
national
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forum

Welcome

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Jake Tudge

Corporate Affairs Director
National Gas

Today's agenda

Part I – government & industry leader updates *0930 – 1030*
Ian Radley, National Gas
Emily Nurse, Climate Change Committee
Andrew Deeley, LCCC
Tommy Isaac, KPMG
Break *(1030 – 1100)*

Part II – National Gas updates *1100 – 1200*
Gareth Hocking, Operational Updates
Paul Groes, ICE
Q&A Panel: Three Molecule Strategy • **Jenny Phillips –** Methane • **Katie Pethebridge –** Hydrogen & Innovation • **Luke Rowlands –** CCS • **Alan Stephen –** Biomethane

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Part 1

Government & industry leader updates

Today's speakers for our Part I session

Ian Radley
Chief Commercial Officer

Emily Nurse
Head of Net Zero

Andrew Deeley
Director of Strategy & Development

Tommy Isaac
Associate Director

national gas

Climate Change Committee

Low Carbon Contracts Company

KPMG

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Ian Radley

Chief Commercial Officer
National Gas

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Securing Britain's Energy.

We are Great Britain's gas National Transmission System (NTS) connecting:

- 30+ power stations
- 15 major industries
- 9 storage sites
- 4 local networks
- 3 interconnectors
- 3 LNG terminals

5,000 miles of high-pressure steel pipeline

60+ jet engine compressors across 20 sites

3x the energy transported than by the power grid

1/4 of the UK's annual electricity generated by gas

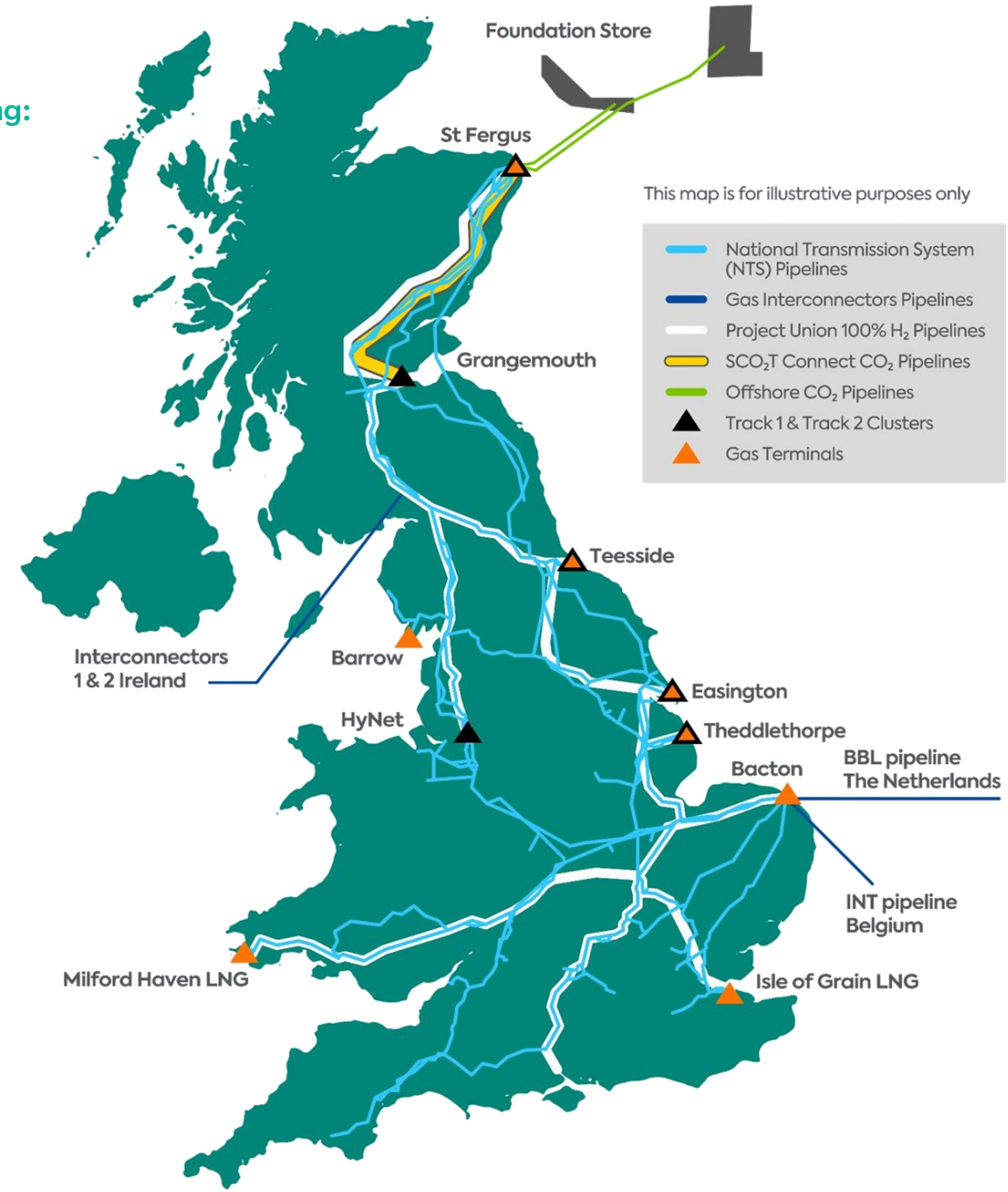
Supporting the UK to become a global leader in hydrogen innovation, unlock Clean Power and deliver Net Zero.

ProjectUnion

Our vision for Great Britain's Core Hydrogen Network.

FutureGrid

Our world-leading hydrogen test facility in Cumbria.



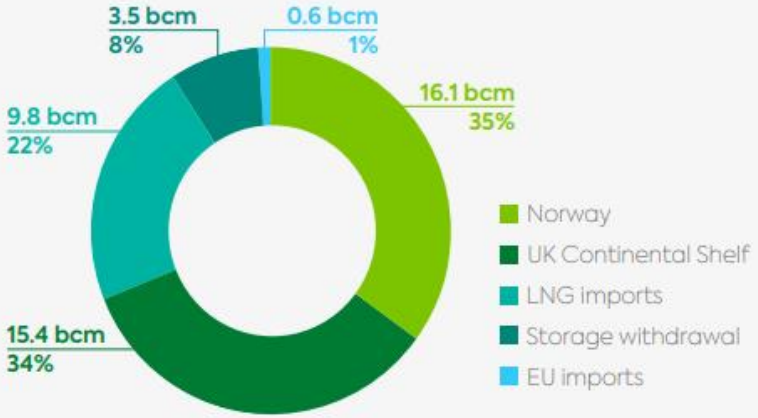
Gas Winter Review
2024/25

"I hope this publication provides you with useful insight into what we saw in winter 2024/25 (1 October 2024 to 31 March 2025) and I look forward to continuing to engage with you through our various publications and forums."

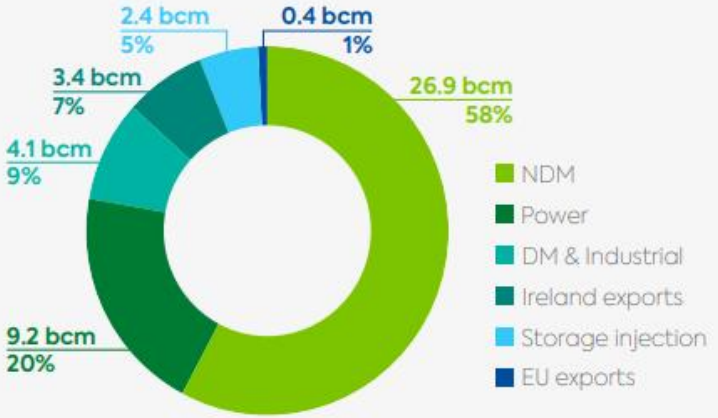
Glenn Bryn-Jacobsen
Director of Energy Systems & Resilience

Key statistics

Supply breakdown – winter 2024/25



Demand breakdown – winter 2024/25



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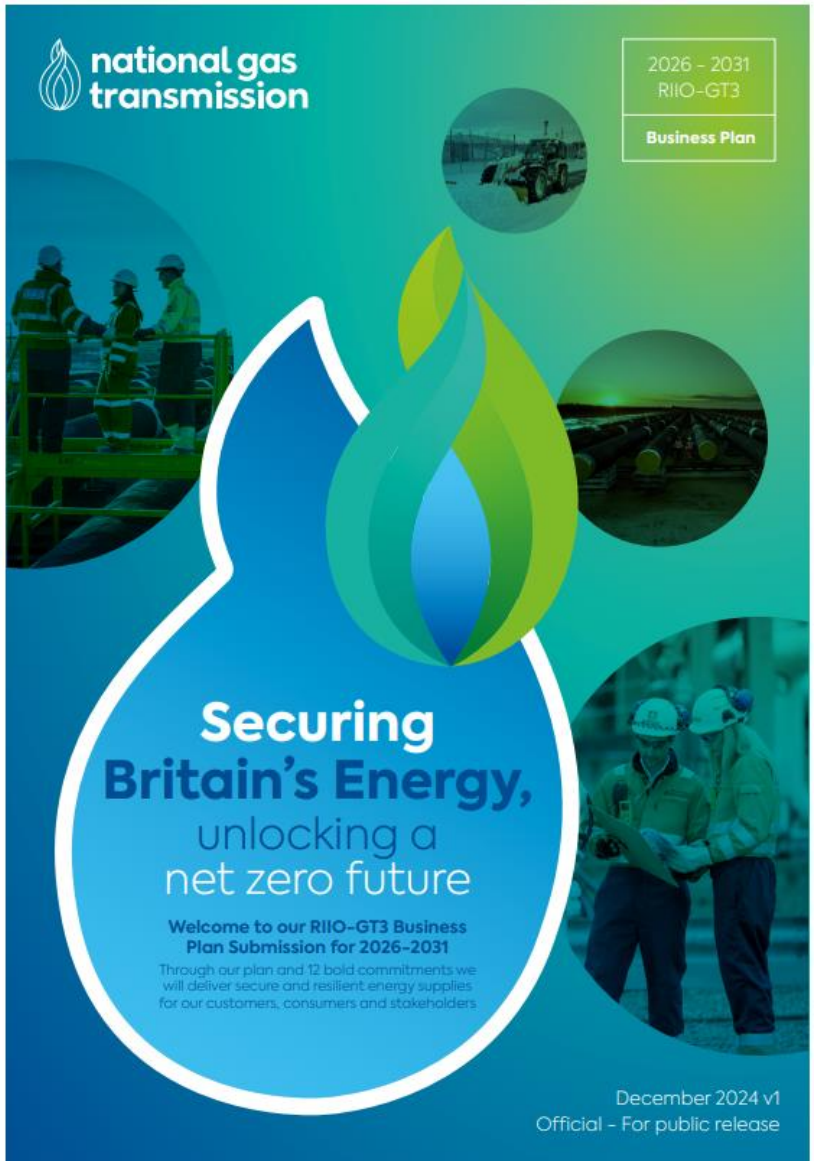

Our RIIO-GT3 Business Plan

What our customers will see

Safety
We will continue to deliver world-class standards of safety underpinned by **a strong "safe every day" culture** that strives to ensure our employees, supply chain and members of the public remain free from harm.

Resilience
We will continue to deliver **leading levels of network reliability**, safeguarding Britain's energy security whilst enabling the transition to a net zero energy system. We have worked hard to ensure we are only proposing investments that we are certain are needed now, and that the costs to deliver those investments are efficient.

