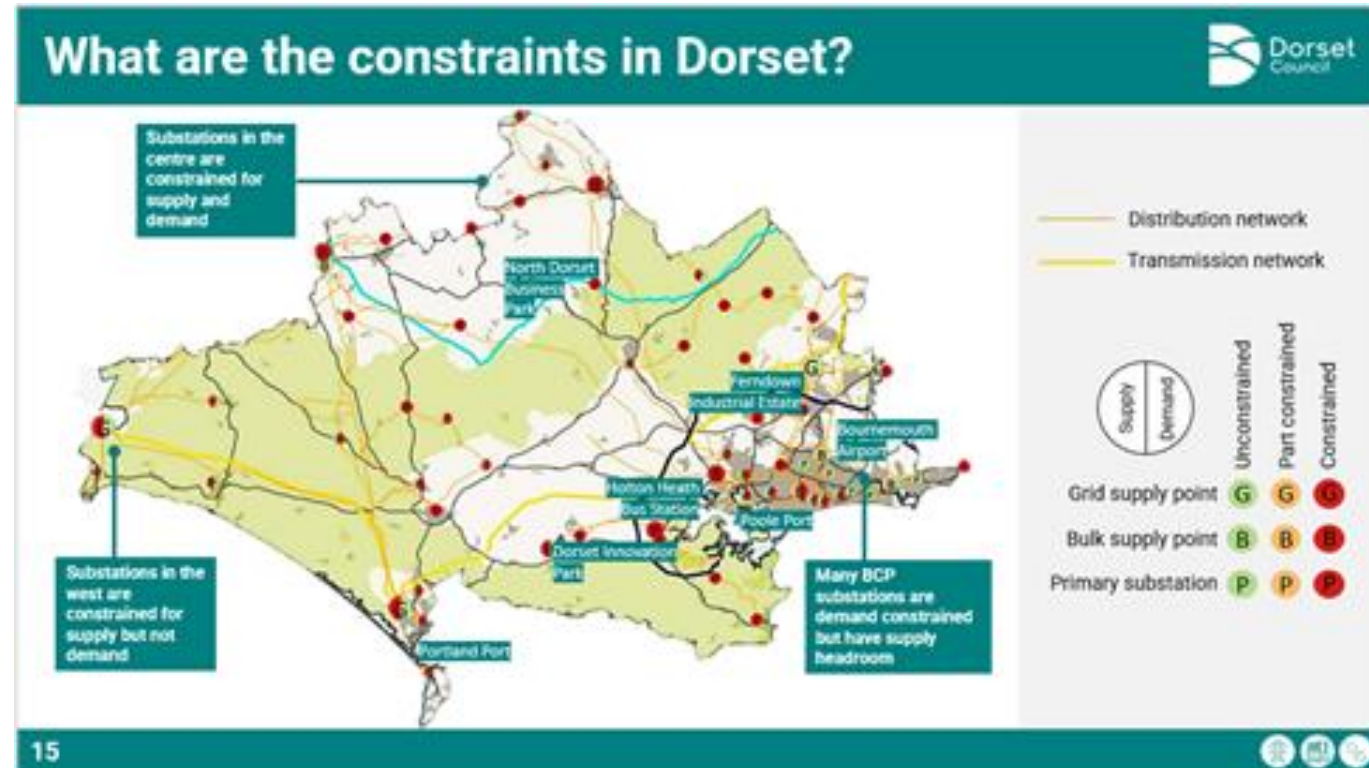
How the grid is changing

What network operators are

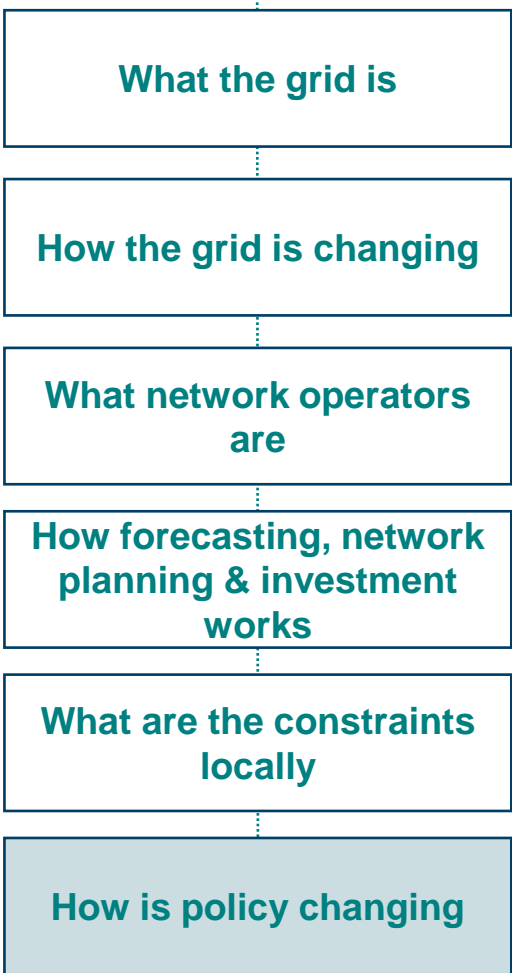
How forecasting, network planning & investment works

What are the constraints locally

How is policy changing



Structure of the process

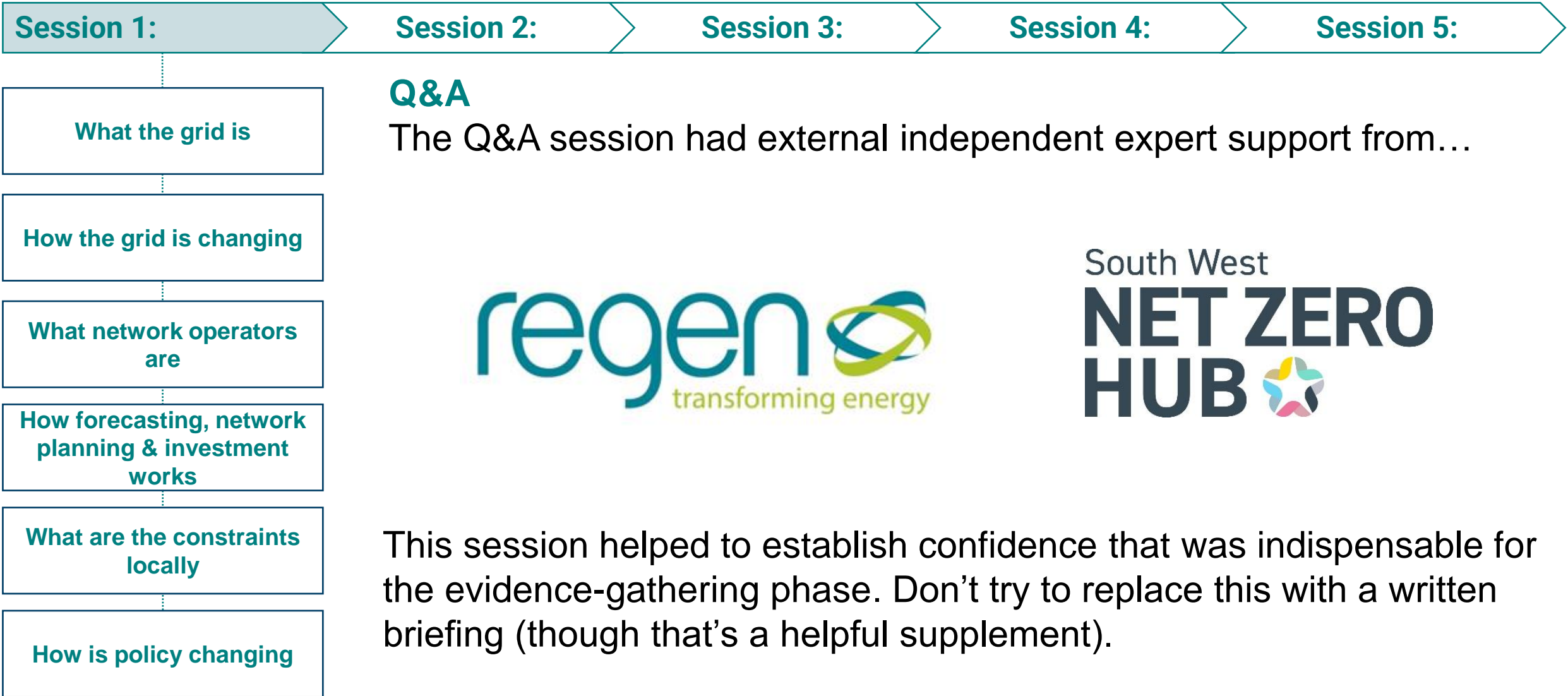


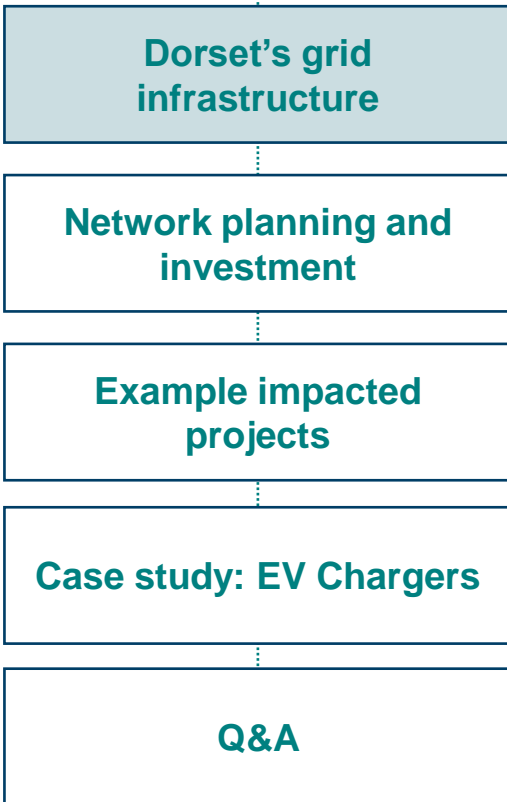
How is policy changing?

British Energy Security Strategy	A strategy for affordable, clean, low carbon and secure energy. Grid commitments include a Future System Operator; commissioner role; Holistic Network Design and Centralised Strategic Network Plan; expediting approvals, procurement & connections; community benefits; better offshore wind support; and expediting flexibility measures.
Electricity Network Strategic Framework	Sets out a shared government/Ofgem vision and action for transformation of the network and future policy & regulation – for an efficient, smart & digitised, strategically planned, efficiently built, cost-effective and timely connection, affordable grid.
Building standards, planning, land rights & consents	Future Homes and Building Standards will set key positions on things like building efficiency and cooling measures, which will be a key determinant of electricity demand; and future National Planning Policy Framework reform on the deployment of onshore renewables.
Charges reform	Ofgem's Significant Code Review is looking at the future charging regime. It has already completed its Access and Forward-Looking Charges Significant Code Review, removing reinforcement charges for demand customers and cutting them for generators. It's Distribution Use of System (DUoS) charges review is ongoing.
Queuing reform	Ofgem has launched a policy review to speed up low-carbon energy scheme connections, to amend the 'first come first served' queuing system.
Governance reform	This sets out proposals for future institutional and governance arrangements, including the role of Regional Systems Planners.

16







Session 2: Impacts on council activity

The second session was dedicated to:

1. Elaborating a little more on grid infrastructure, planning and investment
2. Looking at some case studies from the council's own projects
3. Hearing from the experiences of relevant officers

Structure of the process



- Dorset's grid infrastructure
- Network planning and investment
- Example impacted projects
- Case study: EV Chargers
- Q&A

Dorset's key grid infrastructure

Grid Supply Points	Bulk Supply Points (13)	Primary Substations (53)			
Axminster	Bournemouth	Christchurch	Hamworthy	Bourton	West Hendford
Chickrell	Chickerell	Blandford	East Howe	Gillingham	Yeovil
Mannington	Christchurch	Corfe Mullen	Redhill	Shaftesbury	Cerne Abbas
	Lytchett	Creekmoor	Homington	Shroton	Charminster
	Mannington	Winterbourne Kingston	Gussage St Michael	West Stour	Chickerell
	Poole	Ferndown	Minchington	Wincanton	Dorchester Town
	Redhill	Fordingbridge	Tarrant Rushton	Parkstone South	Maiden Newton
	Salisbury	Hinton Martell	Henstridge	Bovington	Redlands
	Shaftesbury	Mannington	Pulham	Bushey	Weymouth
	Wareham	Mill Lane, Ringwood	Sherborne	Swanage	Portland
	Wareham	Rockbourne	Yetminster	Wareham Town	Beaminster (NGED)
	Winfrith heath	Verwood	Piddletrenthide	Chilton Cantello	Bridport (NGED)
	Yeovil	Wimborne	Puddletown	Milborne Port	Penn Cross (NGED)
	Woodcote (NGED)	Wimborne St Giles			

6



Dorset's key grid infrastructure

Axminster GSP
Supplies Yeovil BSP
>47,000 customer

Chickerell GSP
Supplies Chickerell BSP
>62,000 customers

Mannington GSP
Supplies all other BSPs
~408,000 customers

8



Structure of the process



Dorset's grid infrastructure

Network planning and investment

Example impacted projects

Case study: EV Chargers

Q&A

Information & network planning documents

Heat Maps

- Updated regularly.
- Show current constraints and capacity.
- Show where reinforcements would most likely be triggered.

