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# ENWL Cumbria Stakeholder Regional Event

10 November 2023

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# Welcome

Paul Bircham

*Safety Compliance and Markets Director*

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# Agenda



Welcome &  
intro



Investing in  
Cumbria



Regional  
plans for  
growth and  
net zero



Panel  
discussion



Break



Capacity and  
connections  
applications



Roundtable  
discussion



Q&A

If you would like to submit a question for our panellists feel free to complete one of the cards on the table.

We will also be taking questions from the floor during the session.



## *Safety moment – winter driving*



Be aware of the change in season and what it brings  
e.g., cold starts, ice, driving in the dark, low sunlight

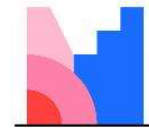
Housekeeping

## Mentimeter polling – About you



We want to find out more about you:

- Open web browser
- Head to [www.menti.com](http://www.menti.com)
- Use the code **8347 7219** to access polling



# Mentimeter



Or use QR code

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# ENWL investment in Cumbria

Paul Bircham

*Safety Compliance and Markets Director*

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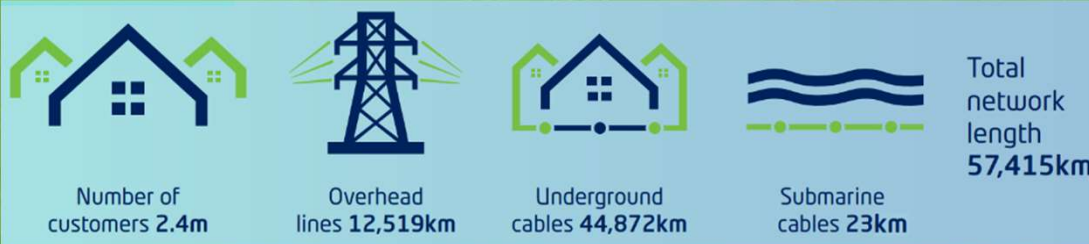
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# Here for the North West



- We're the North West's power network.
- Our overhead lines, underground cables and substations bring power to 5 million people in 2.4m homes and businesses.
- We invest billions of pounds in the region focusing on key areas of **safety; reliability; customer service** and **net zero**.

We deliver a reliable essential service for everyone in the North West, 24/7.



**POWER CUT?  
CALL 105**

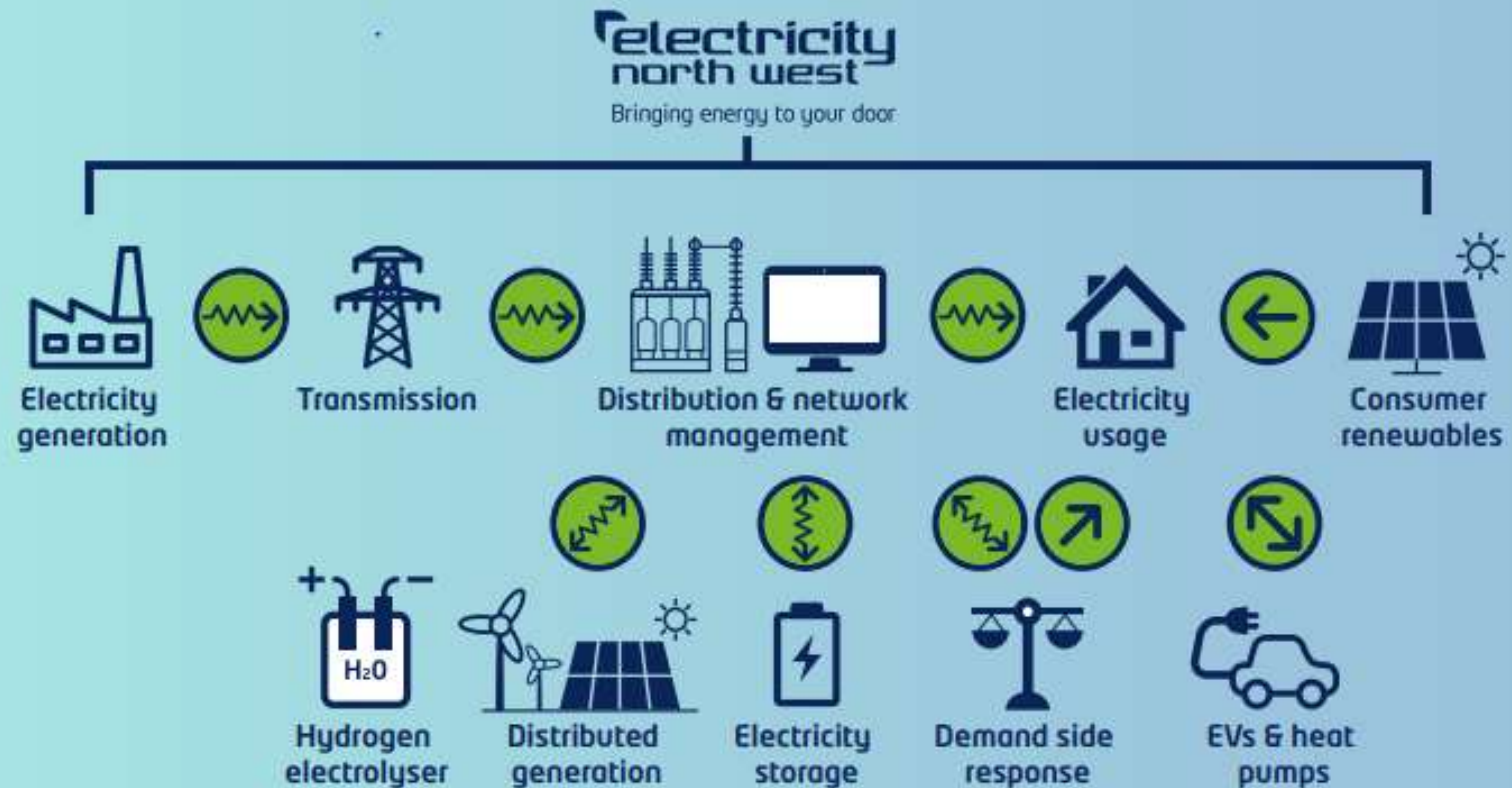
# Our role is changing...

The way households and businesses use electricity, and the way it is generated, transported and traded, is changing rapidly.

These changes require us to be more proactive and adaptable in network management and develop new types of relationships with our stakeholders.



What was once simple and one directional, is now more complex and multi-directional





# Our commitment to the North West between 2023-2028 (RIIO-ED2)



## Vision: Leading the North West to Net Zero

We will deliver at least a 9/10 level of customer service and provide additional support to electricity users in vulnerable circumstances and fuel poverty



Customer

We will remain one of the world's most reliable networks, reducing the number of power cuts and the average time people are without power by 20%



Network

We will drive the transition towards local Net Zero targets, through distribution system operation, following a path to making our own operations Net Zero by 2038



Net Zero

We'll invest over £2billion in the network between 2023 and 2028



## Our investment in numbers

**OVER  
£2bn**

we'll invest over £2bn  
in the network from  
now to 2028

**OVER  
£1m** we'll invest  
more than £1m  
per day into  
the network

**18,000**

we developed our plans with input from  
over 18,000 customers and stakeholders

**OVER  
93%** we aim to  
increase our  
customer  
service scores  
to over 93%

**£123**

Our part of your electricity bill will  
remain low (around £120 per year)

**20%**

we aim to keep power  
flowing by reducing  
customers' time  
without power by 20%

including...

**£40m**  
in Cumbria

to replace  
154km of  
overhead lines  
in the county  
over the next  
five years

Reinforce the network  
and build a new  
substation at Harker

- Majority of plan funded incl bespoke funding
- Uncertainty mechanisms to secure additional funding

**£33m**  
in Lancashire

increasing  
capacity at 11  
substations  
across Blackpool,  
Preston, Lytham  
St Annes,  
Rossendale,  
Bacup, Tarleton,  
Nelson,  
Burscough Bridge  
and Clitheroe

**£21m**  
in Greater  
Manchester

reinforcing the  
network at key  
locations  
including new  
cabling and  
substations

# Regional investment benefitting the North West



## Smart Street

Using innovative voltage control technology, Smart Street will enable our networks and customers' appliances to perform more efficiently and make it easier for low carbon technologies to connect to the electricity network in the future. Improving energy efficiency and reducing bills for 250,000 customers.

Investment  
**£64m**

Savings up to  
**£70**  
per year

Customers  
Impacted  
**250,000**

## LineSIGHT

Faults on rural networks can sometimes cause overhead power lines to hang low whilst remaining live, which also creates a public safety hazard. New technology developed by Electricity North West will enable the detection of damaged equipment earlier and help us to pinpoint the location of faults, enabling more efficient despatch of repair crews.

Investment  
**£34.5m**

Overhead Line  
Impacted  
**800km**

Estimated  
Completion  
**March 2028**

## CLASS

Our award-winning CLASS project uses innovative voltage control to reduce demand for electricity without customers noticing a difference to their service. CLASS (Customer Load Active System Services) is a low-cost solution which uses voltage control to manage electricity consumption at peak times. By installing cutting edge 'voltage controllers' in our substations we could save customers in the North West around £100 million over the next 25 years

CLASS revenue  
shared with  
customers  
**50%**

North West  
customer savings  
**£100m**

Estimated  
Completion  
**March 2028**

## Dig, Fix and Go

A bespoke incentive mechanism that aims to drive a transformational change to reduce the disruption our emergency street works cause to our customers and stakeholders. This is a proposal formed and led by our customer and stakeholder feedback. Reducing disruption by accelerating emergency street works to below 5 days on average.

Investment  
annually  
**£5m**

Average duration  
emergency street  
works  
**5.8 days**

1 day reduction  
benefit per  
year  
**£21m**

# Investment in Cumbria – the Cumbria Ring project



- £40m project - our biggest ever single project in Cumbria
- Replacing 154km of 132kV of overhead line to allow access to capacity created by upgrading the Harker substation
- Will create over 230MW of new capacity across Cumbria for the update of low carbon technologies
- Major investments include:

## Egremont – Belle Vue

£7.65m  
Cost

64km  
Length

## Stainburn - Harker

£4.5m  
Cost

50km  
Length

## Shap - Kendal

£2.07m  
Cost

23km  
Length

## Lindal – Roosecote/Barrow

£765k  
Cost

8.5km  
Length



# Other investment examples in Cumbria



## Borrowdale transformers

We will replace over 200 small rural substations with standard modern protection. This will reduce faults and improve electricity distribution reliability in the area. Many of the substations are now reaching the end of their design life and their condition is starting to deteriorate. We will progressively replace all of these substations with safer equipment, with 50% replaced by 2028 and the remainder by 2033. The prioritisation of the replacement will be based on the condition of the equipment.