Security
We will ensure our IT systems and infrastructure **remain resilient to the emerging threats** facing them, and the future demands placed upon them. As an Operator of Essential Services and Britain's primary energy system, our proposed investments will enable us to build on our strong foundations, unlocking the pace at which we can achieve Cyber Assessment Framework enhanced status.

Affordability
We will achieve all of this and keep our portion of the average domestic customer bill to **an absolute minimum**, around the current average level of three pence per day.

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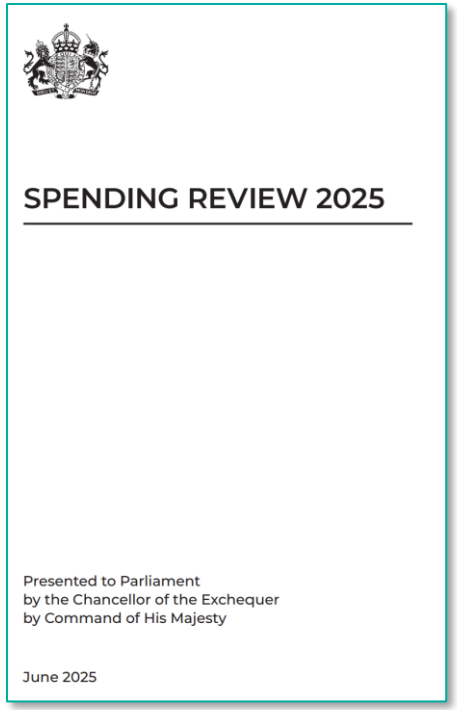
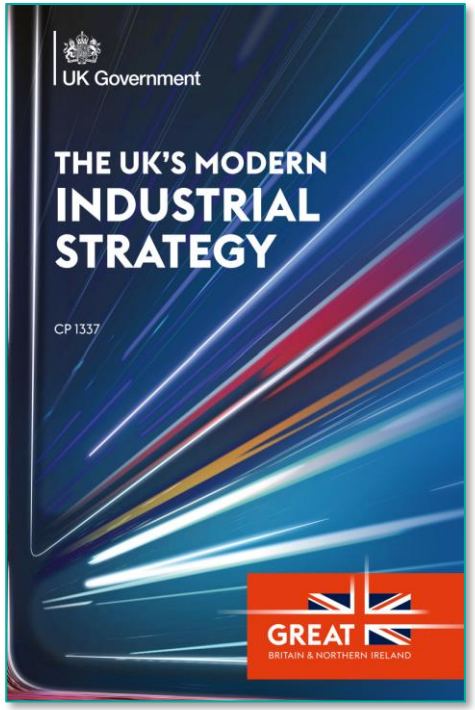
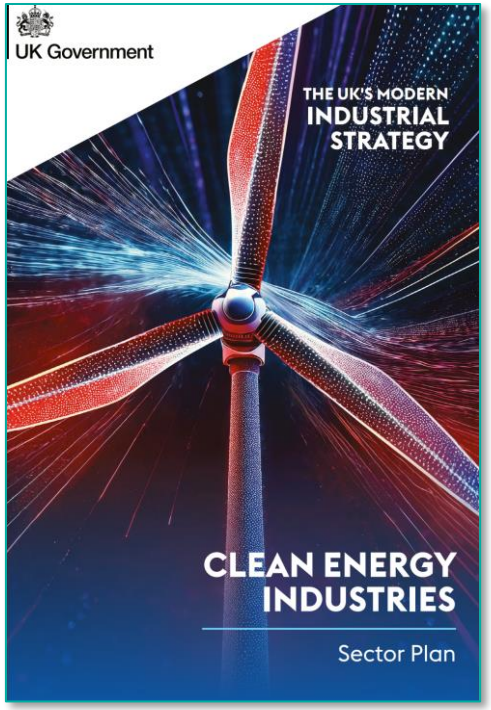
Recent announcements from government have provided great momentum to our sector.



‘…funding to advance the delivery of the **Acorn CCS** project… financial cover for the **National Gas SCO$_2$T Connect** project, to repurpose an existing gas pipeline…”

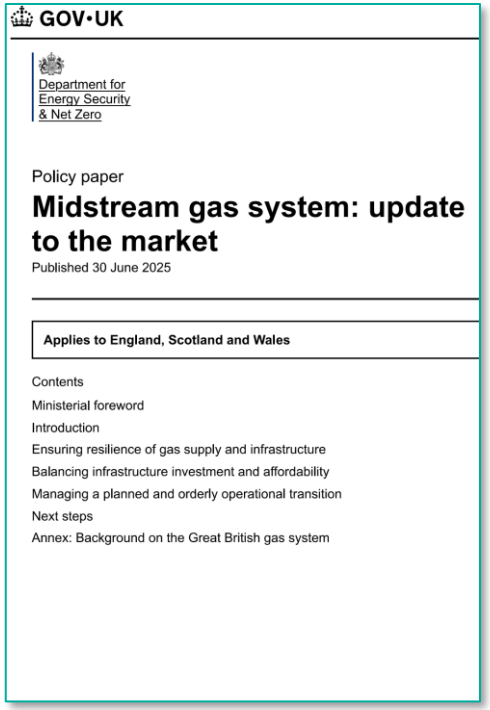


“…supporting the **Acorn CCUS** project… increased **backing to CCUS by allocating £9.4 billion in capital budgets**… create a thriving hydrogen economy in the UK …”



“We intend to **consult on transmission blending in summer 2025**… to help inform the case for whether blending should be enabled in the gas transmission network.”

“By 2027… GB-wide spatial plan for electricity and gas transmission infrastructure and **proposed hydrogen transmission network**.”



“…gas will have a crucial part to play in supporting our energy transition. **Our natural gas infrastructure will also continue to be a valuable asset** in the future…”

East Coast Hydrogen

Note: Network configuration includes new build and repurposed pipelines and is indicative and subject to change

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Emily Nurse

Climate Change Committee

17 July 2025

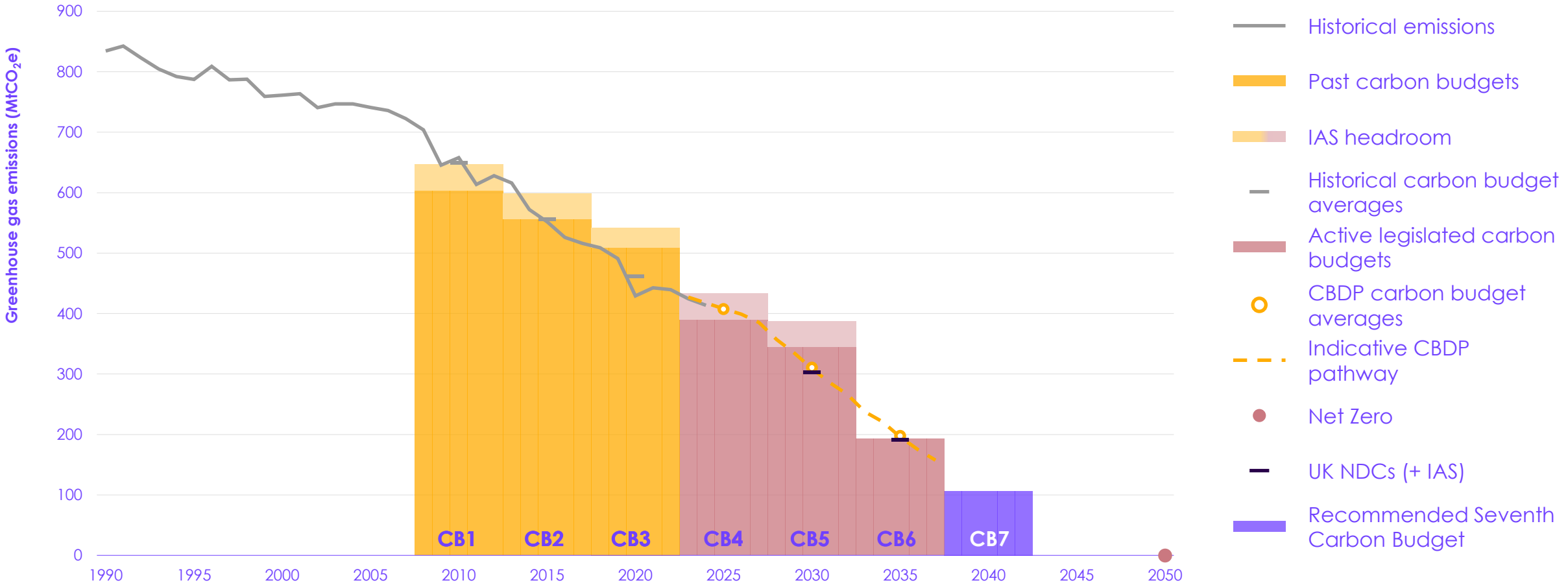
Progress in reducing emissions - 2025 report to Parliament

Emily Nurse, Head of Net Zero, Climate Change Committee Secretariat

Emissions (Chapter 1)

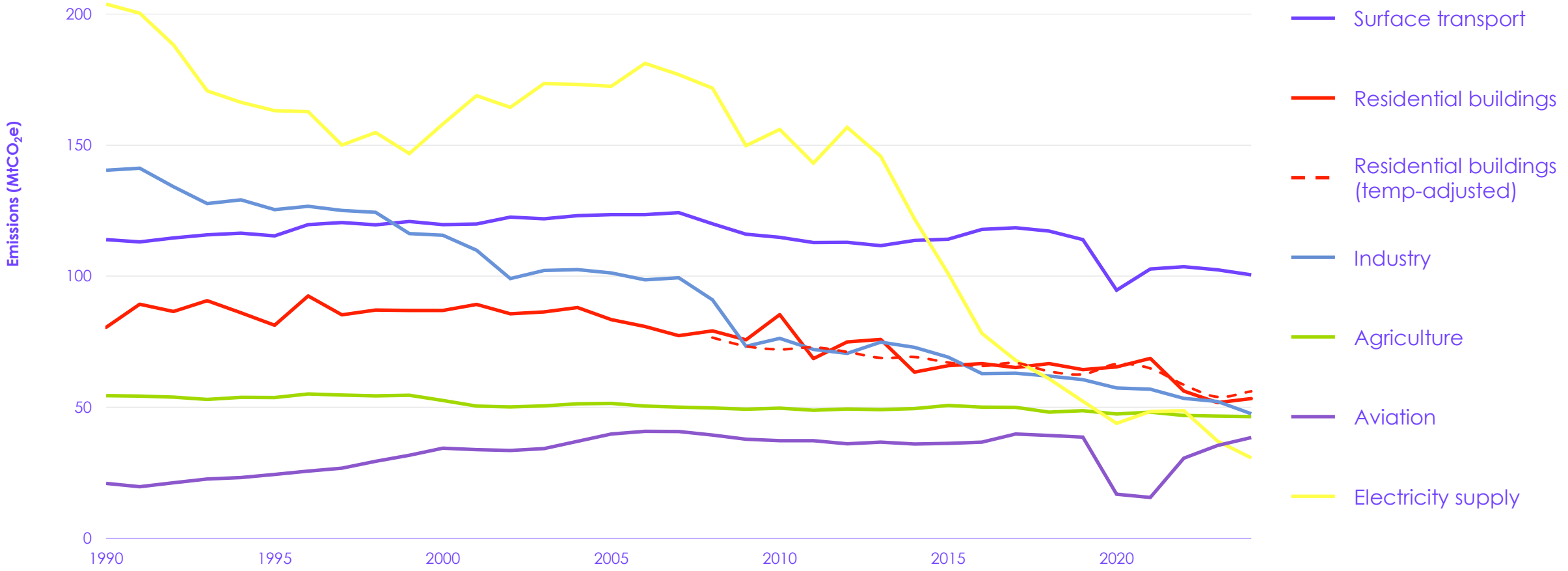
The UK's historical emissions, targets, and the Government's pathway

