



# Rural Net Zero Seminar

**Kerry Booth, Chief Executive  
Rural Services Network**

**29<sup>th</sup> January 2025**

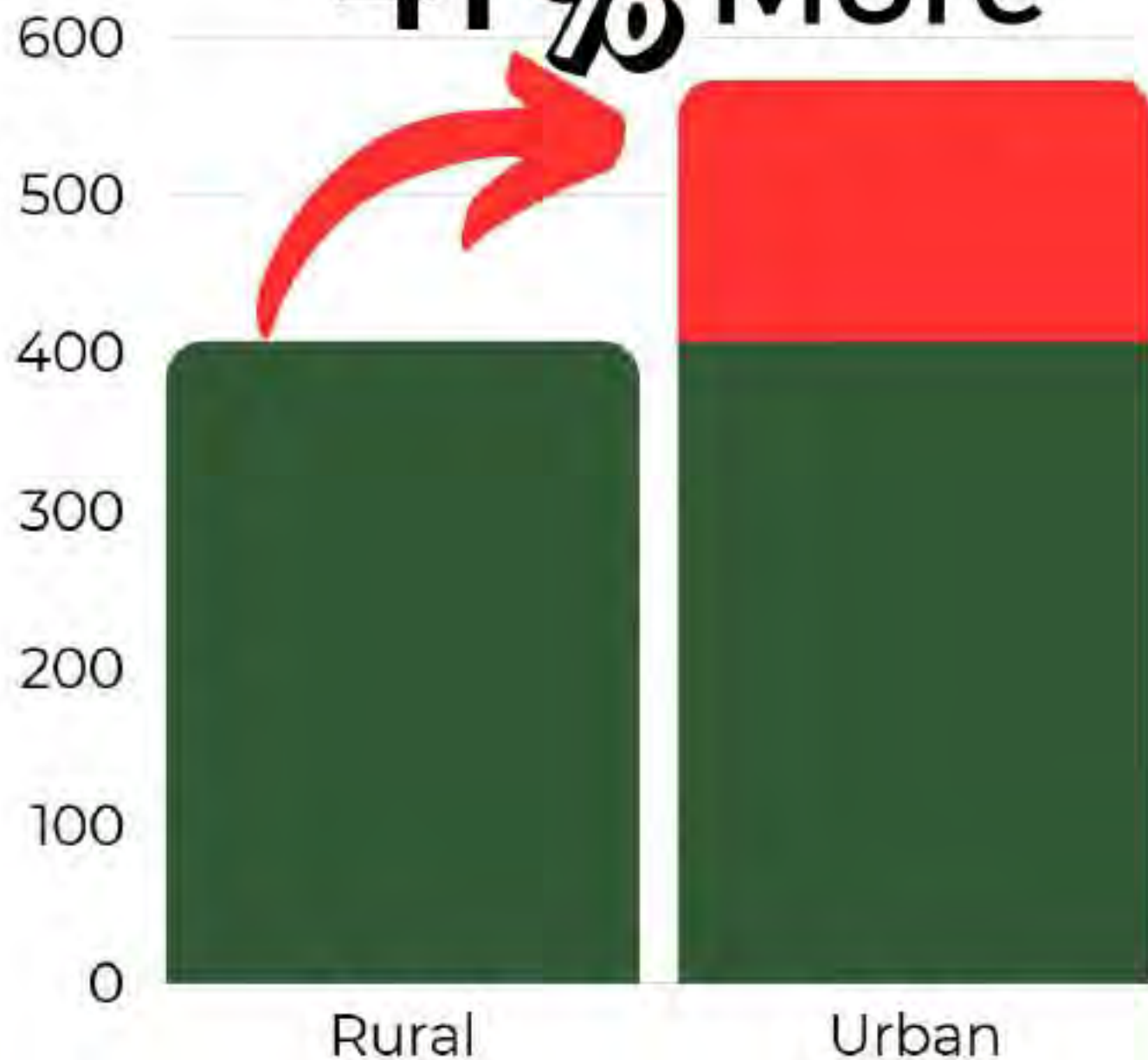
The background of the slide features several stacks of gold coins. The stacks are arranged in a row, with the tallest stack on the left and the shortest on the right. The coins are highly reflective, showing highlights and shadows that give them a three-dimensional appearance. The background is a soft, out-of-focus light color, possibly a wall or a window, which makes the coins stand out.

**The Rural Services Network is fighting for a fair deal for rural communities, in all public sector funding**



**The RSN also  
campaign for  
rural focused  
policy in key  
areas  
impacting rural  
communities**

**41% More**



**Government Funded  
Spending Power in urban  
Councils is 41% MORE  
per head than in  
predominantly Rural  
Councils**

# Rural Net Zero



## Fair Funding

 Almost 10 million people live in rural England...  
...that is MORE THAN the whole of GREATER LONDON



 Urban voters receive 36% more per head in government funding

 Rural voters pay 20% more in Council Tax per head

[Find out more here](#)

## Access to Health & Care

 74% of 65+ year olds voted in the General Election (2019)

 Over 30% of rural voters are 65+

 Urban Councils receive 57.5% more per head to spend on public health

 Rural voters can wait 2 times longer for an ambulance

[Find out more here](#)

## Rural Transport

 Improved public transport is better for the environment...  
...reduces issues of social isolation  
...provides access to training, skills and employment



 Urban councils budget to spend 3.5 times more than rural on public transport

 Rural voters have fewer transport options and are reliant on private vehicles which can be expensive to run

[Find out more here](#)

## Rural Connectivity

 Unlocking the digital potential of rural areas could add up to £26bn annually to the UK economy...  
...growing turnover for rural businesses by £15bn each year



 Only 47% of rural voters have Gigabit capability

 49% of rural voters do not get 4G mobile coverage on all networks indoors

[Find out more here](#)

## Rural Economy

 There are over half a million rural businesses in England...  
...that is 23% of all registered businesses



 Productivity and GVA in rural areas is lower than urban

 Rural voters earn £1,600 less a year

[Find out more here](#)

## Affordable Housing

 Ten new affordable rural homes create an economic boost of £1.4m GVA...  
...and yet they only cost £1.1m to build




 The rural fuel poverty gap is nearly double the national average


 Homes in rural areas are less affordable to purchase for those in the bottom 25% of earners compared to urban

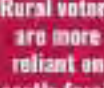
[Find out more here](#)

## Rural Net Zero

 Rural households emissions are 19% higher than urban...  
...yet rural areas have the resources to contribute to Net Zero



 25% of rural homes are not connected to the gas network

 Rural voters are more reliant on costly fossil fuels

[Find out more here](#)

## Rural Planning

 Over 600 Neighbourhood Plans have been made in rural communities showing how voters want to influence how their local area is developed



 There are almost 100,000 second homes in rural areas

 Most rural developments are too small to include affordable homes

[Find out more here](#)

Rural areas with their abundance of natural assets are well placed to embrace the country's transition to Net Zero and tackle biodiversity loss, and with government investment can deliver jobs in green growth sectors.

