



DSO Conference

Our energy future: people, place
and flexibility with purpose

21 October 2026





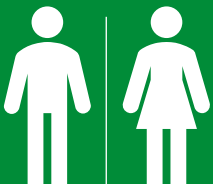
Please put your phones on silent



There's no planned fire alarm test



Wi-fi



Toilets

We are recording today's event and will also be taking photos so if you're not comfortable with this, please let a member of the SP Electricity North West team know as soon as possible.

Quick question

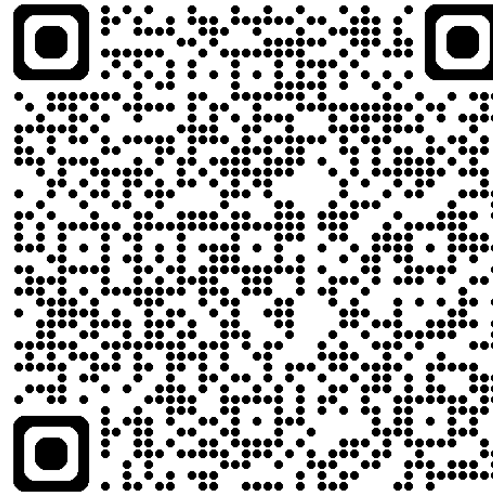


Please scan the QR code to answer

How to interact with us today



**Scan to submit
your questions**



**Agenda and
speaker bios**



**Please give us
your feedback**

Agenda



Time	Item	Speaker
10.00 – 10.05am	Welcome and housekeeping	Paul Auckland
10.05 – 10.15am	Introduction and the future for SP ENW & SPEN	Brian Morrissey
10.15 – 10.25am	DSO: people, projects and purpose	Paul Auckland
10.25 – 10.45am	What could the DSO of the future look like?	Laura Sandys
10.45 – 11.00am	Finding solutions for the energy transition	David Snow
11.00 – 11.25am	Ask the speakers	Laura Sandys, David Snow, Paul Auckland
11.25 – 11.40am	Break	
11.40 – 11.55am	Cumbria's energy future	Jennie Stein
11.55 – 12.05pm	Planning for the future	Christos Kaloudas
12.05 – 12.15pm	Managing connections	Chloe Pieri
12.15 – 1.00pm	Breakouts	
1.00 – 1.55pm	Lunch	
1.55 – 2.05pm	Flexibility and resilience	Nia Lowe
2.05 – 2.15pm	Flexibility services	Paul George
2.15 – 2.30pm	Social flexibility	Davide Turi
2.30 – 2.40pm	Social DSO & lessons learned	Katherine Horne
2.40 – 3.25pm	Breakouts	
3.25 – 3.30pm	Look ahead	Paul Auckland
3.30pm	Close	

Meet our speakers



Laura Sandys
'General Disruptor and Energy Geek'



Davide Turi
Innovation Lead, Energy Flexibility
E.ON UK



Brian Morrissey
Director, Control Room & DSO



Paul Auckland
Head of Economic
Regulation & DSO



Nia Lowe
Head of DSO



Jennie Stein
Head of Net Zero
Cumbria Combined Authority



David Snow
Chief Executive Officer
EnergyCloud



Katherine Horne
Social DSO Manager



Christos Kaloudas
Capacity Strategy Lead



Paul George
DSO Commercial Lead



Chloe Pieri
Connections Customer
Engagement Manager

Introduction and the future for SP ENW and SPEN

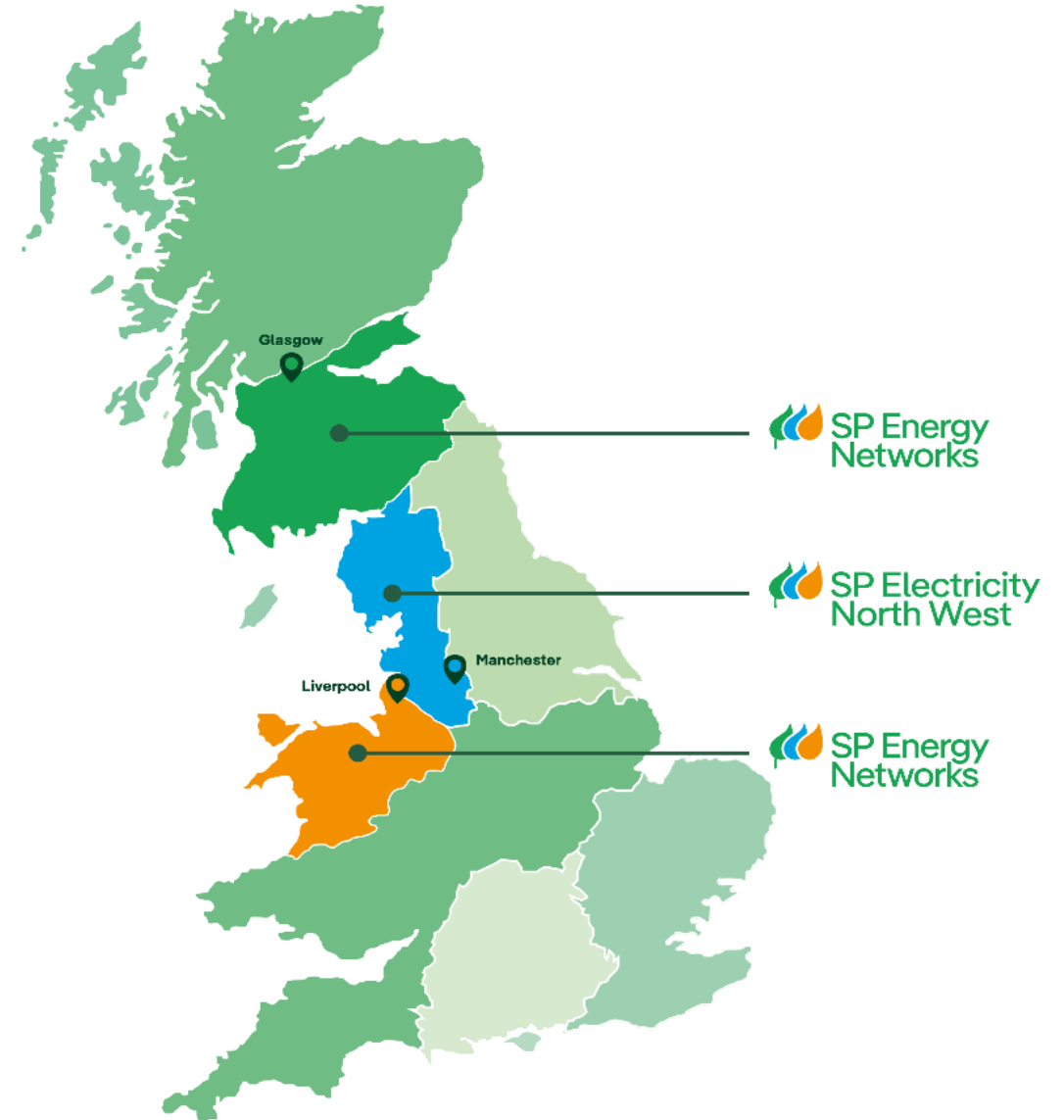
Brian Morrissey
Director, Control Room & DSO



SP Electricity North West (SP ENW) is now owned by Scottish Power, along with two other distribution businesses and the transmission system in central and southern Scotland.

Together we keep electricity flowing to more than **12 million people** via our **172,000-kilometre network**.

It's a role that puts us right at the heart of the UK clean power green growth ambitions to reduce carbon emissions and ensure no one is left behind.



SP ENW and SPEN DSOs come together



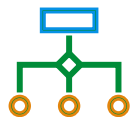
Strong foundations in place



Stakeholder confidence growing



Heading towards next price control period (ED3)



New directorate for SP ENW & SPEN



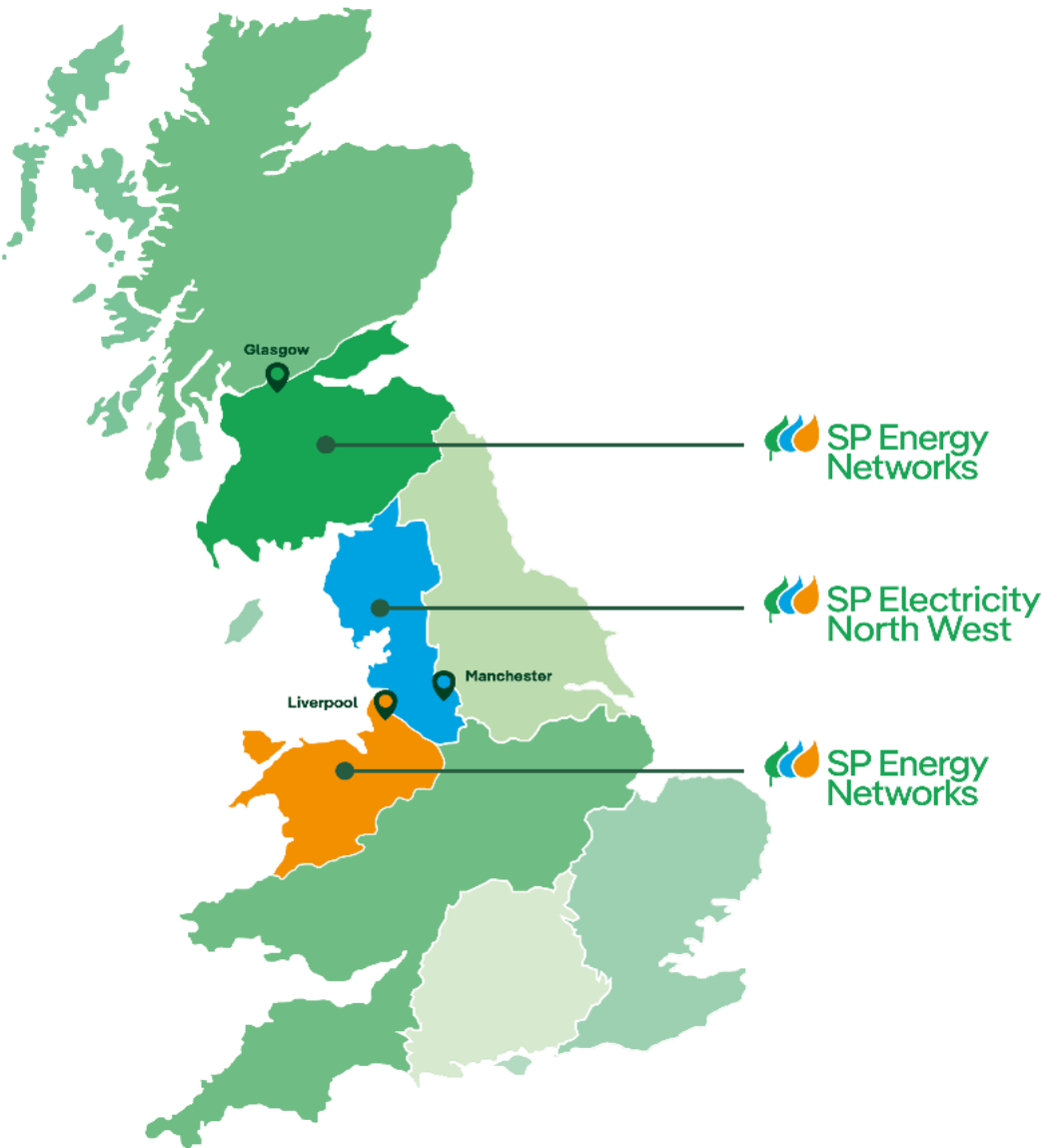
DSOs working together to be a key enabler and driving force behind decarbonisation and whole-system planning



Key priorities for next year's DSOs activities and outcomes with work still be done



Putting our communities – people – at the heart of all we do



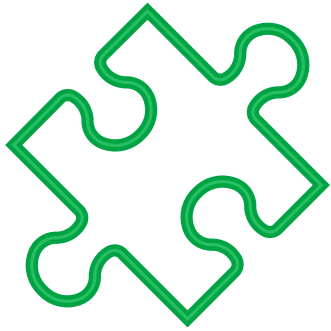
DSO: people, projects and purpose

Paul Auckland

Head of Economic Regulation & DSO

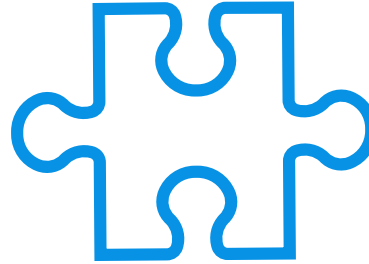


The role of distribution system operation



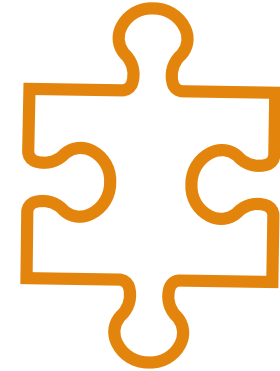
Understand

- Engage with stakeholders
- Understand local plans and priorities



Plan

- Assess future network requirements
- Explore network and flexibility solutions
- Coordinate with whole-system partners
- Forecast future energy



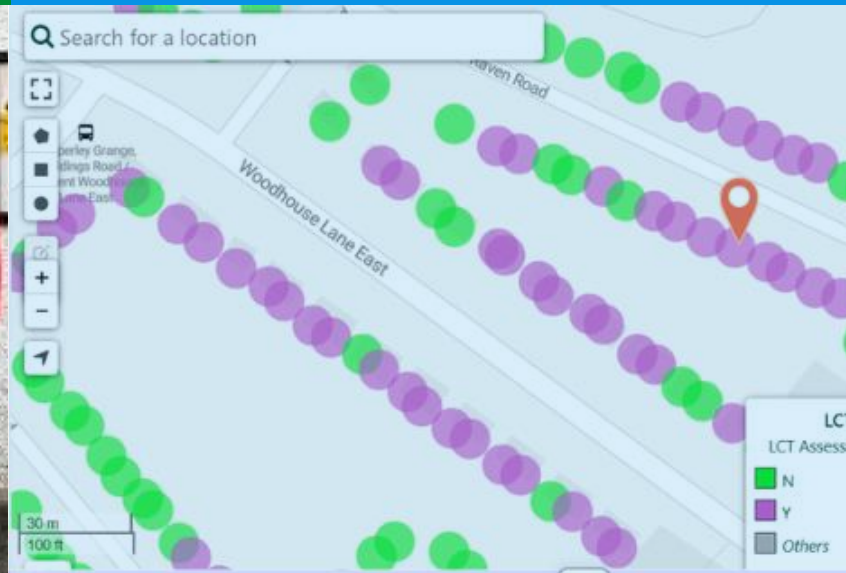
Enable

- Release capacity where and when needed
- Operate a smarter, flexible network.
- Support growth, net zero and customer outcomes

The systems and processes needed to prepare our business and our stakeholders for a more sustainable energy future.
Understanding how electricity is used and where to help us plan for the network's future needs, meet growing demand while keeping everything running smoothly.



People



Projects



Purpose



People



Twice a year DSO conference



Local authority engagement



Flexibility partnerships



Social DSO fund relationships

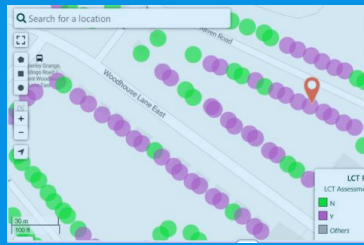


Specific KPI for strategic partnerships



Ofgem DSO stakeholder survey outcome shows positive relationships

Distribution system operation in action



Projects



Connections, planning & network development



Network operation



Flexibility services



Data and tools



Future tech



Low carbon tech support



Renewable energy

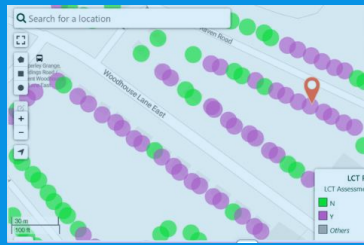


Smart Street Rural



Social DSO

What's coming next?



Projects

Future DSO



Our plan focuses on a smarter energy system where nobody is left behind

By running a smarter network, enabling a fair energy market and working in partnership with stakeholders we will ensure an affordable energy transition that benefits the communities we serve.

ANM



Enabling quicker connections with active network management (ANM)

Using real-time technology, our industry-leading ANM system accelerates connections, reduces restrictions on input capacity and enables automated dispatch.

ANM connection saved the customer £1.5m and deferred £3.2m of reinforcement costs.

RESP



We are working with NESO to enable Regional Energy Strategic Plans

Engaging with our customers and stakeholders to understand their needs, developing our granular range of DFES forecasts and undertaking detailed network planning.

Informing and supporting whole-system cross-vector optioneering to deliver net zero.



DSO: a year of action and impact



Purpose

Our mission

To enable the North West to achieve a just energy transition, maximising benefits for customers and the North West region by using DSO activities to help address social inequalities and support a just energy transition.