UK emissions have halved since 1990 and all carbon budgets have been achieved



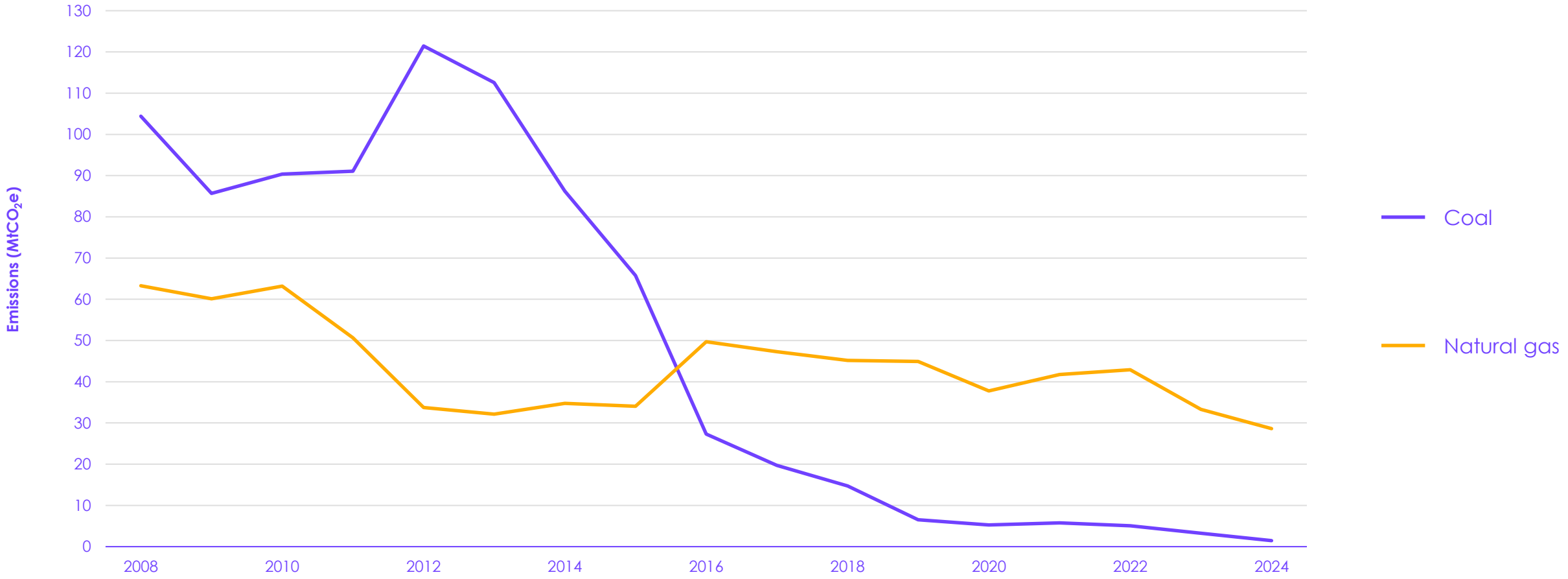
UK emissions by sector since 1990

Surface transport is the highest emitting sector, with significant contributions from residential buildings, industry, and agriculture; emissions from aviation are now higher than electricity supply



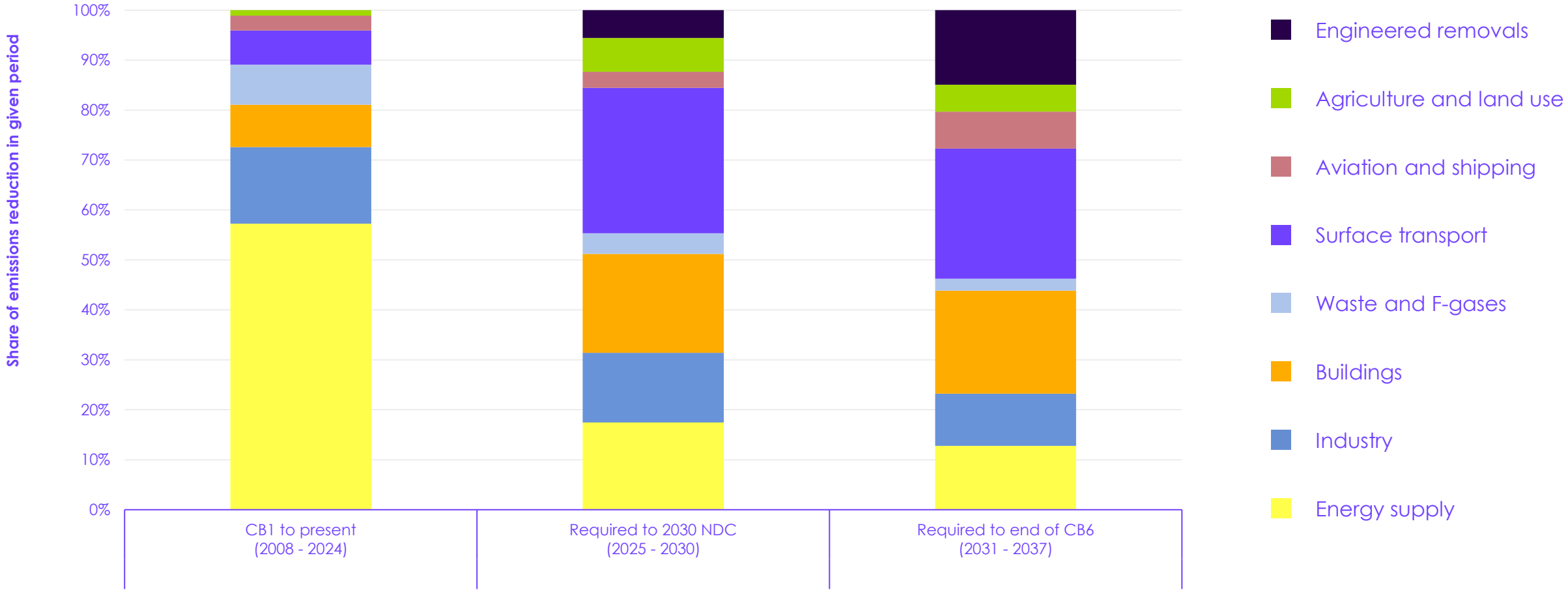
Emissions from gas and coal electricity generation

The UK has phased out coal-fired electricity generation and more than halved emissions from gas-fired generation since 2008



Distribution of past and future emissions savings by sector

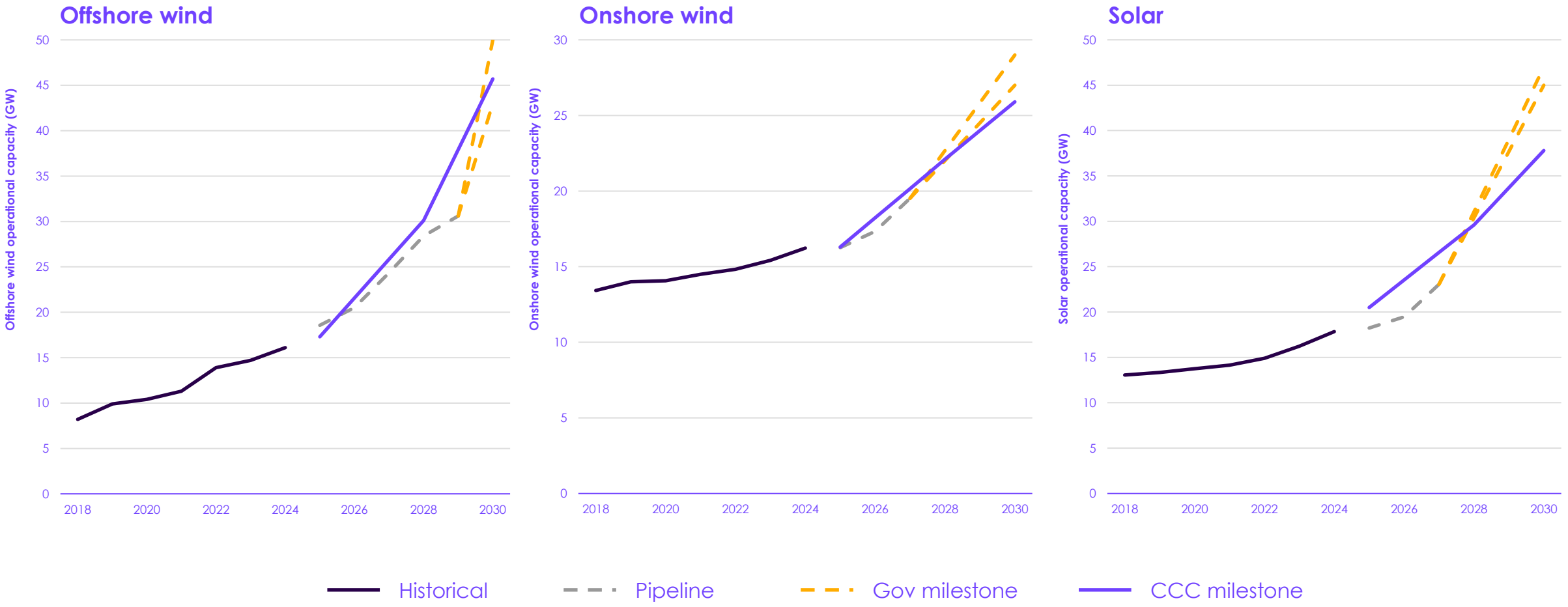
Emissions savings need to broaden to more sectors, with more than 80% from sectors outside energy supply by 2030



Indicators (Chapter 2)