Long-term Development Statements

- Annual statements (November).
- Scenario-based.
- Show expected constraints for the next 5 years.

Distribution Future Energy Scenarios

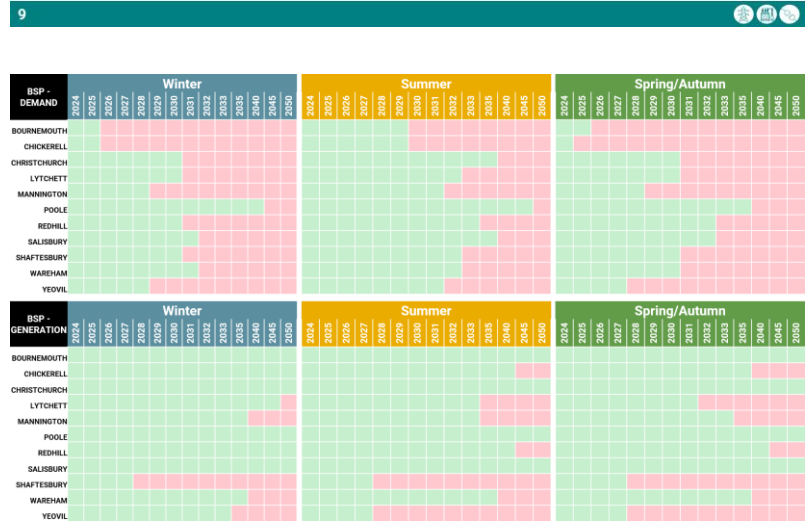
- Annual analysis
- Scenario-based, projections.
- Forecast constraints to 2050.

RIIO-ED Business Plans

- Produced for each 5yr RIIO-ED period (now 2023-28).
- Approved by Ofgem.
- Informed by the DFES.

Network Development Plans

- 10yr plan.
- Show intent...
- ...but can be modified by new DFES analysis and are subject to Business Plan approval.



Network Development Plans

The Network Development Plan (NDP) (specifically, the 'Network Scenario Headroom Report' it contains) overviews forecast headroom capacity (or the lack of it) for Bulk Supply Points and Primary Substations to 2050.

It forecasts where there is capacity, where more is needed, and where flexibility services might be needed.

It considers all four of the DFES scenarios. The 'Consumer Transformation' scenario is considered most likely.

The faster we decarbonise, the faster constraints might bite – i.e. they're a limiting factor on the pace of decarbonisation.

We show here the earliest date constraints could bite, which is not necessarily the most likely date.

Note two key things:

- Red doesn't mean you can't connect without reinforcement – other options (like flexibility) may be available.
- There are also upstream transmission constraints at our Grid Supply Points until 2036.

SSEN's proposed investments 2023-2028

Axminster

Investment	Asset	Asset Information	Proposed	Headroom Capacity & Season	Reinforcement Costing By...
Investment Primary Substation	Thermal	Use flexibility solution for base years and then reinforce a 100kVA EV transformer.	Summer	0.2MW	11.0MW
Investment BSP	Thermal	Use flexibility solution for base years and then reinforce a 100kVA EV transformer.	Summer	1.0 - 4.4 MW	1.9MW

Chickrell

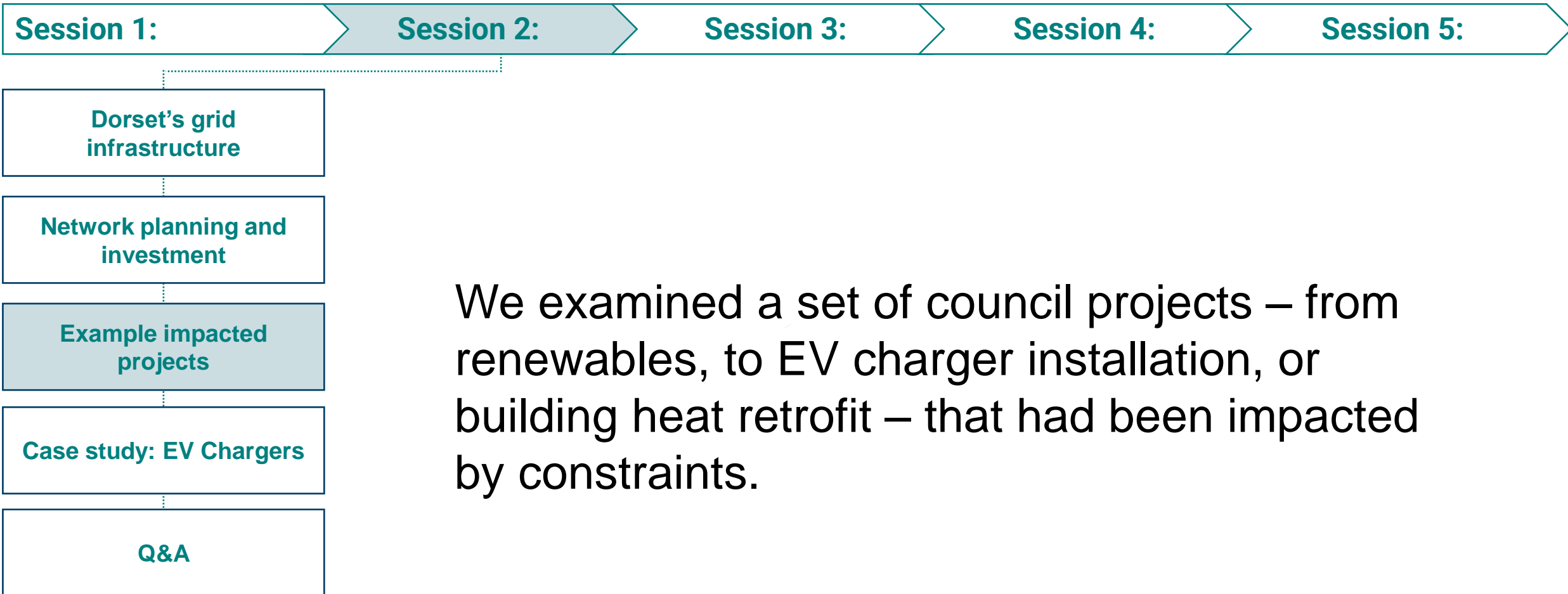
Investment Primary Substation	Thermal	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	N/A	20.2MW
Investment Primary Substation	Thermal	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	N/A	2.0MW

Mannington

Investment BSP	Asset Health	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	9.3MW	20.2MW
Investment Primary Substation	Thermal	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	0.1 - 1.0MW	2.0MW
Investment Primary Substation	Thermal	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	7.7MW	10.2MW
Investment Primary Substation	Thermal	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	1.0 - 1.0MW	2.0MW
Investment Primary Substation	Thermal	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	17.0MW	20.2MW
Investment Primary Substation	Thermal	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	0.2 MW	2.0MW
Investment Primary Substation	Thermal	Replace the existing 150kV transformer due to Asset Health and increase capacity by reinforcing with a 2 x 120kVA EV transformers.	Summer	0.4 - 1.0MW	2.0MW



Structure of the process

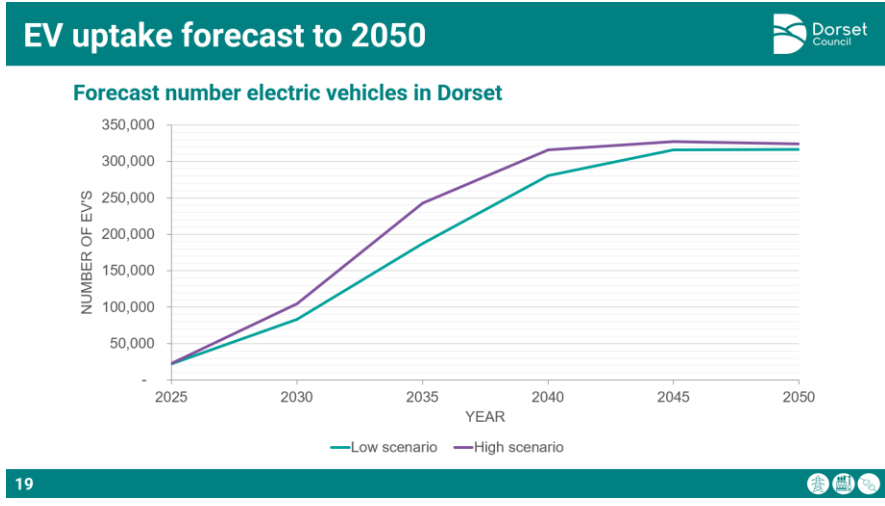


We examined a set of council projects – from renewables, to EV charger installation, or building heat retrofit – that had been impacted by constraints.

Structure of the process



- Dorset's grid infrastructure
- Network planning and investment
- Example impacted projects
- Case study: EV Chargers
- Q&A



19

EV infrastructure forecast to 2035

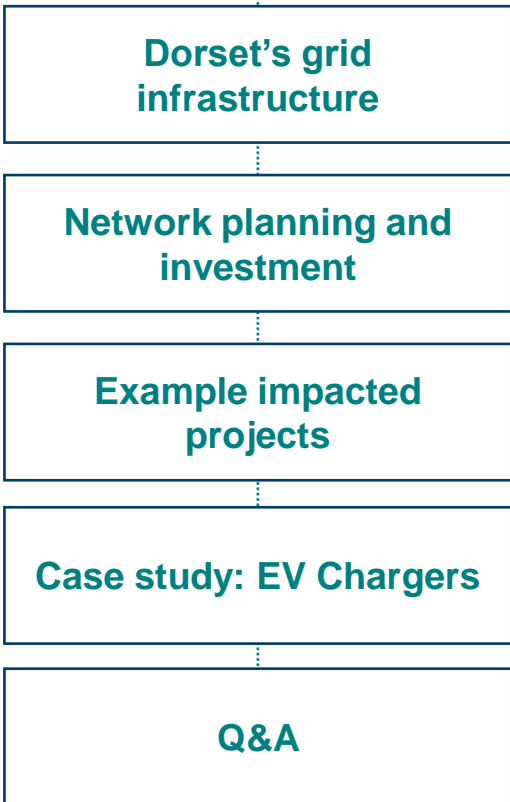
Public EVCP Sockets Required in Dorset

	2025	2030	2035
Fast	210 - 640	430 - 1,570	1170 - 3,880
Rapid	10 - 60	10 - 100	80 - 320
TOTAL	230 - 700	440 - 1,670	1250 - 4,200

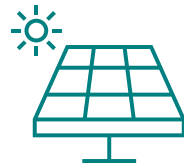
21



Structure of the process



Council officer discussion/Q&A included colleagues from...