Avoided **£9.1m** of customer connection charges and deferred **£2.6m** of network reinforcement costs using flexible contracts

133,000 homes benefiting from Smart Street

Accelerated **284,000 MWh** of accepted generation connections

Reduction in reinforcement costs by **20%** at extra high voltage (EHV) levels and **33%** at high voltage (HV) levels through co-ordinated network development

Social DSO Fund seeing **£10.50** of wider societal benefits for every **£1** invested into community energy groups and businesses

Dispatched **8,736 MWh** of flexibility – more than double the previous year

LCT Readiness Checker covers **2.4m** properties and **13,000+** interactions since launch

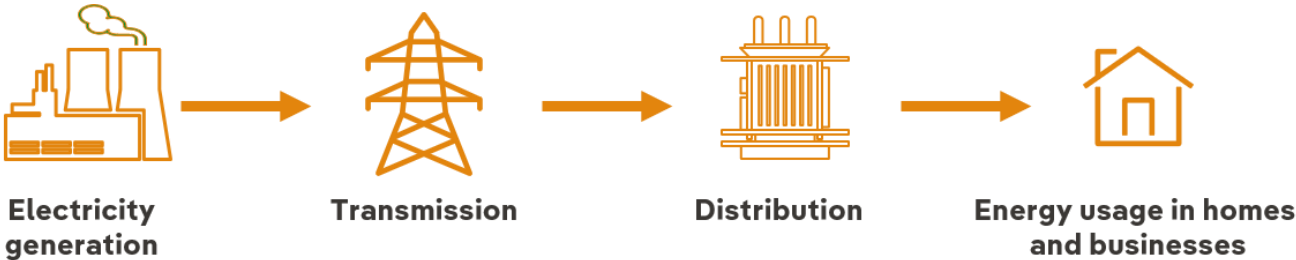


Purpose

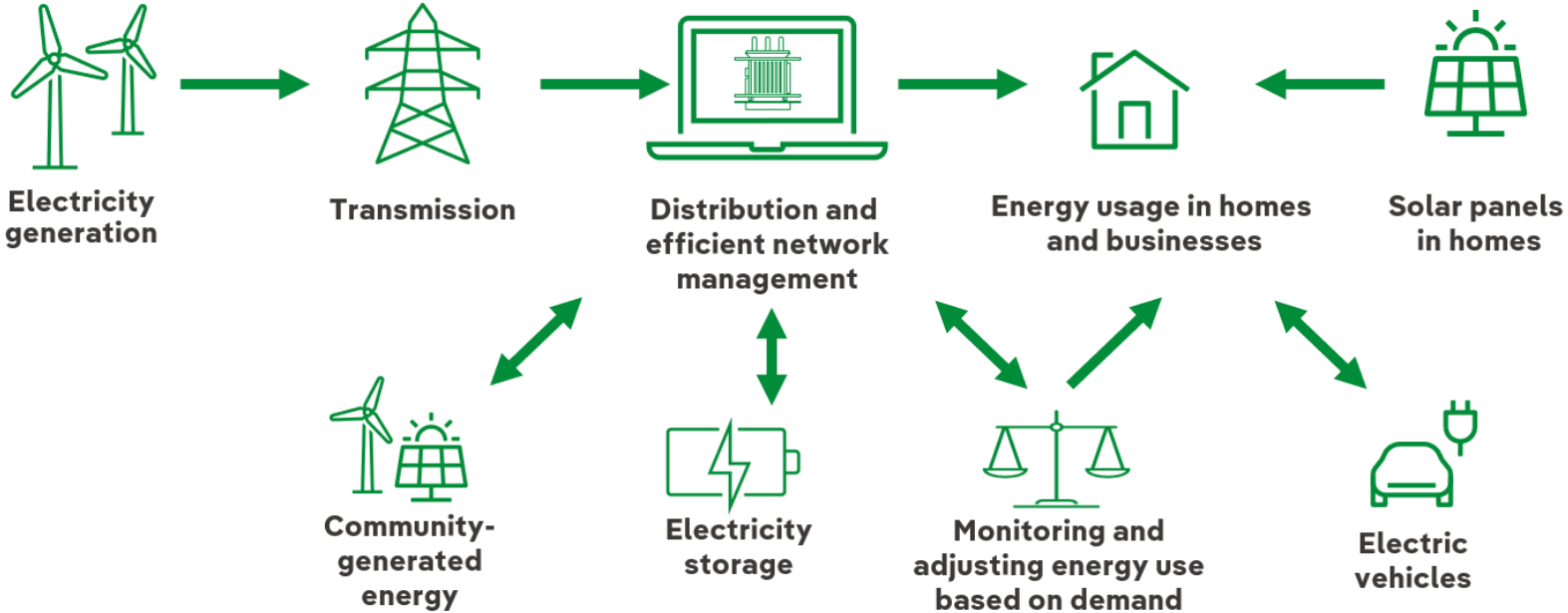
The challenge

The way electricity is generated, stored, transported and traded is changing

How we used to manage the network



How the network increasingly looks today



What could the DSO of the future look like?

Laura Sandys CBE

Chair Energy Networks Innovation Taskforce
("General Disruptor and Energy Geek")





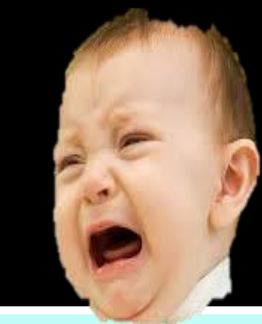
What could the DSO of the future look like?

Laura Sandys CBE

General Disruptor and Energy Geek



**PRICE
CAP**



**BIG IS
BEAUTIFUL**

“Designed and built by engineers,
bastardised by economists and
marketers, the power industry
continues to deliver one of the
most successful consumer
confusion programmes of all
time” Ari Sargent



Internal Use



**BIG
BANG
DATA**

TRANSPORTATION



**BLESSED
ARE
THE
CHEESE
MAKERS**

Location!
Location!
Location!



The new complex energy experience



From the 400 to the 100 million

The challenge: a new cost, value and price

Capital assets changing the
COST base of energy
throughout the system



Blended assets



Free feedstock, high
CAPEX, low OPEX

Blended assets and
services the new VALUE



Multi-actor
management

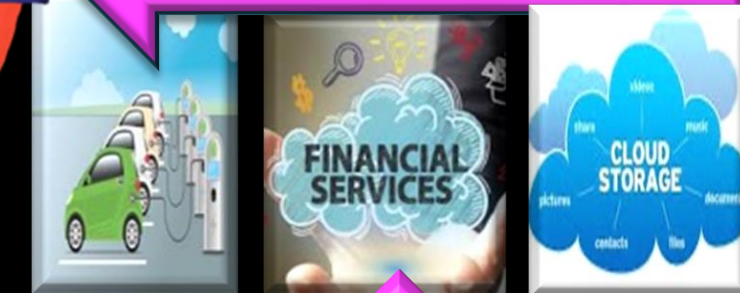


Demand and supply
equally valuable

Consumer models changing
how energy is PRICED



Varied business models



Tailored services & products
replacing commodity pricing

MIND THE
VALUE GAP

MIND THE
VALUE GAP

From the few to the many



System must start with YOU!

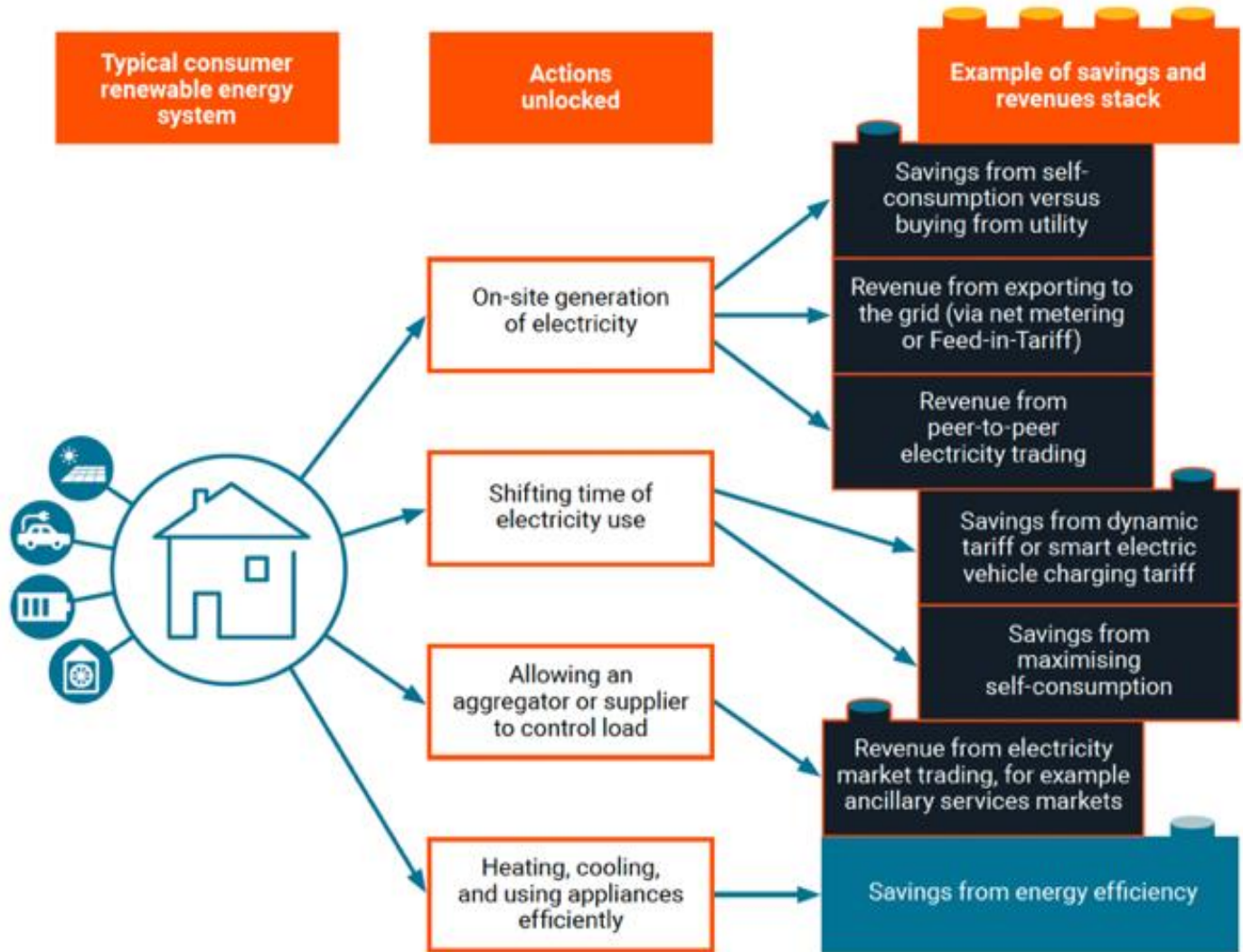
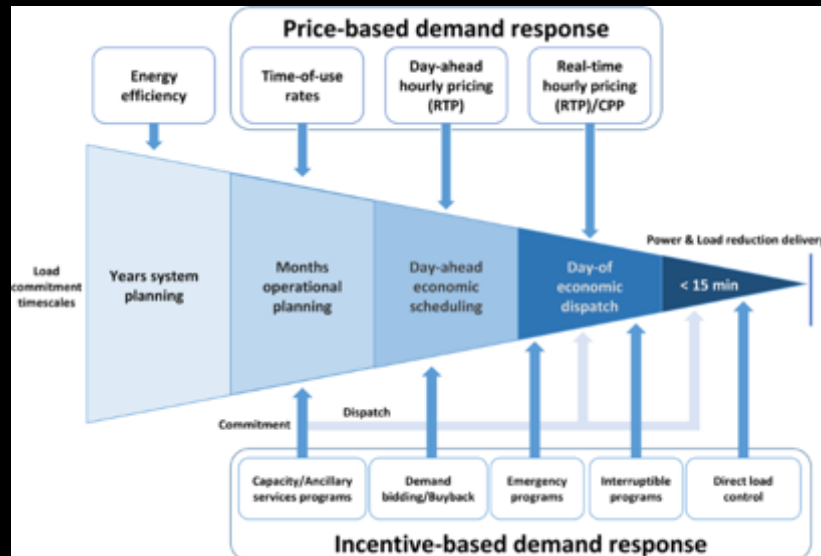
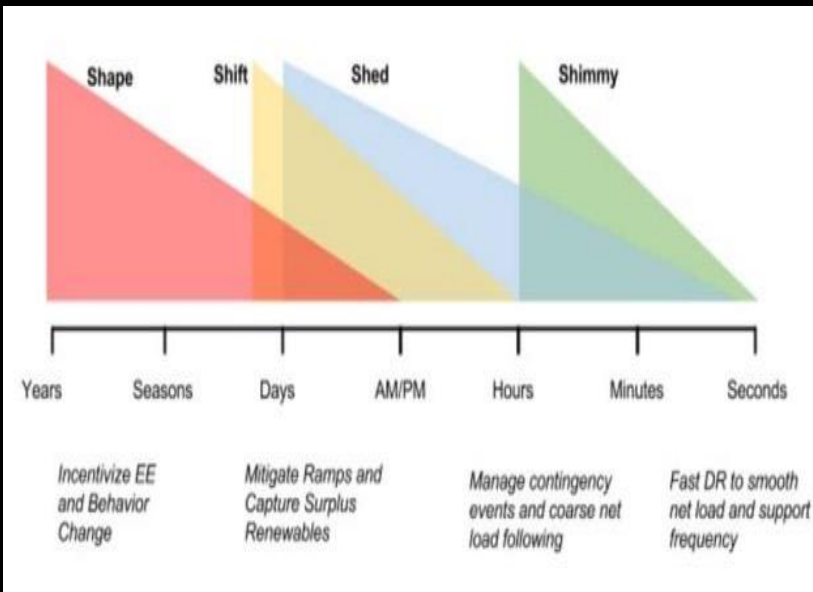


Figure 3. The consumer savings and revenue 'stack'.

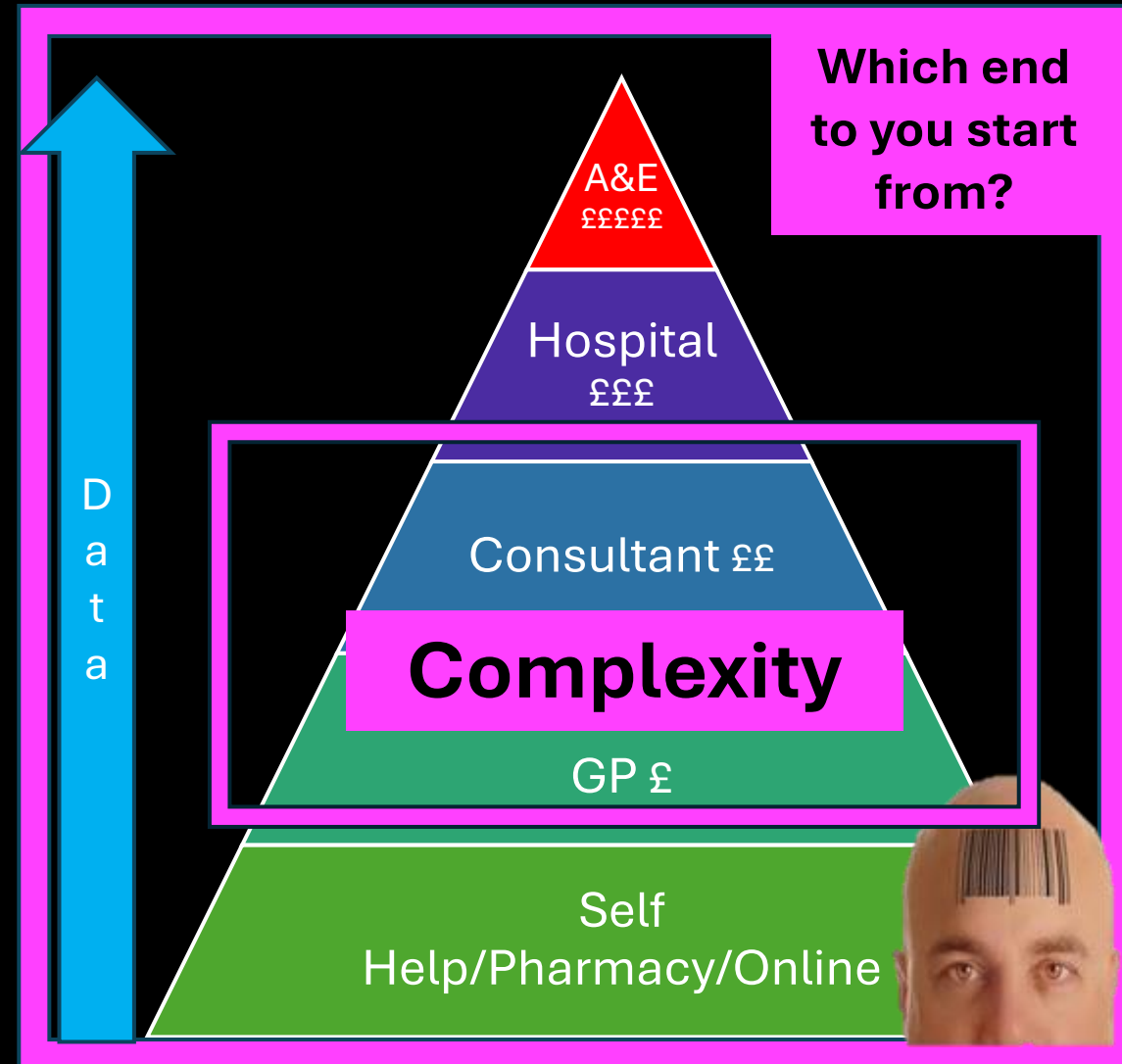
What is flexibility – domestic and C&I

- **Flexibility:** multiple actions over different timescales
- **Actions:** store, reduce, peak avoidance, consume (ramp up), export – all will be needed for the system stability and cost
- **Timescales:** different needs for the system with different values within the system
- **Values:** these change within the timescale provided