Rural communities must benefit from schemes that are based within their area and not just be a location for urban solutions.

Many government actions proposed cannot be implemented until rural electricity supply networks are improved and reasonably priced sustainable energy alternatives are available.

From energy production to unlocking digital potential to increase jobs, rural areas offer a range of opportunities that could benefit all.

# Rural Net Zero 'In the news'

<https://www.rsnonline.org.uk/tag/rural-net-zero>



**2023-2024**

## NORFOLK CALLS FOR AGRI-FOOD TO BE PRIORITY SECTOR IN MODERN INDUSTRIAL STRATEGY


Agri-Food is chosen from the list of growth-driving sectors in the Modern Industrial Strategy (MIS) which supports future growth. Norfolk Business Strategy Unit and Norfolk South West Norfolk County Council have jointly written the Queen's Speech 2024.



**2023-2024**

## SUPPORT WITH YOUR RURAL DOMESTIC RETROFIT PLANS

There are now less than two months left before Warm Homes, Local Grant Applications if you are a rural household. RISE is increasing its support to...



**2023-2024**

## RISE LAUNCHES A BRAND NEW TRAINING MASTERCLASS FOR 2025; PROMOTING BIODIVERSITY NET GAIN IN HOUSING

RISE is launching a brand new training masterclass for 2025, promoting biodiversity net gain in housing. The course is designed to provide training for housing providers and local authorities on how to integrate biodiversity net gain into their housing development plans.



**2023-2024**

## HARNESS THE GREEN POTENTIAL OF RURAL TOURING

RISE is launching a new initiative to harness the green potential of rural touring. The initiative will support rural tourism businesses to develop sustainable touring products and services. The green credentials of small-scale rural production are highlighted in a new report, funded by the National Rural Touring Forum. Take Art is working with...



**2023-2024**

## SOUTH WEST MOBILITY STRATEGY LAUNCHES INNOVATIVE PILOT PROGRAMME TO BOOST SUSTAINABILITY AND CONNECTIVITY

Through the development of the South West Mobility Strategy and our engagement with transport stakeholders, Peninsula Transport has identified a new innovative mobility pilot to boost sustainability and connectivity in the region.



**2023-2024**

## BUILDING THE PATH TO NET ZERO: CPRE'S VISION FOR A REFORMED PLANNING SYSTEM

The Campaign for the Rural (CPRE), in collaboration with the All-Party Group on Renewable Energy, has released a new report detailing urgent recommendations for reforming the UK's planning system, as we work towards achieving the government's ambitious 2050 net zero goal.



70 years

Northumberland

**CAN**

a voice  
for rural  
communities

**since 1951**

# Community Action Northumberland



Established 1951



Part of the ACRE Network



Still funded by Defra



21 staff (15 FTEs)



Department  
for Environment  
Food & Rural Affairs

Northumberland Ordnance Survey General Map



Published October 2013. Scale: 1:450,000  
Produced by the Policy and Research Team, Transformation Service, Northumberland County Council  
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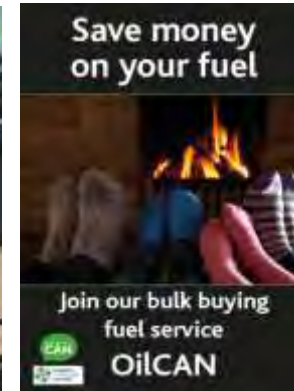


# Net Zero Objectives

- Reduce carbon footprint
- Lower energy costs
- Increase resilience

# Energy & fuel poverty

- Warm Hubs
- Community buildings
- Slow cooking revolution
- Northumberland off-grid task force
- Community energy
- Energy Advice
- Domestic carbon reduction project



energy  
saving  
trust

**NE** North East  
Combined  
Authority

# Home Energy Advice North East

[energyadvicenortheast.co.uk](http://energyadvicenortheast.co.uk)



Funded by  
UK Government

POWERED BY  
**LEVELLING  
UP**







# CAIRN

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Climate Action in Rural North East



## What is it?

- Collaboration
- Across the rural North East
- £1.3 million Climate Action Fund
- 4 years





# CAIRN

Climate Action in Rural North East

## What will it do?

- Community energy projects
- Community carbon assessments
- Energy advice for households
- Training & skills development
- Inspiring young people
- Evaluation, learning and spreading the word



# CAIRN

Climate Action in Rural North East



# Household energy advice

	Target (to Mar '25)	Achieved (to Oct '24)
No. advice events/workshops	20	38
No. households reached at events	380	704
No. home visits delivered	200	180
No. telephone advice calls	290	260
Total distinct households reached	900	1476
PV systems installed	60	68
ASHPs installed	90	63

# Slides from CAN Energy and Renewables Advice Online Roadshow

22nd Jan 2025

CAN Energy staff held a one-hour online session offering independent expert advice on energy efficiency at home and renewable energy solutions.

During this session, we shared insights on improving your home's heating efficiency and learn about renewable technologies like Solar PV and Air Source Heat Pumps.

You can watch the online recording again at this link:

[Watch Zoom recording](#)

[Download the slides](#)

For any enquiries please contact the Energy Team at [renewables@ca-north.org.uk](mailto:renewables@ca-north.org.uk)







# CAIRN

Climate Action in Rural North East



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## HAYDON BRIDGE DISTRICT HEAT NETWORK FEASIBILITY STUDY

Certified



CONSUMER  
GOODS





Northumberland Community  
Energy Ltd (NCEL)

## Aims:

1. Reduce energy costs for community buildings
2. Support resilience in response to long term climate change and short-term events
3. Reduce carbon footprint of community activities

...all whilst limiting risk and maximising reward for community groups



# How it works

- NCEL funds, installs, insures, operates & maintains all equipment
- NCEL manages grid connection, metering and grid feed in
- NCEL has a peppercorn lease arrangement with the community group for 20 years
- Community group buys power from Coop at a discount rate of £0.15, fixed for 20 years
- When local generation is not available, community group buys energy from grid as usual
- At end of the lease, equipment passes to community building



# NCEL governance

- NCEL formed as a Community Benefit Society, with support from Cooperatives UK and Cooperative Bank
- All participating community buildings have a right to be a member of NCEL
- One member / one share / one vote
- Liability limited to £1
- Members appoint directors from mixture of members and independent directors with relevant expertise
- Asset lock

# NCEL current position

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70+ feasibility studies complete

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20 planning permissions

---

10 installations complete

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6 installations commissioned

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Project Manager (funded by CAIRN)

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NEPO

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Strategic funding

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# Learning

The screenshot displays the CAIRN website's overview page. At the top, a banner features a group of five people standing in front of a presentation board. The board includes the text "Ongoing Climate Action in Rural North East" and the CAIRN logo. A circular inset on the right identifies "Melanie Thompson-Glen, Head of Business and Innovation". Below the banner, the heading "Overview" is centered. The text below states: "The CAIRN Climate Action in Rural North East project aims to deliver energy advice and support community energy projects in rural North East England and is funded by the Climate Action Fund of the National Lottery Community Fund. Project strands include:"

A search bar with the placeholder "Start typing here..." and a "SEARCH" button is located below the overview text. The website's navigation menu includes "Home", "About us", "Latest", "Research and evidence", "Projects", "Innovation portal", "Get involved", and "CONTACT".