Sustainability/Energy team



Estate retrofit team



Planning team



Transport team



Session 3: Impacts on wider county projects

The third session was dedicated to hearing from external stakeholders on their experiences, covering:

1. Low carbon tech installers
2. Public sector and community projects
3. High-energy using businesses and economic development
4. Housing development



Renewables, Retrofit and Electric Vehicle Chargers

Public sector and community projects

Business & economic development

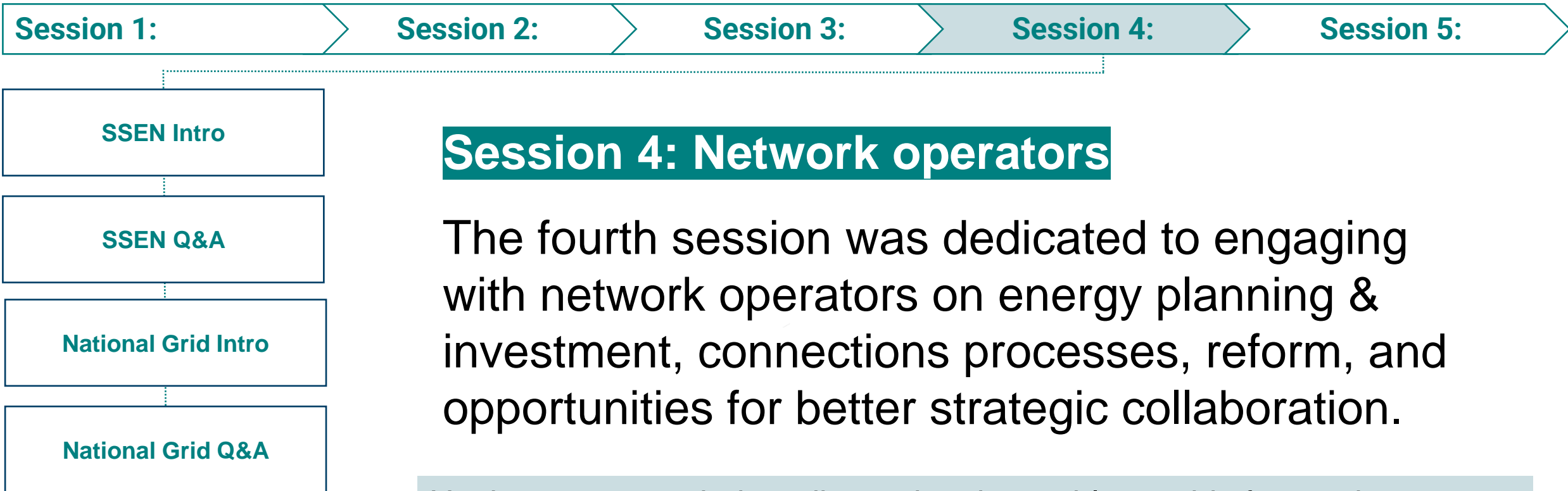
Housing development

This session had no initial briefing – it launched straight into four thematic Q&As.

It included participation from:

- Dorset Council's Cabinet
- Regen and the South West Net Zero Hub
- Large and small scale renewables developers
- Retrofitters
- EV chargepoint installers
- Public sector partners
- Community energy initiatives
- High energy-using businesses
- Economic development representatives
- Housing developers and housing associations

They were very easy to get engaged – they were very keen to share on the challenges they'd faced.



Session 4: Network operators

The fourth session was dedicated to engaging with network operators on energy planning & investment, connections processes, reform, and opportunities for better strategic collaboration.

Having spent much time discussing the problems, this focused on opportunities. The key thing we wanted to convey was the need to think of energy, development and transport as a triad of interlinked strategic spatial issues in which we have equal strategic interest – and that things like LAEPs and RESPs mean we could play a more central role in strategic energy planning in the future.

Structure of the process



SSEN Intro

SSEN Q&A

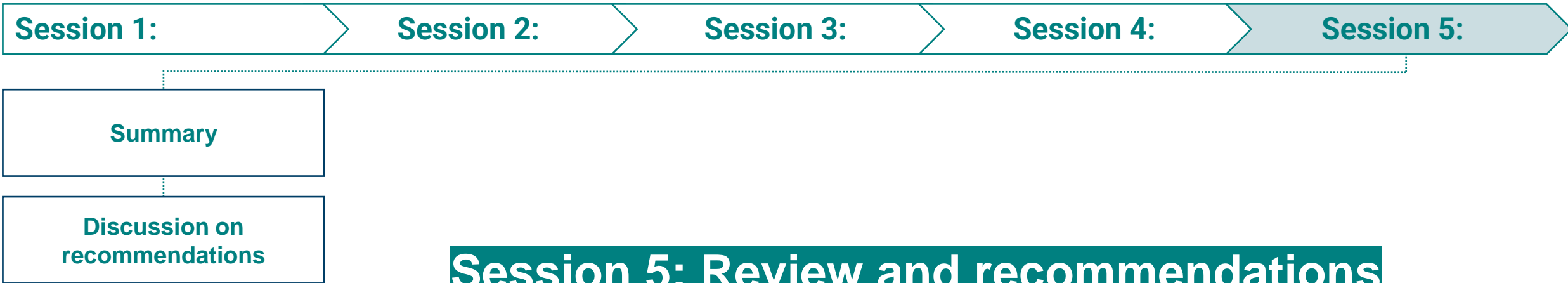
National Grid Intro

National Grid Q&A

Key issues we discussed included...

LAEPs	RESPs	LENZA	Innovation Funding	RIIO-ED2 process and uncertainty mechanisms
Data and visualisation	Connections charges	Connections queuing	Ofgem reforms and the Connections & Transmission Action Plans	Business Planning and the shift to anticipatory investment

Key takeaway: Lots of opportunity and enthusiasm for more regular strategic dialogue



Session 5: Review and recommendations

The fifth session recapped and summarised the discussions from the final session – and defined recommendations for Scrutiny and Cabinet.

2. Supporting materials



Scoping document &
terms of reference

Structured agendas and
slides

Background briefing
notes

Issues tracker and
narrative

The review was pretty resource-light – involving only staff time for those involved in the sessions, and my work producing supporting materials and final report.

Most of my time was taken up setting up the meetings, producing these materials and final report – but **you could lift a lot of that quite easily.**

The process was supported by 4 kinds of supporting material. These are easily replicable for other areas with minimal effort.

Scoping document & terms of reference

Structured agendas and slides

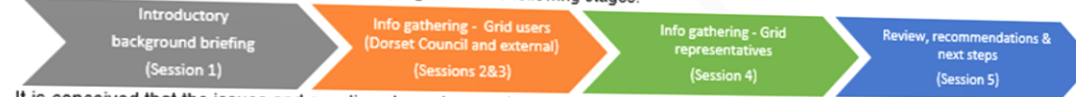
Background briefing notes

Issues tracker and narrative

Grid Capacity Review – Draft proposal

The Places and Resources Scrutiny Committee has [determined](#) that an 8-person member Task and Finish group should be established to undertake a review of the strategically significant issue of constrained grid capacity, with a report on findings to then be brought back to a future committee meeting. The review aims to grow understanding and awareness of members, gain better insight into user needs and future grid reform and investment plans, and strengthen our capacity for influence on future strategic planning and investment.

This draft proposal suggests that the review progress in the following stages:



It is conceived that the issues and questions to explore are largely discernible in advance, and that relevant internal officers will refine potential questions and produce adequate background briefings for participants ahead of the sessions. An early initial set of questions is appended.

Session 1 – Introductory background briefing: Overview of Grid Capacity issues	
Week 1, 2hr – Monday 16 October, 2.00 - 4.00pm, Committee Room 3, County Hall, Dorchester	
Purpose	Issues
For the task & finish group to gain an introductory briefing on key issues.	Part 1 – introduction to key issues: <ul style="list-style-type: none"> Electricity grid introduction Main stakeholders Dorset's current position and issues Looking forward – future scenarios Funding and investment process Action to date National plans (Government, Ofgem, NG)
Part 2 – Further introductions from SW Net Zero Hub and Regen on their role, research/work and to gain their insight.	
Session 2 – Info gathering: Impacts on Dorset Council	
Week 1, 2hrs – Monday 6 November, 2.00 - 4.00pm, Committee Room 2, County Hall, Dorchester	
Purpose	Issues
For internal stakeholders to explain impacts	Impacts on the council's ability to deliver services, functions & ambitions (current and forecast): <ol style="list-style-type: none"> Renewables & retrofit EV infrastructure

Potential questions for the Task & Finish Group to raise (to be refined)

Primary questions:

1. What are the risks to our strategic ambitions arising from grid constraints?
2. How does strategic planning and investment work and how can we strengthen and influence it?
3. How can we strengthen our own policy for quicker, more affordable connections and flexibility?

Secondary questions:

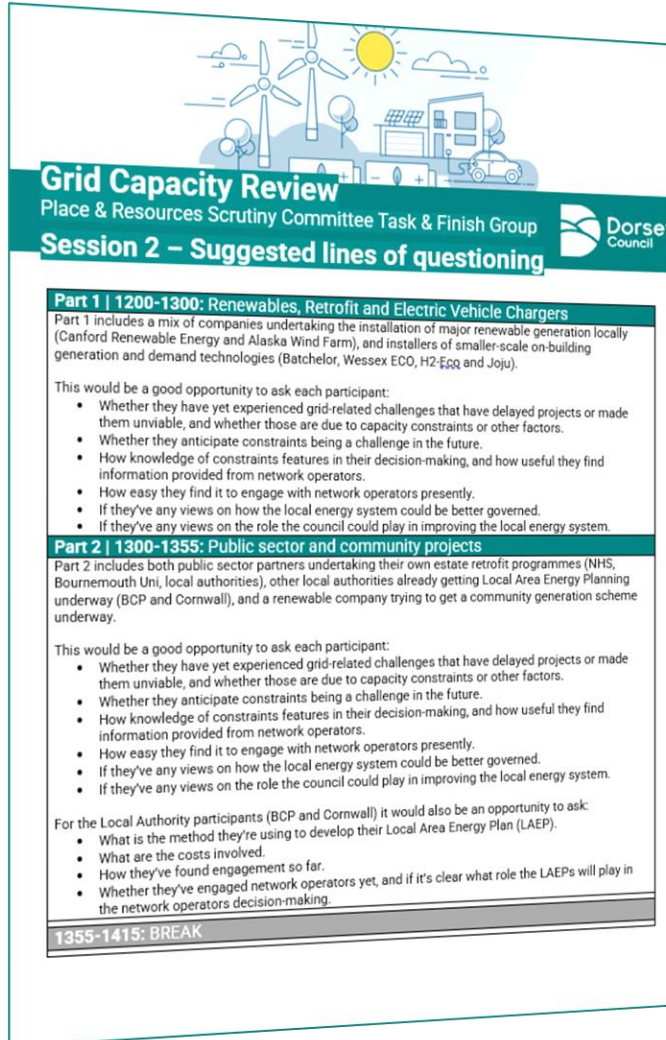
- and supply points and reinforcements?
- ENOs?
- Networks Commissioner?
- Consistency, and what is the role of storage and digitalisation?
- Curtail demand?
- Role of smart meters and appliances, home storage, and time of use tariffs?
- (e.g. British Energy Security Strategy, Holistic Network Design, Network Work Plan, Electricity networks strategic framework, Smart Systems and Digitalisation strategic reinforcement plans)?
- Scenarios?
- Storage hazards, what is the Storm Arwen review, and how could this interact with?
- What is the size and nature of the backlog?

Scoping document & terms of reference

Structured agendas, slides and question prompts

Background briefing notes

Issues tracker and narrative



Grid Capacity Review
Place & Resources Scrutiny Committee Task & Finish Group
Session 2 – Suggested lines of questioning

Part 1 | 1200-1300: Renewables, Retrofit and Electric Vehicle Chargers
Part 1 includes a mix of companies undertaking the installation of major renewable generation locally (Canford Renewable Energy and Alaska Wind Farm), and installers of smaller-scale on-building generation and demand technologies (Batchelor, Wessex ECO, H2-FCO and Joju).

This would be a good opportunity to ask each participant:

- Whether they have yet experienced grid-related challenges that have delayed projects or made them unviable, and whether those are due to capacity constraints or other factors.
- Whether they anticipate constraints being a challenge in the future.
- How knowledge of constraints features in their decision-making, and how useful they find information provided from network operators.
- How easy they find it to engage with network operators presently.
- If they've any views on how the local energy system could be better governed.
- If they've any views on the role the council could play in improving the local energy system.

Part 2 | 1300-1355: Public sector and community projects
Part 2 includes both public sector partners undertaking their own estate retrofit programmes (NHS, Bournemouth Uni, local authorities), other local authorities already getting Local Area Energy Planning underway (BCP and Cornwall), and a renewable company trying to get a community generation scheme underway.