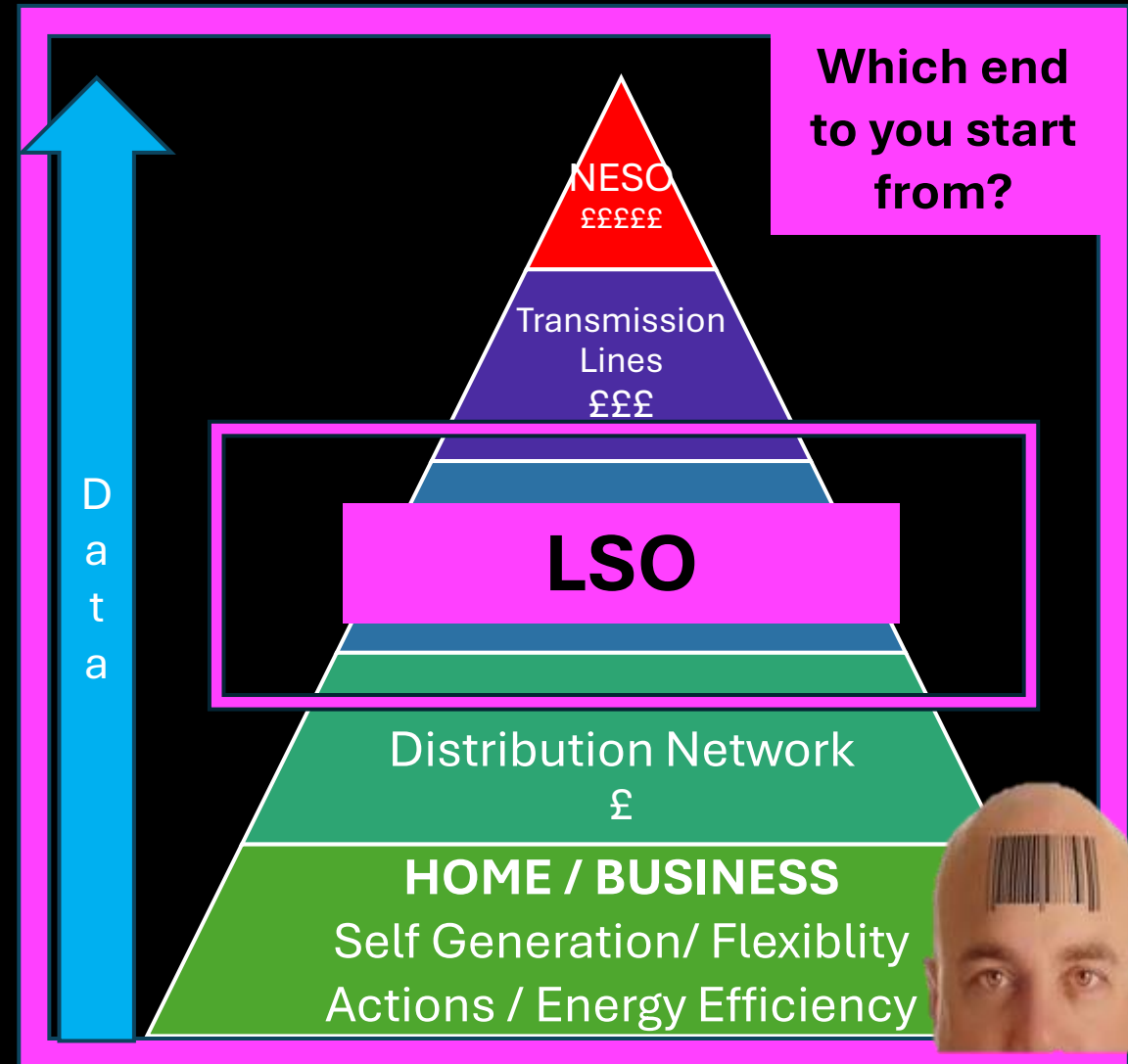
Who is going to make all this work?

- Where do you start in the system?
 - With the customer
 - Where the greatest complexity sits
- What are you trying to achieve?
 - Cost reduction
 - Customer choice
 - Customer rewards
- And the lights need to stay on!
 - Data needs to flow too



Local system operator – optimising your energy

- **Complexity** lies with the 100 million actions and assets on the system
- **Customers** have different preferences
- **Flexibility services** need to be incentivised by great market design
- **Top down** system design will not work – and is very expensive
- **Localities** have different needs and different “personalities”



Getting more from less

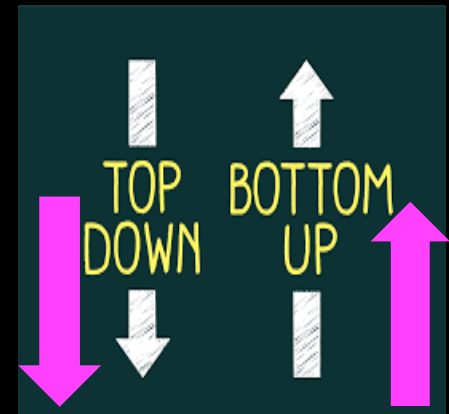
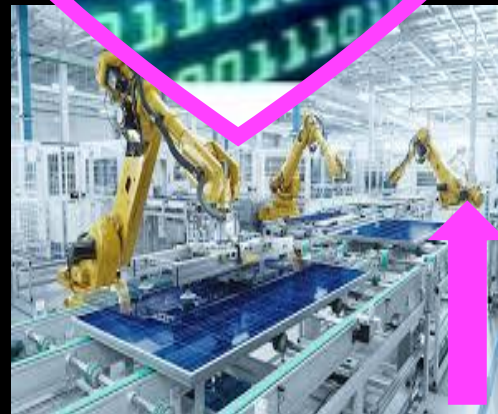
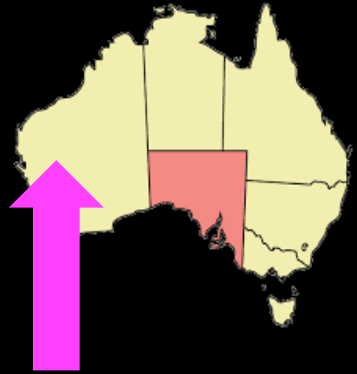
Visibility and optimising
all energy assets and
services at lowest price

**Local system
optimiser**

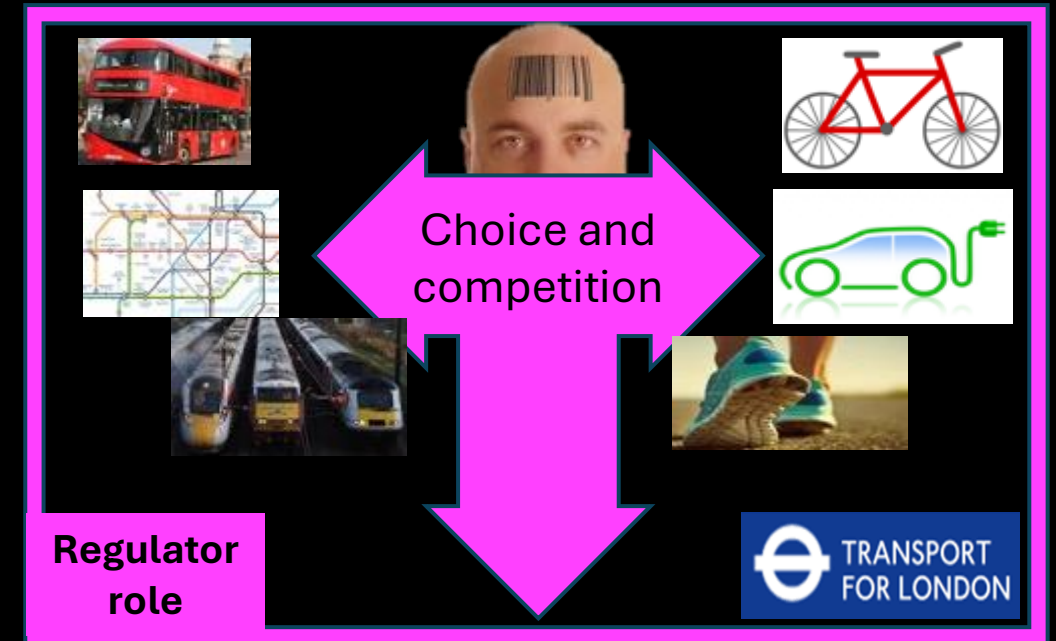
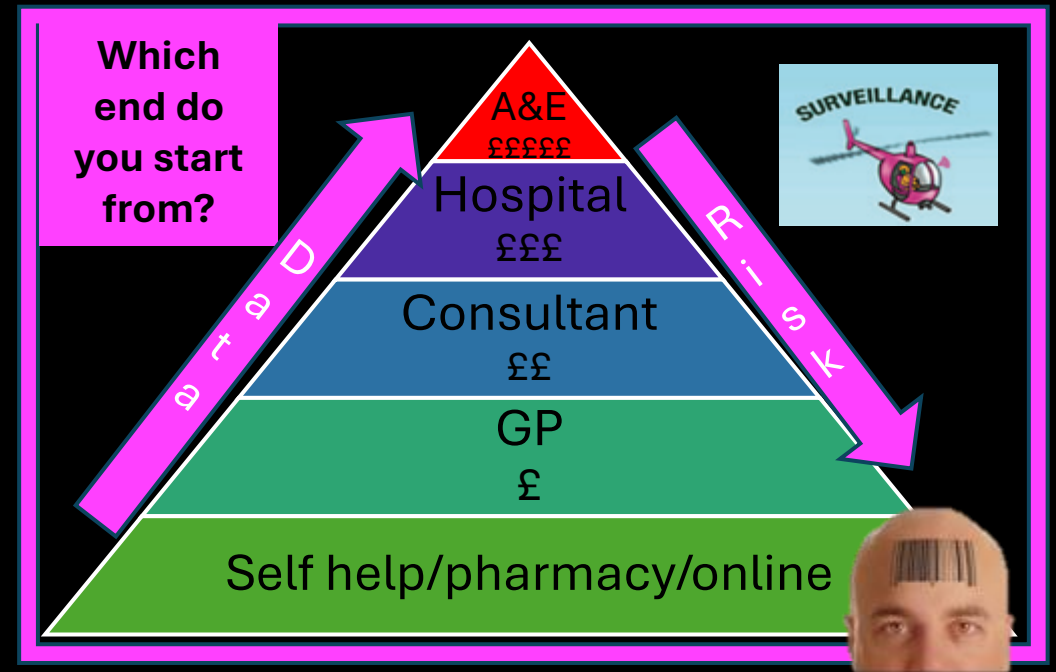
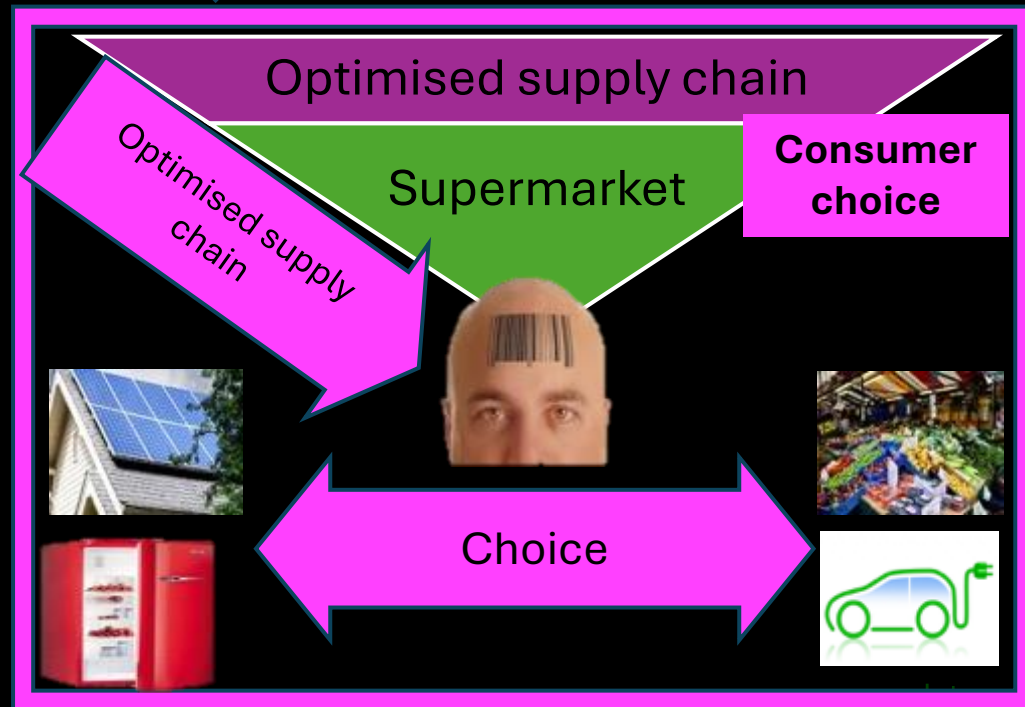
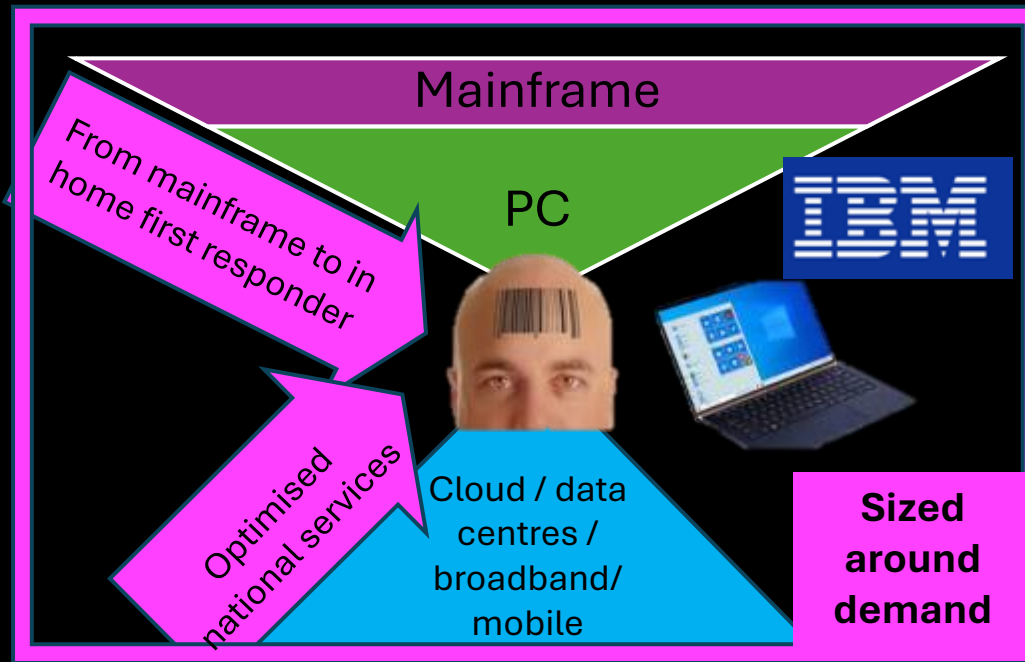
Incentivise demand
action
Self generation,
flexibility and energy
efficiency



A dream – maybe here sooner than we think!