Key project details are listed in two columns:

- emissions and improving energy efficiency in homes, businesses, and shared spaces.**
- Free energy advice for households:** 500 Households in Northumberland and Durham will be offered free, tailored energy and fuel advice, delivered through expert home visits.
- youth groups to inspire the next generation to take action against the climate crisis.**
- Learning capture and evaluation:** NICRE will shape the development of the project, provide ongoing evaluation, and capture learnings throughout. Updates will be shared on our innovation portal.

The CAIRN logo, consisting of a stylized tree with colorful leaves (blue, yellow, green, purple) and the text "CAIRN Climate Action in Rural North East", is positioned at the bottom center of the page.

[CAIRN – Climate Action in Rural North East - NICRE](#)



[Ofgem short film – Warm Hubs](#)

[NICRE short film – Solar-powered  
community buildings](#)

**Email:** [andydean@ca-north.org.uk](mailto:andydean@ca-north.org.uk)

**Website:** [www.ca-north.org.uk](http://www.ca-north.org.uk)

70 years

Northumberland

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**since 1951**



# Making Net Zero a District Priority



Mark Cassidy

Chief Officer Planning & Climate Change

# Planning and Climate Change Service

Chief Officer - Planning and Climate Change:

## Planning and Housing Strategy

Planning Policy Team

Housing Strategy Team

Heritage and Design Team

Climate Change Policy Hub

Consultation & Engagement Team

## Planning Systems Team

## Energy & Sustainability Team

## Development Management

Planning Enforcement Team

Planning Applications Team

Building Control Team