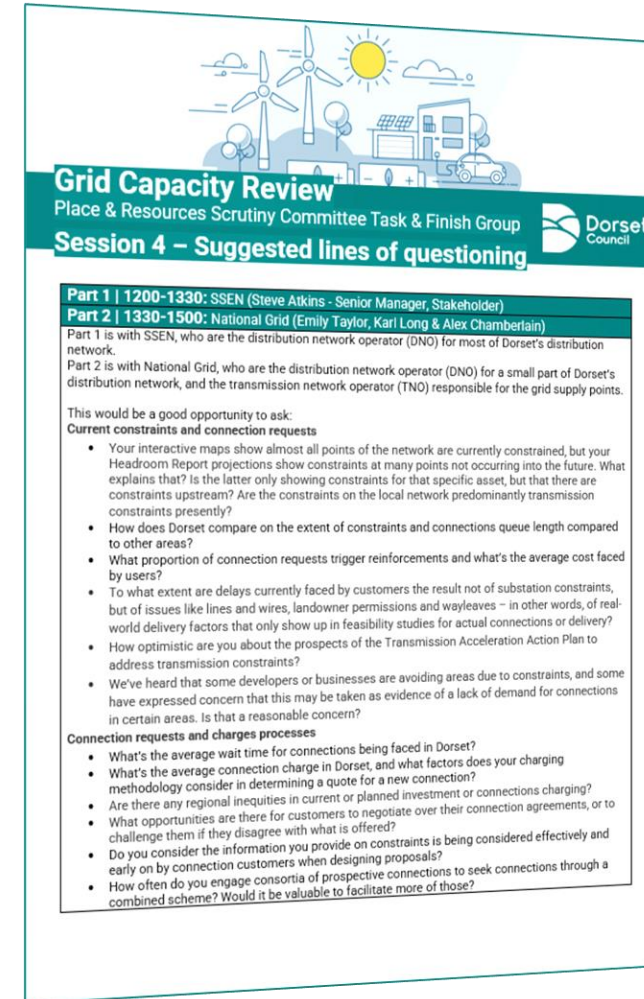
This would be a good opportunity to ask each participant:

- Whether they have yet experienced grid-related challenges that have delayed projects or made them unviable, and whether those are due to capacity constraints or other factors.
- Whether they anticipate constraints being a challenge in the future.
- How knowledge of constraints features in their decision-making, and how useful they find information provided from network operators.
- How easy they find it to engage with network operators presently.
- If they've any views on how the local energy system could be better governed.
- If they've any views on the role the council could play in improving the local energy system.

For the Local Authority participants (BCP and Cornwall) it would also be an opportunity to ask:

- What is the method they're using to develop their Local Area Energy Plan (LAEP).
- What are the costs involved.
- How they've found engagement so far.
- Whether they've engaged network operators yet, and if it's clear what role the LAEPs will play in the network operators decision-making.

1355-1415: BREAK



Grid Capacity Review
Place & Resources Scrutiny Committee Task & Finish Group
Session 4 – Suggested lines of questioning

Part 1 | 1200-1330: SSEN (Steve Atkins - Senior Manager, Stakeholder)
Part 2 | 1330-1500: National Grid (Emily Taylor, Karl Long & Alex Chamberlain)
Part 1 is with SSEN, who are the distribution network operator (DNO) for most of Dorset's distribution network.
Part 2 is with National Grid, who are the distribution network operator (DNO) for a small part of Dorset's distribution network, and the transmission network operator (TNO) responsible for the grid supply points.

This would be a good opportunity to ask:

Current constraints and connection requests

- Your interactive maps show almost all points of the network are currently constrained, but your Headroom Report projections show constraints at many points not occurring into the future. What explains that? Is the latter only showing constraints for that specific asset, but that there are constraints upstream? Are the constraints on the local network predominantly transmission constraints presently?
- How does Dorset compare on the extent of constraints and connections queue length compared to other areas?
- What proportion of connection requests trigger reinforcements and what's the average cost faced by users?
- To what extent are delays currently faced by customers the result not of substation constraints, but of issues like lines and wires, landowner permissions and wayleaves – in other words, of real-world delivery factors that only show up in feasibility studies for actual connections or delivery?
- How optimistic are you about the prospects of the Transmission Acceleration Action Plan to address transmission constraints?
- We've heard that some developers or businesses are avoiding areas due to constraints, and some have expressed concern that this may be taken as evidence of a lack of demand for connections in certain areas. Is that a reasonable concern?

Connection requests and charges processes

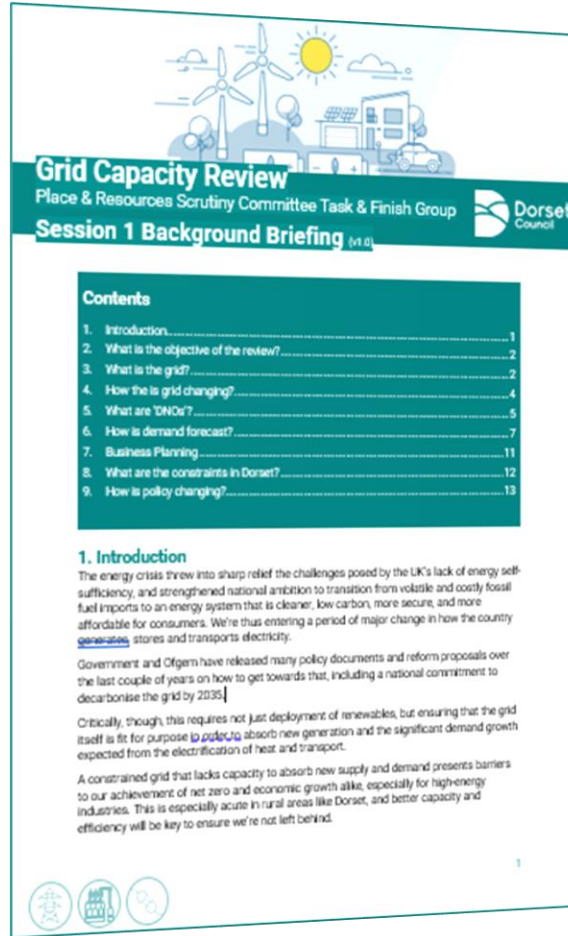
- What's the average wait time for connections being faced in Dorset?
- What's the average connection charge in Dorset, and what factors does your charging methodology consider in determining a quote for a new connection?
- Are there any regional inequities in current or planned investment or connections charging?
- What opportunities are there for customers to negotiate over their connection agreements, or to challenge them if they disagree with what is offered?
- Do you consider the information you provide on constraints is being considered effectively and early on by connection customers when designing proposals?
- How often do you engage consortia of prospective connections to seek connections through a combined scheme? Would it be valuable to facilitate more of those?

Scoping document & terms of reference

Structured agendas and slides

Background briefing notes

Issues tracker and narrative



Grid Capacity Review
Place & Resources Scrutiny Committee Task & Finish Group
Session 1 Background Briefing (v1.0)

Contents


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4. How is the grid changing?	4
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6. How is demand forecast?	7
7. Business Planning	11
8. What are the constraints in Dorset?	12
9. How is policy changing?	13

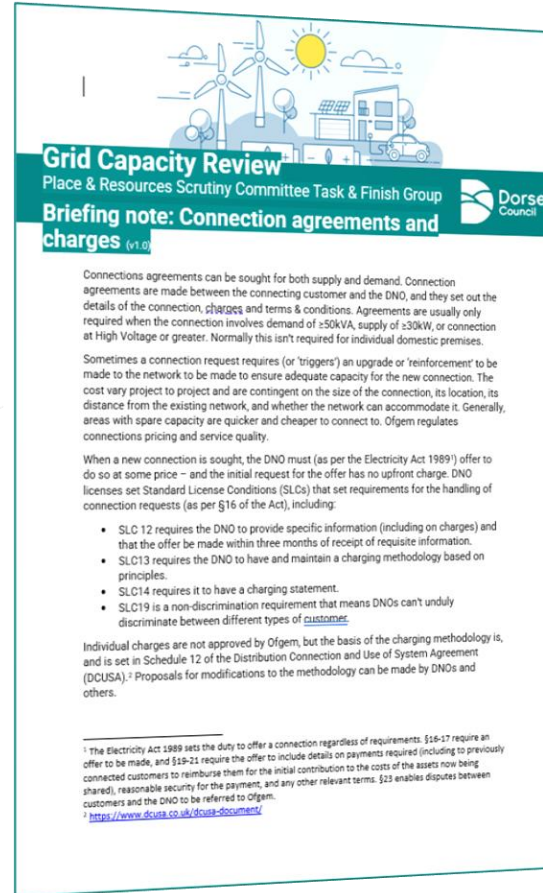
1. Introduction
The energy crisis threw into sharp relief the challenges posed by the UK's lack of energy self-sufficiency, and strengthened national ambition to transition from volatile and costly fossil fuel imports to an energy system that is cleaner, low carbon, more secure, and more affordable for consumers. We're thus entering a period of major change in how the country generates, stores and transports electricity.

Government and Ofgem have released many policy documents and reform proposals over the last couple of years on how to get towards that, including a national commitment to decarbonise the grid by 2035.¹

Critically, though, this requires not just deployment of renewables, but ensuring that the grid itself is fit for purpose to absorb new generation and the significant demand growth expected from the electrification of heat and transport.

A constrained grid that lacks capacity to absorb new supply and demand presents barriers to our achievement of net zero and economic growth alike, especially for high-energy industries. This is especially acute in rural areas like Dorset, and better capacity and efficiency will be key to ensure we're not left behind.





Grid Capacity Review
Place & Resources Scrutiny Committee Task & Finish Group
Briefing note: Connection agreements and charges (v1.0)

Connections agreements can be sought for both supply and demand. Connection agreements are made between the connecting customer and the DNO, and they set out the details of the connection, charges and terms & conditions. Agreements are usually only required when the connection involves demand of $\geq 50\text{kVA}$, supply of $\geq 30\text{kW}$, or connection at High Voltage or greater. Normally this isn't required for individual domestic premises.

Sometimes a connection request requires (or 'triggers') an upgrade or 'reinforcement' to be made to the network to be made to ensure adequate capacity for the new connection. The cost vary project to project and are contingent on the size of the connection, its location, its distance from the existing network, and whether the network can accommodate it. Generally, areas with spare capacity are quicker and cheaper to connect to. Ofgem regulates connections pricing and service quality.

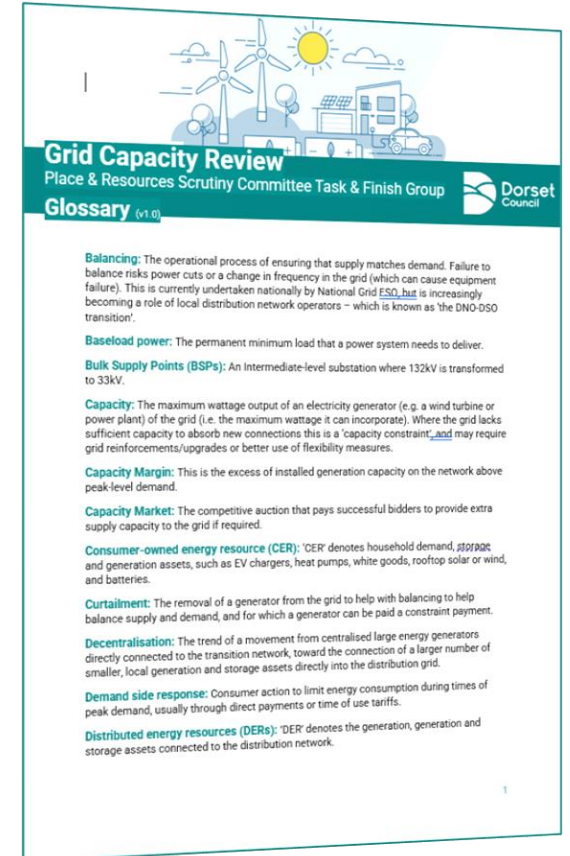
When a new connection is sought, the DNO must (as per the Electricity Act 1989)¹ offer to do so at some price – and the initial request for the offer has no upfront charge. DNO licenses set Standard License Conditions (SLCs) that set requirements for the handling of connection requests (as per §16 of the Act), including:

- SLC 12 requires the DNO to provide specific information (including on charges) and that the offer be made within three months of receipt of requisite information.
- SLC13 requires the DNO to have and maintain a charging methodology based on principles.
- SLC14 requires it to have a charging statement.
- SLC19 is a non-discrimination requirement that means DNOs can't unduly discriminate between different types of customers.