£8.9m  
Cost

1,561  
Customers  
supported

March  
2033  
Expected  
completion

## Egremont substation

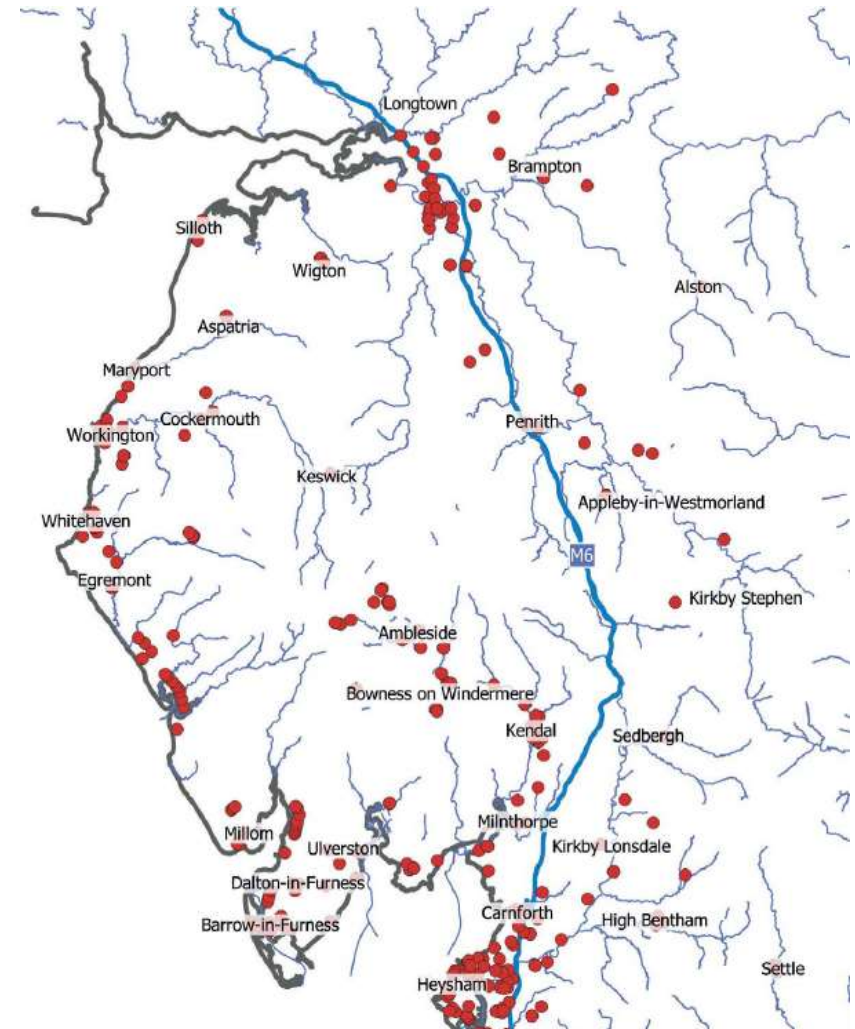
Egremont substation is equipped with 2 x 90MVA 132/33kV transformers and supports supplies to over 28,000 customers.

Following condition assessment of the transformers, it was confirmed that they were in a poor condition and approaching end of life. We have decided to replace these two transformers before any in-service failure.

£4.964m  
Cost

28,000  
Customers  
supported

March  
2028  
Expected  
completion



Red dots indicate planned investment locations in ED2

## A trusted partner in the North West



Our investment will help deliver wider benefits to the region, supporting local regeneration and extending economic opportunities across the North West.

We also place a strong emphasis on training & skills and are a trusted employer across the North West. Our business plan will see us deliver up to 1000 new jobs between now and 2028 and take on more apprentices.

- We run a prestigious apprenticeship programme. Awarded with the 'North West Recruitment Excellence Award' at the National Apprenticeship Awards.'
- We frequently partner with colleges and schools across the region.
- In 2023 we recruited 33 new apprentices across engineering, IT and cyber security.
- Our 2024 apprentice programme opens in November.
- Support needed for recruitment in Cumbria



# What next?



## ENGAGE

We want to hear your views so we can reflect them in our plans today and tomorrow.

## COLLABORATE

Together we use our expertise to meet the needs of the region and support our communities.

## DELIVER

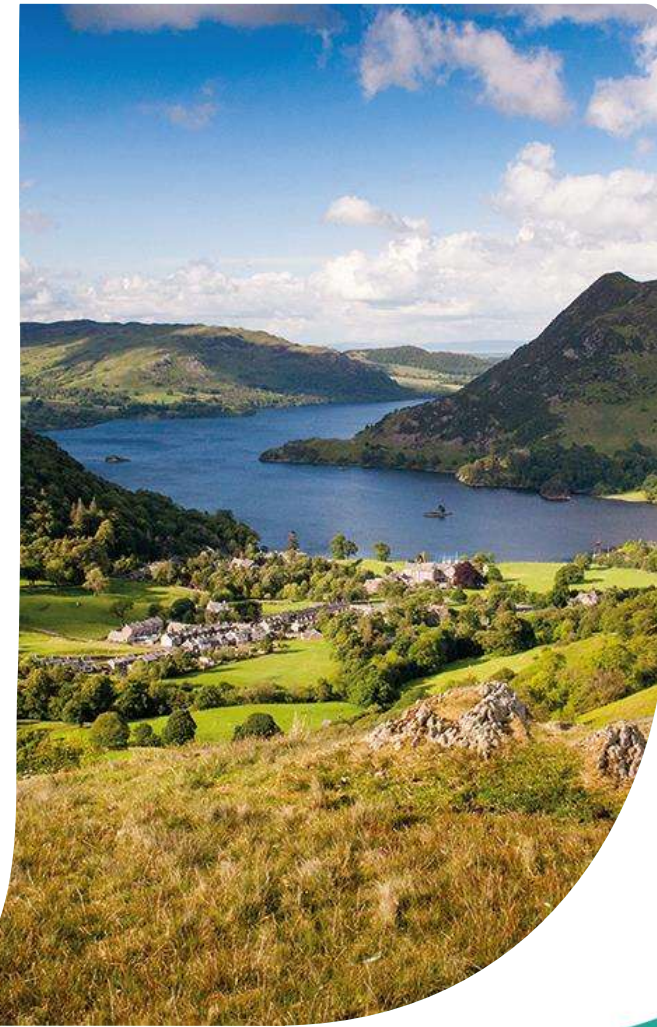
Our network of partners as well as our network of cables and lines is crucial to delivering for our region.





**Westmorland  
& Furness  
Council**

Angela Jones, Director of Thriving Places



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# Our Plans for Growth and Net Zero



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Westmorland & Furness Council



Lake District National Park



YORKSHIRE DALES National Park



Borderlands Inclusive Growth Deal

An ambitious approach to cross border working



Cumbria Tourism  
At the heart of our visitor economy



ZERO CARBON CUMBRIA PARTNERSHIP



Lake District National Park Partnership



## Our Plans for Growth and Net Zero

- Westmorland and Furness in numbers
- Our Strategic Vision and Delivery Framework
- Climate and Nature
- Economic Opportunities
- Housing
- EV Infrastructure
- Decarbonisation – Developing our Carbon Management Strategy
- Borderlands Inclusive Growth Deal
- Challenges and Barriers





Westmorland  
& Furness  
Council

[westmorlandandfurness.gov.uk](http://westmorlandandfurness.gov.uk)

# Council Plan

Summary of our vision, priorities and values



Together we are **Westmorland & Furness**

Our vision for Westmorland & Furness is to be:  
"A great place to live, work and thrive"