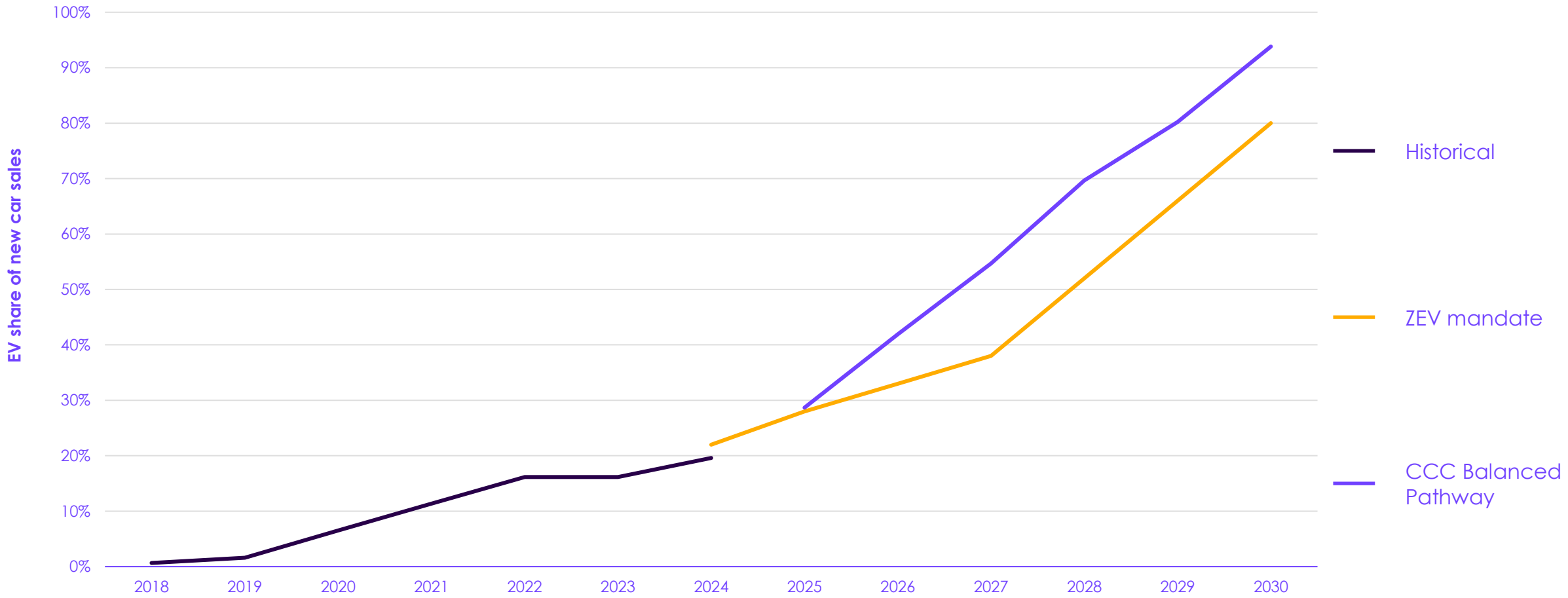
Renewable electricity generation

The Government has stretching goals for renewable generation with at least a tripling in annual installation rates required for offshore and onshore wind and a four-fold increase for solar



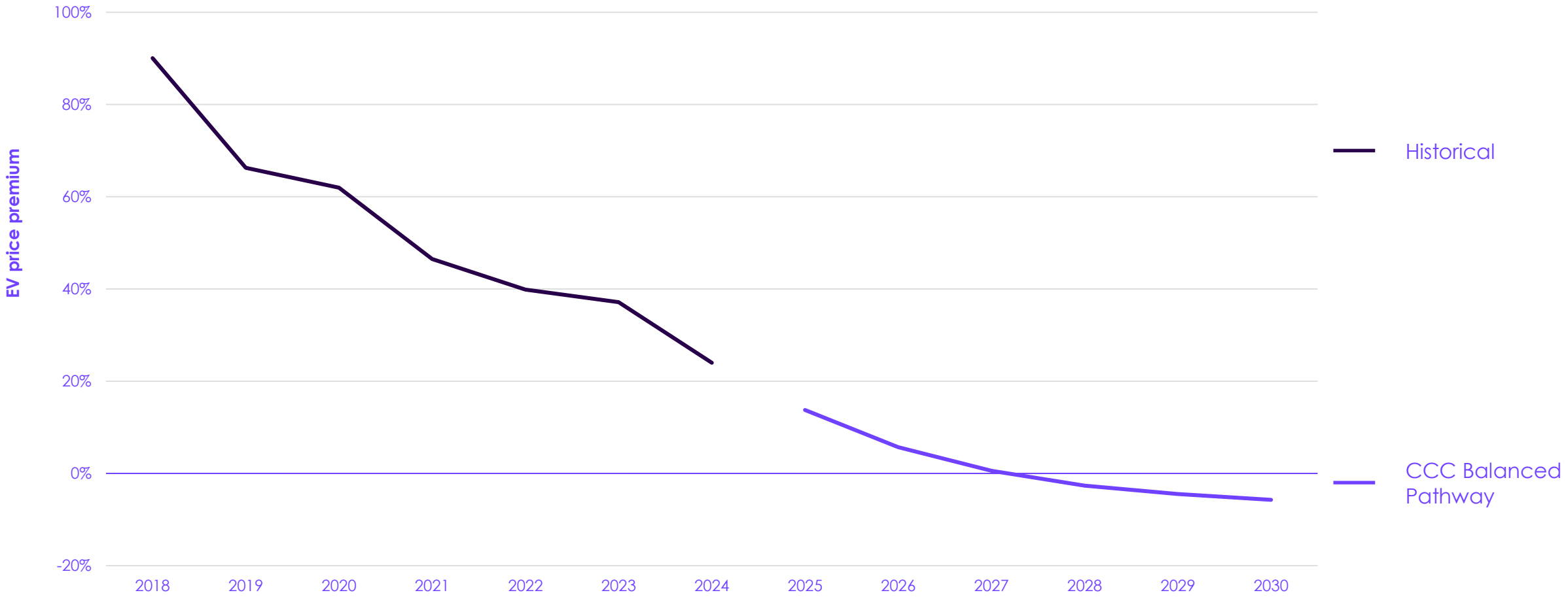
Electric car sales

The market share of new electric cars resumed growth in 2024 and will need to accelerate over the rest of this decade



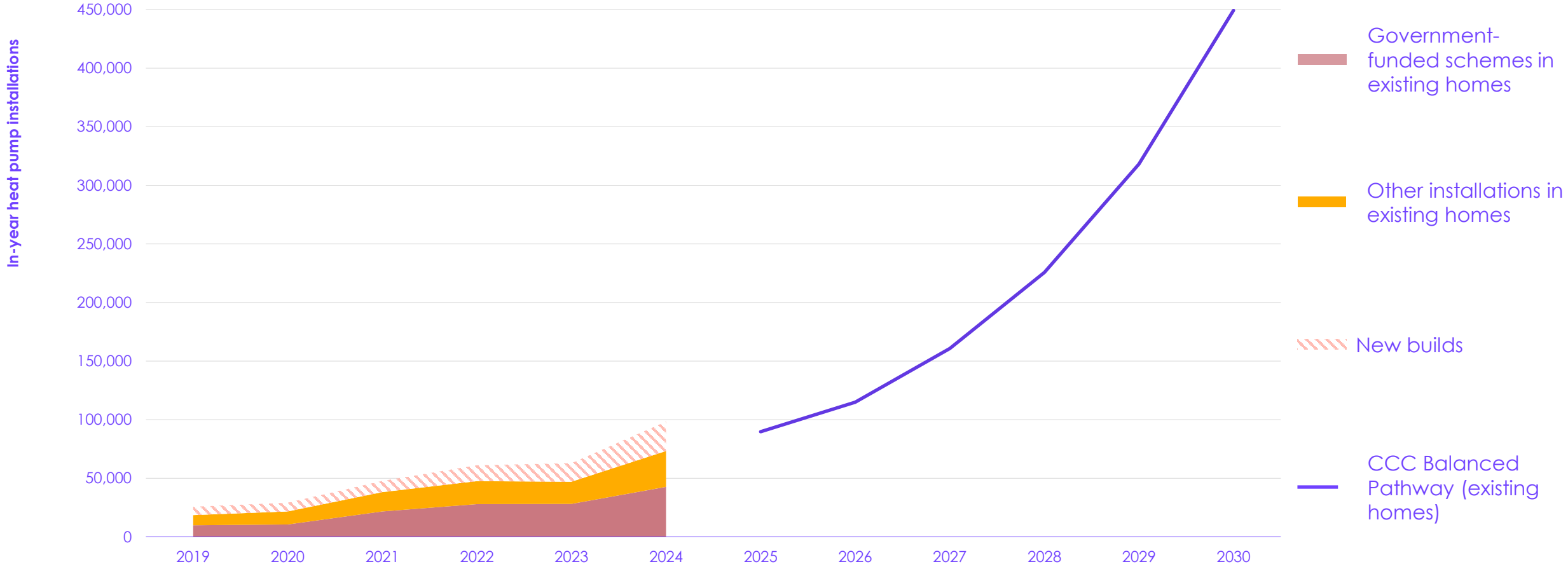
Electric car price premium

The relative purchase price of electric cars compared to petrol equivalents is continuing to fall, which will be key to ensuring a rapid uptake in the coming years



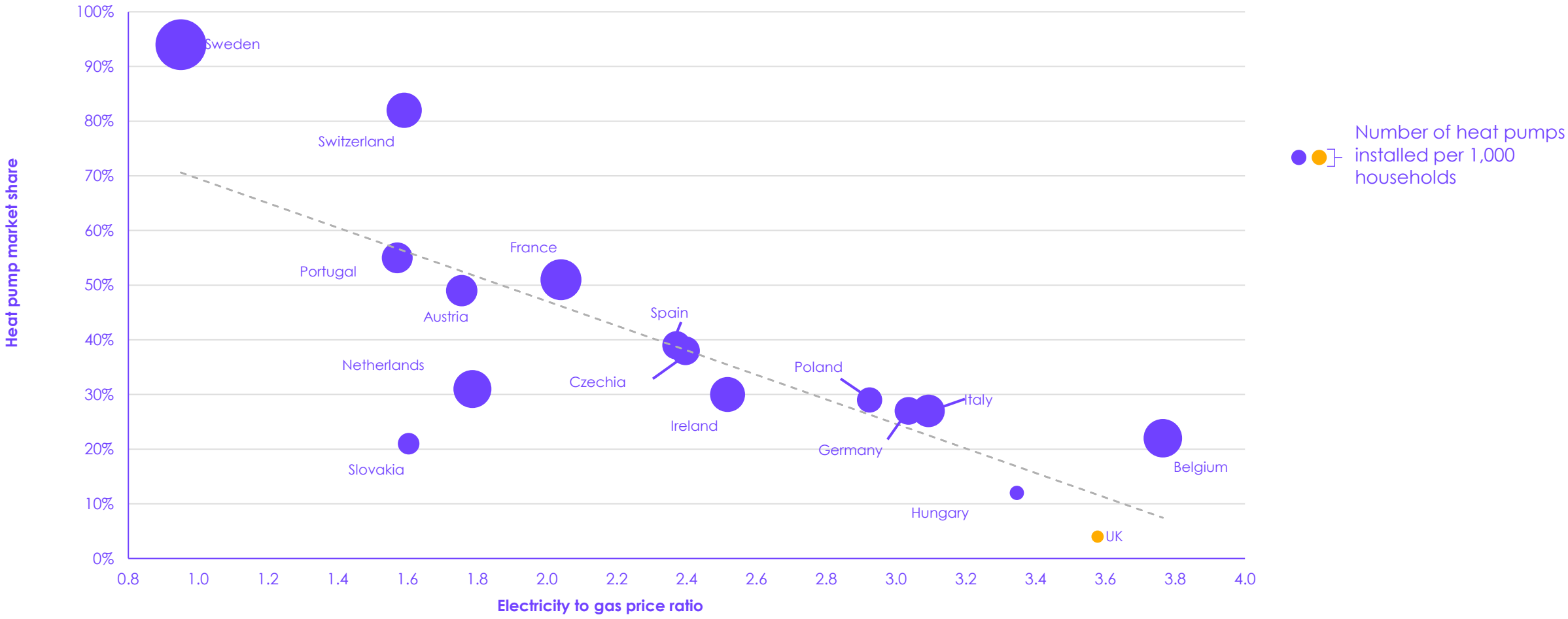
Heat pump installations

Installations increased by 56% in 2024 with a significant contribution from Government-funded schemes; this positive progress must continue