Individual charges are not approved by Ofgem, but the basis of the charging methodology is, and is set in Schedule 12 of the Distribution Connection and Use of System Agreement (DCUSA).² Proposals for modifications to the methodology can be made by DNOs and others.

¹ The Electricity Act 1989 sets the duty to offer a connection regardless of requirements. §16-17 require an offer to be made, and §19-21 require the offer to include details on payments required (including to previously connected customers to reimburse them for the initial contribution to the costs of the assets now being shared), reasonable security for the payment, and any other relevant terms. §23 enables disputes between customers and the DNO to be referred to Ofgem.

² <https://www.dcuca.co.uk/dcuca-document/>



Grid Capacity Review
Place & Resources Scrutiny Committee Task & Finish Group
Glossary (v1.0)

Balancing: The operational process of ensuring that supply matches demand. Failure to balance risks power cuts or a change in frequency in the grid (which can cause equipment failure). This is currently undertaken nationally by National Grid ESO, but is increasingly becoming a role of local distribution network operators – which is known as the DNO-DSO transition.

Baseload power: The permanent minimum load that a power system needs to deliver.

Bulk Supply Points (BSPs): An intermediate-level substation where 132kV is transformed to 33kV.

Capacity: The maximum wattage output of an electricity generator (e.g. a wind turbine or power plant) of the grid (i.e. the maximum wattage it can incorporate). Where the grid lacks sufficient capacity to absorb new connections this is a 'capacity constraint', and may require grid reinforcements/upgrades or better use of flexibility measures.

Capacity Margin: This is the excess of installed generation capacity on the network above peak-level demand.

Capacity Market: The competitive auction that pays successful bidders to provide extra supply capacity to the grid if required.

Consumer-owned energy resource (CER): 'CER' denotes household demand, storage and generation assets, such as EV chargers, heat pumps, white goods, rooftop solar or wind, and batteries.

Curtailment: The removal of a generator from the grid to help with balancing to help balance supply and demand, and for which a generator can be paid a constraint payment.

Decentralisation: The trend of a movement from centralised large energy generators directly connected to the transition network, toward the connection of a larger number of smaller, local generation and storage assets directly into the distribution grid.

Demand side response: Consumer action to limit energy consumption during times of peak demand, usually through direct payments or time of use tariffs.

Distributed energy resources (DERs): 'DER' denotes the generation, generation and storage assets connected to the distribution network.

**Scoping document &
terms of reference**

**Structured agendas and
slides**

**Background briefing
notes**

**Issues tracker and
narrative**

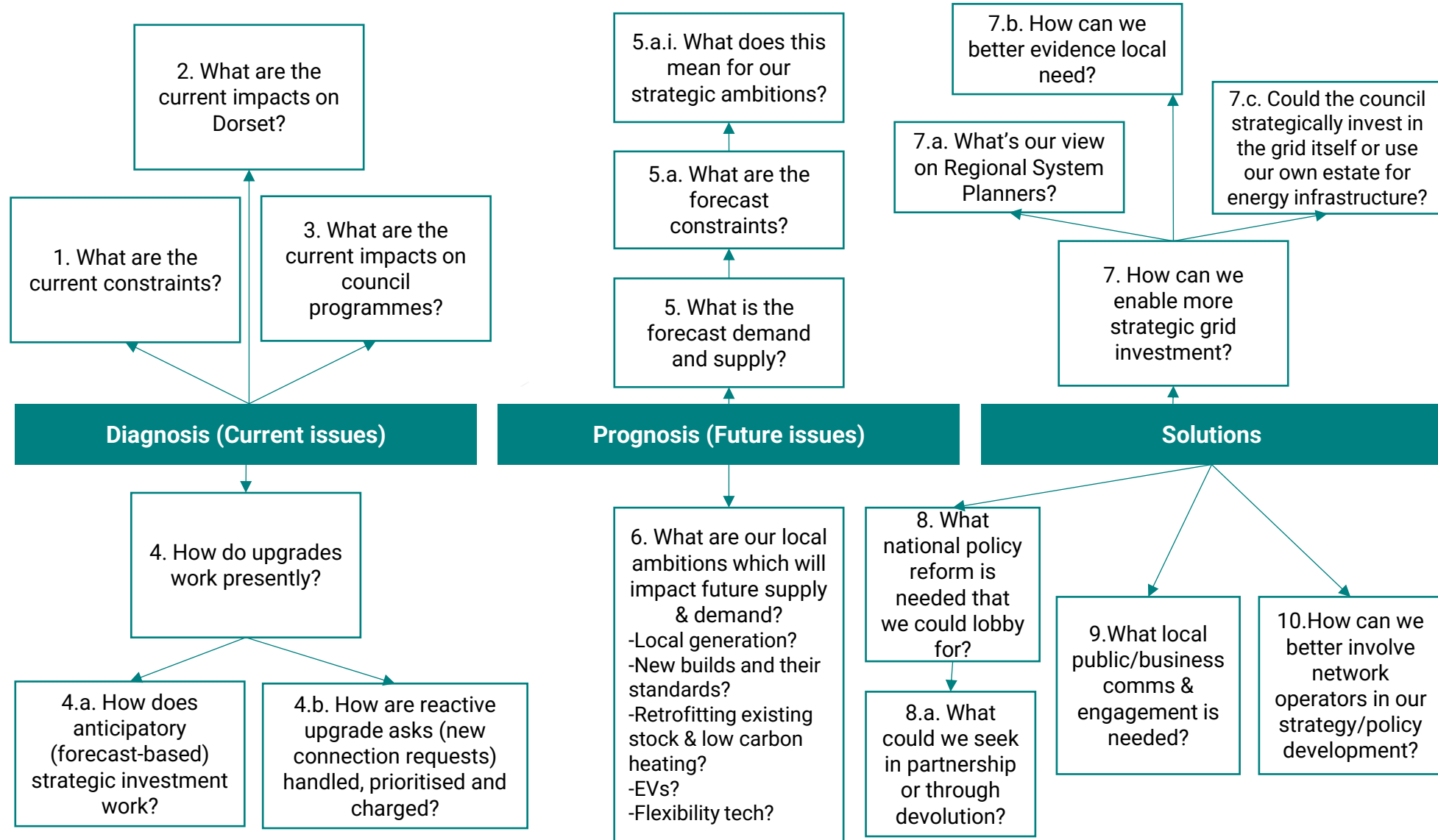
Given the complexity, there was a risk that questioning could go in wildly different directions.

To help participants navigate this, we kept an issues tracker and tried to visualise different lines of inquiry.

That helped to give clarity and a bit of strategic direction to where questioning could go – and supported the chair to keep the discussion structured and focused.

An example of one of the earlier issues trackers...

- Scoping document & terms of reference
- Structured agendas and slides
- Background briefing notes
- Issues tracker and narrative

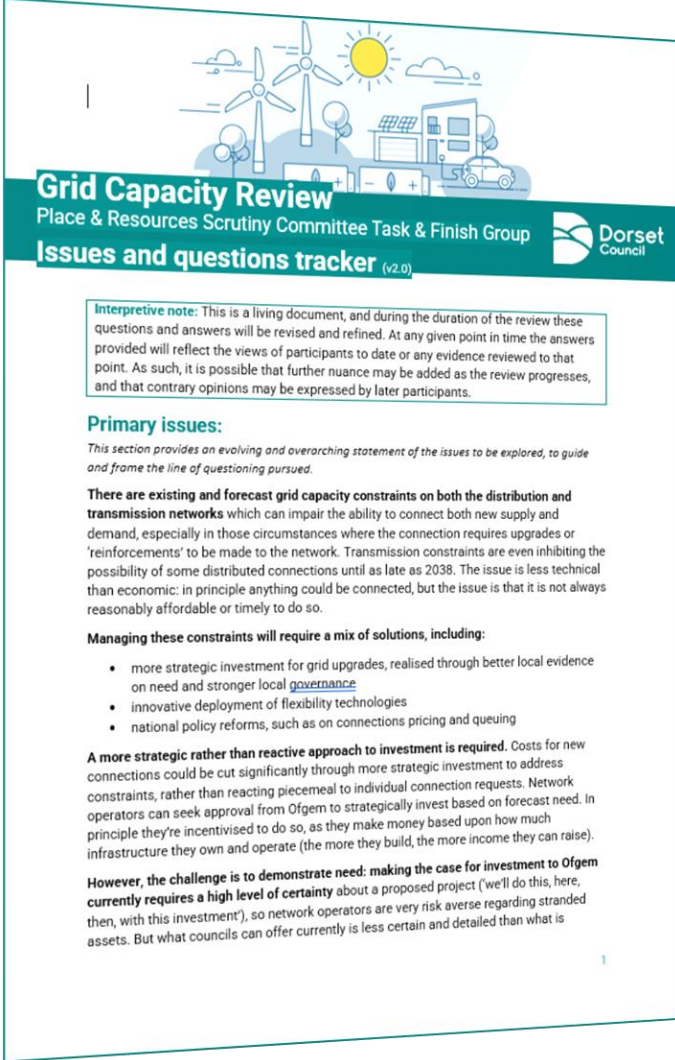


Scoping document &
terms of reference

Structured agendas and
slides

Background briefing
notes

Issues tracker and
narrative



Grid Capacity Review
Place & Resources Scrutiny Committee Task & Finish Group
Issues and questions tracker (v2.0)

Interpretive note: This is a living document, and during the duration of the review these questions and answers will be revised and refined. At any given point in time the answers provided will reflect the views of participants to date or any evidence reviewed to that point. As such, it is possible that further nuance may be added as the review progresses, and that contrary opinions may be expressed by later participants.

Primary issues:
This section provides an evolving and overarching statement of the issues to be explored, to guide and frame the line of questioning pursued.

There are existing and forecast grid capacity constraints on both the distribution and transmission networks which can impair the ability to connect both new supply and demand, especially in those circumstances where the connection requires upgrades or 'reinforcements' to be made to the network. Transmission constraints are even inhibiting the possibility of some distributed connections until as late as 2038. The issue is less technical than economic: in principle anything could be connected, but the issue is that it is not always reasonably affordable or timely to do so.

Managing these constraints will require a mix of solutions, including:

- more strategic investment for grid upgrades, realised through better local evidence on need and stronger local governance
- innovative deployment of flexibility technologies
- national policy reforms, such as on connections pricing and queuing

A more strategic rather than reactive approach to investment is required. Costs for new connections could be cut significantly through more strategic investment to address constraints, rather than reacting piecemeal to individual connection requests. Network operators can seek approval from Ofgem to strategically invest based on forecast need. In principle they're incentivised to do so, as they make money based upon how much infrastructure they own and operate (the more they build, the more income they can raise).

However, the challenge is to demonstrate need: making the case for investment to Ofgem currently requires a high level of certainty about a proposed project ('we'll do this, here, then, with this investment'), so network operators are very risk averse regarding stranded assets. But what councils can offer currently is less certain and detailed than what is

As well as minutes, we kept this issues and questions tracker.

Essentially this was a narrative long-form version of that previous diagram – which unlike the chronological format of minutes, tried to rationally reconstruct/structure the discussion points.