## Westmorland and Furness in numbers

**3,754 km<sup>2</sup>**

– 1,900 km<sup>2</sup> in National Parks

**225,500**

people – 34,000 in National Parks

**55,000**

people in the largest town of Barrow

**11,815**

businesses providing 114,000 jobs

**£5.4bn**

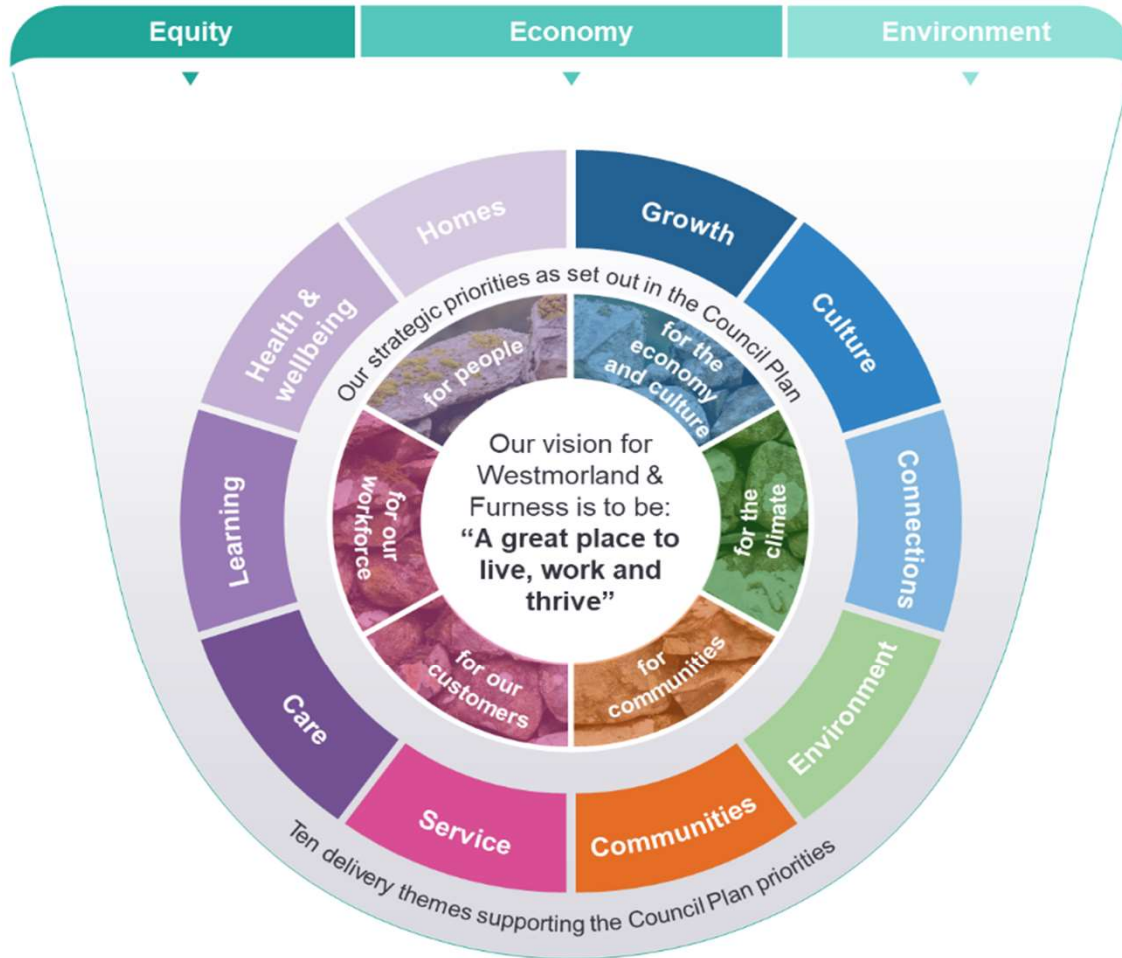
GVA into the economy

**21m visitors**

with £1.6bn spend per annum



# Our Strategic Vision



Ambitious



Inclusive



Outcomes focused



Responsible



Needs-led



Ecologically aware



Collaborative



# Delivery Framework













## Council Plan Delivery Framework

First edition: 2023/24 to 2028/29

September 2023



### Our delivery themes:

-  Communities
-  Environment
-  Growth
-  Connections
-  Homes
-  Learning
-  Care
-  Health & Wellbeing
-  Culture
-  Effective services

### Our six strategic priorities as set out in the Council Plan are:

Our vision for Westmorland & Furness is to be: “A great place to live, work and thrive”

#### 1 Climate

Providing leadership in the drive to become carbon net zero

#### 2 Communities

Confident, empowered and resilient communities

#### 3 Customers

Customers at the heart of everything the council does

#### 4 Economy & Culture

Sustainable, inclusive economic growth

#### 5 People

Supporting people in need & reducing inequality. Supporting active, healthy, happy lives for young and old

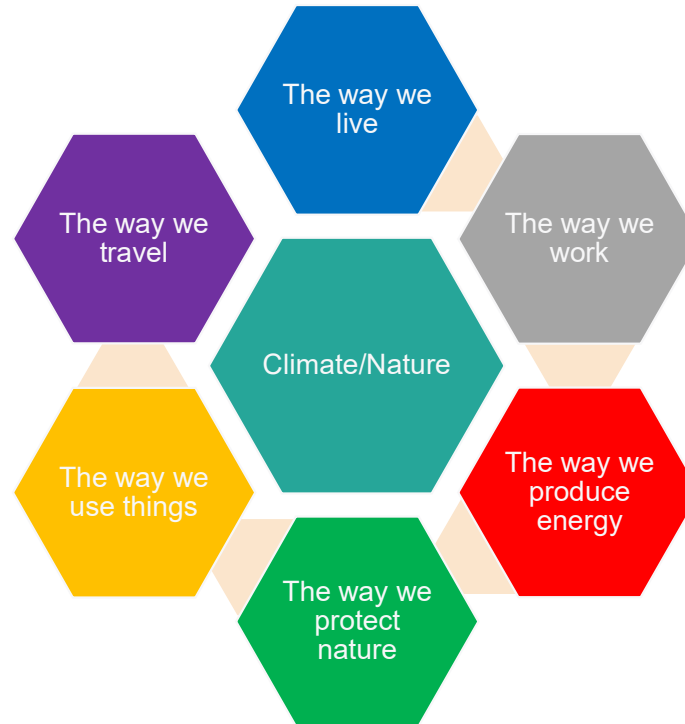
#### 6 Workforce

Confident, empowered and inclusive workforce



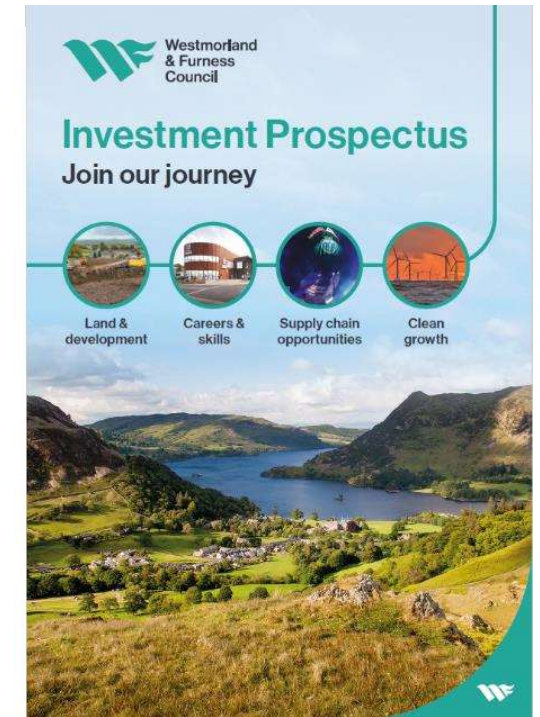
# Climate and Nature

- Climate
- Nature Recovery
- Climate Adaptation
- Biodiversity Net Gain Preparation
- EV Infrastructure
- Decarbonisation of our Estate
- Resilient Communities
- Local Area Energy Plans
- Blue and Green Infrastructure
- Communities, Landowners, Businesses & Partners



# Economic Opportunity

- Natural Capital
- Clean Energy – Carbon Capture, Green Hydrogen
- Decarbonisation Opportunities Council and Place
- Investment Pipeline – Town Deals, Levelling Up, Borderlands Inclusive Growth Deal
- Digital Infrastructure
- Employment Growth linked to Defence Programme
- Supply Chain Opportunities
- New University of Cumbria Campus
- Strategic Infrastructure Investment



# Barrow and Furness

- Nationally Significant Sector Opportunities
  - Strengthened sector growth through increased working age population and retained talent via tailored further/higher education offer

## Our Nationally Significant Sector Opportunities

Defence



Green Energy Hub



## Our Levelling Up Priorities



**Sites and Investment**  
deliver population growth through provision of new homes and commercial development



**Education and Skills**  
boost skills and education to enable progression in prosperous careers



**Green Growth**  
invest in green growth to support the transition to net zero



**Access and Connectivity**  
improve infrastructure to remove barriers to reliable connectivity



**Community Well-being**  
change perceptions and create the conditions for people to live safe and healthy lives

[www.westmorlandandfurness.gov.uk](http://www.westmorlandandfurness.gov.uk)





# Barrow and Furness

- Centre for Defence, Energy Security and Green Growth
  - Barrow has a vital role to play in the national endeavour to maintain the nation's long-term defence and energy security
  - home to internationally important industrial and high-tech activity and has huge potential to grow
  - The Port of Barrow is a major asset as a marine gateway facilitating private sector investment in offshore wind and other clean growth opportunities, supply chain development, cargo handling and cruise opportunities
  - BAE Systems currently support a portfolio of major defence programmes which will provide a continuous workload for the shipyard to 2050 and beyond
  - Projected workforce growth of more than 50% in the next 15 years
  - New homes and lifestyle offer will be required to support this growth



# Housing Growth

- “Everyone can live in a place they call home, one which is affordable, clean, safe and warm, where they can build stable, independent, fulfilling lives and have access to schools, work and cultural activities”
- Supply, availability and affordability of housing is a priority to help create thriving places and drive economic growth where needed. It is both new forms of housing and renewal of existing stock that is required to address our local challenges.
- There are large variations in housing affordability across the area, from an affordability ratio of 3.74 in Barrow, 8.39 in Eden and 10.12 South Lakeland (Source: ONS 2022). In addition, housing availability is impacted by second home ownership, empty properties and insufficient social housing stock over 6,655 households were on our waiting lists.
- The forecast growth in jobs in the Furness area, including at least 6,000 new jobs at BAE, will place pressures on the housing market. Supporting the growth in Furness will require an acceleration in the pace and scale of housing development.
- Westmorland and Furness are in the process of developing a new Local Plan to cover the entire unitary authority area.



## Barrow area



- 7 Major sites (50+ dwellings) active
- 371 dwellings under construction
- 180 dwellings consented but not started
- Small to medium local developers active
- Capacity for 1629 unconsented allocations
- Major Strategic Site - Marina Village 800 homes in dockside location (pictured)

## Croftlands/Swarthmoor

52

Hectares of land

1

Roundabout completed

1000

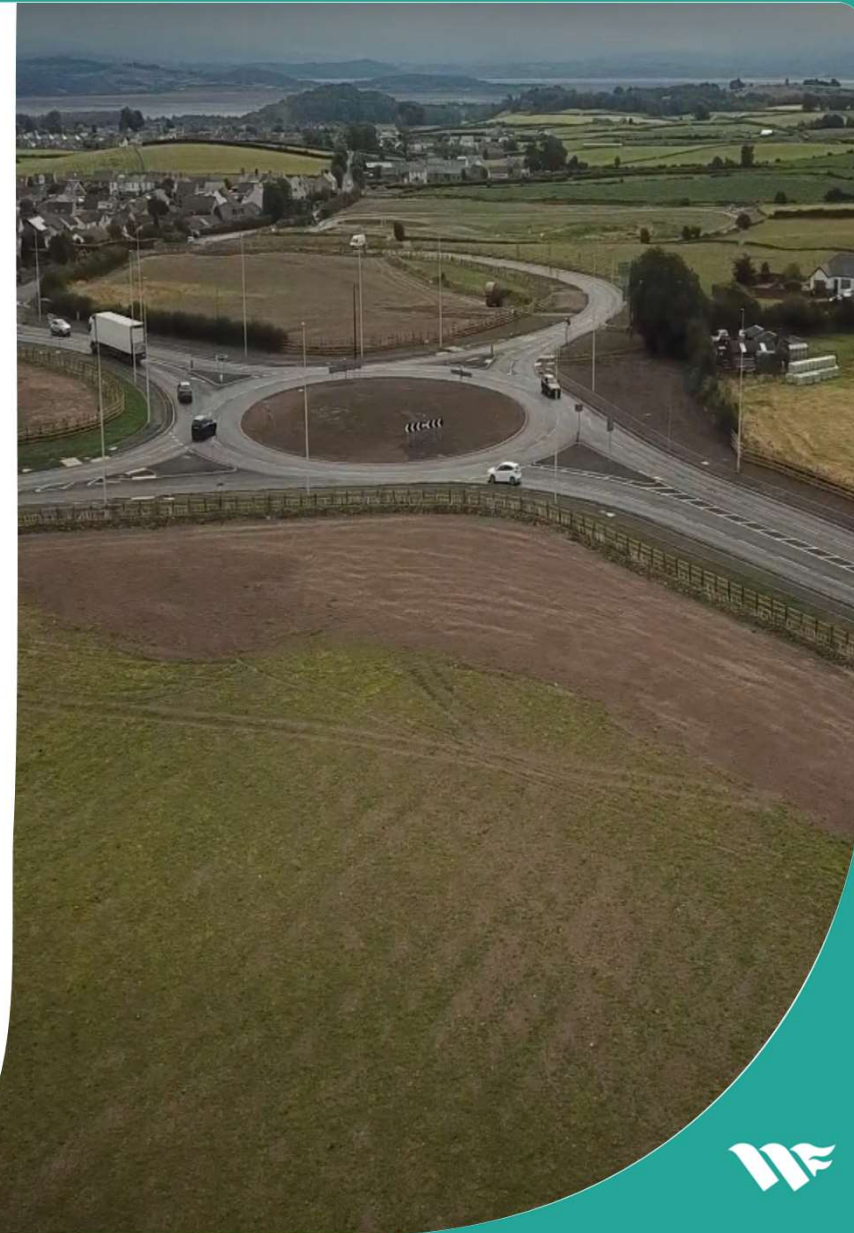
Homes (350 under construction)