Electricity to gas price ratio and number of heat pumps by European country

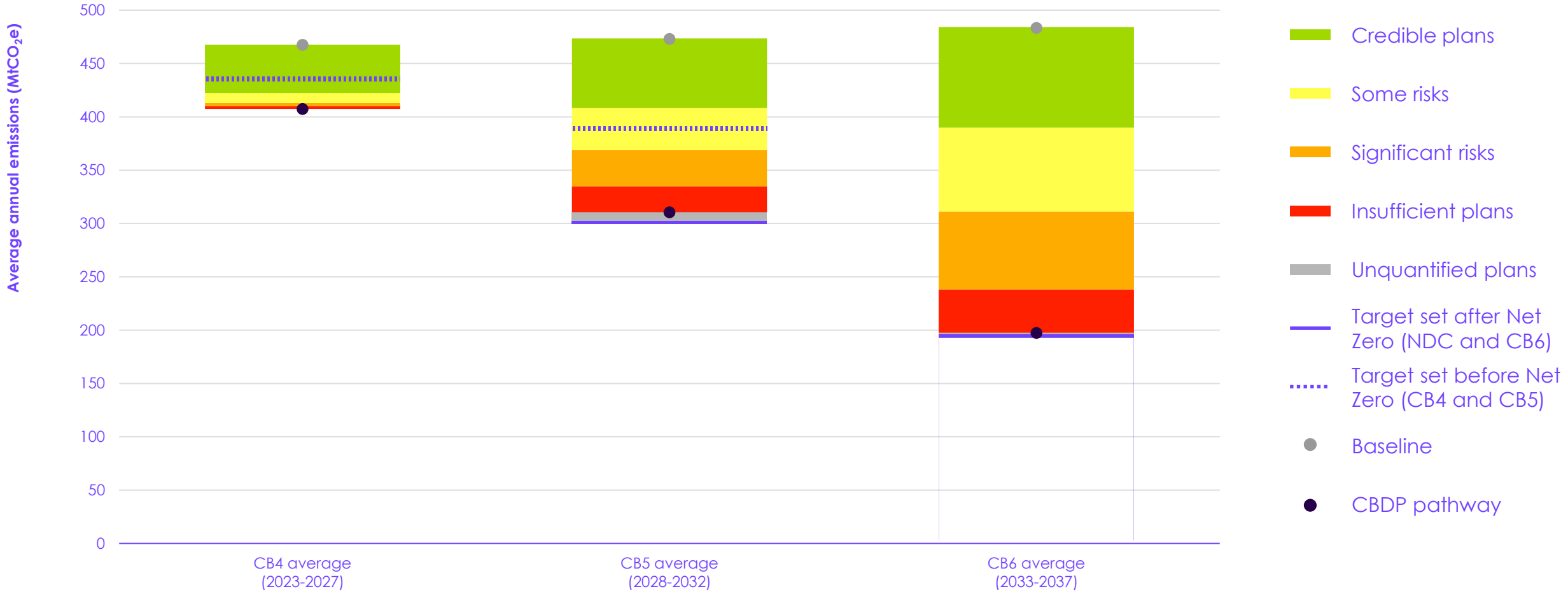
The UK has the lowest number of heat pumps installed and one of the highest price ratios



Policy assessment (Chapter 3)

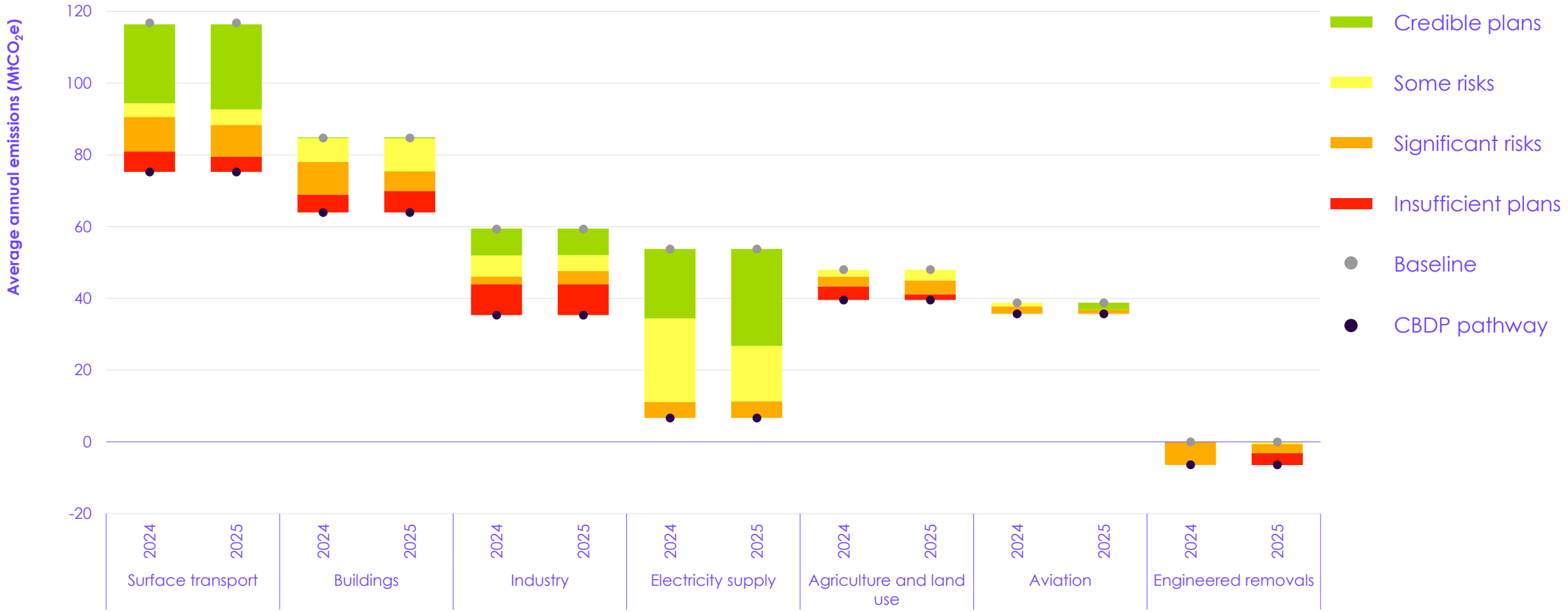
Assessment of policies and plans for the UK's future targets

To meet the 2030 NDC, three-fifths of the required emissions reductions are covered by credible plans or carry some risks



Changes in assessment of policies and plans for the 2030 NDC since last year

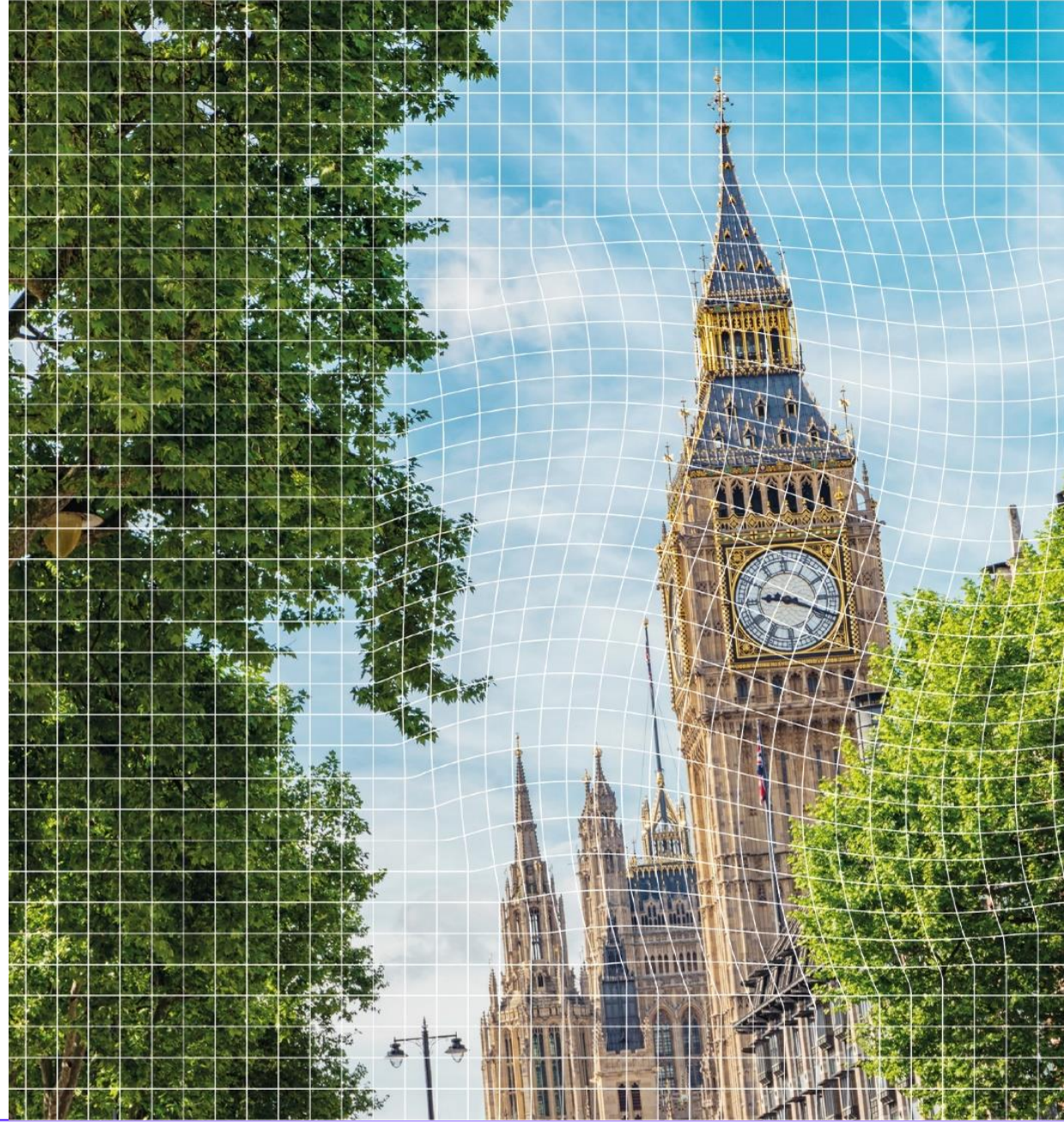
The largest improvement is in electricity supply



Priority recommendations

Same as CB7 – 43 recommendations to the UK Government, with ten priority themes

1. Make electricity cheaper
2. Provide confidence and certainty to scale heat pump deployment in existing buildings
3. Implement regulations to ensure that new homes are low-carbon
4. Introduce a comprehensive programme to decarbonise public sector buildings
5. Accelerate the electrification of industrial heat
6. Effectively deliver rapid expansion of the low-carbon electricity system
7. Put policies and incentives in place to ramp up tree planting and peatland restoration
8. Develop policy to ensure that the aviation industry takes responsibility for its emissions reaching Net Zero by 2050
9. Finalise business models for engineered removals
10. Publish a strategy to support skills



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Canary Wharf
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www.theccc.org.uk

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Andrew Deeley

LCCC

Low Carbon Contracts Company

National Gas Energy Forum

LCCC Overview

Andrew Deeley
Director of Strategy & Development

July 2025

Accelerating Net Zero

LCCC at a glance

Our Mission

To accelerate the delivery of Net Zero

Our Vision

To shape and implement schemes which enable low-carbon investment at least cost to the consumer