Models for optimisation



All done before across multiple other sectors

The Amazon logo, featuring the word "amazon" in a black, lowercase, sans-serif font with a curved orange arrow underneath it.The DHL logo, consisting of the letters "DHL" in a bold, red, italicized sans-serif font, with three horizontal red lines on either side.A graphic for the telecommunications sector. It features a blue background with a world map, glowing nodes, and a hand holding a smartphone. The text "TELECOMMUNICATIONS SECTOR" is written in white, bold, uppercase letters.A graphic for a stock exchange. It features a blue background with a line graph showing an upward trend and a bar chart. The text "STOCK EXCHANGE" is written in a stylized, purple, uppercase font.The Transport for London logo, featuring a white circular emblem with a stylized 'T' and 'L' inside, followed by the text "TRANSPORT FOR LONDON" in white, uppercase, sans-serif font.The Tesco logo, featuring the word "TESCO" in a red, uppercase, sans-serif font with a blue and white checkered pattern below it.The "one stop" logo, featuring the words "one stop" in a white, lowercase, sans-serif font inside a blue rounded rectangle.The Sainsbury's logo, featuring the word "Sainsbury's" in a brown, lowercase, serif font with a green leaf-like shape below it.The Aldi logo, featuring the word "ALDI" in a white, uppercase, sans-serif font inside a blue square.The OP logo, featuring the letters "OP" in a blue, stylized, sans-serif font.The Lidl logo, featuring the word "LIDL" in a white, uppercase, sans-serif font inside a red square.The Costco Wholesale logo, featuring the word "COSTCO" in a red, uppercase, sans-serif font with "WHOLESALE" in a smaller font below it.The Heron Foods logo, featuring the words "Heron Foods" in a yellow, italicized, sans-serif font inside a blue rounded rectangle.The Ocado logo, featuring the word "ocado" in a purple, lowercase, sans-serif font with a stylized 'o'.

Nothing new here!

**The future:
from brawn
to brain**



Finding solutions for the energy transition

David Snow

Chief Executive Officer, EnergyCloud





Finding solutions for the energy transition

David Snow

Chief Executive Officer – EnergyCloud
England

My story in one slide

1990s

2000s

2010s

2020s

Energy Manager
BASS plc

Energy Manager
BP

Energy Manager
ASDA

Energy Services Director
SMS plc

Managing Director
Concept Energy

Energy Consultant
ENRON

Energy Manager
Siemens

Head of Energy Services
Schneider Electric

Operations Director
JRP Solutions

CEO
EnergyCloud

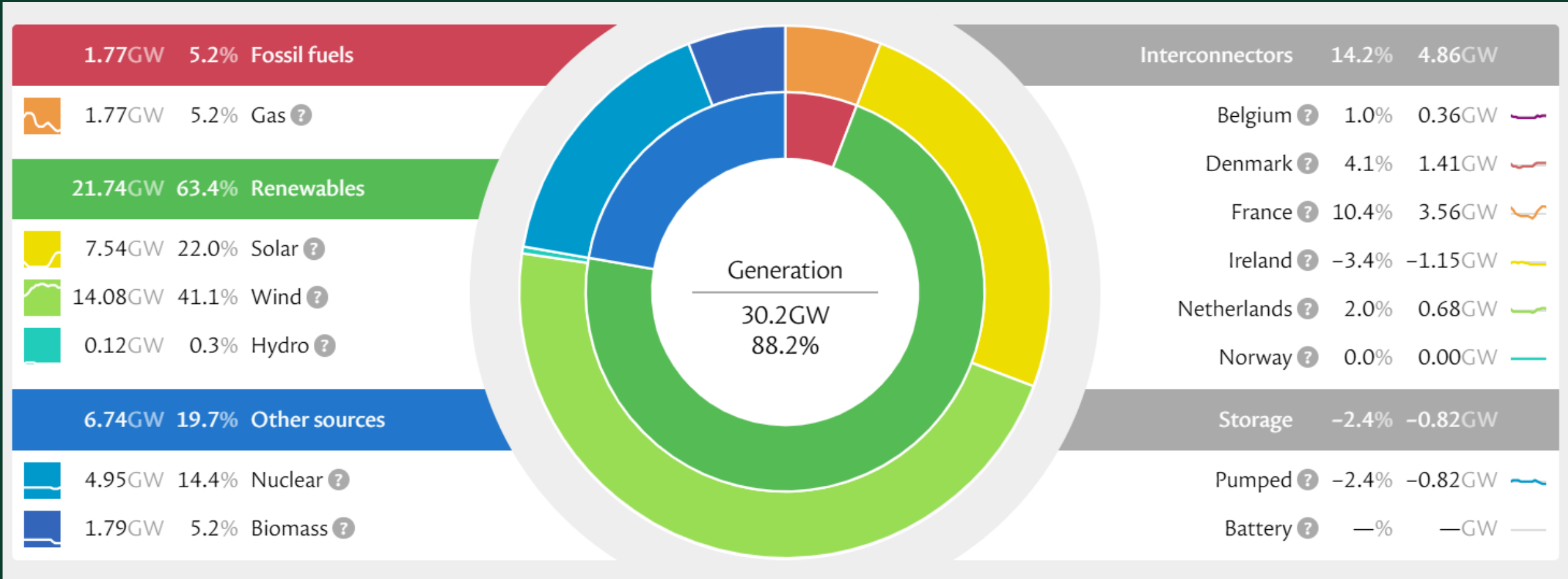
1990s — Energy Bureau – Bill Validation, Procurement and Data analysis.

2000s — Contract Energy Management & Cost Management

2010s — Consultancy, Projects and Climate Change

2020s — Net Zero, Compliance and Grid Balancing

The clean energy revolution



Energy is moving from a commodity market
to a flexible, digital, consumer-led system.

The biggest opportunity may not be generating more energy — but matching clean energy with people, buildings and businesses at the right time.

EnergyCloud sits directly in this transition.

The magnitude of the problem / opportunity

From **January** to **September** 2026,

**8,200
million kWh**

of surplus zero-carbon renewable energy
was wasted across
England, Scotland and **Wales**,

with an estimated retail value of

£2.16 BILLION



While renewable energy is being switched off, millions of households continue to struggle with energy costs. EnergyCloud is working with partners to use this waste to help tackle fuel poverty.

To put it into perspective

Jan to Sept: 8,200 million kWh, extrapolated for full year:

10,563,428,571 kWh



How many trips from Lands End to John O Groats could an EV travel with this energy?

Miles per kWh: 4 | Distance: 874 miles

48,345,211 trips



How many houses could this power?

Average kWh per year for a UK house: 2,700kWh

3,912,381 houses



GENERATORS

Curtailment is not desirable for generators as renewable energy such as wind turbines is designed to run and not be switched off.

Coordinating the system



Generators



NESO

The systems operator aspires to have an efficient, secure and fair system for all. Tackling fuel poverty by creating a zero tariff is one of their goals.

Coordinating the system



Generators



N



DNO

A balanced energy grid reduces system stress. Millions of pounds a year is invested in maintenance, and any reduction would be welcome

Coordinating the system



Generators



NESO



RETAILERS

Are keen to participate as it will enable them to retain and acquire customers, and also provide the necessary kudos to fulfil their CSR goals.

Coordinating the system



Generators

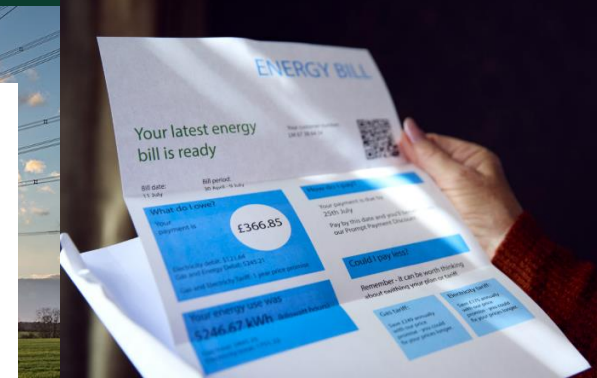


NESO



TECHNOLOGY PROVIDERS

Technology providers will need to use devices that are 'EnergyCloud ready'. Both the solution and organisation values are key criteria.



Retailers

Coordinating the system



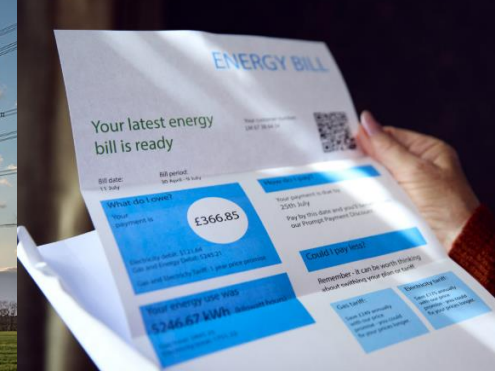
Generators



NESO



Network operators



Retailers



Technology

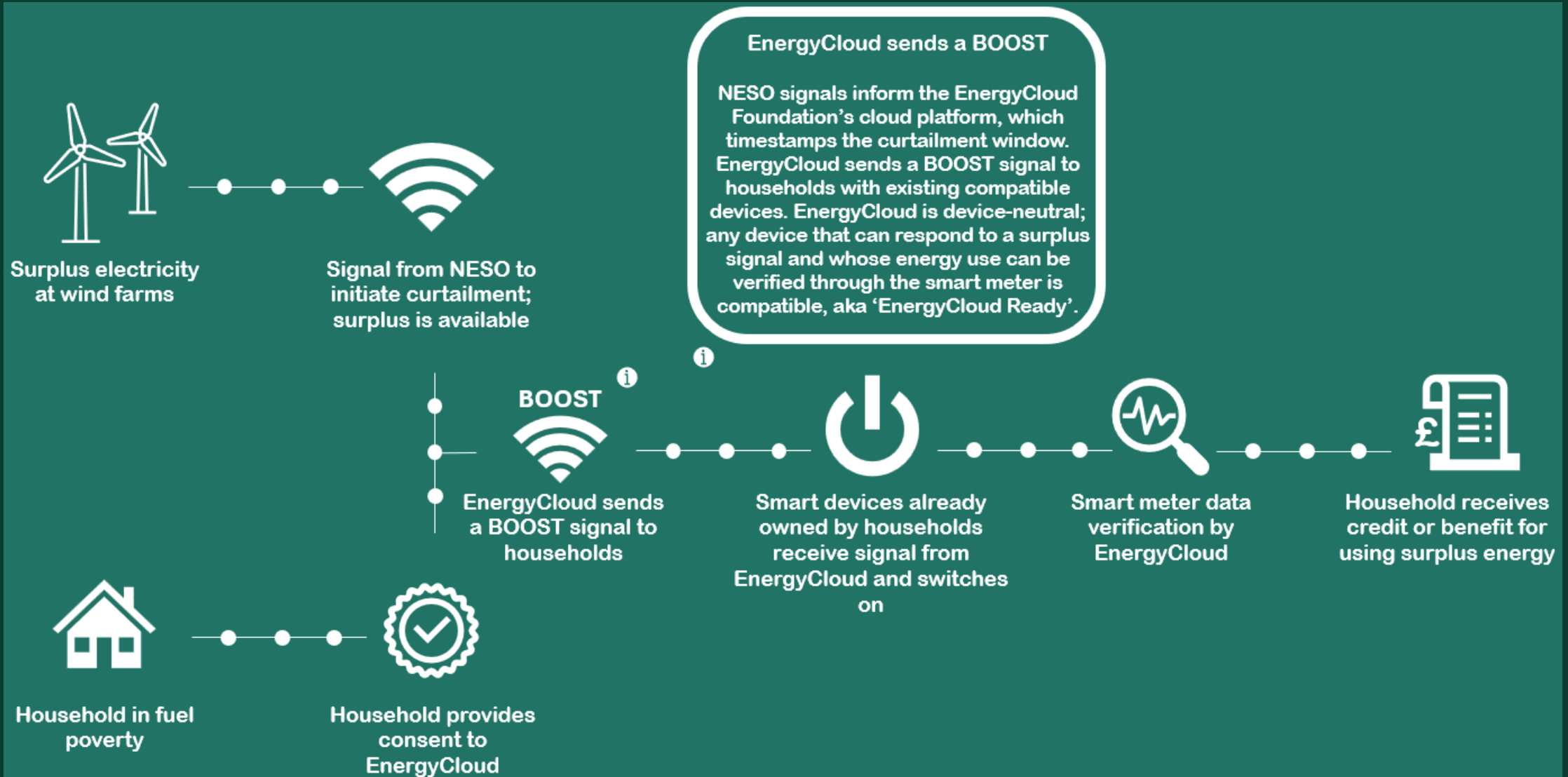
BENEFICIARIES

Housing Associations want to provide the best conditions for their residents. They will support installation and management of an EnergyCloud project.



Beneficiaries

How does it work?







Making renewable energy work for everyone.



Join the Q&A

Submit questions on the QR code above,
or ask in the room



Break

(15 minutes)

Scan the QR code to see our upcoming webinars and drop-ins



Cumbria's energy future

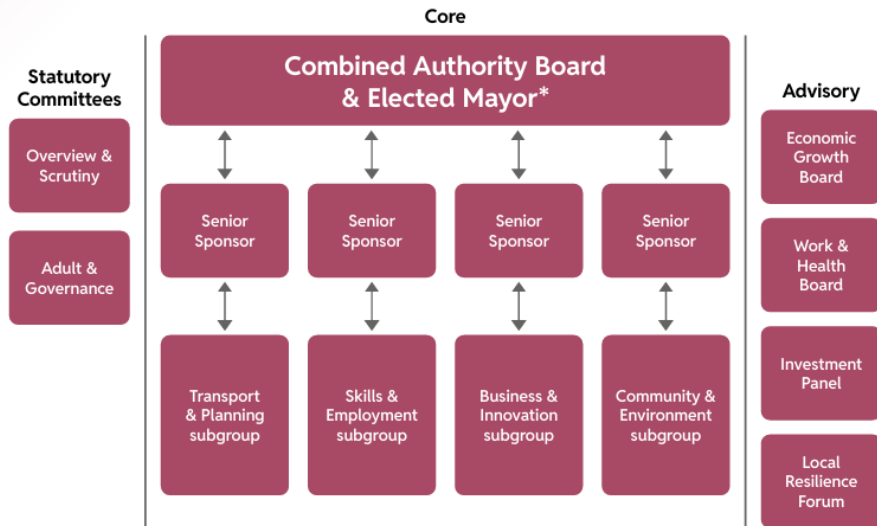
Jennie Stein

Head of Net Zero,
Cumbria Combined Authority



Cumbria's energy future

Jennie Stein, Head of Net Zero



- Net zero
- Skills bootcamps
- Business support
- Careers hub
- Connect to work



Introducing Cumbria

Sector strengths

Manufacturing

Defense

Nuclear

Energy

Agriculture

Land management

Visitor economy



Cumbria has a strong clean energy history

- Cumbria is a clean energy super region, generating 2GW of renewable power for the UK
- World's first commercial nuclear power at Calder Hall and an early leader in onshore and offshore wind power.

But there are challenges

- Geography and infrastructure
- Grid capacity/connectivity
- Distributed industry
- Cumbria's voice

Onshore wind



239 wind turbines

Offshore wind



16% of UK offshore wind generation

Solar



8,686 solar installations

Biomass



344GWh plant biomass generation

Anaerobic digestion



22 AD installations

Hydro



59 hydro schemes



Ambitious clean energy plans

Large-scale technologies



Point 1: Advancing Offshore Wind



Point 2: Driving the Growth of Low Carbon Hydrogen

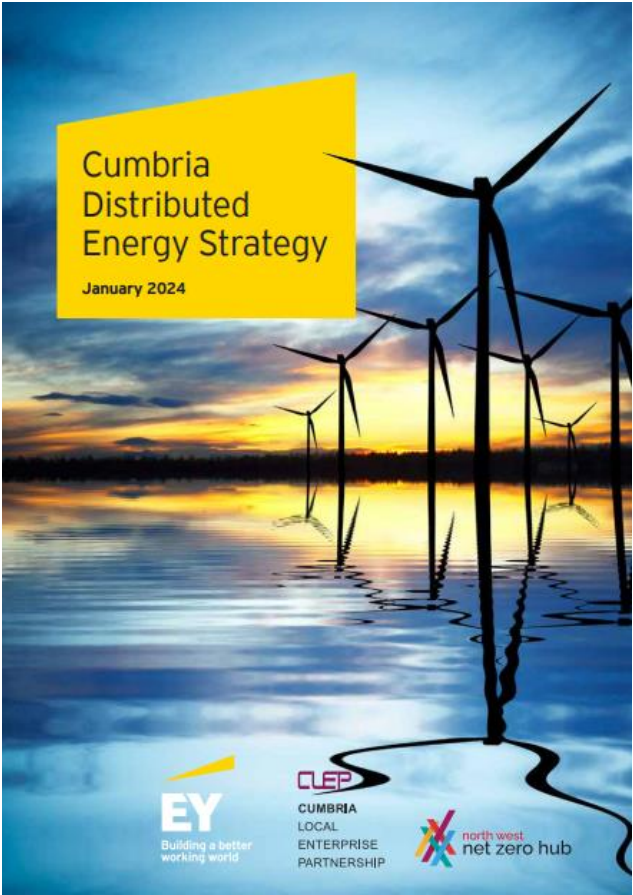


Point 3: Delivering New and Advanced Nuclear Power



Point 8: Investing in Carbon Capture, Usage and Storage

Smaller-scale technologies



Onshore wind

Tidal and wave

Solar PV

Deep geothermal

Heat networks

Heat networks (5G)