Technical Team



CLIMATE  
JUSTICE  
NOW

FRACK  
OFF

ACT  
NOW

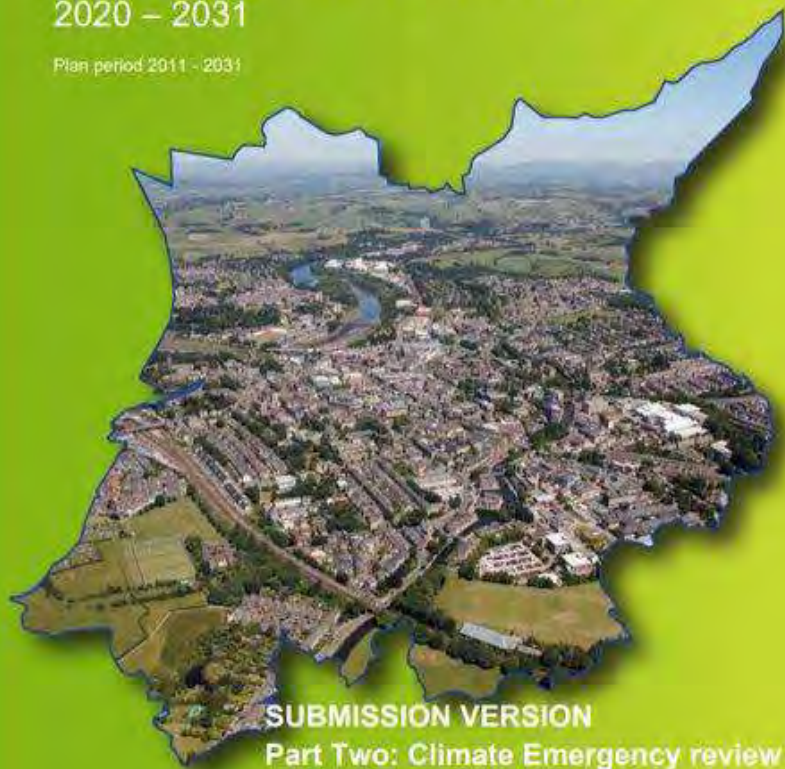
SD\_02.1  
TRACK CHANGE VERSION

A Local Plan for

# Lancaster District

2020 – 2031

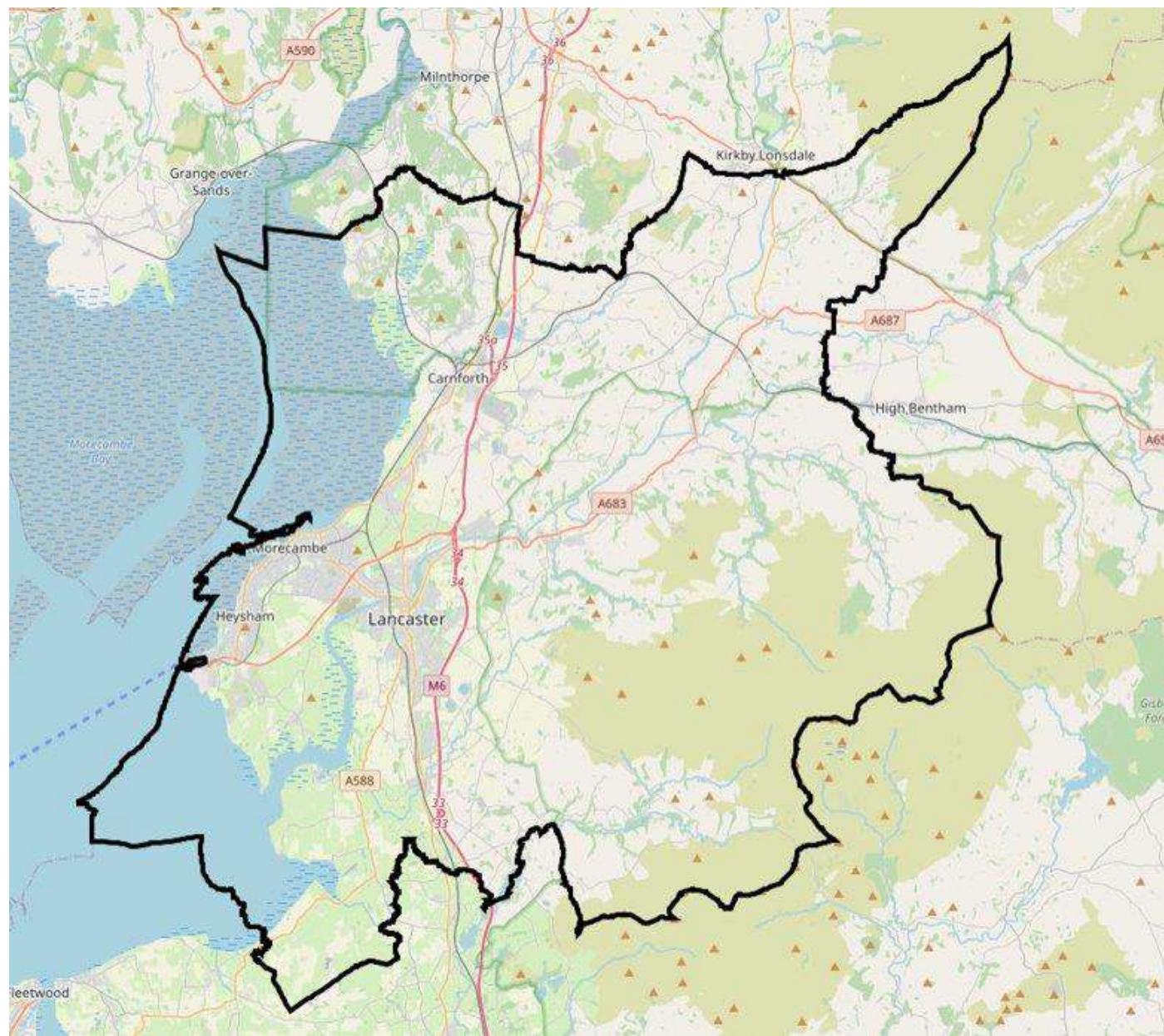
Plan period 2011 - 2031



**SUBMISSION VERSION**  
Part Two: Climate Emergency review of  
the Development Management  
Development Plan Document  
[March 2022] – Single Track Change Version

Shaping  
a better future

LANCASTER  
CITY COUNCIL  
Planning the future of Lancaster







## Lobbying in Westminster



demand better I've come to an estate in Lancaster to see the kind of new

Courtesy:  
Channel 4, The  
Great Climate  
Fight, 2023

**LANCASTER  
CITY COUNCIL**

*Promoting City, Coast & Countryside*

**LOCAL  
AREA  
ENERGY  
PLAN**

**CATAPULT**  
Energy Systems

**Lancaster District**

**Local Area Energy Plan**

**October 2024**



# Plan on a Page

Scale for quantity of low carbon measures



Renewable generation deployment (wind, solar, hydro) is a key decision point for Lancaster District, including determining locations and quantities of technology.

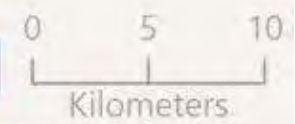
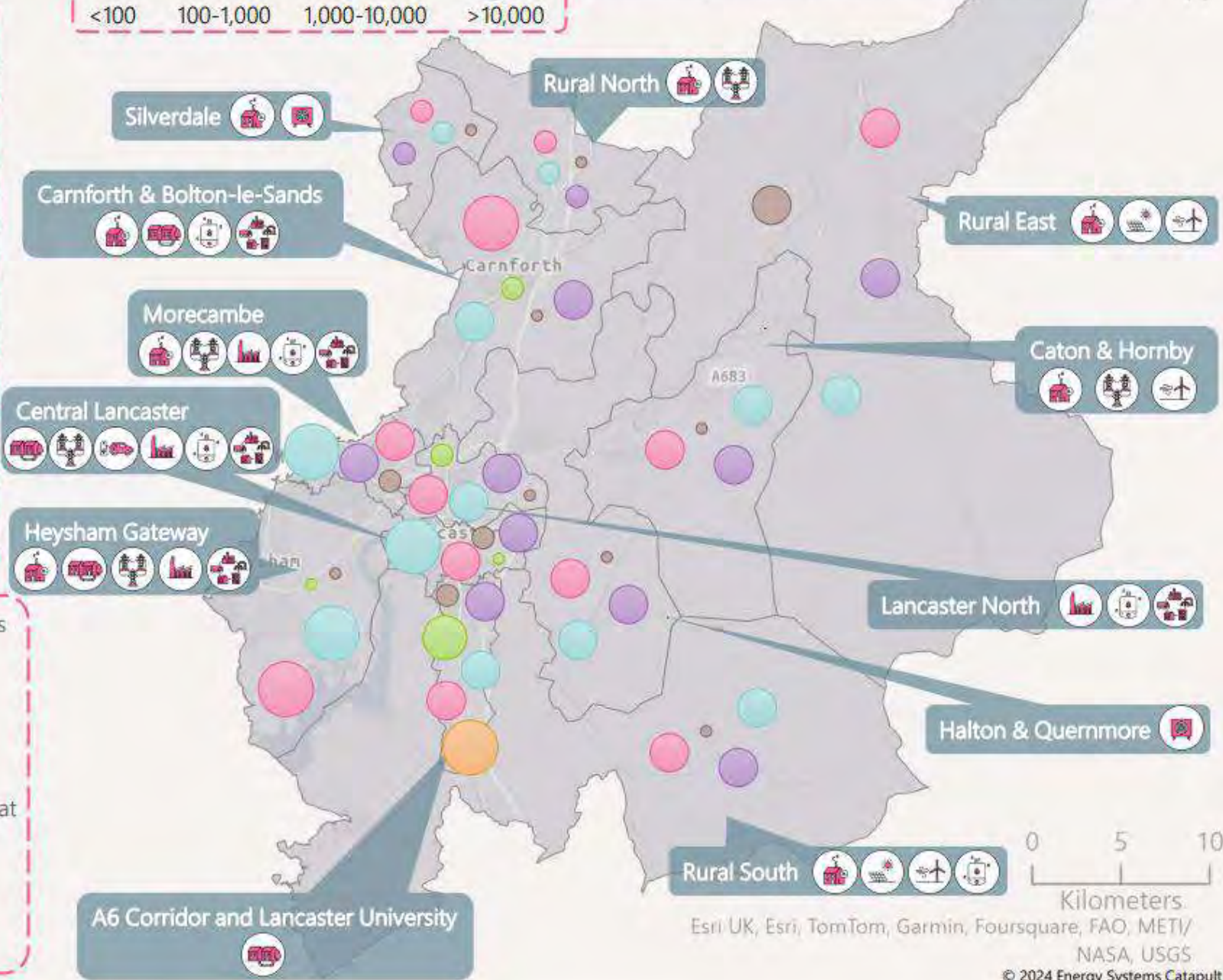


Focus Zones

- Domestic fabric upgrades
- District heat networks
- Public EV Charging
- Rooftop solar PV
- Ground mount solar
- Onshore wind
- Heat pumps
- Network Upgrades
- Non-domestic buildings
- Fuel poverty
- Clean gas opportunity area

Recommended Quantities of Low Carbon Measures

- Domestic fabric upgrades
- Domestic heat pumps
- Domestic district heat networks connections
- Non-domestic district heat networks floor area (m<sup>2</sup>)
- Home EV chargers
- Public EV chargers