3. Final report

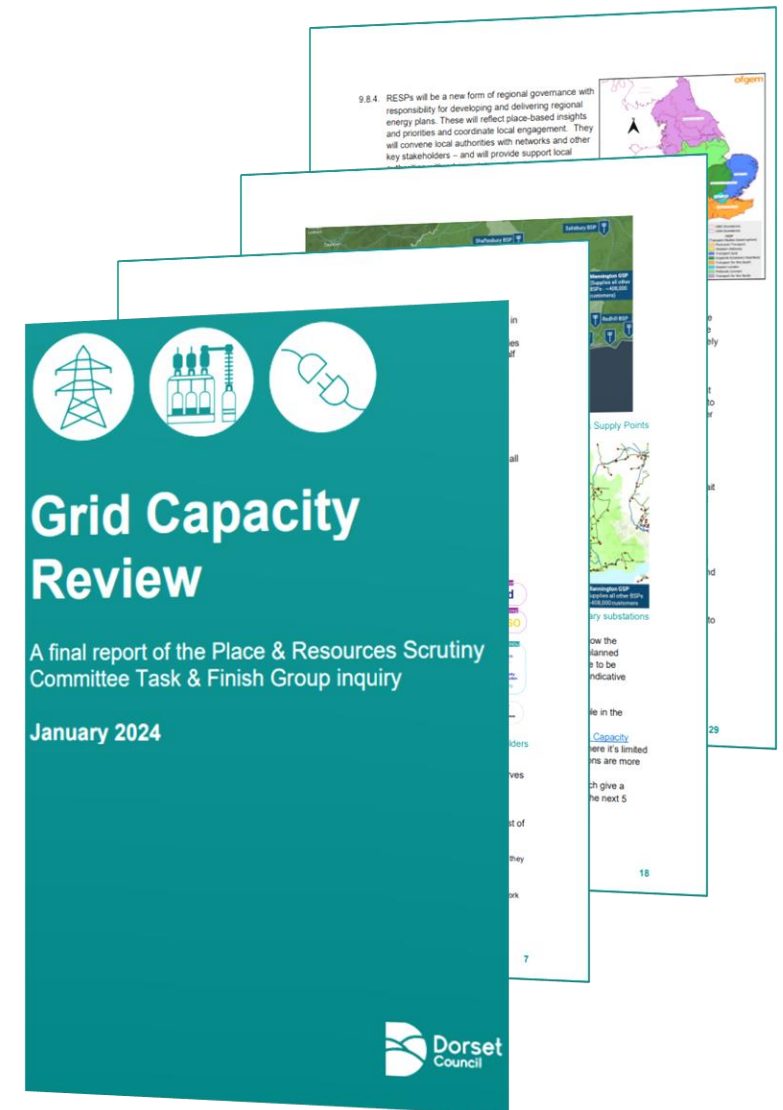


The final 40 page report contains a summary of the findings, alongside the recommendations from Session 5.

It's written as a primer for anyone without background knowledge – so should be accessible to anyone who wasn't engaged in the process.

It also contains briefings on the policy and reform context – which you might find helpful if you need help navigating that.

It's probably quite easy to replicate to your area with some minor modifications (though you might want to update the narrative on reforms slightly from the last 5 months)



In a nutshell, the report includes

Grid constraints are a drag on decarbonisation, business expansion, development, investment and economic growth.

Local projects already face delays, curtailment or cancellation owing to prohibitive connection costs or grid strengthening delays – and in some cases it has impaired project viability entirely. Some are unable to connect until 2036.

But there are clear strategic opportunities for the council, such as:

- Strengthening the evidence base for network investment need and strategic planning
- Strengthening collaboration with network companies
- Facilitating constraint mitigations like flexibility measures, microgrids, or alternative low carbon heat sources.

Extreme **delays to 2036 for connection times** owing to transmission-level constraints.

A very **lengthy queue for connections**, and its congestion with often speculative and unviable projects.

More **strategic projects often being stuck behind less strategic projects** in the queue, owing to non-discrimination requirements in the process.

Delays arising from non-infrastructural factors like wayleaves.

Customer service issues for connecting customers, such as long waits for quotes or the inefficiency of having to manage non-standardised processes that vary across different network operators.

Barriers to connecting due to **how impacts of new connections are modelled** overestimating risk, particularly for battery storage, and solar PV outside of summer peak.

Requests for **significant deposits** (e.g. £200k) even for projects that have been given 10-12yr connection dates.

Uncertainty about network infrastructure's precise location or condition, with the risk that further significant challenges can emerge once detailed feasibility work for individual connections is undertaken.

Limited **awareness by connecting customers of the extent of competitive demand for connections**, to inform decision-making about siting and the worthiness of sinking resource into an application.

Reinforcement costs and delays threatening the timeliness or viability of projects – including risks to renewable deployment, business expansion and development.

Significant project cost uncertainties owing to connection costs tending to increase substantially if required (sometimes by tens or hundreds of thousands).

Delayed or deterred investment, particularly in renewable generation.

Constraints to business growth potential or to the siting and relocation of high-energy using industries.

Impediments to plant electrification to decarbonise high-energy industry.

Limits on export rates for renewable generation impairing their income generation potential.

Systemic incentives to install smaller capacity assets (under 'connect and notify' rules) in order to avoid the risk of connection delays.

Missed opportunities to install heat pumps when boilers need replacing due to the risk of connection delays, with the result that new gas boilers are locked in.

Knock-on strategic economic risks, such as for investment in renewables, or to the tourism economy through impediments to EV charger provision or shore power/cruise electrification – and risk of exacerbating rural/urban disparity.

A lack of **strategic anticipatory investment**

A lack of **strategic network planning**

Inadequate **connection queue processes**

Poor **coordination** and sub-national **governance**

Poor **infrastructure build times**

Immature **flexibility markets**

Better evidencing the local need for network investment.

Forging stronger strategic and collaborative **relationships with network operators**.

Supporting **better strategic planning** of the network at a regional and local scale, to better fit local knowledge and ambition on net zero, development and economic growth.

Lobbying on key constraints (e.g. Mannington GSP) to aim to expedite upgrades.

Enabling **wider use of constraint mitigation measures**, including flexibility measures and energy storage, microgrids, alternative low carbon heat sources like geothermal, energy efficiency measures, and renewable colocation.

Working cross-boundary and at a regional scale to make the case for investment.

Better embedding the issue within local policy framework and decision-making, particularly planning.

Exploring the opportunities for **innovation** projects and of Ofgem innovation funding.

- Energy infrastructure must be seen through the same lens as other strategic infrastructure, with investment better aligned to local knowledge, ambition and decision-making.
- Energy, development and transport are a triad of strategic spatial planning areas in which we have critical strategic interest. Whilst development and transport are more familiar, we'll have opportunity to play a bigger role in energy in the future.
- Our ambitions for net zero, development and economic growth will require us to play a much more central role in local energy planning in the future – and strengthening our collaboration with energy networks will be essential.

1. Establish regular quarterly strategic meetings with network operators

2. Seize the opportunity of Regional Energy Strategic Planners

3. Strengthen the evidence on local investment need through a cost-effective approach to a Local Area Energy Plan

4. Ensure that grid constraints and constraint mitigation measures are embedded in our strategies, policy and decision-making

5. Explore the opportunities of Ofgem's Strategic Innovation Fund and our devolution asks

6. Lobby our MPs, government, Ofgem and network operators

4. Outcomes and next steps



The recommendations were endorsed by Scrutiny and by Cabinet – giving a clear cross-party mandate to proceed with a LAEP. This enabled...

**Significantly enhanced understanding for
councillors and officers**

**Confident and vocal advocates amongst
councillors – and enthusiasm to develop a
LAEP**

**Recruitment of a new energy officer to take
this work forward**

**Working with our Net Zero Hub and SSEN on
developing a LAEP**

Things like the grid and energy planning, and the associated mass of acronyms and jargon, can make it really hard to get people engaged – because, ultimately, it's dull and technical.

This was an effective way to animate people's interest in energy planning: starting with constraint maps and forecasts, alongside real-life local case studies of frustrated connecting customers, does much more to get people to care.

Saying 'we want to create a strategic spatial plan for energy' does little to fire anyone up – but hearing many local stakeholders say 'we can't connect until 2036' does.

What gets people interested?

Use constraints as an entry point
– not renewables or wider energy system issues

Don't frame is as an energy or net zero issue – keep a broader focus on development, transport and economic risks/impacts

Talk through the failures of the old system – discuss how the shortcomings around strategic planning and investment led us here but that this is exactly what DFESs, LAEPs and RESPs are meant to help solve

Emphasise spatial or urban/rural inequalities or risks – any sense of even the risk of unfairness will get them animated. Show maps, talk about charges and the distribution of investment

Scandal – The single-most said thing was '2036', and they kept comparing it as an analogue overflow pollution. Use that sense of scandal to motivate the reforms and strategic energy planning.

Tie to existing statutory roles – emphasise development, transport and energy as a spatial planning triad.

If you want to replicate this...

1. Read the final report as a primer to begin (2-3hrs)
2. Pitch it to one of your scrutiny committee's (or another suitable group of members) (1-2hrs)
3. Tweak the materials to make them suitable to your area (3-4hrs)
4. Find a suitable set of local stakeholders to participate (3-

The above should be achievable in a day or two.

Combined with holding the sessions themselves, it should take no more than a week's worth of your time.

Thanks

carl.warom@dorsetcouncil.gov.uk





WINCHESTER DISTRICT LOCAL AREA ENERGY PLANNING

Alex Eburne
Winchester City Council



Scottish & Southern
Electricity Networks

DSO Powering Change

Winchester District Local Area Energy Planning

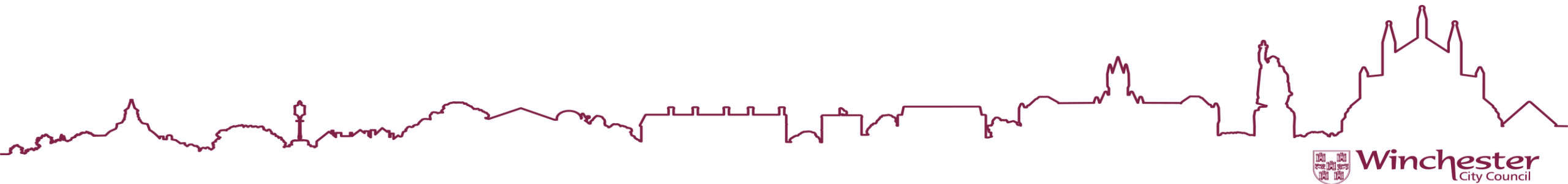
Alex Eburne, Sustainability Manager



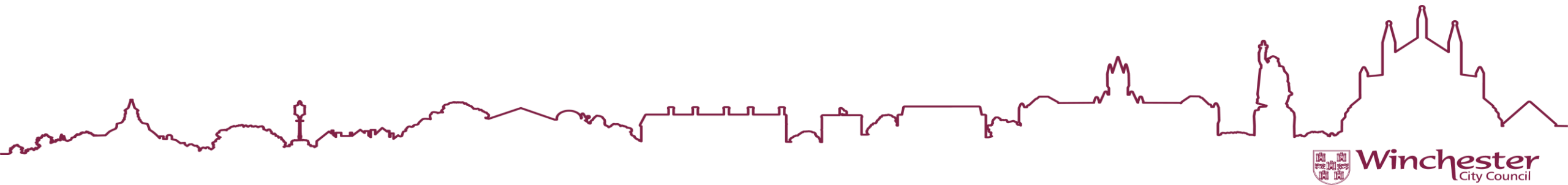
Winchester
City Council

CONTENTS

1. Strategic Context
2. Using LENZA to develop a Winchester district LAEP
3. Opportunities & Challenges
4. Next Steps



1. Strategic Context




CONTEXT - WINCHESTER DISTRICT


- Population: 127,500
- Dwellings: 51,700 households, 4847 social housing assets (Census 2021)
- Area: 250 square miles
- Two tier county structure: Hampshire County Council and 11 local district, borough, and city councils
- 2030 Carbon Neutrality target
- Carbon Neutrality Action Plan 2023-2030



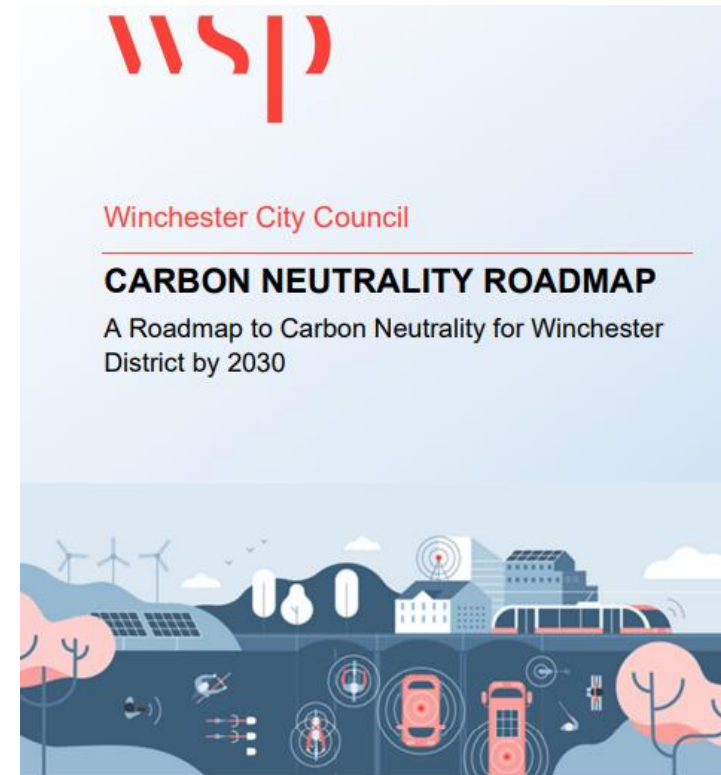
CONTEXT - LAEP A KEY COUNCIL PRIORITY

Development of a LAEP regarded as a critical enabler to the decarbonisation of the local energy system:

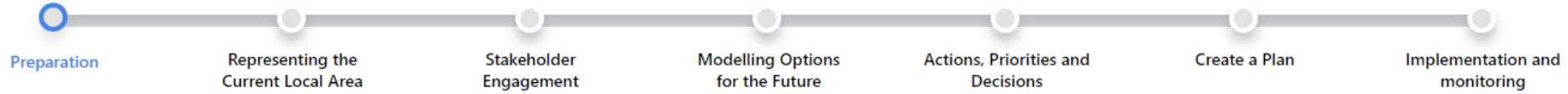
 [Council Plan 2025-2030](#) – sets objective to deliver a LAEP for the district to enable energy transition.