Bioenergy

Hydropower



Ambitious clean energy plans

Business decarbonisation plan



LOCATIONS	
1	British Gypsum
2	TATA STEEL
3	JAMES CROPPER
4	Kendal Nutricare
5	Pelita Medical Papers
6	Kimberly-Clark
7	SPIRIT ENERGY
8	BAE SYSTEMS
9	Sealfield Ltd
10	HOLMEN IGGESUND
11	first milk
12	INNOVIA
13	FUTAMURA
14	PIRELLI
15	Nestlé

Embracing industrial decarbonisation - Barrow Green Hydrogen, Morecambe Bay CCS



Aligning with our broader economic strategy

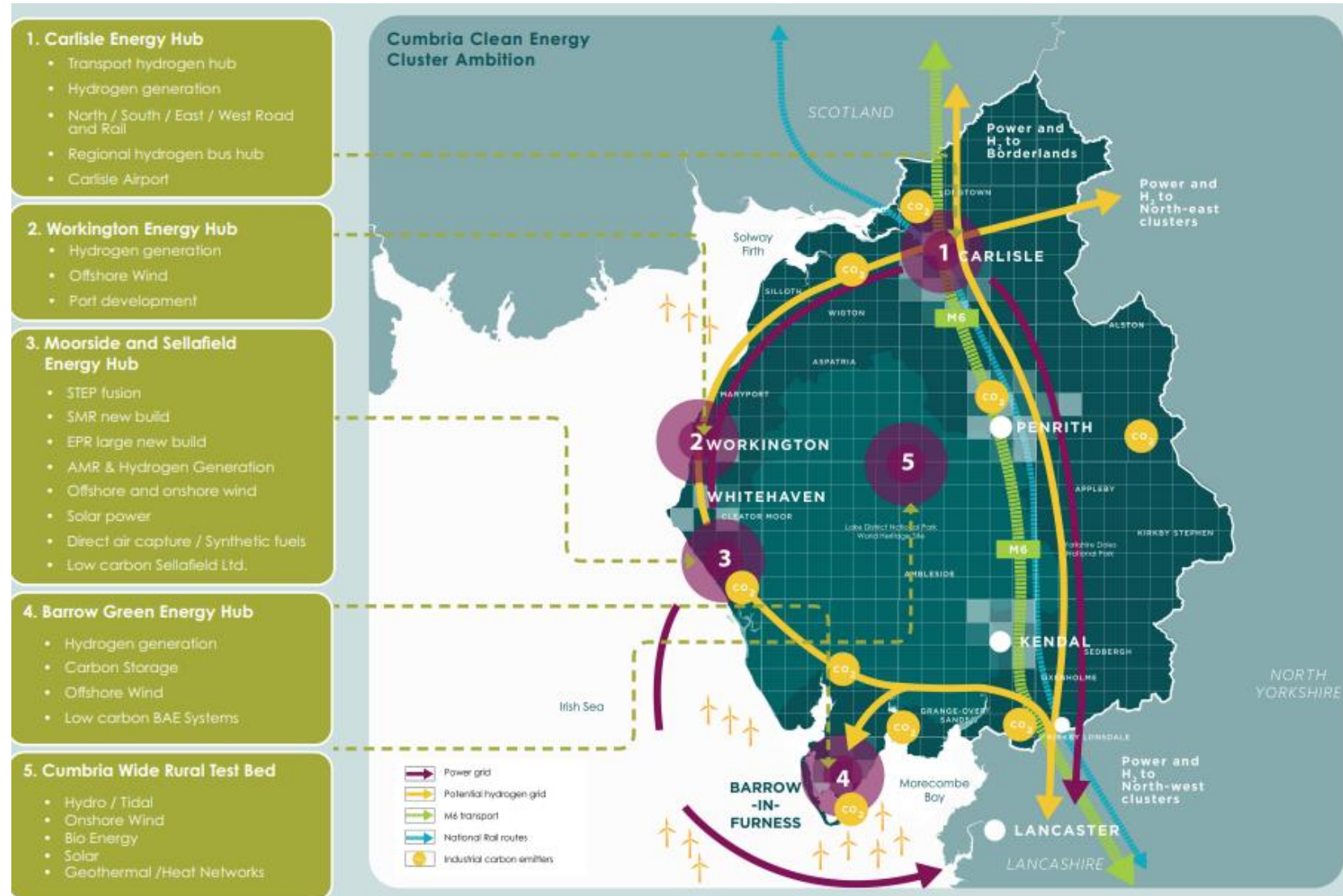


We've set an ambitious but achievable target:

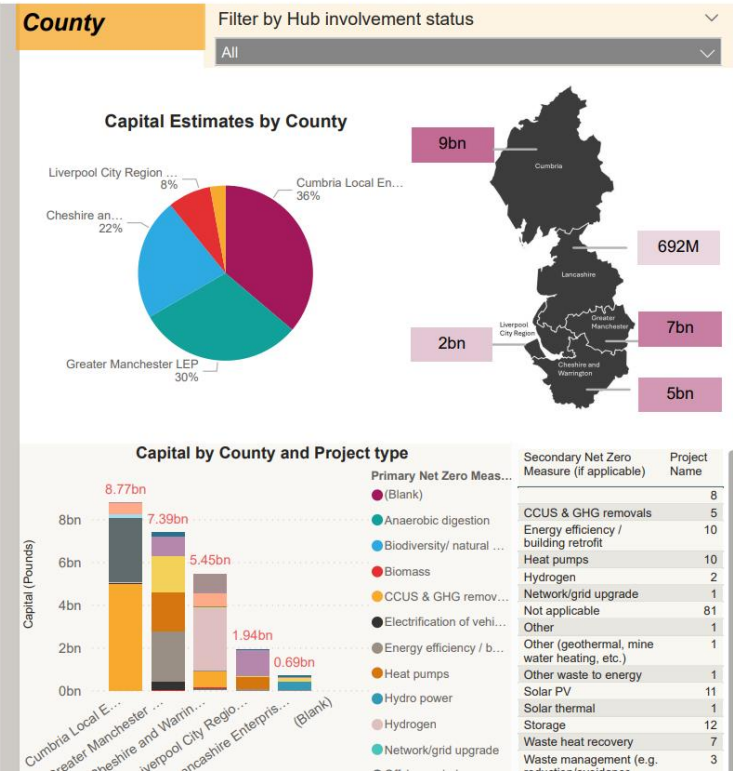
net zero by 2037



Cumbria has a number of high-potential Clean Energy Hubs



Strategic project portfolio

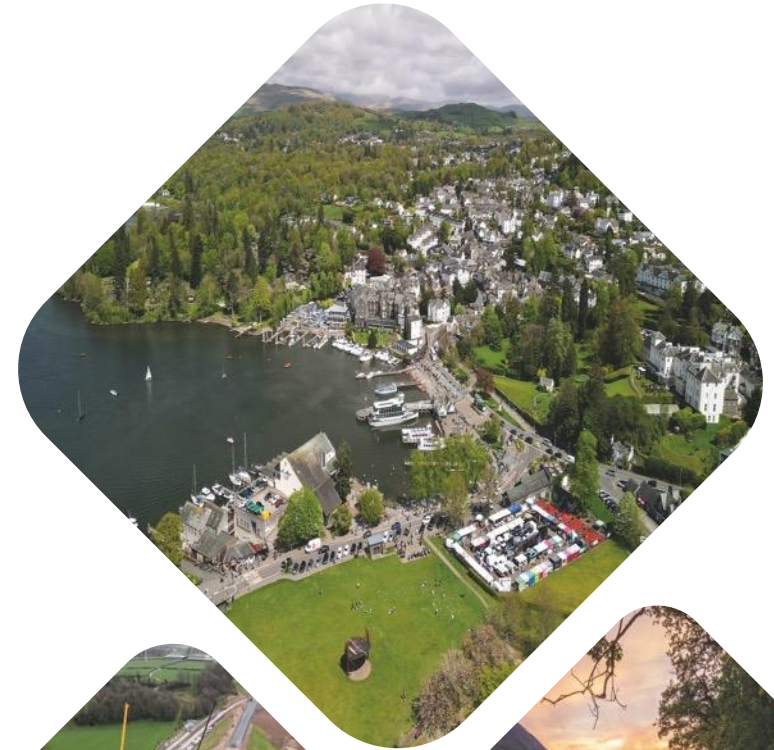


- **Pioneer Park, Moorside:** developing a nationally significant clean energy, AI and advanced manufacturing campus.
- **Barrow Green Hydrogen:** low-carbon hydrogen production supporting industrial decarbonisation.
- **MESH energy storage:** long-duration energy storage, hydrogen and energy security infrastructure.
- **Morecambe net zero:** carbon capture and storage infrastructure in the Irish Sea.
- **Carbon neutral fuels (Project Starling):** sustainable aviation fuel and direct air capture development at Workington.
- **Project Collette:** community-backed offshore wind and local investment model.
- **ACAP ventures:** green methane production and circular carbon technologies at the Port of Workington.
- **Industrial decarbonisation projects:** supporting investment in manufacturing decarbonisation at sites including James Cropper, Futamura and Pirelli.
- **Community and rural energy projects:** delivering innovative community energy, vehicle-to-grid, energy storage and sustainable building initiatives through the Borderlands Energy Investment Programme.



How we deliver our plans

- Support businesses to reduce energy costs and carbon emissions. Develop clean energy, decarbonisation and industrial growth projects.
- Connect businesses with funding, expertise and delivery partners.
- Work with industry to improve competitiveness and productivity.
- Engage with energy networks, government and investors on Cumbria's priorities.
- Support community energy and local energy projects.
- Build partnerships across business, academia and the public sector.
- Raise Cumbria's profile as a destination for investment and innovation.



Working in partnership with SP ENW

- **Jointly delivering community energy support programmes** with SP ENW and Futureproof Cumbria.
- **Co-hosting the Powering Communities event**, connecting local groups with funding, expertise and delivery partners.
- **Developing Cumbria's Local Area Energy Plan (LAEP)** and piloting the LAEP+ platform to strengthen local energy planning.
- **Shaping ED3 and Regional Energy Strategic Planning (RESP)** to ensure Cumbria's priorities are reflected in future network investment.
- **Supporting the growth of energy-intensive industries**, helping address infrastructure and decarbonisation challenges.
- **Building a shared understanding of Cumbria's strategic energy requirements**, including future demand and network capacity needs.
- **Aligning energy infrastructure planning with the Spatial Development Strategy** to support sustainable economic growth.





jennie.stein@enterprisingcumbria.org.uk



Planning for the future

Christos Kaloudas
Capacity Strategy Lead

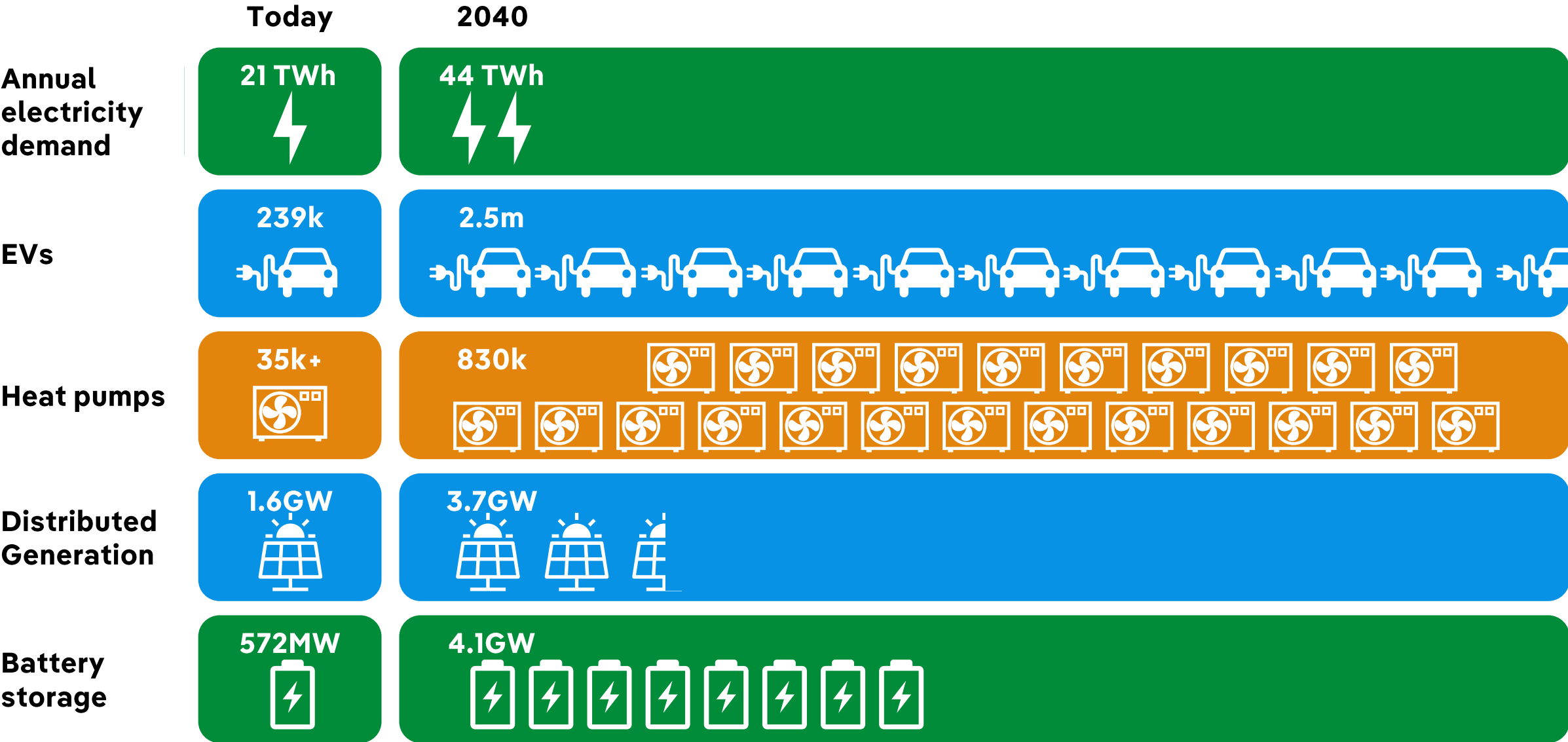


Quick question

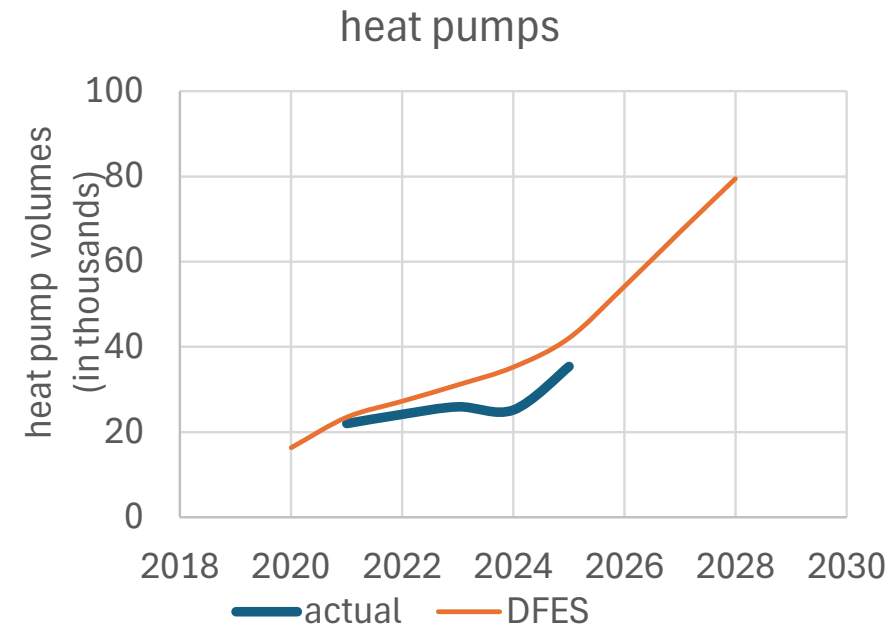
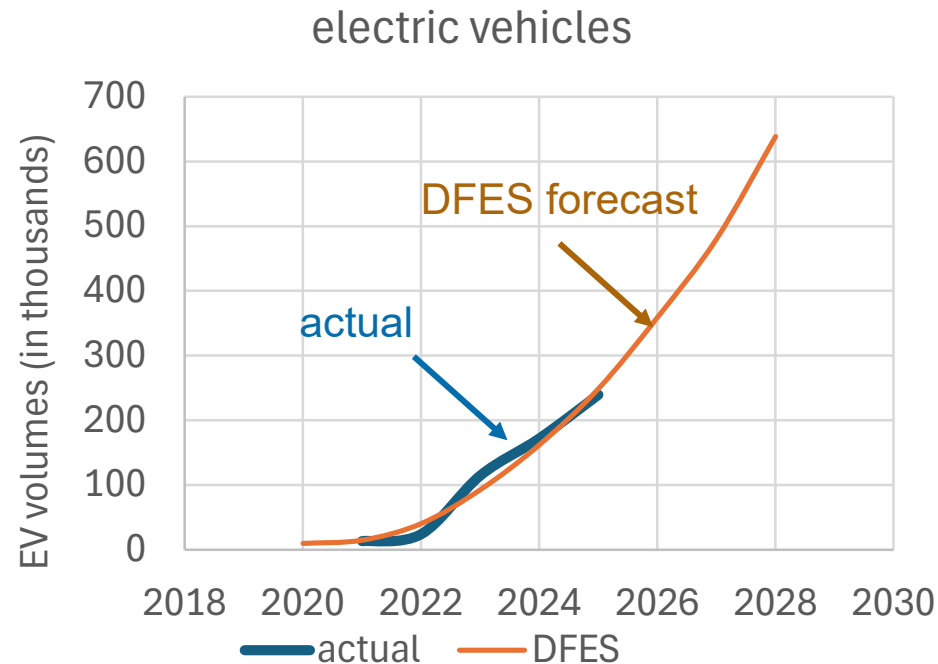