Esri UK, Esri, TomTom, Garmin, Foursquare, FAO, METI/ NASA, USGS



# LOCAL CLIMATE ENGAGEMENT



involve

UK:100

universities

Shared Future

Climate Outreach

2030  
**CARBON  
ZERO+**

**LANCASTER  
CITY COUNCIL**  
Promoting the Green & Creative

# Salt Ayre Leisure Centre



# Lancaster City Council tCO2e Emissions: 01/04/21 - 30/09/23

Projections

About

Triggering

Gas	Fleet	Staff Travel	Electricity	Pool Cars	Staff Commute	Taxis	Council Housing	Water Sply	Water Treat.	Renewables	Total
2,281.487	3,198.670	25.71	1,617.358	1.62K	1,203	3,383.93		97.18	168.53	-2	12,088

Overview

tCO2e

Mileage

kWh

Cost

2018-2019

2019-2020

2020-2021

2021-2022

Scope 1

Scope 2

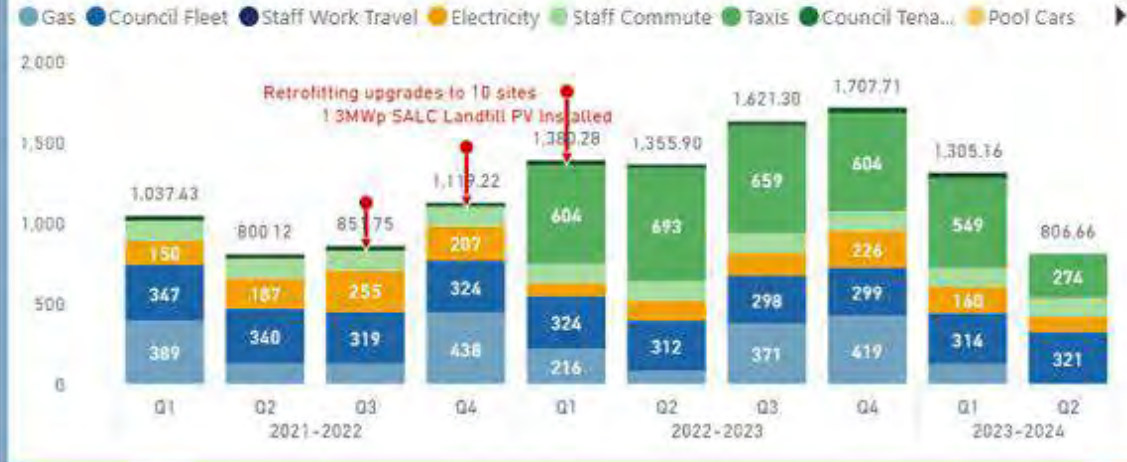
Scope 3

- EXT Activit
- LCC Activit
- Pool Car (Elec)
- Pool Car (ICE)
- Pool Car (Public)
- Staff Work Tra
- Staff Work Travel

Total by Emission Source and Scope



Total by Emission Source and Time

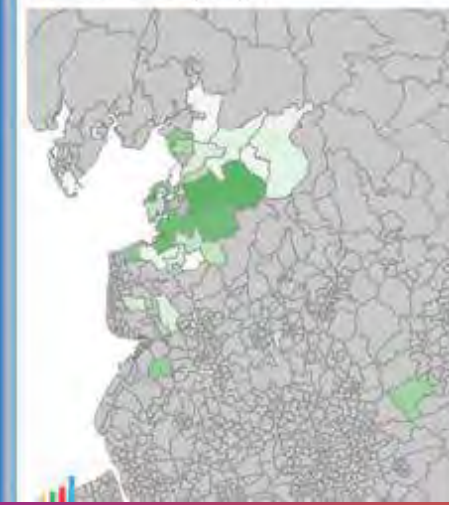


More...	11	5	16.56
White...	7		9.59
Healt...	4		5.01
Palati...	3		4.53
Lanca...			2.40
(Blank)			2.25
Salt A...			2.24
AONB			1.47

All	Gas	Electricity	Total	%	Change Prev. Yrs	DEC/EPC
Lancaster (Central) Housing Estate	300	6	285	7.3	-10.2	
Hala Housing Estate	243	5	268	6.9	-5.2	
Quernmore Road - Williamson Park	201	49	250	6.4	-10.2	
Doris Henderson Way - Salt Ayre Sports Centre	200	105	305	28.1	-10.2	E
Meeting House Lane - The Storey	188	76	265	6.8	-28.1	D
Kingsway Housing Estate	159	2	171	4.4	-4.1	
Westgate Housing Estate	110	10	170	4.4	-3.6	
Dalton Square - Lancaster Town Hall	86	70	228	5.8	-19.7	A
Greaves Housing Estate	83	2	156	4.0	-31.1	
White Lund Road - White Lund Depot	97	49	146	3.7	-1.1	
Marine Road Central - Did Station Building	83	5	88	2.3	-10.2	B
Dalton Square - Palatine Hall	78	10	88	2.3	-4.1	C
Dalton Square - 4-6 - Citylab	53	32	85	2.2	-21.1	C
Gwen Road - Ryelands Park	48	3	51	1.3	-18.4	
Market Square - City Museum	24	1	35	0.9	-4.1	C
<b>Total</b>	<b>2,281</b>	<b>1,617</b>	<b>3,899</b>	<b>100.0</b>	<b>-847.9</b>	

Vehicle Type	Department	Miles	Litres	tCO2e	%	Change Prev. Yrs
Rel-Collector	Public Realm Cleansing	395,903K	555K	1,390	46.8	-13.0
Van	Bulky Matters	5,002K	97K	531	16.6	38.1
Rcv	Cleansing	39,199K	94K	254	7.9	54.5
Sweeper	Cleansing	45,228K	86K	232	7.2	-10.3
Tipper	Cleansing	27,585K	38K	101	3.2	-11.0
Pick Up	Grounds Maintenance	25,939K	19K	51	1.6	-18.9
Ride On Mower	Grounds Maintenance	70K	19K	50	1.6	5.5
Tractor	Grounds Maintenance	1,094K	17K	45	1.4	0.9
Caged Tipper	Public Realm Cleansing	38,518K	15K	42	1.3	-10.3
Emergency Key	Grounds Maintenance	4,763K	11K	29	0.9	14.7
Jcb	Business Support	9,851K	5K	13	0.4	-1.3
Mower	Grounds Maintenance	433K	4K	11	0.3	-4.9
4 X 4	Vmu	553K	2K	4	0.1	-1.1