£12m

Invested in infrastructure

300

Site for 300 Homes (Croftlands East)  
acquired by Homes England



## Windermere Gateway

9

Hectares of land allocated for mixed use development

240

Capacity for up to 240 new houses, the largest housing allocation in the Lake District National Park

5,000

Sq mt of employment/tourism floorspace

1

Active developer partner



## Ulverston and surrounding area

5

Major sites active

453

Dwellings consented

4

Developers active on major sites

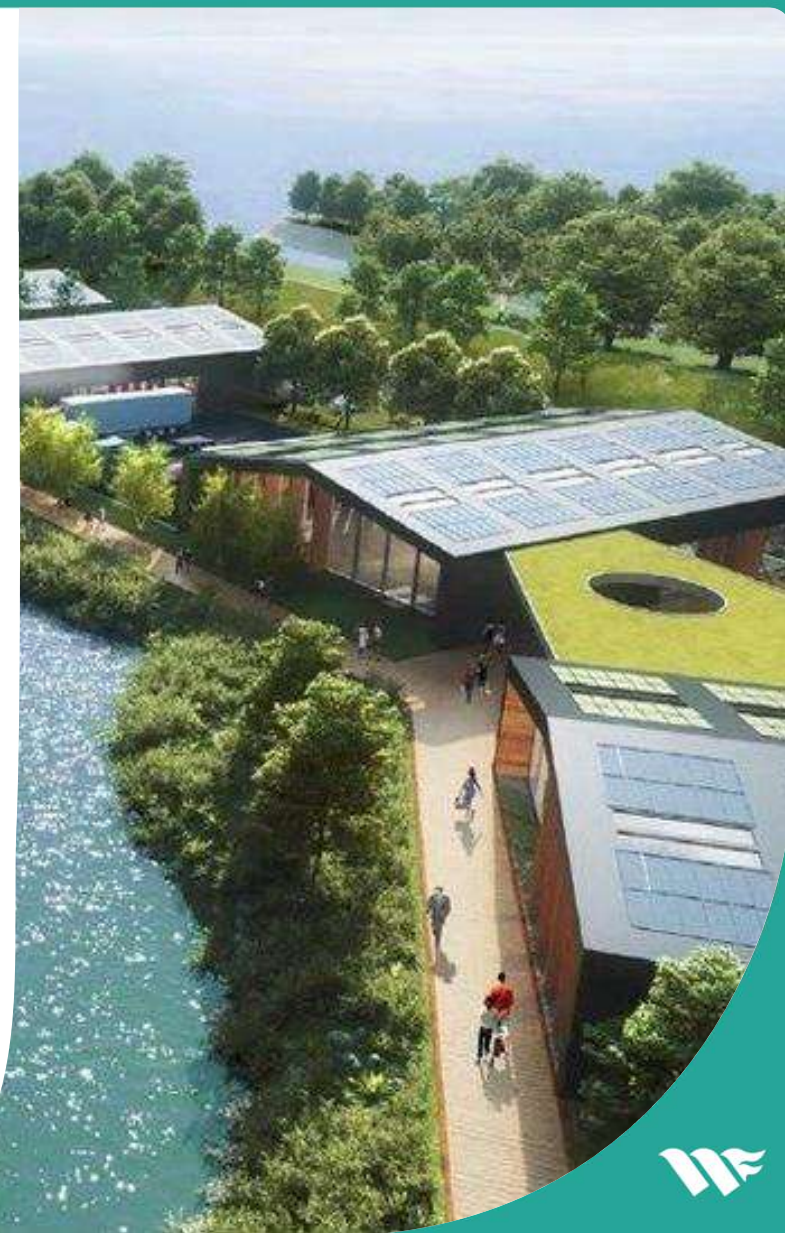
Capacity for

612

dwellings on unconsented allocations

42

Hectares of employment land in Ulverston at former GSK site



## Kendal and surrounding area

7

Major sites active

206

Dwellings consented

6

Developers active on major sites

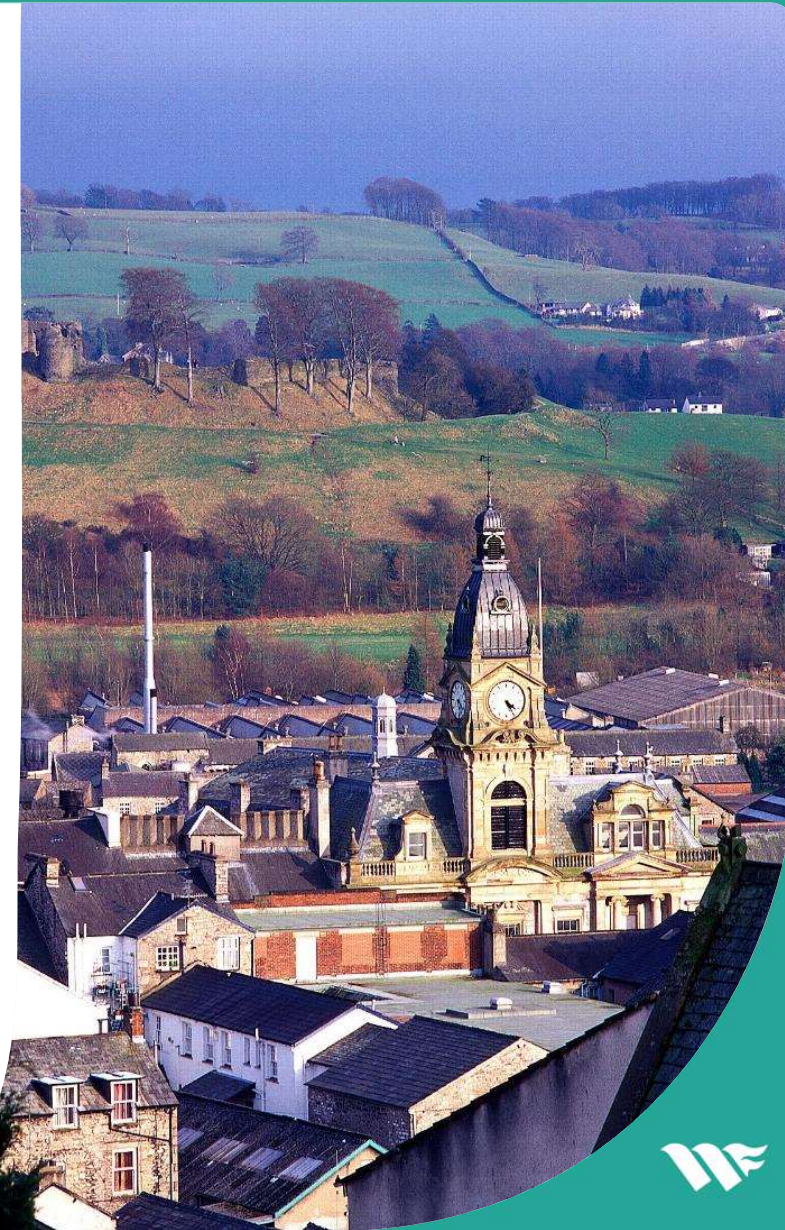
Capacity for

567

dwellings on unconsented allocations

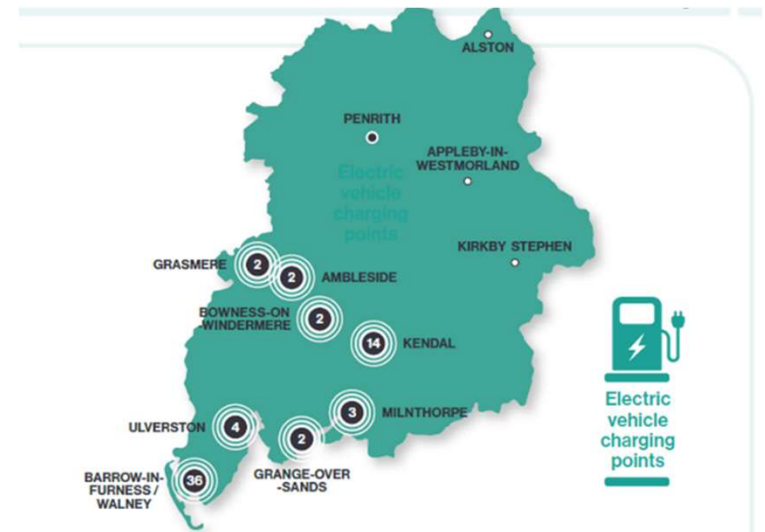
30

Hectares of employment land in Kendal, including Scroggs Wood strategic site and East of Burton Road business site



# EV Infrastructure

- To deliver on government funding for EV infrastructure, building a team of specialist resource, and accelerating EV charging installation on and off-street - £3.5m
- To develop a Westmorland and Furness standard of public charging which prioritises quality, ease of use, accessibility and affordability.
- To take a proactive approach in creating a strong network of publicly accessible EV charge points which will meet the demand in the future
- To help address air quality issues that have, or will arise due to transport-related issues
- To inform and complement our wider policies on climate change and transport
- To raise awareness of the benefits of EVs and the charging infrastructure that is available
- To contribute to our commitment to become carbon net zero by 2037.