Our Guiding Principles

- Maintain investor confidence
- Minimise cost to the consumer

Our Values

- Powered by Curiosity
- Better Together
- Own Every Outcome

What we've delivered

£61.5bn
Private Investment leveraged

12
Technologies under the renewable CfD

407
Capacity providers from a diverse range of technologies

~30%
GB energy demand

362
Renewable electricity contracts

10*
Hydrogen production projects

Our Technologies

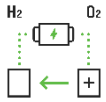
- Offshore wind
- Onshore wind
- Dedicated Biomass with CHP
- Remote Island wind
- Floating Offshore wind
- Energy from Waste with CHP
- Advanced Conversion Technologies
- Biomass Conversion
- Solar
- Tidal
- Nuclear
- Geothermal
- Hydrogen
- Carbon Capture, Usage and Storage

The roles we play

- Independent Counterparty to the low carbon electricity Contracts for Difference (CfD) scheme
- Settlement Body for the Capacity Market scheme
- Independent Counterparty to Hinkley Point C
- Counterparty to first Hydrogen Production contracts
- Counterparty to Industrial Carbon Capture and Storage (ICCS)
- Counterparty to Carbon Dioxide Transport and Storage (T&S RSA)
- Counterparty to Dispatchable Power Agreement (DPA)

Our Portfolio





RENEWABLE ELECTRICITY	SECURITY OF SUPPLY	NUCLEAR	HYDROGEN	CARBON CAPTURE & STORAGE	OTHER NET ZERO SOLUTIONS
Electricity Contracts for Difference (CfD)	Capacity Market (CM)	Hinkley Point C (CfD)	Green Hydrogen	Dispatchable Power Agreement	Sustainable Aviation Fuels
Low-Carbon Dispatchable CfD		Nuclear Regulated Asset Base (RAB)	Gas Shipper Obligation (GSO)	RSA for CO2 Transport and Storage	
Northern Ireland Renewables			H2 Transport	Industrial Carbon Capture & Storage	
			H2 Storage	Industrial Waste Carbon Capture & Storage	
			Hydrogen to Power	Blue Hydrogen	
			H2 Competitive Allocation	Bioenergy with Carbon Capture & Storage	
				Greenhouse Gas Removals	
				DPA Competitive Allocation	
				ICC Competitive Allocation	

Scheme Phase:

BAU Delivery	Implementation	Advisory	Prospective

Schemes shift into BAU Delivery when the first contract is awarded.

Recent developments include:

- **130** new CfDs under AR6
- A successful CM auction and growth in meters
- **3** new live schemes (RSA, DPA, Green H2)
- **1** new scheme approved by Board (Northern Ireland CfD scheme)
- Various new prospective schemes / workstreams

Following LCCC's last business plan we have continued to grow, with the CfD and CM schemes expanding and several new schemes entering different stages of the business development pipeline

Carbon Capture, Usage and Storage

1. Production

Recognising the origins of carbon dioxide (CO2) emissions, including sources such as industrial chimneys or the exhaust emissions from power plants.

LCCC role: Industrial Carbon Capture (ICC/ ICC Waste) Dispatchable Power Agreement (DPA)

2. Capture

After the emission is identified and trapped, various technologies like chemical solvents or membranes are used to separate and capture CO2. It is then processed and compressed.

3. Transport

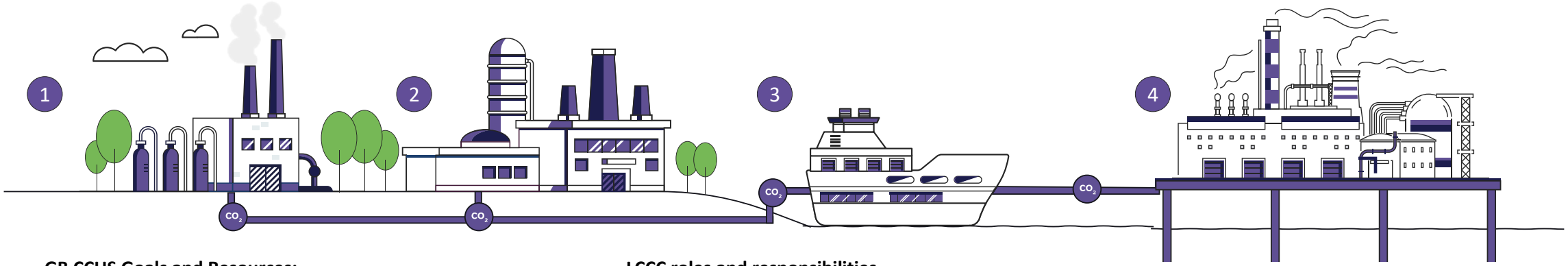
Once treated the CO2 is transported to suitable storage sites via non-pipeline transport.

LCCC role: Revenue Support Agreement (RSA)

4. Storage

Storage in CCUS involves securely containing and managing captured CO2 emissions by injecting them deep underground into the earth (geographical storage sites). This process prevents CO2 release into the atmosphere, contributing to climate change mitigation.

LCCC role: Revenue Support Agreement (RSA)



GB CCUS Goals and Resources:

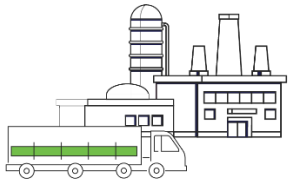
- **2030 target**: The goal is to capture between 20-30 million metric tons of CO_2 annually by the year 2030
- **Storage capacity**: The UK possesses the capability to store up to 78 gigatons (Gt) of captured CO_2
- **Spending Review 2025:** £9.4 billion committed to support the deployment of CCUS, with funding allocated to the East Coast and HyNet clusters, and development support for Acorn and Viking.

LCCC roles and responsibilities

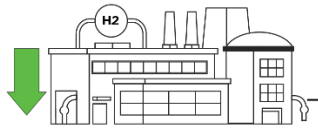
- To advise Government on the development of Business Models associated with CCUS Capture programmes. (such as DPA, ICC, ICCW, BECCS)
- Looking ahead, advising on Non-Pipeline Transport, Hydrogen to Power.
- To be the contract Counterparty who manages the implementation of the CCUS agreements once signed.
- To be the payment body, through which the Business Model payments are made, based on their specific payment mechanisms.

Hydrogen value chain

01 Developing a Low Carbon Hydrogen economy in the UK by addressing key risks across the value chain



02 Supporting Low Carbon Hydrogen production through revenue and revenue stabilisation

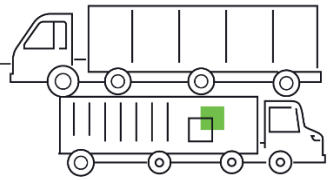


03 To meet the LCHS qualifications, Hydrogen must have a carbon intensity of below 20gCO2e/MJ(LHV)

04 The LCHS is technology agnostic and applies up to the point of production.

Green and blue Hydrogen emissions sources differ

05 To be eligible for subsidy, the Producer must first sell Low Carbon Hydrogen to Offtaker(s) and report the sales to LCCC



06 Offtakers must consume the Hydrogen themselves within the UK

- HAR1 - 11 projects with production capacity of 125 MW
- Projects are currently at various stages of delivery, with the first COD scheduled for this year
- £2 billion of revenue support payable at a weighted average strike price of £241/MWh

- HAR2 – 27 projects shortlisted
- DESNZ will carry out due diligence and negotiations with shortlisted Producers
- Once DESNZ negotiations conclude, Secretary of State will direct LCCC to issue LCHAs to successful Producers

How everything fits together:

Hydrogen Production Business Model (HPBM)

Role: incentivise the production and use of low carbon hydrogen through the provision of ongoing revenue support.

Low Carbon Hydrogen Agreement (LHCA)

Private law contract between Producer and the Low Carbon Contracts Company which sets out the rights and obligations of both parties and provides for the payment of subsidy.

Low Carbon Hydrogen Standard (LCHS)

Sets out the threshold ($20gCO_2e/MJ_{LHV}$) to be met in order for sold volumes to qualify for the available subsidy under the LCHA. Includes calculation methodology and requirement to set out fugitive emissions plan.

DESNZ is responsible for drafting and publication.

Low Carbon Contracts Company

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E: info@lowcarboncontracts.uk

Thank you.

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Tommy Isaac

KPMG

National Gas Energy Forum

Spending Review and hydrogen market update

July 2025

Energy was a central pillar of the June Spending Review, attracting £48bn of investment across a number technologies and sectors

£19.2bn to fund new nuclear (Sizewell C, SMR & Fusion)

£13.2bn to fund the Warm Homes Plan

£9.4bn to fund CCUS (Track-1 emitters & Acorn and Viking)

£8.3bn to fund Great British Energy[1]

£0.5bn to fund hydrogen transport and storage

Notes: [1] £2.5bn of GB Energy's funding will be directed to Nuclear SMR

Despite some success in HAR1, market growth is proving sluggish compared to initial expectations due to liquidity challenges and constrained industrial demand

Current hydrogen market status

850 MW of blue hydrogen capacity is in negotiation with DESNZ (Track-1)

125 MW of green hydrogen capacity was supported via 11 projects in HAR1

Key challenges

Limited market liquidity due to a lack of T&S infrastructure and LCHA restrictions presents significant volume risks for suppliers and offtakers

UK industrial economics are challenged, limiting the capcity of this sector to absorb nascent market risks by playing the anchor demand for growth

Some or all of the services described herein may not be permissible for KPMG audited entities and their affiliates or related entities.