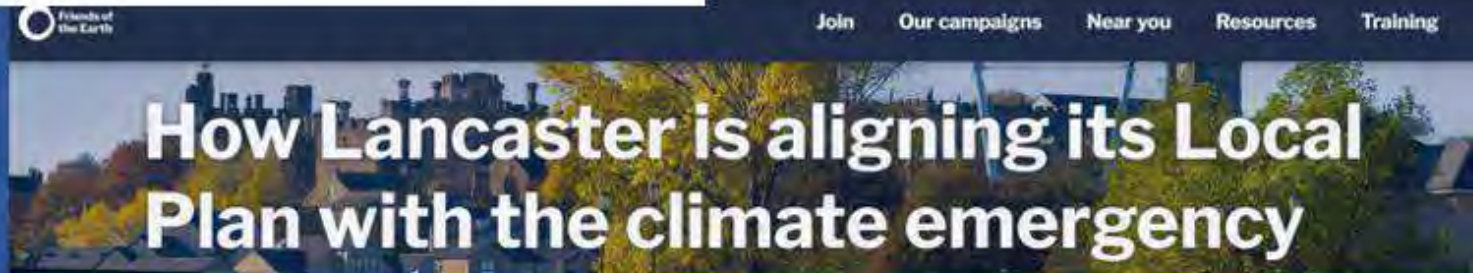
Staff Commuting tCO2e



**Lancaster City Council is top nationwide for tackling climate change**

**APSE award for Salt Ayre energy efficiency project**

**City council strikes gold at national award ceremony**



**Grand Designs presenter Kevin McCloud visits Lancaster to film new climate change TV show**



Planning and Climate Change Service  
[climate-emergency@lancaster.gov.uk](mailto:climate-emergency@lancaster.gov.uk)  
<https://www.lancaster.gov.uk/>



# Introduction to NESO & SSEP

Reece Emmitt  
Stakeholder Engagement Manager

# Overview

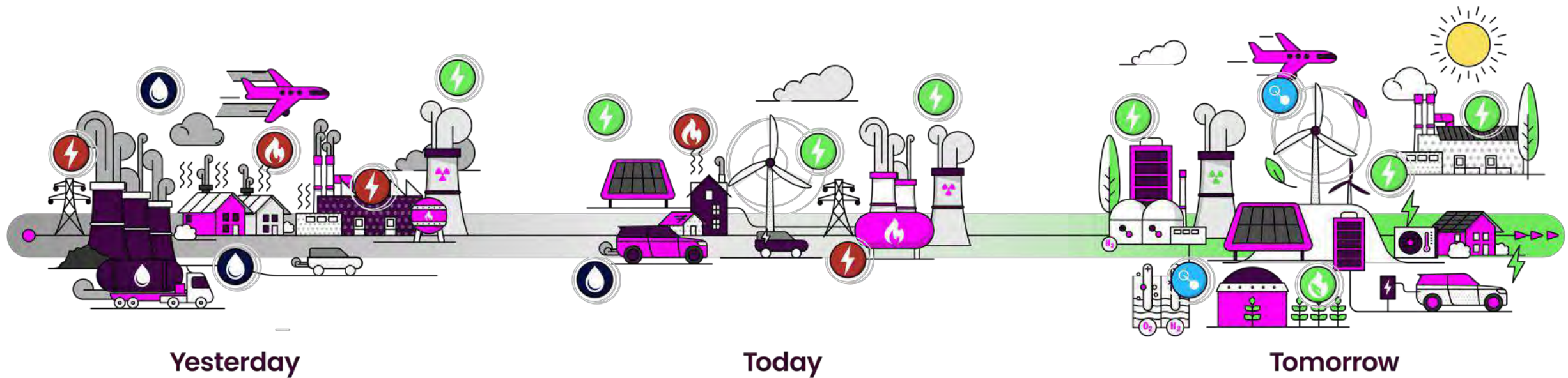
1. About National Energy System Operator (NESO)
2. Introduction to strategic energy planning
3. Strategic Spatial Energy Plan (SSEP)





# A Changing Energy Landscape

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.



Yesterday

Today

Tomorrow



# The National Energy System Operator

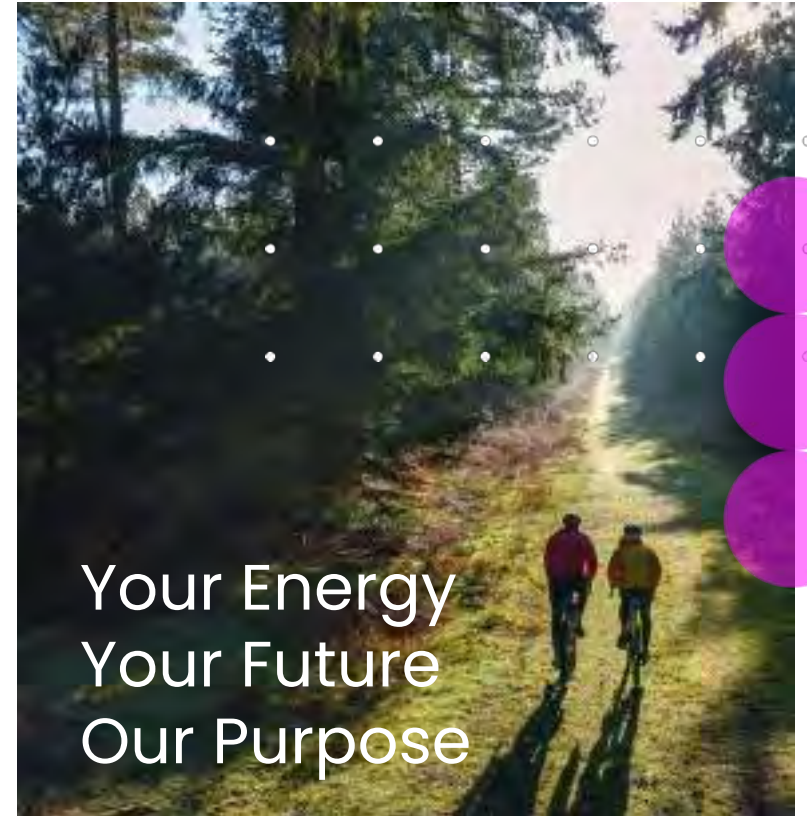
The National Energy System Operator, NESO, is an independent, public corporation at the centre of the energy system taking a whole system view to create a world where everyone has access to **reliable, clean and affordable energy**.

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 truly the challenge of our generation; addressing energy security, sustainability and affordability for everyone is at the forefront of the global agenda and drive to meet net zero.