# Decarbonisation – Developing our Carbon Management Plan

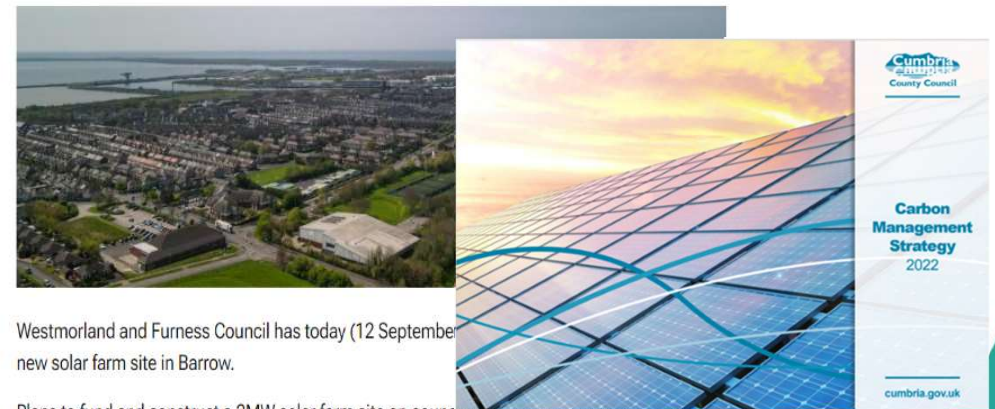
Building on the legacy Cumbria County Council Carbon Management Strategy and former District plans, the Council is undertaking a Baseline Study for Westmorland and Furness Council to measure the total greenhouse gas (GHG) emissions generated by the operations of the new Council and the services it delivers and provide measures to reduce these emissions.

As part of this plan we will be constructing a 2MW solar farm site on council-owned land at Sandscale Park. The site will bring about reductions in carbon for the council and is expected to result in savings of around 607 tonnes of carbon dioxide equivalent per annum. This is equivalent to planting 700,000 trees and would provide enough electricity to power the council's five leisure centres or approximately 730 homes per year, based upon average UK households.



## New solar farm site in Barrow gets green light

12 September 2023 [Economic regeneration](#) [Environment and climate change](#) [Planning](#)



Westmorland and Furness Council has today (12 September) approved plans to fund and construct a new solar farm site in Barrow.

Plans to fund and construct a 2MW solar farm site on council-owned land at Sandscale Park in Barrow were approved at a meeting of Cabinet.





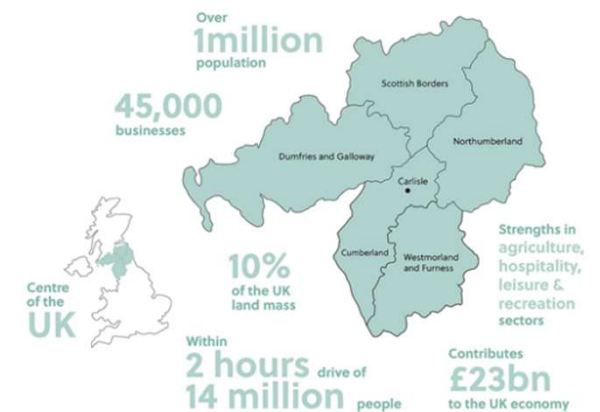
## Borderlands Inclusive Growth Deal

Borderlands Vision is to be at the heart of the UK's Green Revolution, capitalising on the opportunities on our journey to achieving Net Zero in our rural area.

The Borderlands Energy Programme sits within the Encouraging Green Growth theme of the Deal and aims to capitalise on the green credentials of the Borderlands region and to facilitate decarbonisation and the creation of new high value jobs supporting low carbon energy generation and carbon reduction schemes. To inform the Borderlands Energy Programme an overarching the Borderlands Strategic Low Carbon Energy Masterplan (the Masterplan) has been developed.

Borderlands Energy Investment Strategy Investment Priorities:

- Creation of Green Jobs
- Supporting Carbon Reduction
- Green skills
- Reduce fuel poverty.
- Enhancing Energy Security & Resilience.
- Attract inward investment.



## Challenges and Barriers to Growth and Net Zero

1. Increasing Working Age Population
2. Enablers – infrastructure, housing, planning
3. Funding and Resources for transition to Net Zero
4. Social, Cultural and Behavioural factors
5. Understanding the synergies and interdependencies between different strategies, policy priorities, projects etc to realise the multiple additional benefits such as improved health outcomes, increased productivity and inclusive growth.



# Our Plans for Growth and Net Zero



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Westmorland & Furness Council



Lake District National Park



YORKSHIRE DALES National Park



Borderlands Inclusive Growth Deal

An ambitious approach to cross border working



Cumbria Tourism  
At the heart of our visitor economy



ZERO CARBON CUMBRIA PARTNERSHIP



Lake District National Park Partnership



# Questions

Footer area for presentation title or web address



# Cumberland Council

Darren Crossley

Director of Place, Sustainable Growth and Transport



Health and wellbeing is  
at the heart of everything we do

Our values



Ambitious



Collaborative



Compassionate



Empowering



Innovative

# Vision

Cumberland Council takes a fresh approach to the delivery of inclusive services that are shaped by our residents and communities.

By enabling positive outcomes for health and wellbeing, prosperity and the environment we will fulfil the potential of our people and our area.



**Health and wellbeing is  
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# Focus

Our central aim of Improving Health and Wellbeing has four key areas of focus:

- Local economies that work for local people
- Environmental resilience and climate emergency
- Delivering excellent public services
- Addressing inequalities



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# Cumberland – Future developments

- Work with NDA and Sellafield to deliver their missions for decommissioning and potential future new nuclear requirements via GBN
- Ongoing work with UK Government on the developing transport infrastructure across Cumberland / Cumbria via Network North (e.g. Energy Coast Line developments)
- Continuing develop of major industrial sites at Kingmoor Park, Lillyhall
- Levelling Up stimulated developments e.g. Port of Workington and iSH Campus
- Exploration of new opportunities e.g. Work with LSE on Clean Energy investment models



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# Cumberland - Major projects

- On 1 April 2023 the previous footprint of Allerdale, Carlisle and Copeland combined to become Cumberland Council.
- Cumberland Council took on the roles and responsibilities formerly carried out by Cumbria County Council - highways, adult social care, children's services etc.
- Cumberland Council has inherited a significant portfolio of major place projects (over £400M) that had been developed by the previous councils.
- These major regeneration programmes are primarily capital schemes funded by Central Government through a number of funding schemes.



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# Major Projects - St Cuthbert's Garden Village



St Cuthbert's Garden Village, Carlisle is an ambitious proposal that includes the development of around 10,000 new quality homes, new employment opportunities, community facilities and a new (£200M+) Southern Link Road



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# Borderlands

The Borderlands Inclusive Growth Deal includes:

- Carlisle Station Gateway - £20m
- Citadels, Carlisle University Campus - £55.2m
- Place Programme - £9m
  - Development of place plans underway for Egremont, Longtown and Wigton to unlock £3m investment for capital projects



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# Future Highstreet Fund

FHSF supports towns to adapt to the changes we are seeing on our high streets.

Two successful bids in Cumberland:

- Carlisle - £8.76m
- Maryport - £11.6m
- Maryport (Health Action Zone) - £0.52m



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# Town Deals

Total Cumberland allocation: £85.3m

- Carlisle Town Deal - £19.7m
- Cleator Moor Town Deal - £22.5m
- Millom Town Deal - £20.5m
- Workington Town Deal - £23.1m



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# Levelling Up Fund

Levelling up Fund (LUF) primarily focusses on investment in local infrastructure with three schemes approved in Round 2:

- Energy Coast Resilient Routes - £17.8m
- Industrial Solutions Hub (iSH) Enterprise Campus - £20m
- Workington Gateway - £9.6m



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Thank you  
Any questions.....?



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**electricity**  
**north west**

Bringing energy to your door



# Network development

How we incorporate local plans into our network planning

Christos Kaloudas

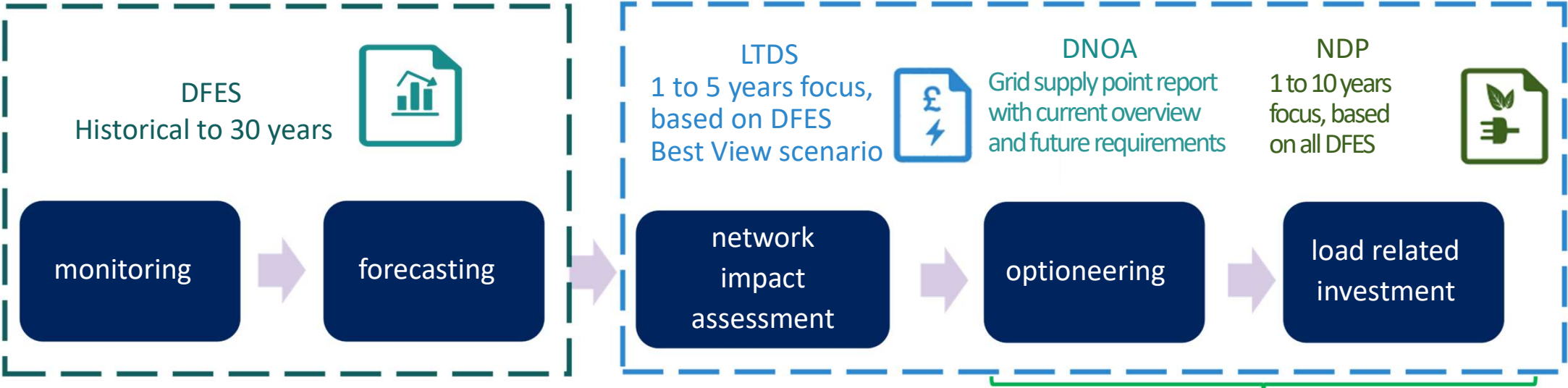
*Capacity Strategy Lead (DSO)*

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# Our load related investment process & associated publications