 [Carbon Neutrality Action Plan \(CNAP\)](#) - sets an ambition to develop and approve a LAEP for the district.

 [Economy & Community Service Plan](#) – sets developing a LAEP as a key priority for service.



CONTEXT - PREPARATION




1. Better understand and represent the local energy system and identify potential target areas and interventions using the LENZA tool.
2. Develop the council's in-house strategic energy planning capacity and capabilities to reduce costs and reliance on external consultancy support.
3. Engage with internal and external stakeholders to build awareness and support for LAEP and enable community participation and involvement in its development.
4. Develop a governance framework for coordinated delivery of the LAEP.
5. Identify the preferred delivery model and costs for developing the LAEP.
6. Develop a robust business case for investment in a full LAEP for the district.


2. Using LENZA to develop a Winchester district LAEP



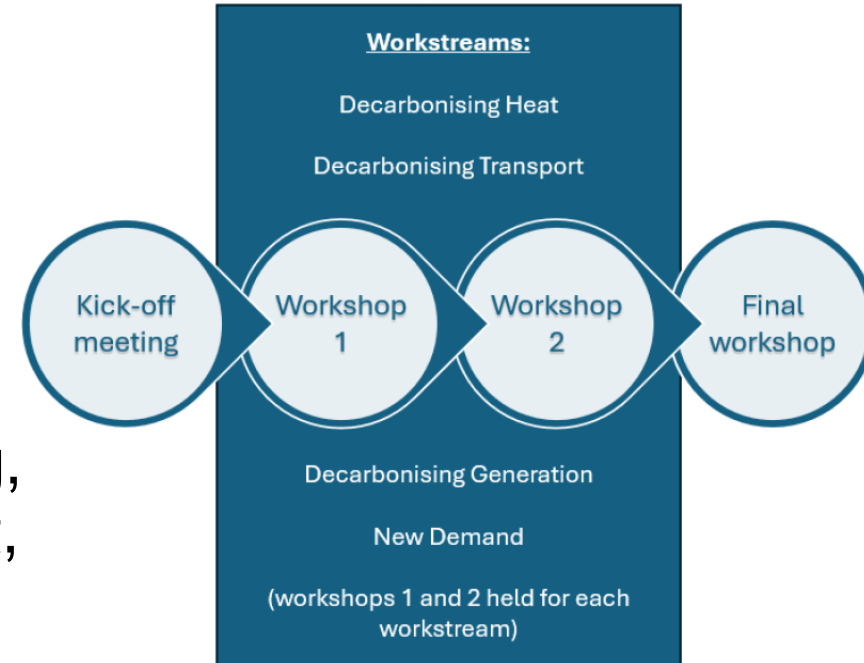
LENZA PILOT PROJECT

 Aim: SSEN to support six local authorities to initiate and accelerate LAEP development through the digital platform, LENZA

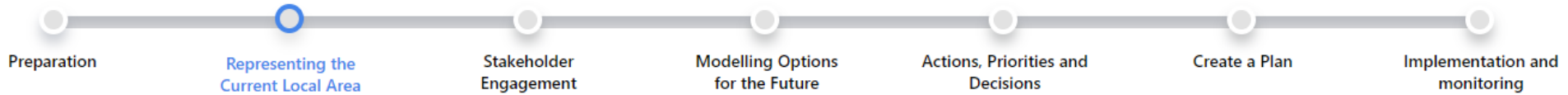
 10 workshops on four workstreams (July – Oct 2024)


 Officers involved included: Sustainability, Strategic Planning, Estates, Economic Development, Housing, and GIS.


 Development and trial of new Portfolios functionality




LENZA – LOCAL ENERGY SYSTEM




 1 DSO – SSEN

 6 GSP areas – Botley Wood, Nursling, Fleet-Bramley, Lovedean, Bramley-Basingstoke, and Melksham

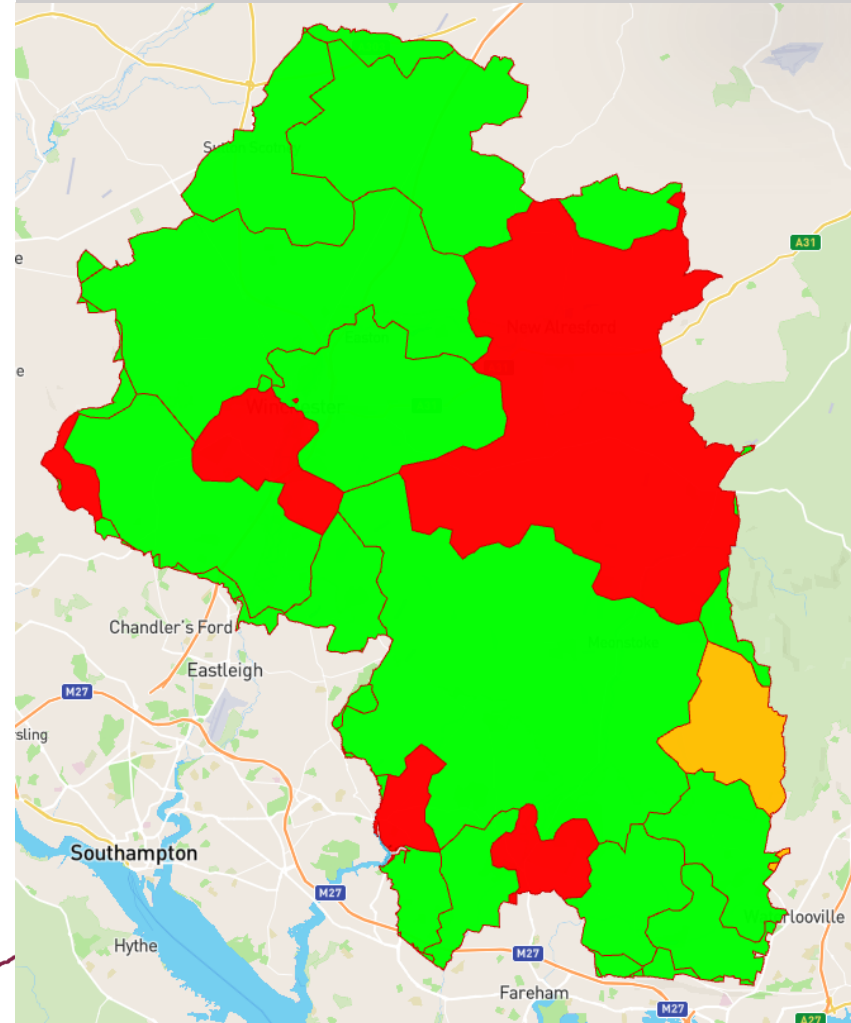
 13 BSP areas

 26 Primary substation areas (see map)

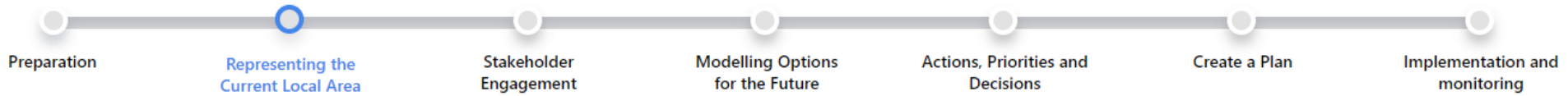
 Annual electricity consumption of 549.7GWh

 Installed renewable generation capacity of 100.7MW

Primary substation areas in Winchester district

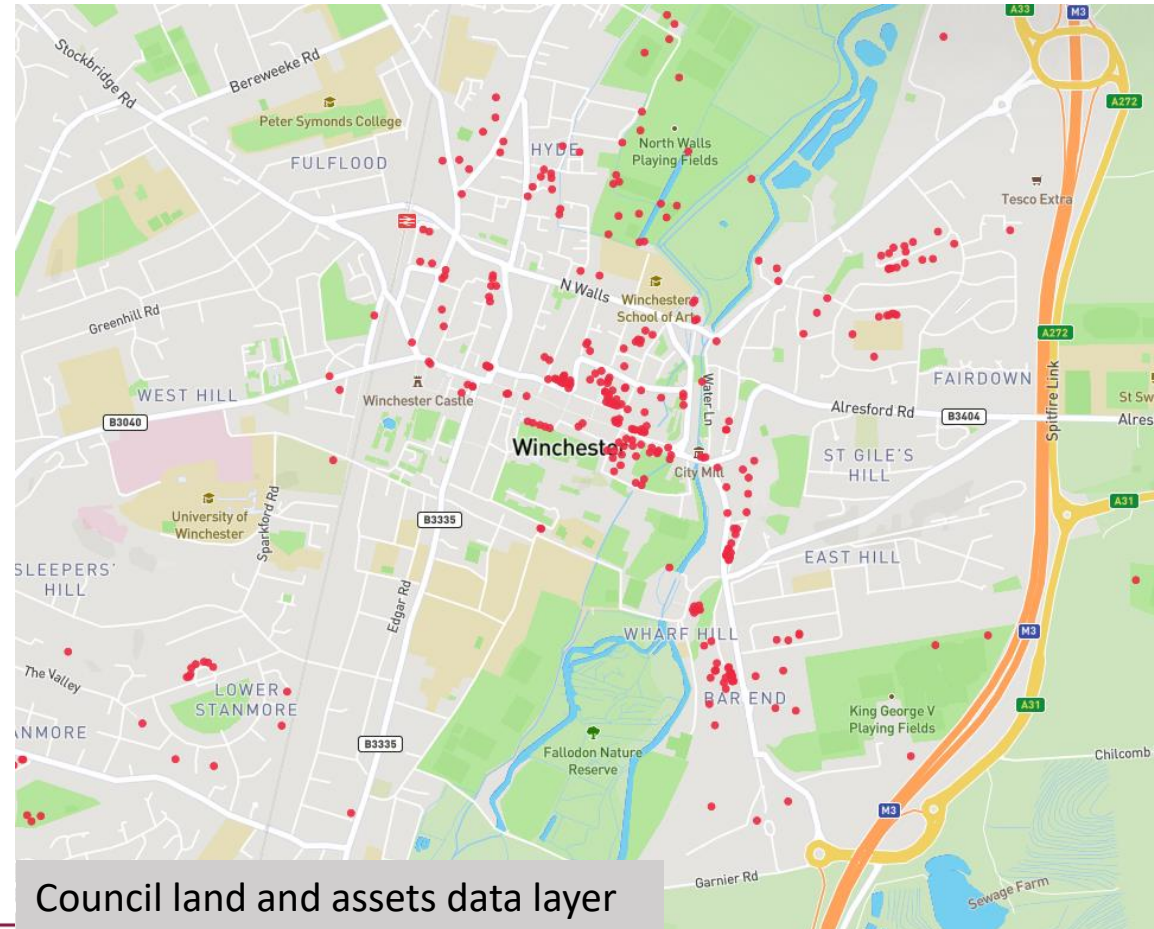


LENZA – MAPPING LOCAL DATA



Local Data uploaded to tool such as:

-  Council land and building assets (incl. social housing)
-  Council solar PV assets
-  Council EV charger network
-  Local Plan allocated sites
-  Settlement boundaries
-  Settlement gaps



LENZA – STAKEHOLDER ENGAGEMENT

Preparation

Representing the
Current Local Area

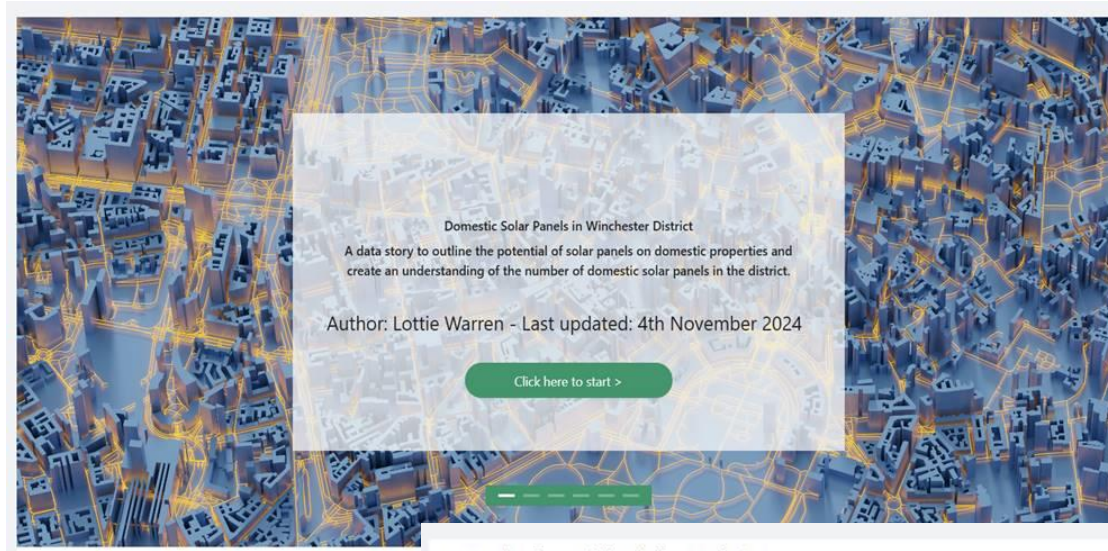
**Stakeholder
Engagement**

Modelling Options
for the Future

Actions, Priorities and
Decisions

Create a Plan

Implementation and
monitoring



Domestic Solar Panels in Winchester District

A data story to outline the potential of solar panels on domestic properties and create an understanding of the ...

Author: Lottie Warren

Last Updated: 4th November 2024

Local Area Energy Planning in Winchester

Winchester City Council is currently in the process of developing a Local Area Energy Plan (LAEP). The Winchester district is outlined on the map on the right.

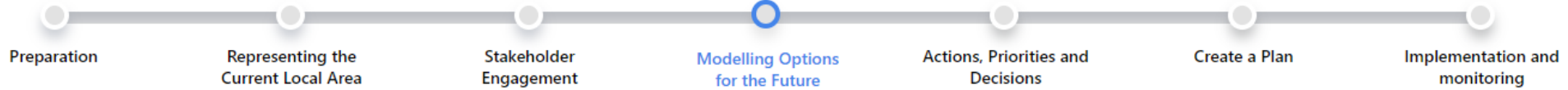
A LAEP is a tool which translates national net zero targets into local energy system action. LAEP's are developed collaboratively with defined stakeholders including local communities.

One of the main goals of a LAEP is to decrease greenhouse gas emissions from homes and transport and to enable the development of an energy system which is less dependent on fossil fuels.







The graph below shows the energy consumed in the Winchester district in 2022 by fuel type, this is the latest available data from the Department of Energy and Net Zero. It indicates that petroleum for transport and natural gas were the most consumed fuel type.

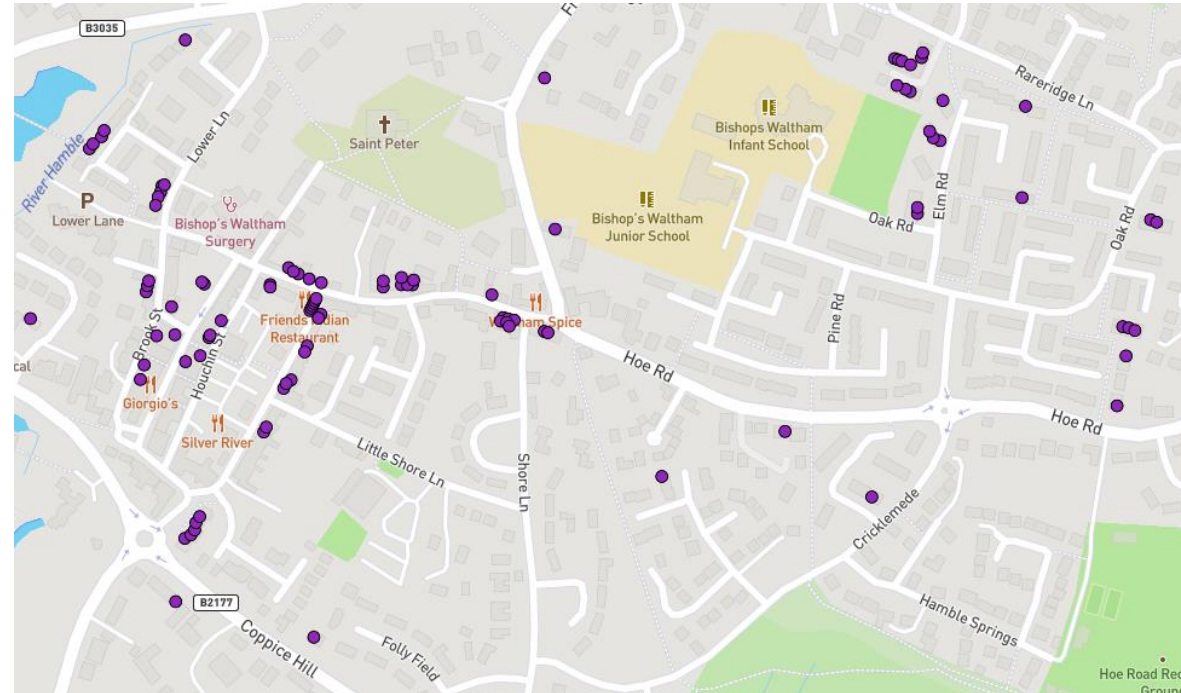


LENZA – PORTFOLIOS



Developed portfolios for the following technologies:

-  Domestic Heat Pumps
-  Domestic Retrofit
-  Domestic Solar PV
-  Non-Domestic Solar PV
-  On-street EV Charging Infrastructure
-  Off-street EV Charging Infrastructure



Potential locations for on-street EV charging infrastructure in Bishop's Waltham

3. OPPORTUNITIES & CHALLENGES



OPPORTUNITIES & CHALLENGES

Opportunities:

- LENZA tool – improvements and new functionalities (Masterplan)
- Hyper-local LAEPs – enabling community action and nesting of community energy plans
- Hampshire collaboration – Hampshire LAEP Sub-group
- Devolution – new Hampshire Solent Strategic Authority
- Strategic Development Plans (SDP) – upcoming consultations for 6 GSP areas in district
- RESP – regional energy planning and LAEP integration

Challenges:

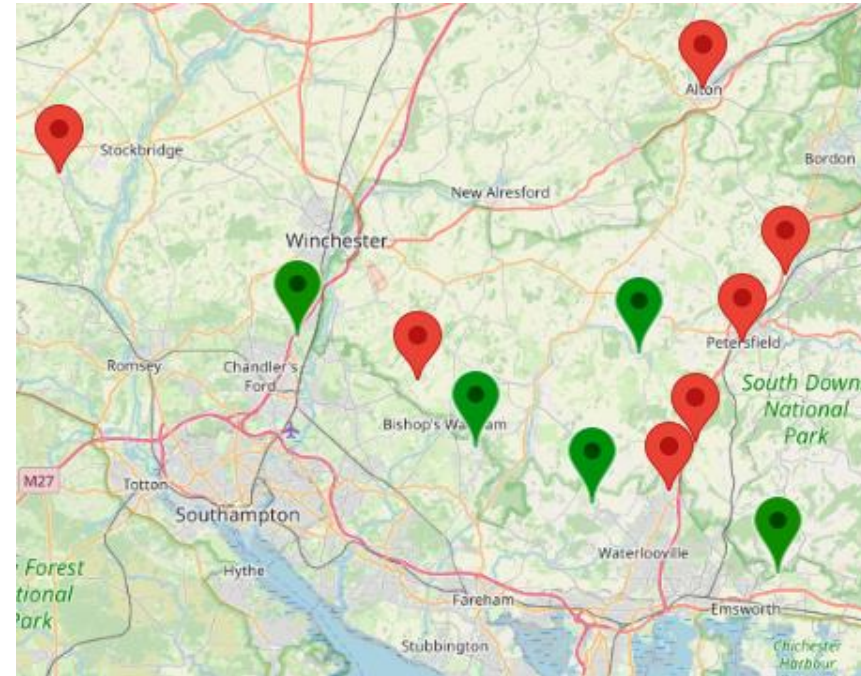
- Two-tier structure – varying capacities and capabilities
- Local Government Re-organisation
- Data gaps (i.e., LCT deployment – rooftop solar PV, heat pumps etc.)
- Costs for LAEP creation & reliance on consultants
- Delivery gap and financing

HYPER-LOCAL ENERGY PLANNING

Opportunity to engage in energy planning at hyper-local geographies such as primary substation area (PSA), parishes, neighbourhoods, communities etc.

Example: [Future Energy Landscapes \(FEL\)](#)

- Workshops delivered by Energise South Downs supported with funding from Winchester City Council
- Bottom-up community engagement process to support development of community scale energy plans
- Explores how communities may meet their energy needs with locally generated renewable energy



HAMPSHIRE LAEP SUB-GROUP

 Comprises of officers, community energy groups, advocates within the Hampshire geographical area with an interest in developing a LAEP.

 Emerging workstreams include:

 Data collection and addressing gaps in data provision

 Stakeholder engagement

 Securing stakeholder buy-in and developing the business case

 Regional energy planning and collaboration with RESP

 Building technical modelling capabilities using LENZA

 Exploring effective governance arrangements and delivery models



4. Next Steps



NEXT STEPS

- Participation in testing of new Masterplan functionality within LENZA
- External engagement to raise awareness and understanding of LAEP
- Collaboration with Hampshire LAEP sub-group to explore and address challenges of LAEP creation
- Finalise and agree Winchester LAEP scope incl. delivery models
- Finalise stakeholder engagement plan for remaining stages of LAEP creation
- Develop and approve business case for investment in delivery of full LAEP





Q&A





BREAKOUT SESSION 4



DISCUSSION QUESTIONS

What are the main challenges and opportunities when working with external partners like the NHS, universities, and businesses in creating LAEPs?

- Can you share any examples where you have worked together on local planning?
- How can we better use existing toolkits and resources to overcome these challenges?
- Are there any gaps that can be filled to make LAEP delivery easier for you?



CLOSE & FEEDBACK

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What new ideas or plans has this event sparked?

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On a scale of 1 to 5 (1 is strongly disagree, 5 is strongly agree, how would you rate the following statement?

"Communication in the lead up to today was clear and at the right frequency"

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On a scale of 1 to 5 (1 is strongly disagree, 5 is strongly agree, how would you rate the following statement?

"My understanding of the subject has improved"

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On a scale of 1 to 5 (1 is strongly disagree, 5 is strongly agree, how would you rate the following statement?

"Overall, today has proved valuable and a good use of time"

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On a scale of 1 to 5 (1 is strongly disagree, 5 is strongly agree, how would you rate the following statement?

"Following today's session, I am very familiar with SSEN's strategic network planning process"

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On a scale of 1 to 5 (1 is strongly disagree, 5 is strongly agree, how would you rate the following statement?

"Following today's session, SSEN's DSO is a trusted partner in our efforts to achieve net-zero"

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Following today's session, on a scale of 1 to 5 (1 is low, 5 is high), how well do you understand the role of DFES in guiding investment in the electricity network and the significance of your engagement in the DFES process?

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THANK YOU



whole.system.distribution@sse.com



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