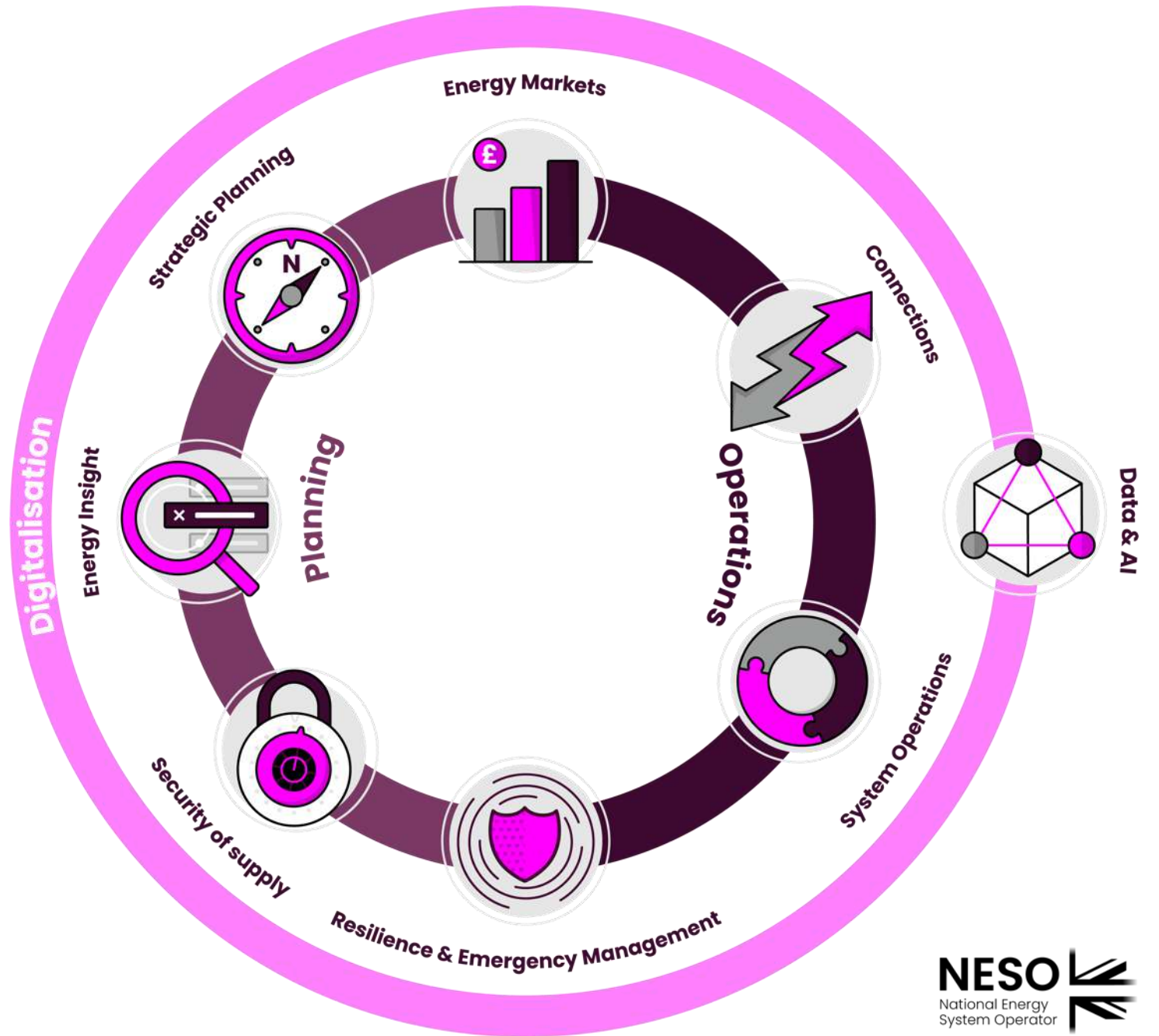
It is our job to transform the whole energy system to meet these challenges and transition to a low-carbon future, embracing new technologies and cleaner generation sources, always with the cost to the consumer in mind.



# 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.

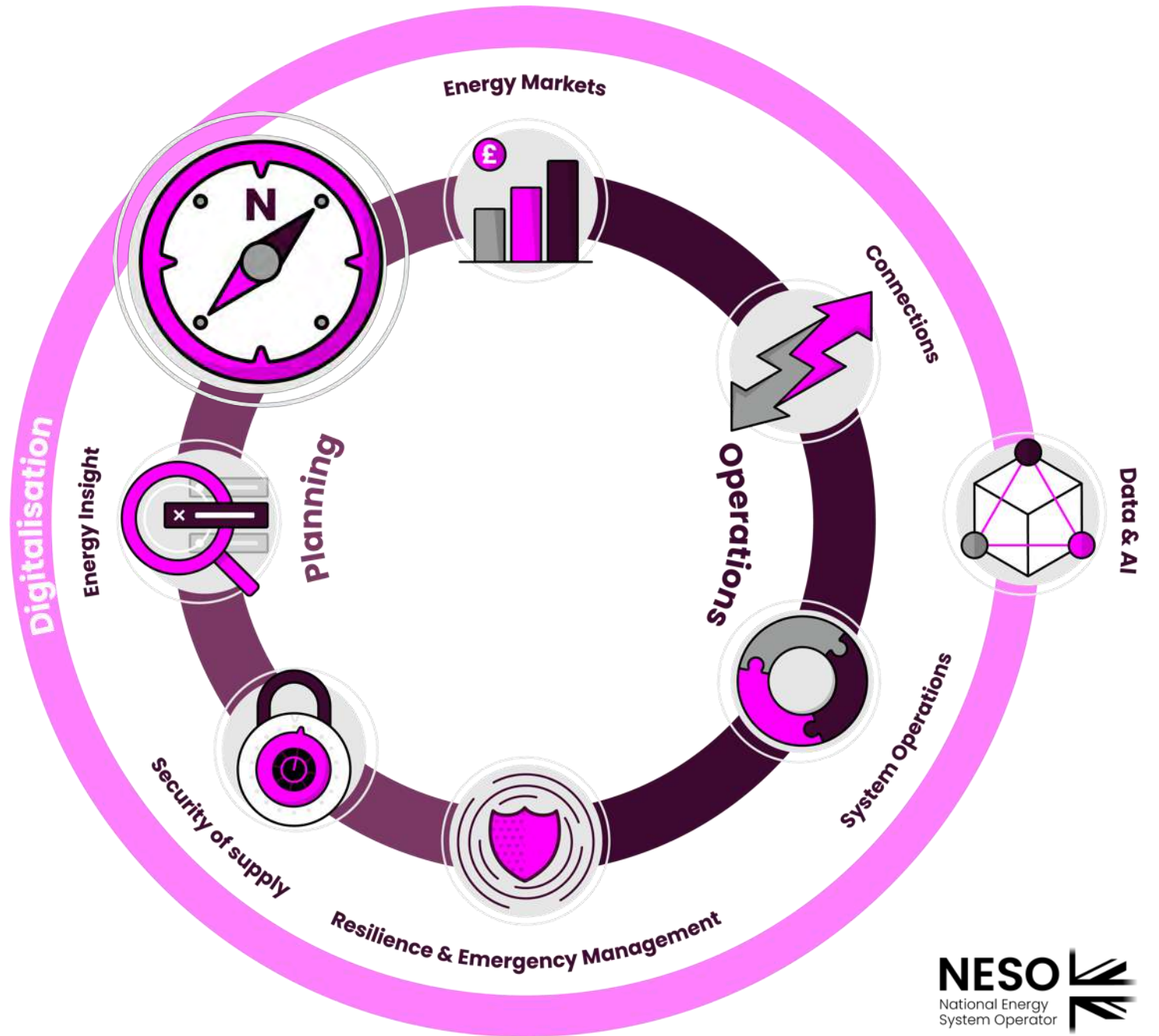
Bringing these activities together in one organisation encourages holistic thinking on the most cost-efficient and sustainable solutions to the needs of our customers.