Commercial/market opportunities through our flexibility service tenders



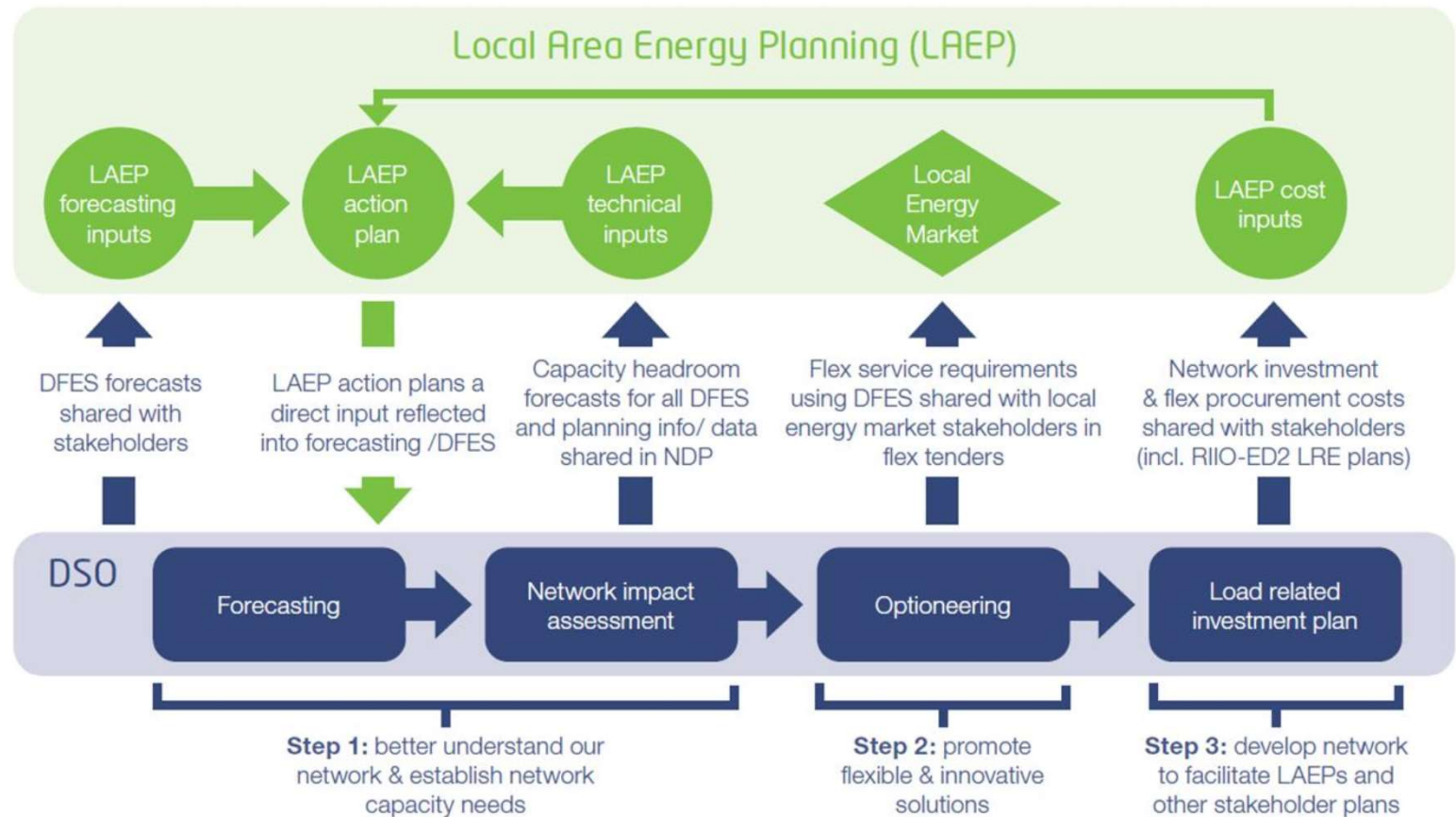
# LAEP interactions with our Network Planning process



Local Area Energy Planning (LAEP) is a process to achieve Net Zero at minimum cost by maximizing the regional potential. It takes into account all aspects of the energy system (energy supply & demand, transport, heating, local industry, the environment).

The main objective of LAEP is to provide a clear action plan for efficient and economical decarbonisation in a local area.

## INTERACTIONS OF LAEP WITH DFES AND DSO PLANNING

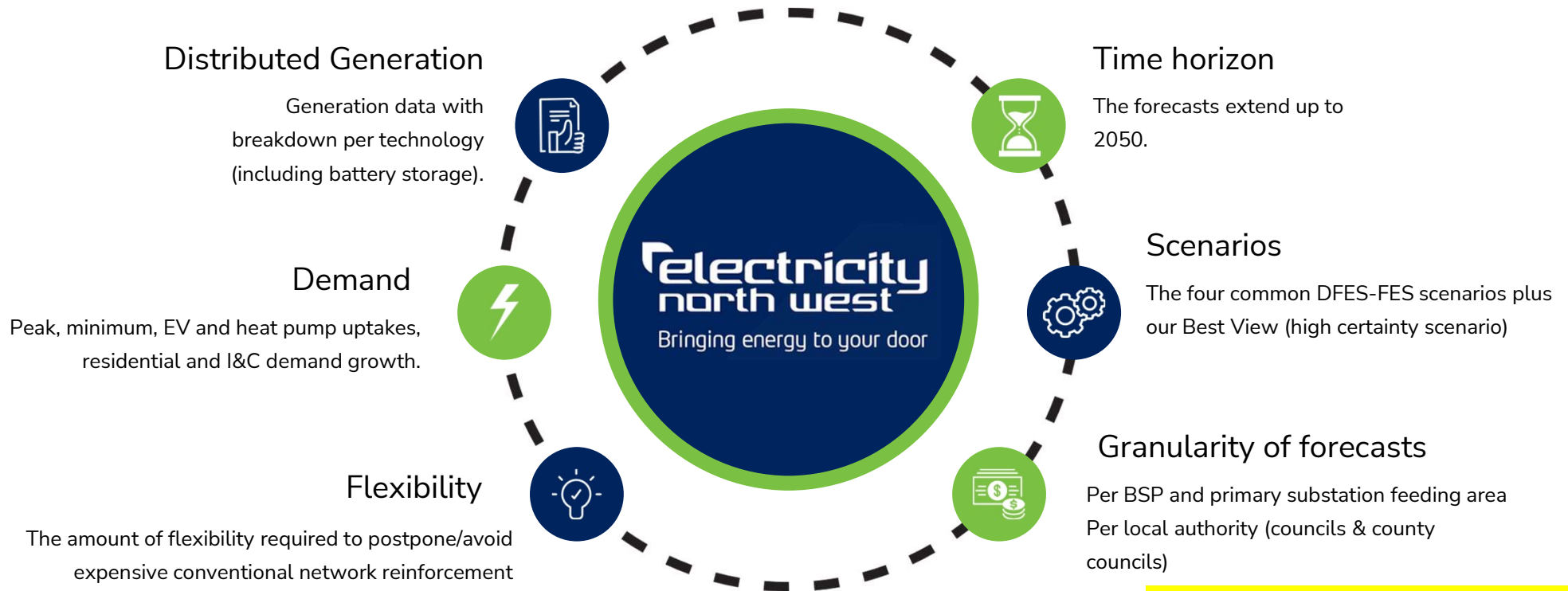




- **What is different in Cumbria compared to GM LAEP process?**
  - ✓ GM used ES Catapult studies as their LAEPs, ENW can support Cumbria area LAEPs with data provision and technical insights
- **Why is it important for LAs to share LAEP and other plans before applying for network connections?**
  - ✓ network capacity released within LAEP / local plan timeline
  - ✓ cost-efficient network investment, not piecemeal network expansion → lower energy bills to customers
- **What is different in RIIO-ED2? (our regulatory 2023-2028 period)**
  - ✓ lower connection charges (access SCR charges): higher connections activity expected
  - ✓ access to funding for all DNOs through uncertainty mechanisms → to facilitate well justified LAEPs and other mature local plans

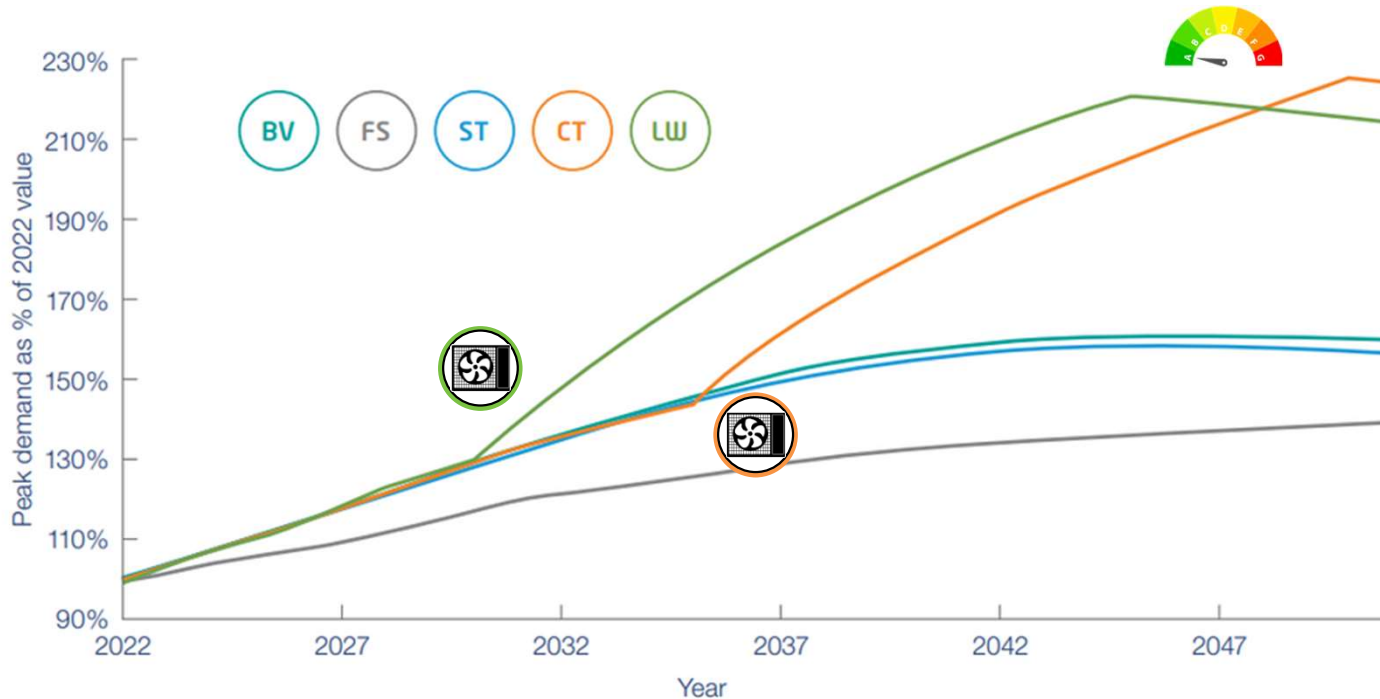
**key takeaway:** early engagement on LAEPs and other local plans can facilitate them in timely and cost-efficient manner

# DFES workbook at a glance



**Cumbria data - granularity:** at county council level, per council and more granular per primary substation feeding area

# Peak demand forecasts



All DFES forecasting data accessible online at: [www.enwl.co.uk/dfes](http://www.enwl.co.uk/dfes)

## 50% increase by 2038

In our **BV** scenario we envision a 50% increase in peak demand by 2038.