Please scan the QR code to answer

A day in 2040



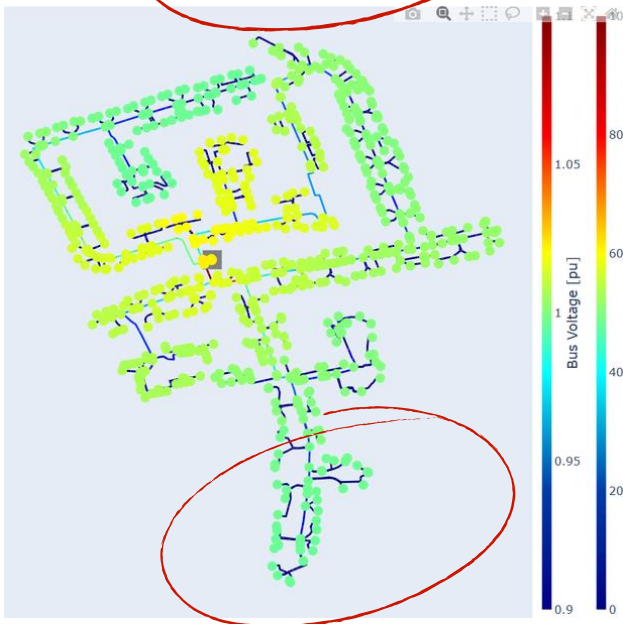
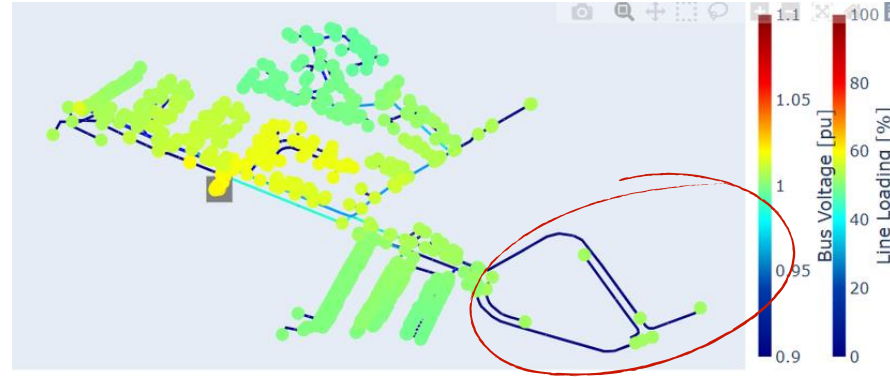
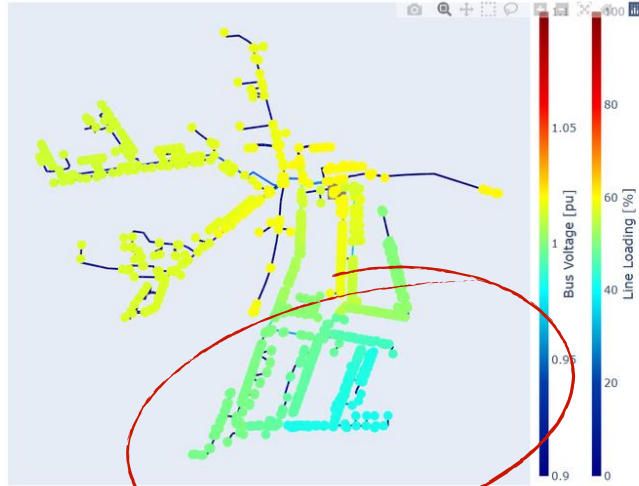
How accurate do we need DSO forecasts to be?



Forecasting accuracy

- Focus on long-term horizons as we invest in assets that have long lead construction times and we do not want them to be either stranded or overloaded
- Learnings: certainties in technology and cost combined with insights from local stakeholder engagement through planning enhance the accuracy, while long-term policy uncertainties may result in more challenges to predict

Focus on the use of granular LCT forecasts



Granular LCT forecasts can help us understand hot spots of forthcoming system issues (thermal, voltage, harmonic distortion etc) and target proactive network reinforcement & bespoke flexibility service products

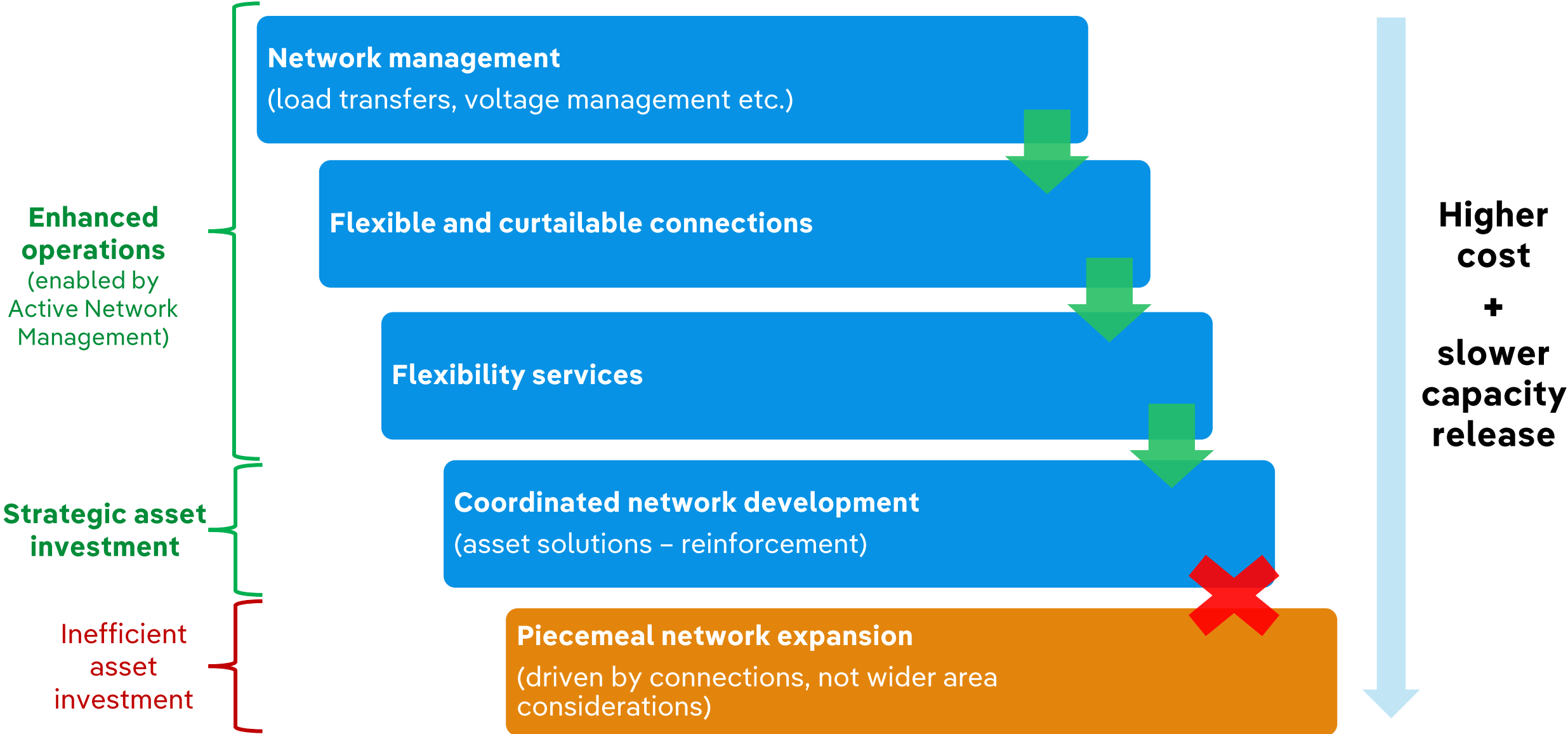
A day in 2035 across Cumbria, Greater Manchester and Lancashire

Region	Electricity demand	Distributed generation	Electric vehicles	Heat pumps
Cumbria	+430 MW (0.96GW total)	+175 MW (1.6 GW total)	196,000	20,000
Greater Manchester and Peak	+1,300 MW (4.0 GW total)	+419 MW (1.0 GW total)	917,000	200,000
Lancashire	+527 MW (1.7 GW total)	+212 MW (0.9 GW total)	507,000	110,000

Focus on Cumbria - DSO technical engagement with *Cumberland and Westmorland and Furness*

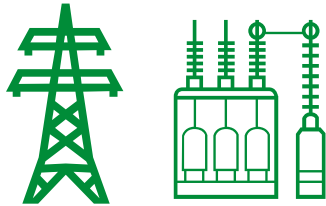
- 45 development areas, up to 770 MW by 2040
- Wide range of developments (new/extended industrial parks, port, housing and commercial regeneration, electrification of transport hubs)

Our DSO capacity strategy



99.98% of customers have not faced a voltage issue

**extra high voltage
132 and 33kV system**



**high voltage
11 and 6.6kV system**



**low voltage
0.4 kV system**



Customer experience on voltage
issues

Large industrial sites, data centres, renewables. Most concerned with:

- Process continuity (e.g. from fault-induced voltage dips)
- Flicker
- Protecting expensive devices
- Compliance with grid code

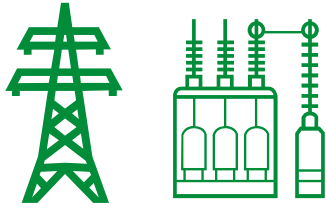
Commonly large industrial and commercial users. Most concerned with:

- Production interruptions
- Motor performance and equipment reliability
- Flicker from large motors
- Fault ride through performance

Domestic and small commercial customers. Most visible issues:

- Lights dimming or brightening
- Inverter disconnections
- Electric vehicle charger or heat pump performance issues
- Nuisance tripping of devices

extra high voltage 132 and 33kV system



high voltage 11 and 6.6kV system



low voltage 0.4 kV system



Our voltage management process to
improve customer experience

- Real-time visibility (SCADA monitoring) and dynamic voltage control across whole system

- Real-time visibility (SCADA monitoring) and dynamic voltage control across whole system
- Industry-leading Quest & CLASS functionalities (optimisation across losses reduction, dynamic voltage management, energy bills reduction)

- Visibility (permanent monitoring) & dynamic voltage control across over 50% of customers
- Industry-leading Smart Street functionality (energy bills reduction, remove tripping of LCTs)

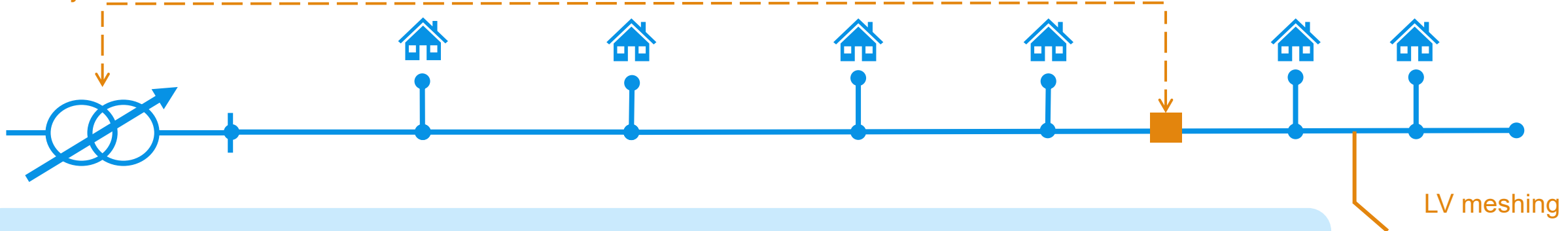
Key takeaway: our industry-leading coordinated voltage management in real-time across the whole system allows us to not only improve customer experience across all voltage levels, but also release network capacity without the costs and time delays associated with network reinforcement

Emerging challenge from electric vehicle (EV) chargers

- EV chargers challenge: protection devices cannot withstand over- and under-voltages for time periods in the order of a small number of seconds (2 to 5 seconds)
- Customers experiencing EV chargers tripping off in cases that we may maintain statutory voltage limits
- Wider voltage envelopes → changing the settings of our off-load tap changers to new settings might just move an undervoltage to an overvoltage problem and conversely

How can Smart Street achieve multiple objectives?

Mid-point voltage estimated via NMS state estimate and powerflow → OLTC voltage target adjustment



Smart Street original implementation: NMS state estimate and power flow used to estimate voltage at mid point. This voltage is compared with a reference voltage to apply CVR → **customer bill reduction & losses reduction**

Smart Street enhanced implementation: the reference voltage can be set at new setpoints during times that we expect extreme under/over voltages → **removing EV charging tripping off**

Electrification trends

- ✓ Different pace across the different electrification drivers (transport, heating, AI growth, renewables, economic growth developments etc), but growing electricity demand and distributed generation and higher reliance in our lives on electricity
- ✓ Success of DSO forecasting highly dependent on close stakeholder engagement and synergies so that our DSO Capacity Strategy can drive cost efficient coordinated network development to facilitate timely stakeholder plans

Enhanced operations are not only about capacity balancing – focus on voltage management

- Voltage management not only allows us to release more capacity from existing assets, but to also improve customer experience
- Our industry-leading and fully coordinated voltage management systems can be fine-tuned to emerging issues such as EV chargers tripping

Managing connections

Chloe Pieri

Connections Customer Engagement
Manager



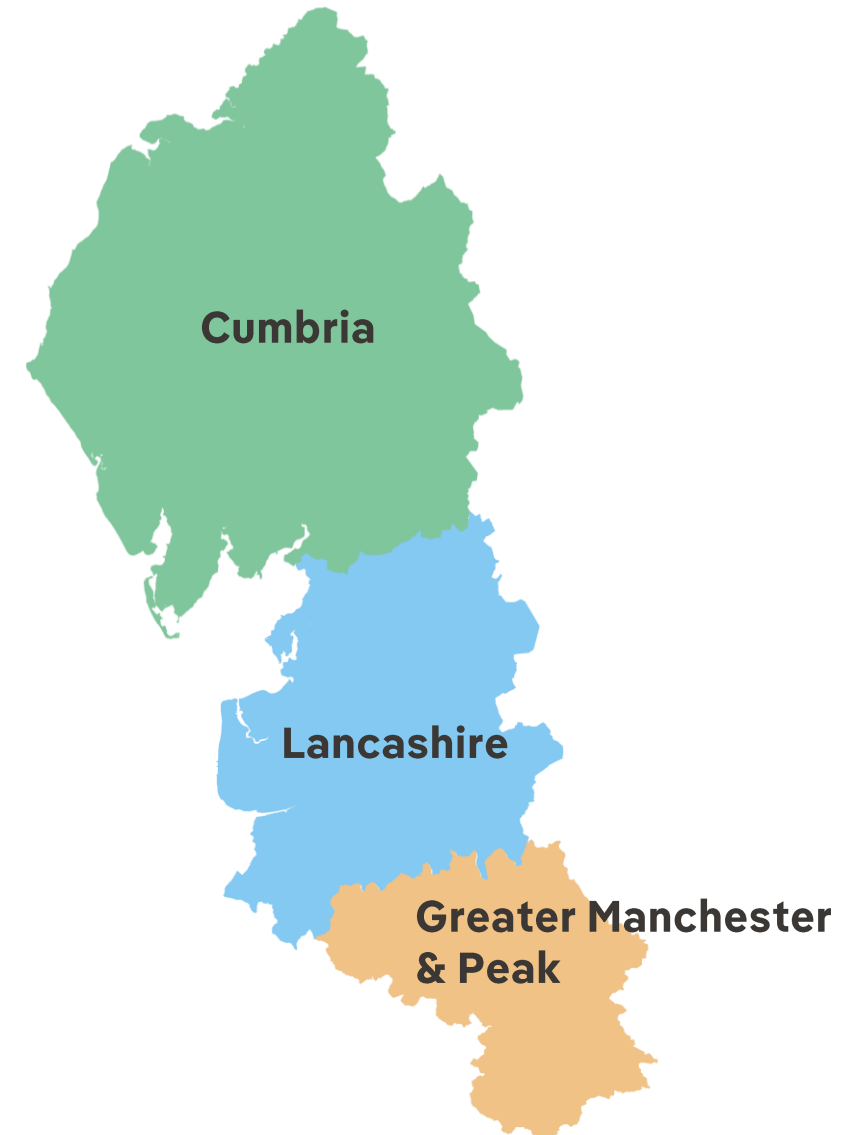
The connections team covers the full SP ENW footprint.