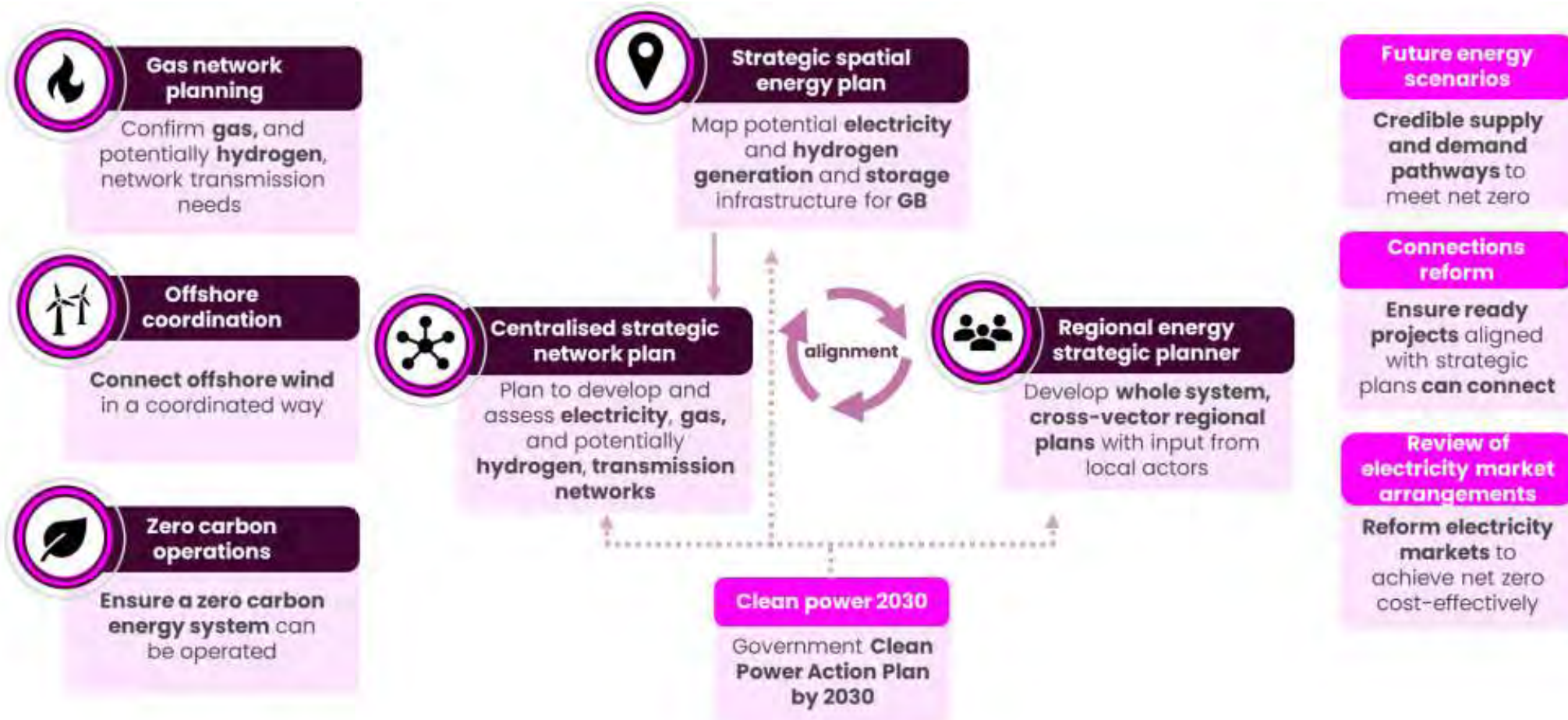
# What We Do

## Strategic Planning

We take a long-term approach to planning, that identifies whole energy system needs and ensures that the system can be designed and built accordingly.



# Strategic Energy Planning: Projects



# Strategic Spatial Energy Plan

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

The Strategic Spatial Energy Plan (SSEP) will set out a long-term view of what energy sources are needed to reach net zero, and their most optimal locations across Great Britain on a zonal basis. This will consider from 2030 – 2050 and will build on Clean Power 2030.

- **What?** A GB-wide plan that will map potential zonal locations, quantities and types of electricity and hydrogen generation and storage over time, modelled across a range of plausible futures.
- **Why?** The SSEP will help accelerate and optimise the transition to clean, affordable and secure energy in Great Britain. It is part of a set of strategic energy plans that will help us achieve net zero by 2050. The SSEP was recommended in the Electricity Network Commissioner's 2023 Report.
- **Pathway Options:** We will develop options for how the energy system could look in the future. These will be presented to the UK Secretary of State of Energy Security and Net Zero, who will confirm to NESO which pathway should be taken forward for public consultation.
- **Commission:** We were jointly commissioned by UK, Scottish and Welsh governments in October to create an SSEP for the energy system, land and sea, across Great Britain.

# Creation of the SSEP

## Commission

We were jointly commissioned by UK, Scottish and Welsh governments in October to create an SSEP for the energy system, land and sea, across Great Britain.

## Methodology

We have developed a draft methodology which sets out more detail on how the SSEP will be produced, including:

- Underpinning economic and geospatial modelling
- Environmental assessments
- Stakeholder and societal engagement

## Stakeholder and Societal Engagement

Extensive and accessible engagement with a broad range of stakeholders will be critical to make sure the SSEP considers the views of experts, society, and of communities across the country.

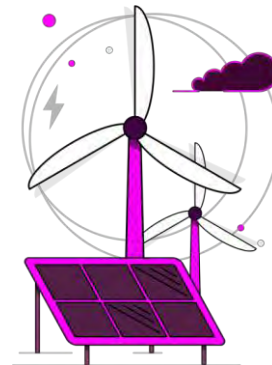
- Two-way engagement with experts, interest groups, and local communities, so their expertise, insight and opinions are considered.
- Feedback used alongside technical, environmental and economic data as key inputs to the modelling and analytic process which will produce the SSEP.

## Pathway Options

We will develop options for how the energy system could look in the future. These will be presented to the UK Secretary of State of Energy Security and Net Zero, who will confirm to NESO which pathway should be taken forward for public consultation.

## Draft and final SSEP

Upon completion of the Strategic Environmental Assessment (SEA), Habitats Regulations Assessment (HRA) and public consultation, the final proposal will pass through governance before the final SSEP is published.





**Email us at:**

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