kpmg.com/uk

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Up Next: Part II – 11:00

National Gas updates,
including our Three Molecule Strategy Panel

Today's speakers for our Part II session

Gareth Hocking
Operational Delivery Manager

Paul Groes
Director, Utility Markets

Three Molecule Strategy Q&A Panel

Jenny Phillips
Director of Energy Delivery

Alan Stephen
Business Development Manager

Katie Petherbridge
Delivery Manager, Innovation

Luke Rowlands
Head of Customer, Stakeholder & Business Development

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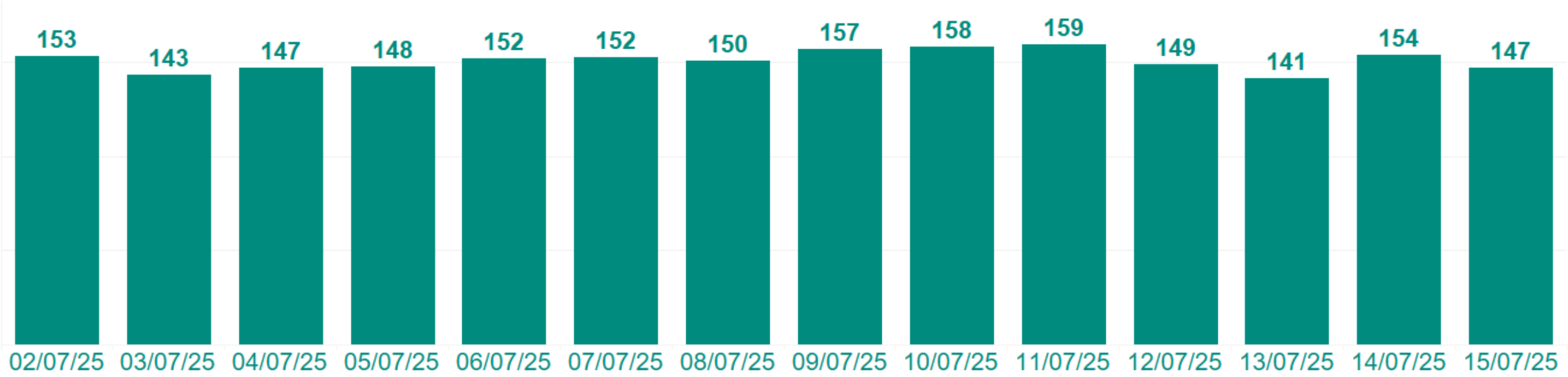
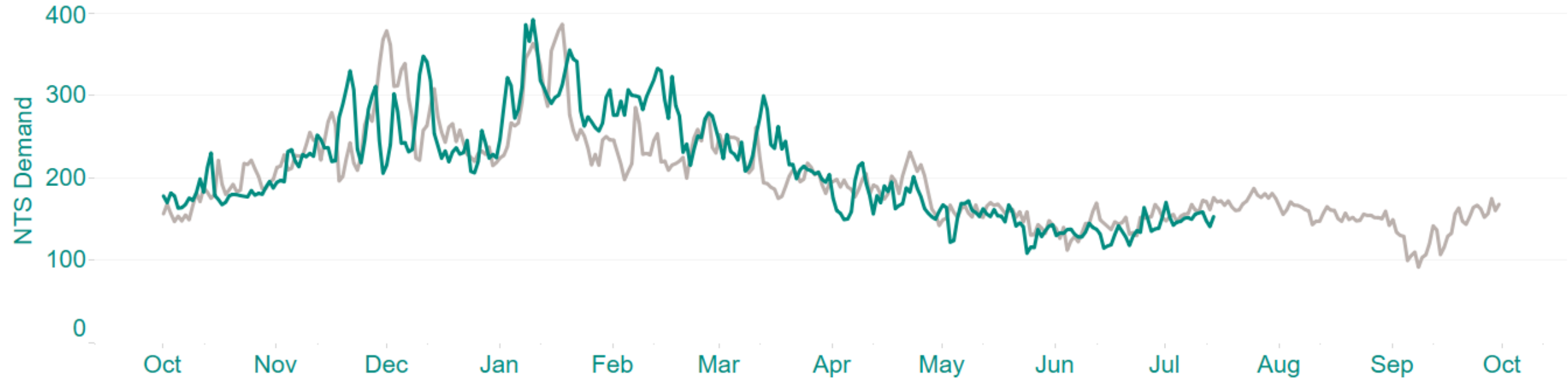
Gareth Hocking

Operational Delivery Manager
National Gas

NTS Demand

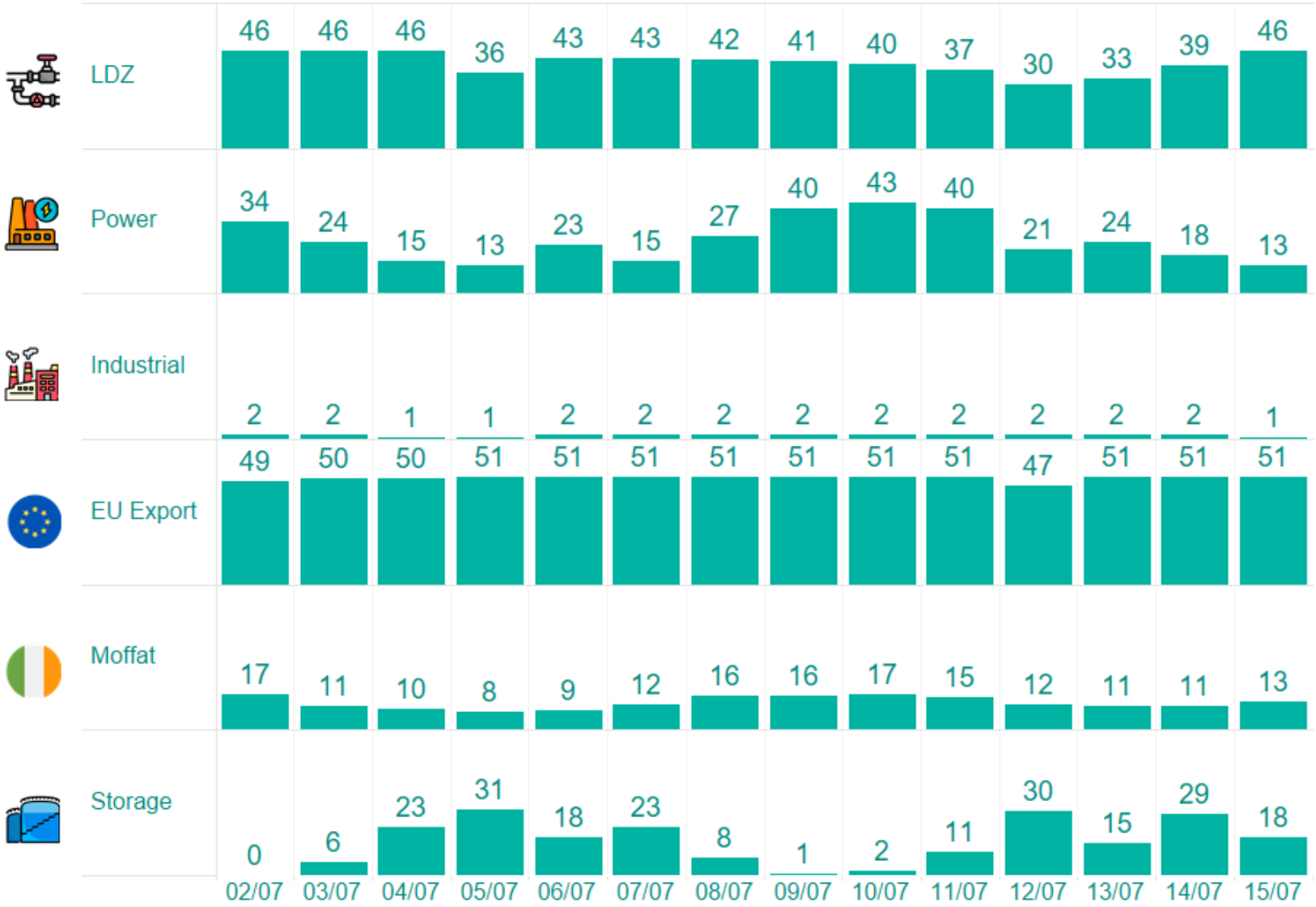


NTS Demand vs previous year

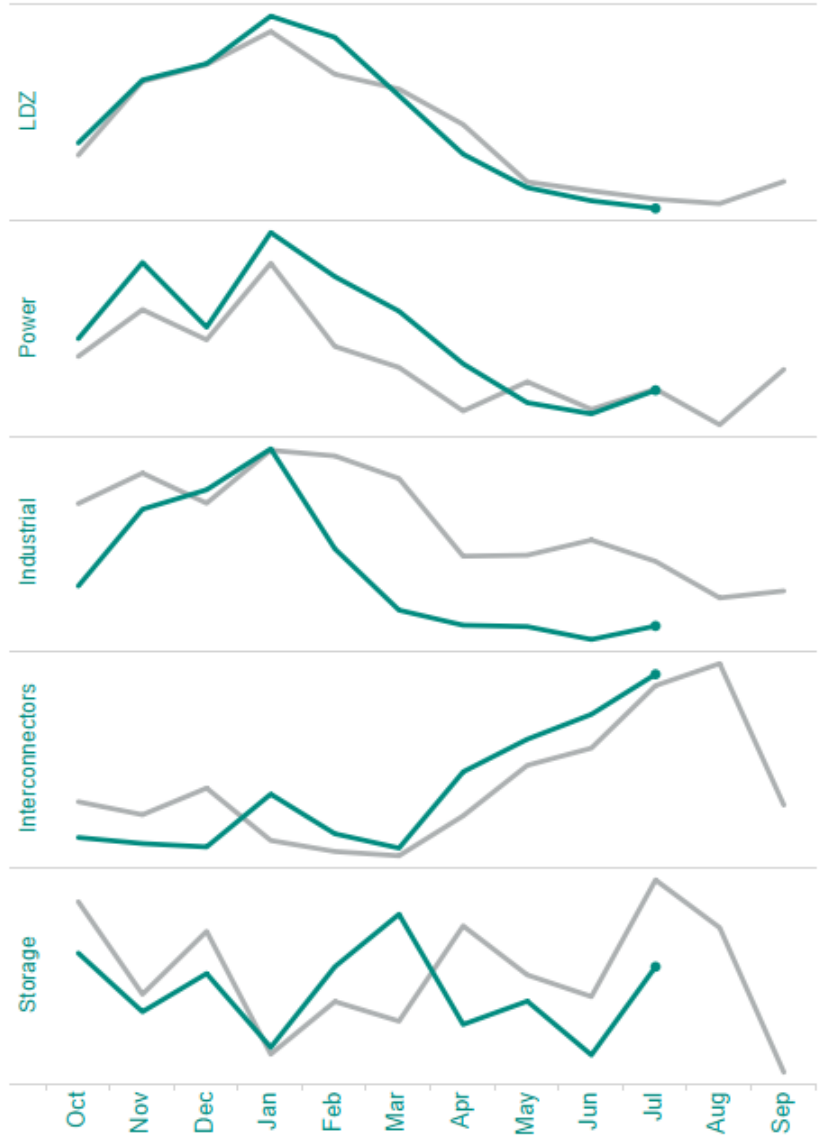


Demand Categories - Last 14 days

End of day values (mcm)