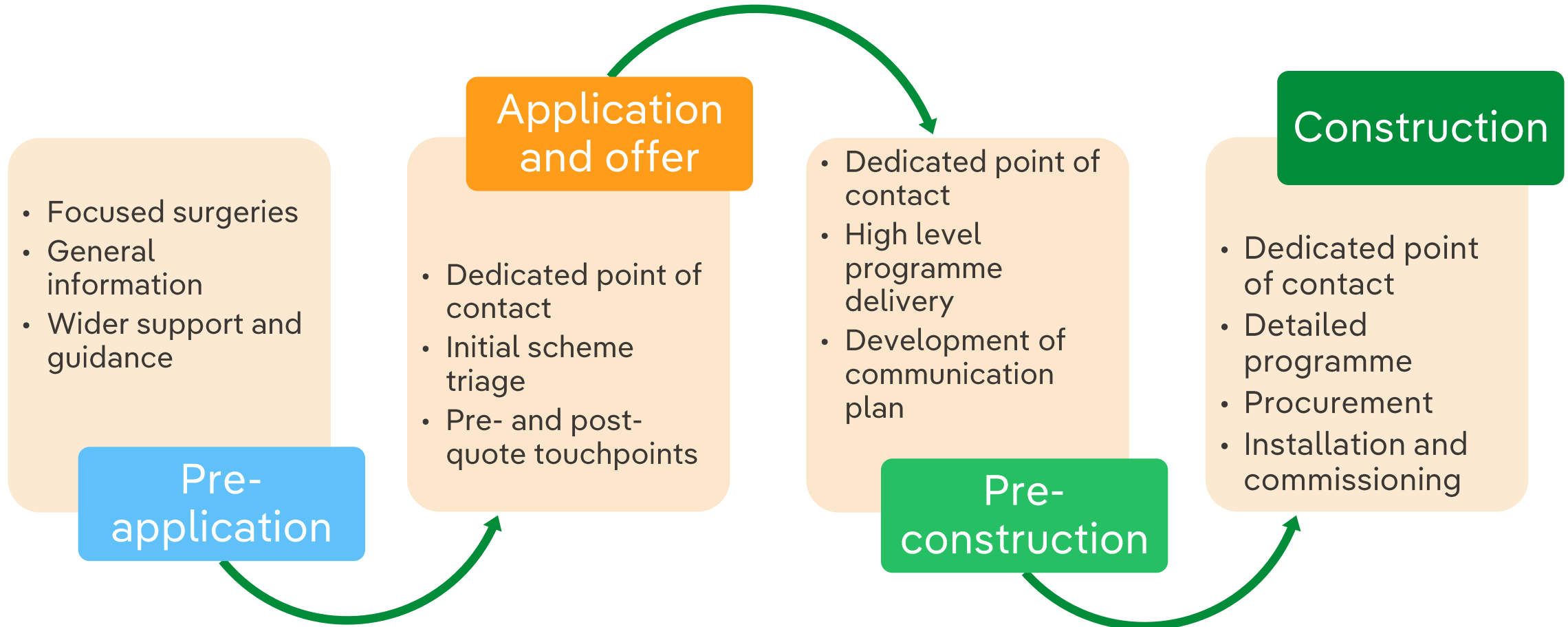
This covers a vast spectrum of geographical and network types.

We look after all customer work types:

- Domestic connections
- Commercial and industrial connections
- EHV connections
- Disconnections
- Diversions
- Service alterations
- Unmetered connections
- LCT upgrades

Covering everything from a streetlamp to a 150mva data centre.





Short term flexible connections



- Used to **temporarily** offset reinforcement
- Allows managed / constrained connection while reinforcement works are completed
- Can cover both distribution and transmission constraints

Enduring flexible connections



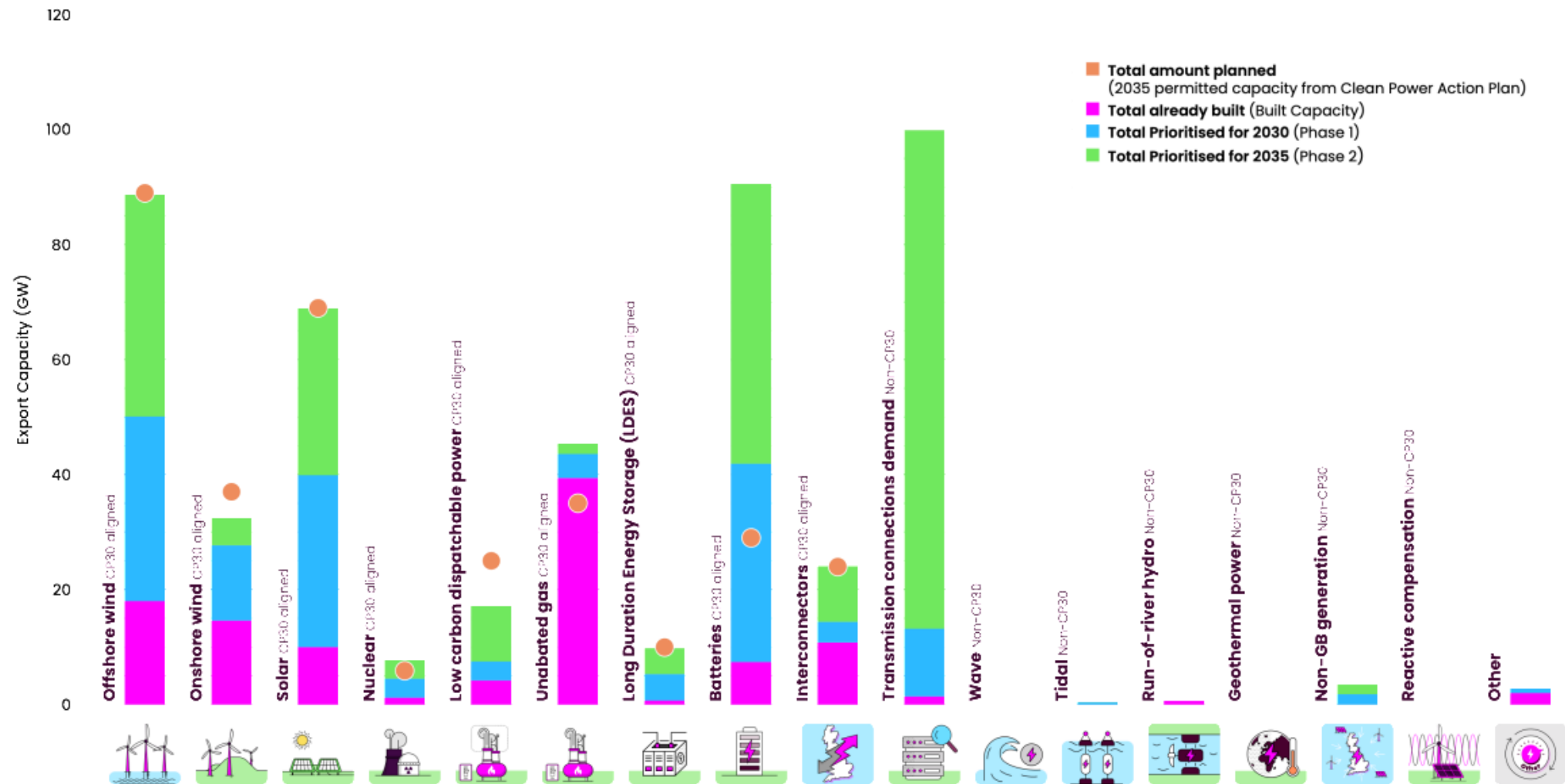
- Used to remove the need for reinforcement or allow for a simpler point of connection
- The managed or constrained element of the solution is **enduring**
- Typically, available for the distribution network only

Commercial flexibility services

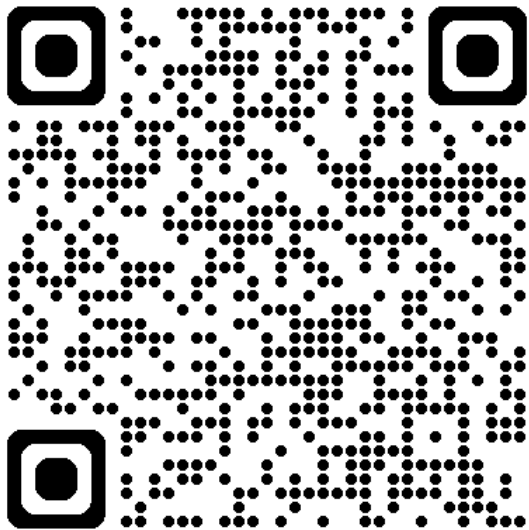


- Use your existing (or new) connection to enter into a service provision contract
- DSO **contract** for flexibility services
- Secure / earn additional revenue streams by operating your existing connection in a specific manner

Great Britain's new connections delivery pipeline



For more information and to find the right support, you can visit our website at:
www.enwl.co.uk/pre-app-support



Pre-Application Customer Support



If you'd like guidance before applying for an electricity connection, please contact our Pre-Application Customer Support team

Pre-Application Customer Support

You can email PreApplicationSupport@enwl.co.uk or call 0800 988 1732

[Email PreApplicationSupport@enwl.co.uk](mailto:PreApplicationSupport@enwl.co.uk) →



**ANM and
innovation**



**Network
planning (A)**



**Network
planning (B)**



Benefits



**Connections
pre-application**



**Connections
LCTs**



Lunch

(55 minutes)

Scan the QR code to see our upcoming webinars and drop-ins





Flexibility and resilience

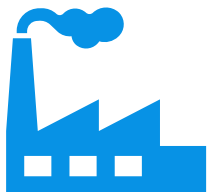
Nia Lowe
Head of DSO, SPEN



Flexibility is the ability to change the way you use electricity for a financial incentive at a time that suits you

What could I offer?

Any business or organisation with a flexible asset can take part.



Large industrial loads



Hospitality



Commercial Buildings



Healthcare



Low carbon technology



Retail

How do I take part?

Register direct or participate through an aggregator or supplier.

Why should I take part?

- ✓ Additional revenue stream for your business
- ✓ Operational efficiencies
- ✓ Sustainability and net zero alignment

Why does flexibility matter?

Maximise local renewable generation

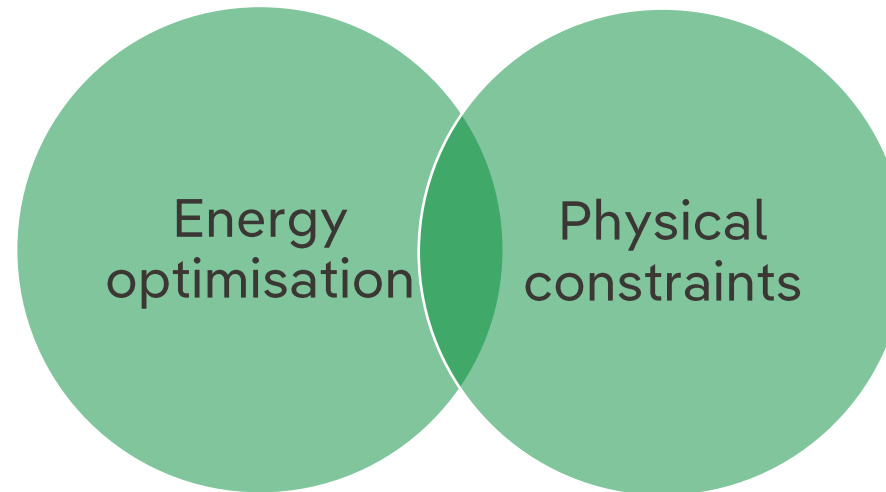
Increase demand to balance renewable generation outputs – maximising local, green energy.

Time of use optimisation

Shift demand to periods of lower generation costs.

Whole energy system support

Shift demand to help manage power generation and power flows at a GB level.



Everyday constraints

Shift demand or increase local output to ease loading on constrained assets, to defer investment or to manage the network ahead of reinforcement.

Managing risk

Use flexibility when circuits are out of service, helping manage risk while maintenance and reinforcement proceed.

Support during unplanned events

Have generation output and/or demand reduction on standby – use if needed to support network while repairs continue.

Step change in the use of flexibility, enabling network access, resilience and affordability



Flexibility providing cost-effective solutions for deferring investment, managing resilience and accelerating connections



A liquid accessible market with more private and public assets, LCTs and participants



Increased visibility of flexibility on the network, with stackable services, working with NESO to manage constraints and optimise the energy system



A more resilient and secure electricity distribution system utilising more connected renewables, LCTs and active demand



Flexibility services

Paul George

DSO Commercial Lead



Why the network is changing



Increase in electricity demand



Electrification of transport



Decarbonisation of buildings



Increase in 'distributed generation' capacity



Increase in battery storage capacity



Customers want faster & cheaper connections

Why flexibility matters



Improved network performance



Capacity released



Reduced curtailment of assets



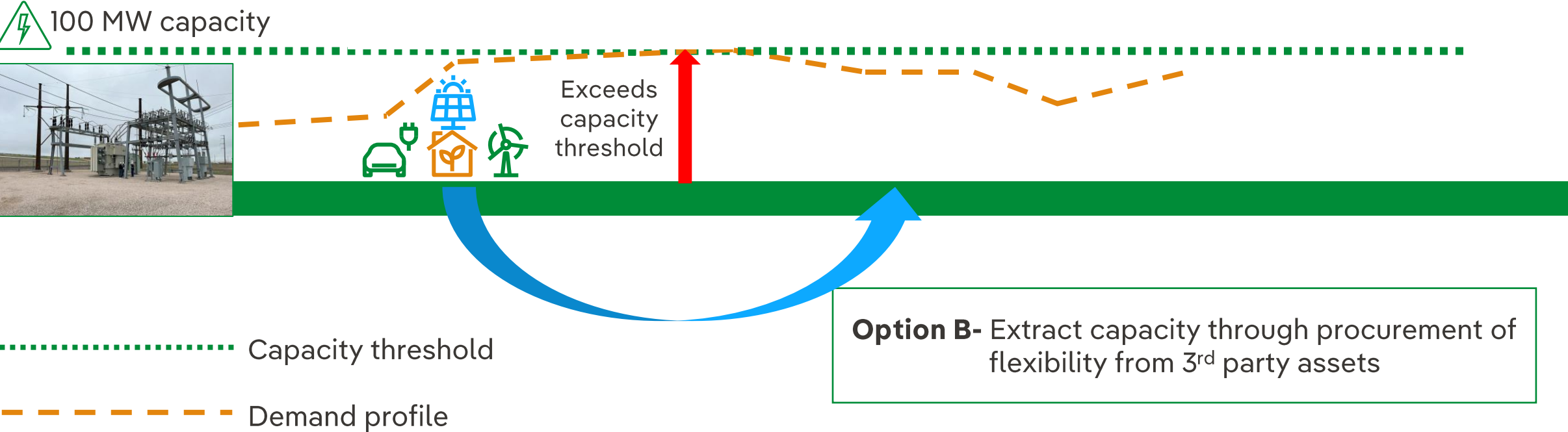
Reinforcement deferred

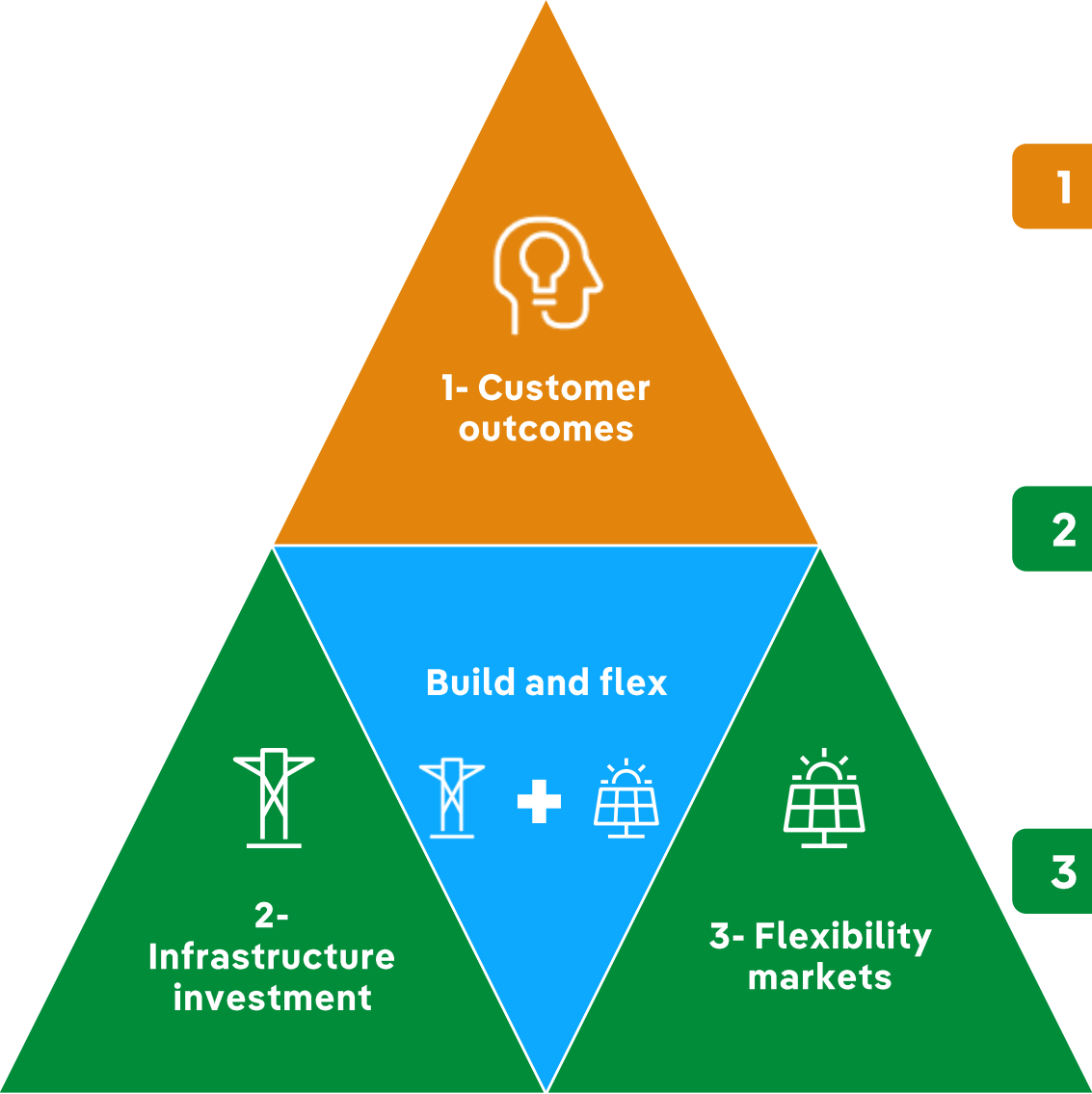


Constraints managed



Connections accelerated





- 1

Best value solution
Faster connections
Secure supply
Efficient network utilisation
Net zero transition
- 2