## EV, HP and Connection

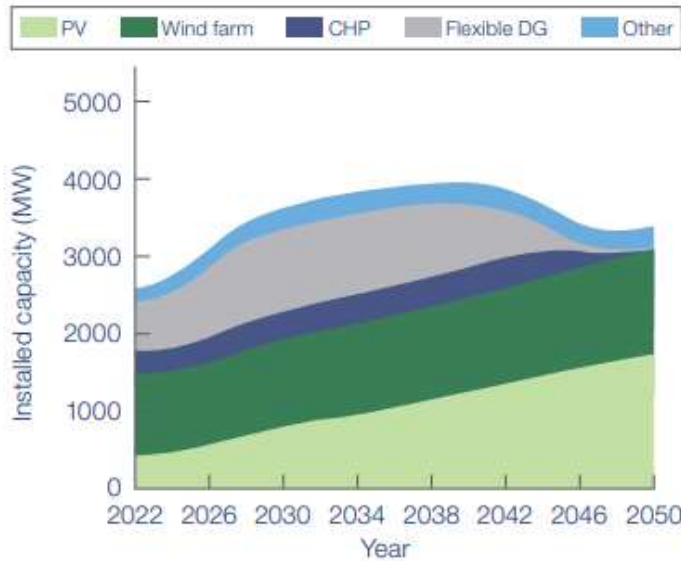
The top three factors affecting the long term peak demand growth in our area are EVs, heat pumps and demand connection activities.

The sharp increase in **LW** after 2030 and **CT** after 2036 is due to increased adoption of heat pumps in a world where hydrogen is not used for widely for domestic heating. The drop post 2045 is due to efficiency measures.

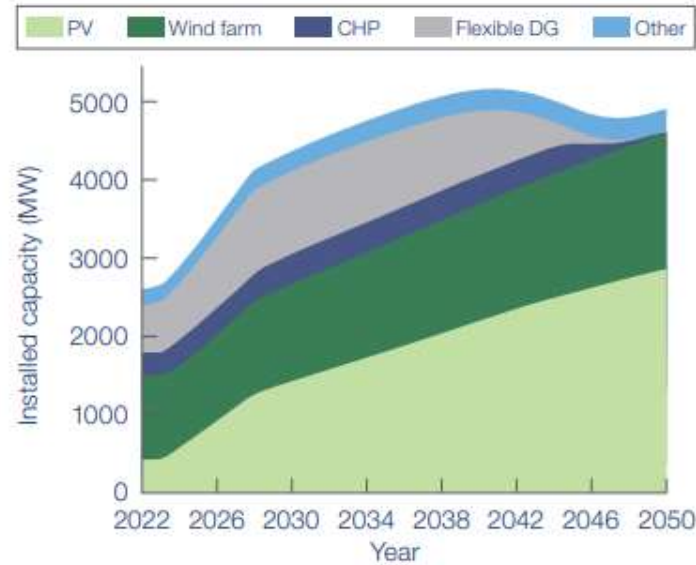
# Distributed generation forecasts



Best View forecasts for distributed generation



Consumer Transformation forecasts for distributed generation



## 5-year horizon

In short-term DG uptake driven by the accepted connections pipeline.

## Renewable generation

Non-domestic PV is expected to be the most dominant technology of distribution connected renewable generation.

To accelerate decarbonization before 2050 our local stakeholders need to act beyond our Consumer Transformation scenario.

All DFES forecasting data accessible online at: [www.enwl.co.uk/dfes](http://www.enwl.co.uk/dfes)

# Network planning

We currently use DFES to inform network planning across our Extra High Voltage (132 to 33kV) networks. We also produce forecasts to inform network planning at High Voltage (11 and 6.6kV) and Low Voltage (0.4kV) networks. Moving forward we will expand DFES to cover all voltage levels.

## DFES with a planning purpose

Our load related investment is mainly driven by our Distribution Future Electricity Scenarios (DFES), which have a mainly planning purpose

## HV and LV planning

Optimised planning by releasing only the required capacity where and when needed.

## EHV planning

Focus on wider area planning to optimise investment by increasing efficiencies and avoiding piecemeal network expansion.

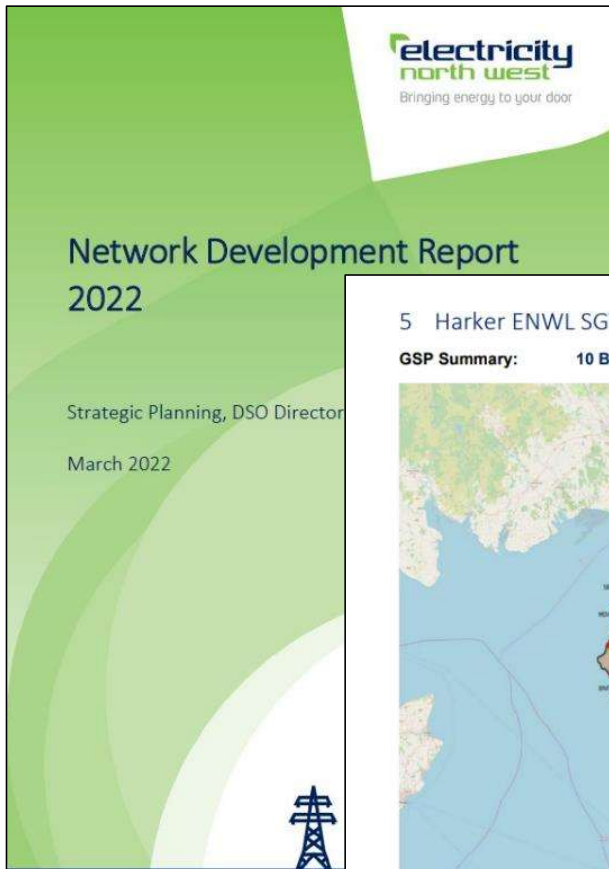
## LV services

Unlooping of LV services to facilitate domestic EV charging and heat pumps to the end customers.





# Network Development Plan



\*In 2023 we updated the work element of the plan

5 Harker ENWL SGTs 1 2 3A 4 / Hutton Group

GSP Summary: 10 BSPs 93 Primaries

Harker ENWL SGTs 1 2 3A 4 / Hutton Group supplies approximately 235,000 customers across the North and South Lakes region of the network. The supply is taken from Harker GSP and Hutton GSP. Harker GSP takes its supply from National Grid via 1 x 240MVA 275kV SGT and 4 x 120MVA 275kV SGTs. Hutton GSP takes its supply from National Grid via 2 x 240MVA 400kV SGTs. Together the GSPs supply the Cumbria ring consisting of 2 x 132kV switching stations, 10 x BSP and 93 x Primary Substations. There is significant generation on the network including several large windfarms and CHP sites. The Peak Demand is currently 551MVA.

- Report broken down by Grid Supply Point feeding area. This is the connection point from Transmission to Distribution
- Here we detail the high-level solution for increase capacity including a review of the flexible requirements

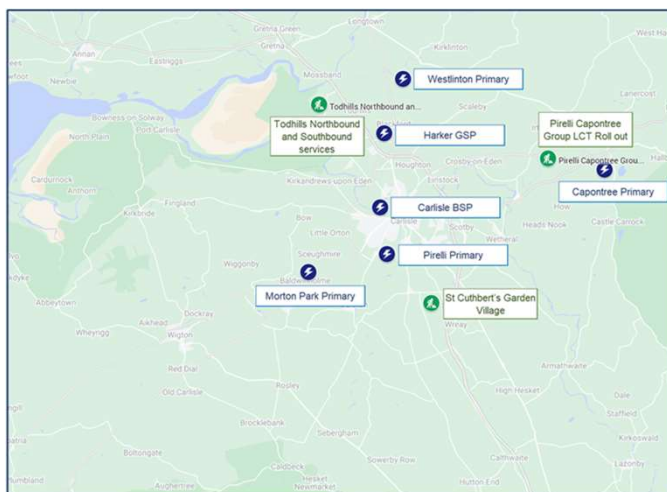
## Intervention Detail

Site Name	Need	Asset Solution	Flexible Services Solution								
Alston  X- 372125 Y- 546499	FC first exceeded in FY23, however it is managed post fault operationally using strategic generation deployment.  Increase in demand exceedance of 0.7MVA by FY31 requires consideration of non-operational solution.  Whole systems solution to be	Single transformer site and our initial approach to meet the firm capacity need is to tender for flexible services in the area.  A viability and economic assessment will then be carried out against the technical solution detailed to determine the preferred option.  Closest primary is	Sustain response required   <table border="1"> <thead> <tr> <th>Max Flex Required at 2051 - Winter Peak</th> <th>MVA</th> </tr> </thead> <tbody> <tr> <td>Best View</td> <td>1.9</td> </tr> <tr> <td>Consumer Transformation</td> <td>3.3</td> </tr> <tr> <td>Steady Progression</td> <td>2.3</td> </tr> </tbody> </table>	Max Flex Required at 2051 - Winter Peak	MVA	Best View	1.9	Consumer Transformation	3.3	Steady Progression	2.3
Max Flex Required at 2051 - Winter Peak	MVA										
Best View	1.9										
Consumer Transformation	3.3										
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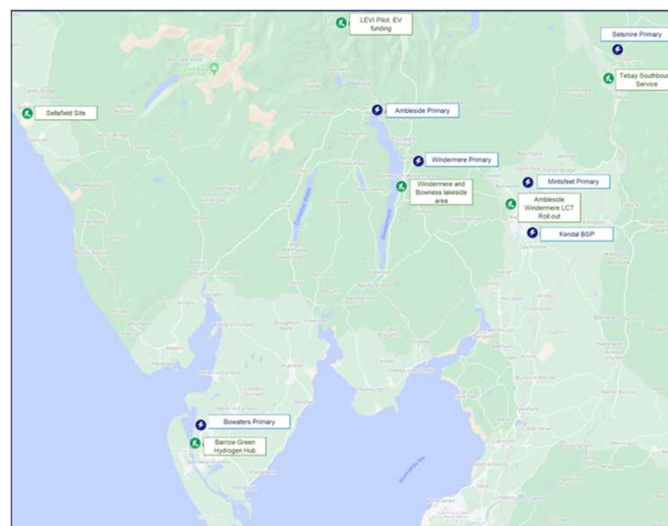
# Cumbria development plan – draft to be published



## North Lakes sites



## South Lakes sites



- *Cumbria ring – phase 1 (175km) & phase 2 (137km)*
- *Harker GSP – 132kV switchboard*
- *Motorway Service Areas (MSAs – Tebay, Southwaite)*
- *Windermere area (10km of 33kV & 11kV cables)*
- *Other EHV substations and cables (Pirelli Capontree, Carlisle BSP, Westlinton, Carlisle-Morton Park, Westlinton)*

All NDP reports & data accessible online at: [www.enwl.co.uk/ndp](http://www.enwl.co.uk/ndp)

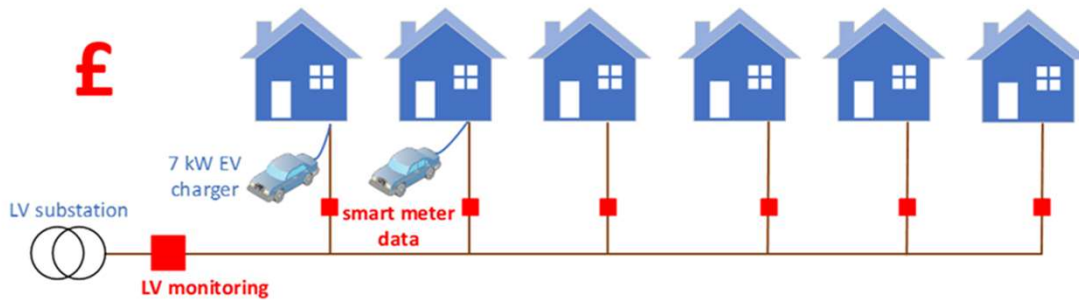
## key takeaways:

- early LAEP engagement → release network capacity where & when needed
- coordinated network development → reducing customer energy bills & avoiding expensive piecemeal network expansion
- Cumbria development plan drafted and to be online available in following weeks

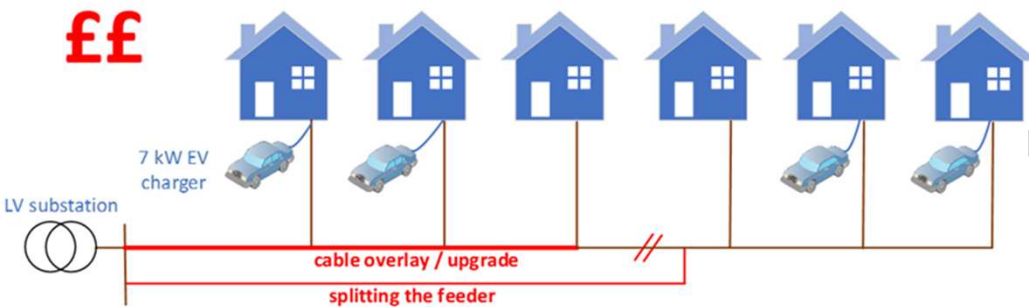
# Network Planning at lower voltages



typical underground LV network



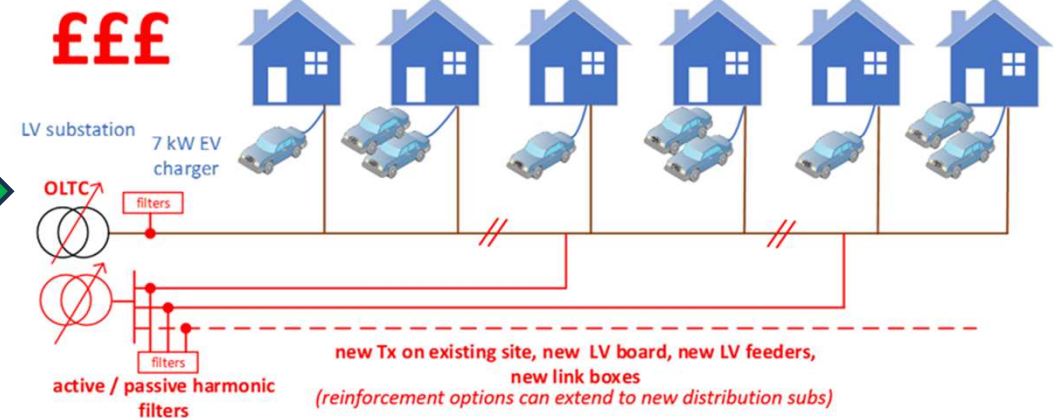
typical underground LV network



## key takeaways:

- LV monitoring critical to optimise network planning, i.e. release capacity only where and when required (to cover 95% of customers at just under half secondary subs by 2028)
- planning optimisation: capacity released in cost efficient way to meet only the expected demand growth

typical underground LV network



# Distribution Network Options Assessment Overview



We will soon publish our first annual DNOA document. This will then be refreshed each September throughout RIIIO- ED2



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# Flexibility Services

Cara Blockley  
*Head of DSO*

Stay connected...



[www.enwl.co.uk](http://www.enwl.co.uk)

# What are Flexibility Services?



When the demand for electricity is greater than the amount that we can provide, flexible services are procured to alleviate constraints on our network during peak times



These services are provided by companies or individual customers who own assets in our region that can generate more or use less electricity when required

This allows us to balance supply and demand, ensuring a safe and reliable supply of energy for our customers



Flexibility providers will receive payment from the network for providing this extra capacity



We procure our flexible services tenders via the PicloFlex Platform

Visit <https://picloflex.com/> to:

- View our current requirements
- Sign up to the free commercially pre-qualify
- Upload and pre-qualify your flexibility assets
- Submit a bid
- View past competition data
- A summary of our current tender is available via our dedicated [profile page](#)



Contact [support@picloflex.com](mailto:support@picloflex.com) for all queries relating to the platform or to book a personalised demo with a member of the team. We offer 1-2-1 discussions to assist with any queries relating to the process of providing flexibility [Book here](#)

Our latest requirements!



## Autumn 2023 tender

**413**



**MW OF  
FLEXIBLE CAPACITY  
REQUIRED**



**29**

**LOCATIONS**

ACROSS THE NORTH WEST



**138**

**REQUIREMENTS**

OVER THE NEXT

**4**



**YEARS**

**UP TO**

**£7m**

**REVENUE AVAILABLE**

## Cumbria



17 Locations

245 MW

87 requirements

**£2,954,212**



# Useful links



Piclo Flex

Flexible services website

Open Data Portal

Register for updates

1-2-1 Discussions



Head over to the [Piclo Flex platform](#) to view our latest requirements and take part in our tenders by registering onto our DPS and uploading your assets

All our current and previous requirements, webinar recordings, helpful guides and case studies can be found on ENWL's [flexibility portal](#)

Our flexible services requirements and reports are available on our [Open Data Portal](#) to view and download in a variety of formats including via API

[Sign up to our distribution list](#) to receive our newsletters, latest requirements and event invites

We offer 1-2-1 discussions to assist with any queries relating to the process of providing flexibility  
[Book here](#)

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# Panel discussion

Helen Norris

*Stakeholder Engagement and Responsibility  
Framework Manager*

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Break



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# Connections and the application Process

Steffan Jones

*Head of Connection Quotations*

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# Managing capacity and the grid



- There are constraints on the network and the volume and scale of applications is growing both for demand and generation
- However:
  - Only generation schemes with an installed capacity of 1MW or greater require National Grid consent.
  - Demand schemes currently don't require National Grid consent (at a scheme level)
- LCT at small scale is not impacted by current Transmission / Grid constraints
- It can, however, have an impact on the local network and we may need to undertake enabling or reinforcement works ahead of your scheme being completed



## Structuring the team to meet the needs of our customers



### Planning

- **PACE Team**

Pre-Application Support | Surgery Sessions | Initial Scheme Development

### Contract

- **Quotations Team**

Network Study | Estimate & Quotation | Acceptance & Contract

### Build

- **Delivery Team**

Design & Procurement | Installation | Commissioning & Energisation

## Quick review of the connections process



- There are defined processes ENWL needs to follow
  - Unless you fall in to “connect & notify” processes, you will need to submit an application – either for a new connection to the network or to modify an existing one
  - This will result in a formal offer that will need to be accepted in order to progress
  - An offer is typically valid for 6 months, but this can change under certain situations
  - We will not undertake any works until have instructed us to proceed (accepted)
- Our processes are in place to ensure we treat everyone fairly
  - We cannot deviate from our processes or our licence obligations
  - We cannot enter in to “commercial negotiations”
  - We can ensure that your Connections journey is tailored to your scheme and support you in that journey
- Engage earlier, ahead of your application, to maximise the opportunities to get the most optimal solution

## Importance of strategic relationships & early engagement



- ENWL will be developing relationships with key stakeholders across a number of teams
  - DSO, Customer, Community and Connections for example
- Key is early engagement so that we can ensure that your journey through to Connections is efficient, occurs at the right time for your project and sets up the Connections Process to delivery on your scheme needs
- Every scheme is unique, and we will look to provide a Customer Journey tailored to your needs. To do this we need to start that process while there is sufficient time to understand what that journey needs to look like
- **The earlier you engage the better** – we can then develop ideas and potential solutions ahead of formal applications. Tailoring the application(s) to best deliver the overall scheme
- Our Quotations Team is split into specialist teams that provide expertise across all sectors of Connections, covering for example; large scale generation, commercial demand, secondary or local network connections and LCT
- We are currently developing the LCT function within our PACE Team focused on the LA/HA stakeholder group



# Roundtable discussion





- What do you consider to be the key areas where ENWL can support you in your transition to LCTs/net zero?
- Have you had any experiences with other DNOs or utility providers that you think are examples of exceptional service?

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Your feedback

Stay connected...



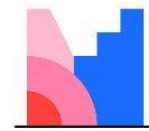
[www.enwl.co.uk](http://www.enwl.co.uk)

## Mentimeter polling – Feedback



We really value your feedback:

- Open web browser
- Head to [www.menti.com](http://www.menti.com)
- Use the code **1606 841** to access feedback polling



# Mentimeter



Or use QR code