Strategic growth investment
Network reinforcement
Asset replacement
Additional capacity
Network resilience
- 3

Demand side response
Virtual power plants
Flexible connections
EV flexibility
Battery storage



Industrial and commercial focus

- Direct targeting of specific industry sectors in the N/west
- Collaboration with cluster/membership organisations
- Strengthen engagement of key sectors in the region
- Supporting local economy



Day ahead markets

- Increased opportunities for flexibility service providers (FSPs)
- Reduce reliance on long term contracts
- More targeted constraint management
- Increased operational agility



'Battery Boost' project

- Targeted install of domestic batteries
- Bill saving for household through E.ON supply contract
- Extracting social flex whilst delivering social value
- Long term/region wide programme



Long term tenders

Bi-annual (summer and winter launch)

Requirements cover full ED period

Provides certainty for FSPs

Lower operational flexibility

Supports strategic network planning



Monthly markets

Tenders recur every month (12 months)

Delivery requirement for following month

Responsive to changing needs

Better forecasting alignment

Improves market participation



Day ahead markets

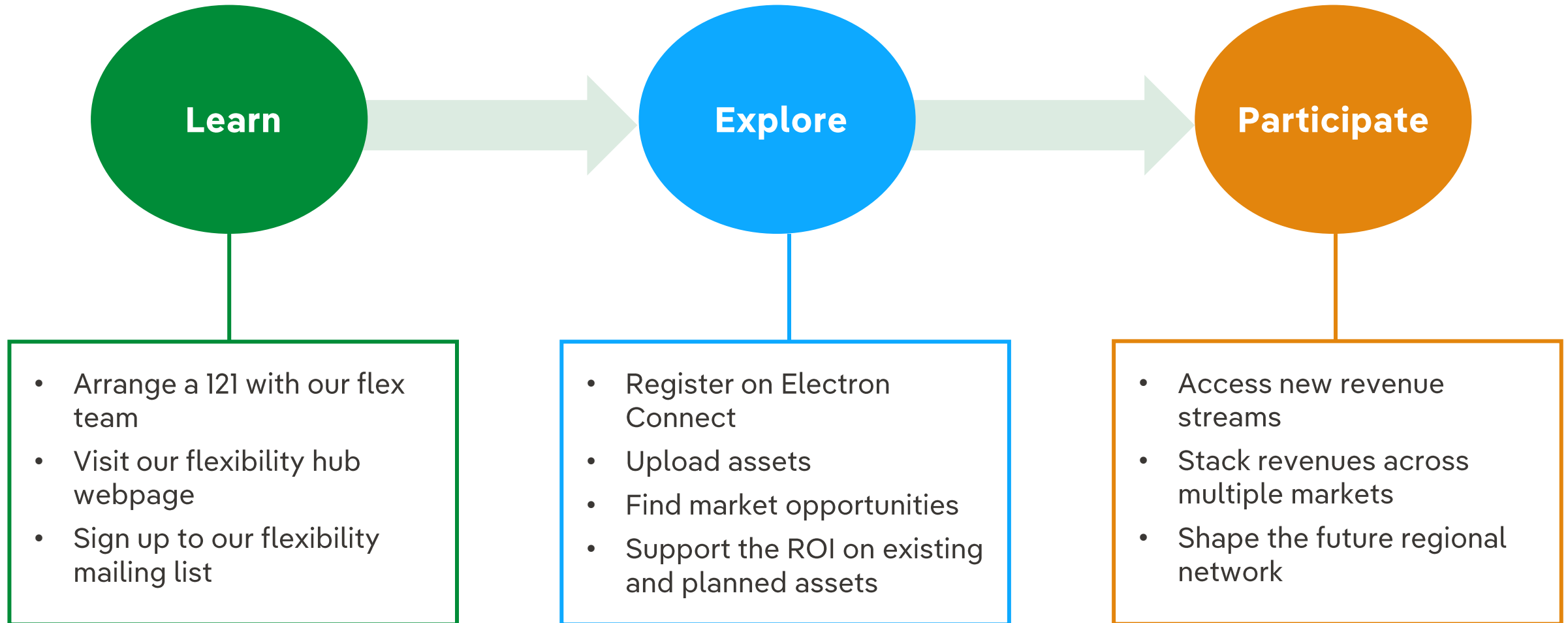
Tenders recur every day (7 days a week)

Delivery of flex on the following day

Near real-time network needs

Maximum operational agility

Enables active system operation



Quick question



Please scan the QR code to answer



Social flexibility

Davide Turi

Innovation Lead, Energy Flexibility, E.ON



e.on
next

Social flexibility

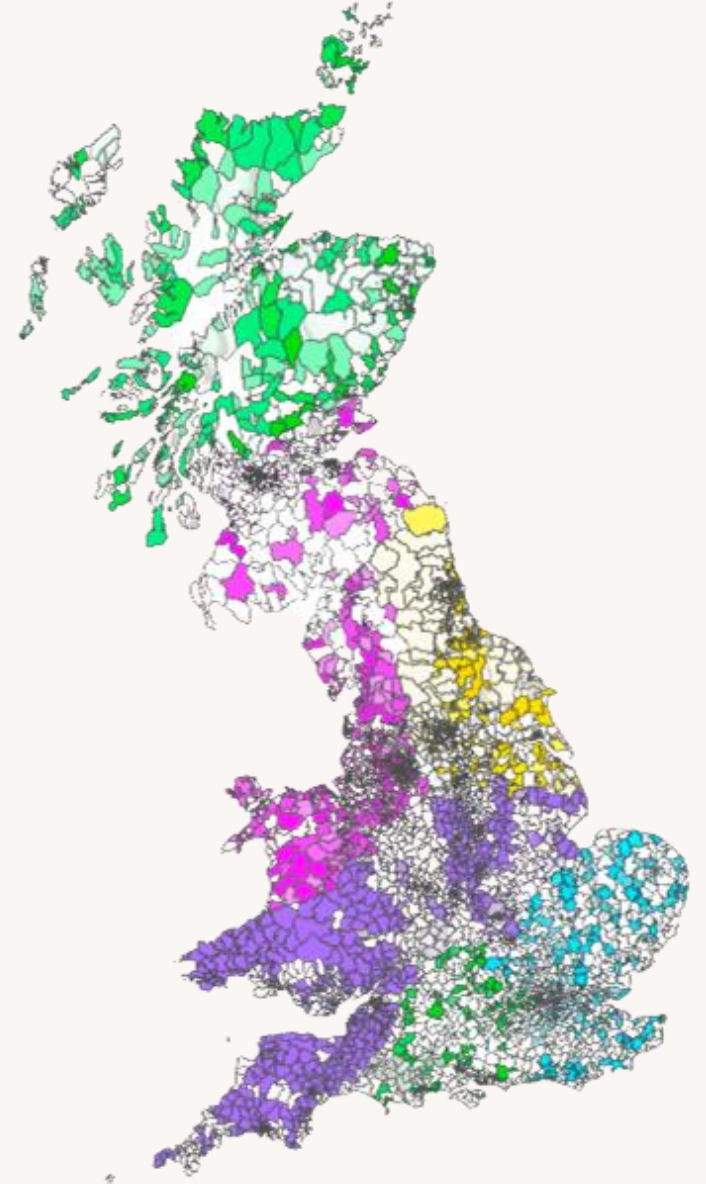
Davide Turi
Flexibility Innovation Lead

21st Oct 2026 | Penrith



1.4k substations

3.7 GW by 2035



Address 98% constraints

615,000 households

£150 million a year in direct bill savings



Asset liquidity where needed

Risk of unfair energy transition

Investment efficiency



Standalone batteries

*Faster &
cheaper to install*

*Immediate
benefits*

*Distributed grid
asset*

*No behavioural
changes*



73% did not know a home battery can work without being connected to solar panels.



Battery Boost



UtilityWeek
FLEX
AWARDS
2026 WINNER



E.ON Next ramps up home battery investment to cut energy bills by hundreds of pounds per year and support Britain's electricity grid



E.ON Next to deploy 1,000 batteries across the UK as research reveals widespread consumer appetite for affordable, long-term solutions to high energy costs

E.ON Next is investing £4 million in 1,000 home batteries to tackle two connected challenges: helping customers secure lasting savings on their energy bills and supporting a more resilient electricity grid as Britain connects growing volumes of renewable generation.



E.ON Next Battery Boost

Help the grid with a
no-cost battery.
Help yourself to up
£250/year.

The grid works better with batteries. If you're eligible you could get one at no cost plus a **monthly bill credit of £20.83**. T&Cs apply.

Limited availability.
Scan the QR code
to learn more now.



Who gets to participate? Lessons from our Social DSO journey

Katherine Horne
Social DSO Manager



Our mission

To enable the North West to achieve a just energy transition, maximising benefits for customers and the North West region by using DSO activities to help address social inequalities and support a just energy transition.

Quick question



We thought buying plug-in-solar was easy?

Barrier encountered	What it meant
 Three week waiting list	Delayed participation
 Too big to fit in the car	Not everyone has suitable transport
 Too heavy for one person	Physical accessibility challenge
 Arrived damaged	Extra time and effort to resolve
 Need customer support	Confidence and persistence required



1

Social DSO Fund

Helping communities participate in the energy transition

- £306k awarded, funding 17 community-led projects
- Focus on communities at risk of being left behind
- Funding low carbon tech, energy advice, wider system benefits
- Evolution of fund i.e EnergyCloud



2

Community flex

Making flexibility markets more accessible

- Community-flex pilot
- Testing barriers to participation
- Also testing new solutions to flexibility
- Dedicated platform for community groups and householders



3

Social cost benefit analysis

Embedding social value into decision-making

- First DSO to develop a dedicated social cost benefit analysis methodology
- Assess social value alongside traditional investment criteria
- Now being explored beyond DSO for wider investment decisions

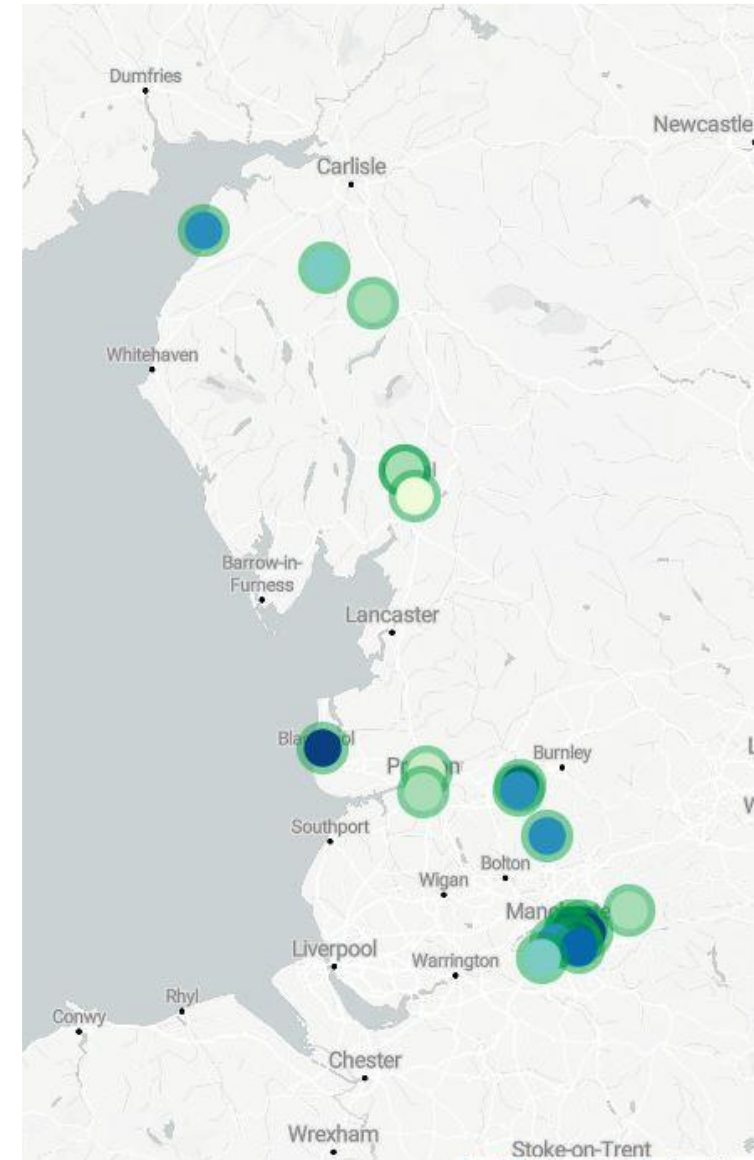
What difference did it make?

£3.2 million
wider societal benefits
delivered

Social return on investment:

£1:£10.50

Financial bill savings / carbon savings / resilience benefits / wellbeing benefits



Swimming
pool



Participation isn't automatic



Communities create value



Participation and benefit are not the same



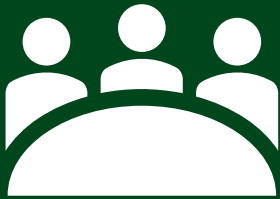
**Flex services -
commercial**



**Data and tools
(A)**



**Community and
Social DSO (A)**



**Flex services -
technical**



**Data and tools
(B)**



**Community and
Social DSO (B)**

Look ahead and close

Paul Auckland

Head of Economic Regulation & DSO





Conference feedback

Your thoughts and feedback are anonymous but are vital to shaping our future activities, so we'd appreciate it if you could spend five minutes completing this form.

Please rate the following from one to five, with one being low and five being high.

Did you enjoy the DSO conference?
☆☆☆☆☆

How would you rate the venue and location?
☆☆☆☆☆

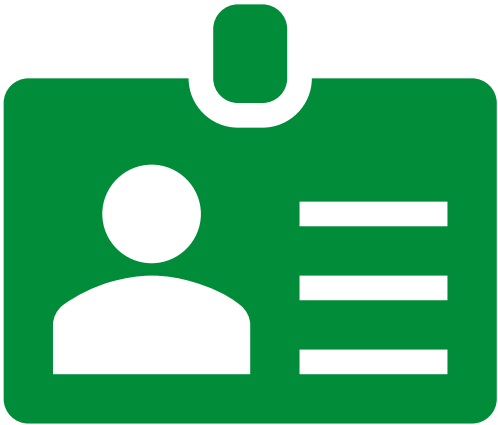
Which part of the event was most useful and why? For example, the speakers, roundtable discussions or something specific.

Would you do anything differently for future events?

Based on feedback, we've changed the conference running order. In your opinion, which format works better?

- ☒ Mixed breakouts and presentations (like this year)
- ☐ Presentations first, then breakouts after
- ☐ Other (please give an example)

Is there anything you'd like to change improve, or add for future events?



We'd love to hear from you
Scan the QR code or use the printed documents at the back to share your feedback.

Please place your badges in the box on the way out.



DSO Conference

Our energy future: people, place
and flexibility with purpose

21 October 2026