Monthly average end of day

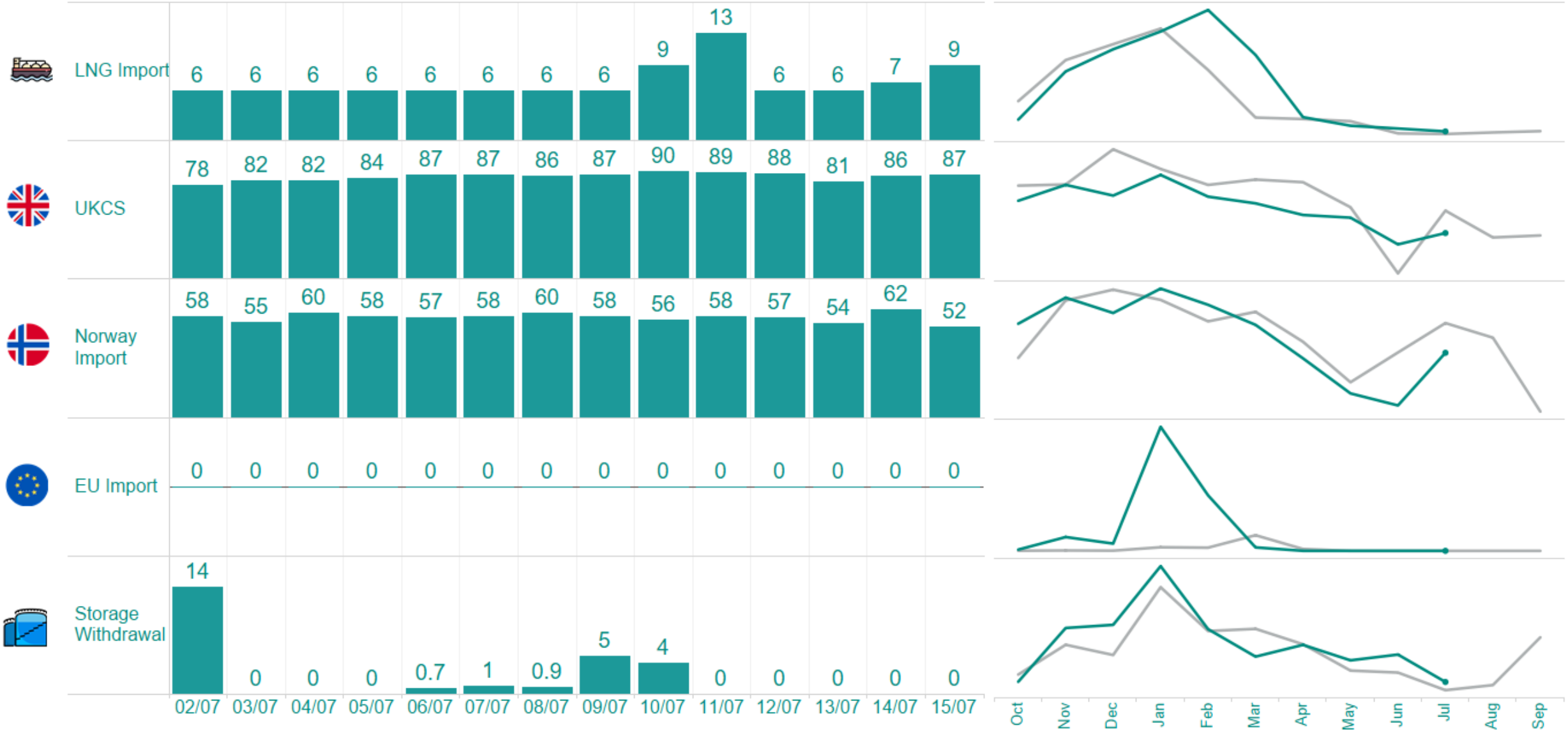


All values shown are volume in millions of cubic metres per day (mcm/d)

Supply Categories - Last 14 days

End of day values (mcm)

Monthly average end of day



All values shown are volume in millions of cubic metres per day (mcm/d)

2024/2025

2023/2024

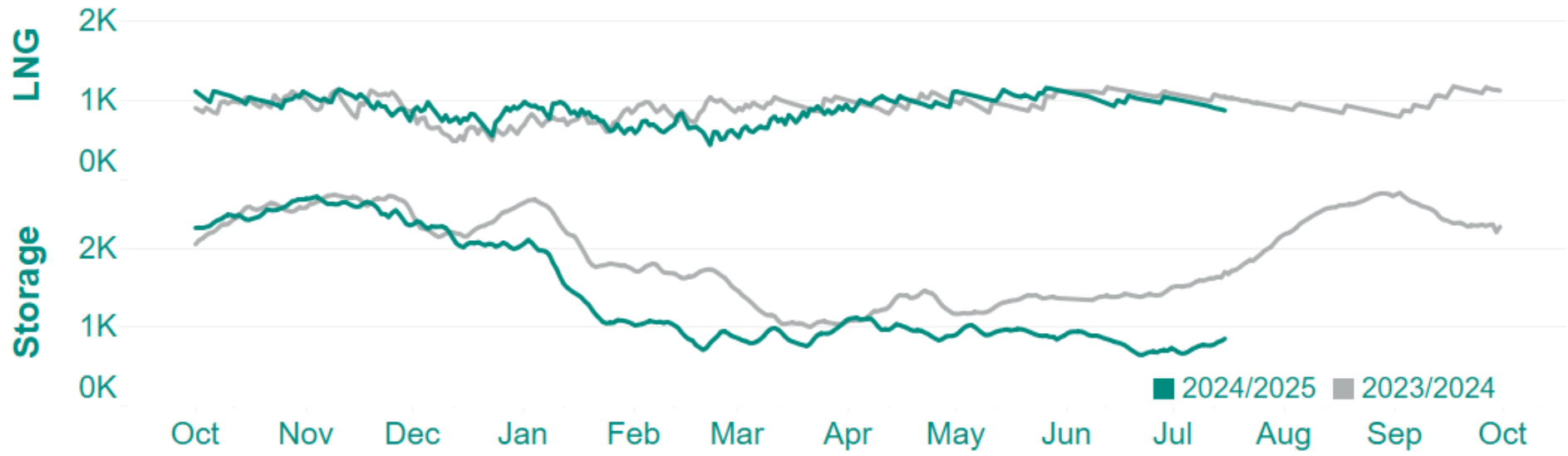
Total LNG Stock

886 mcm
69% full

Total GB Storage Stock

889 mcm
27% full

LNG & Storage stock (mcm)



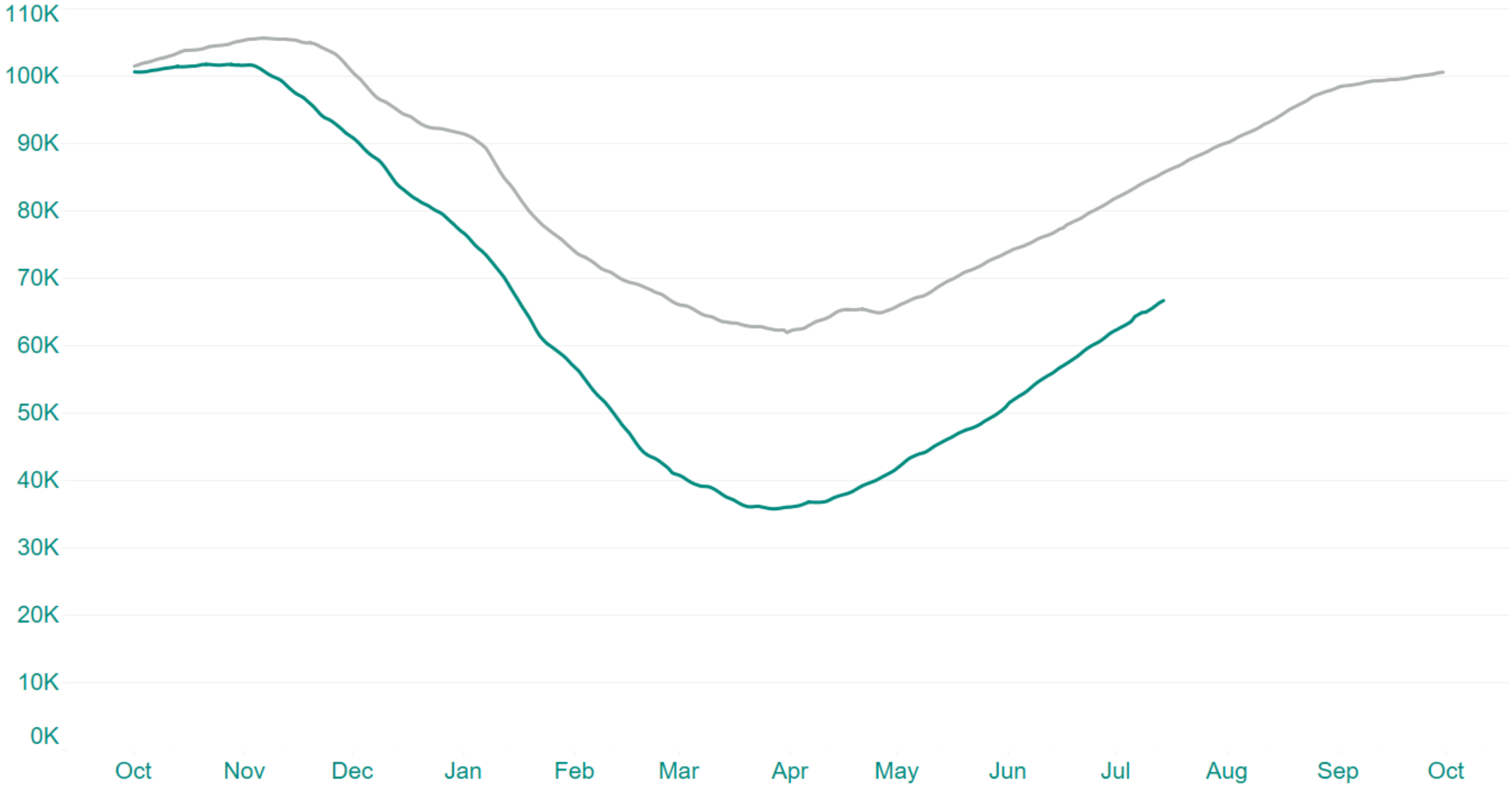
LNG Arrivals

(LRS 9%) (MRS 42%)

27/07/25

All values shown are volume in millions of cubic metres (mcm)

EU storage stock (mcm)



Exercise GLACIER

NEC Assurance Exercise 2025

Network
Emergency
Co-ordinator

Exercise GLACIER

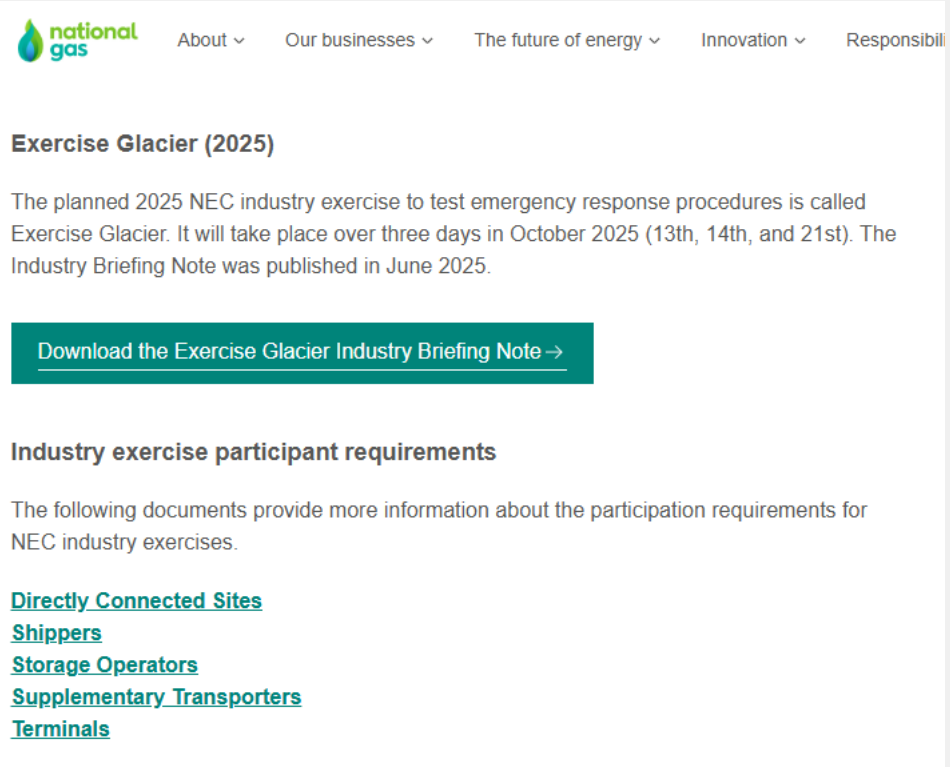
Mon 13 Oct, Day 1 – Pre-Emergency / Stage 1 NGSE

Tue 14 Oct, Day 2 – Stage 2 NGSE

Tue 21 Oct, Day 3 – Stage 3 NGSE

Industry Briefing Note

- Can be viewed at National Gas website:
  - https://www.nationalgas.com/sites/default/files/documents/20250624-NEC_Exercise_GLACIER_Industry_Briefing_Note.pdf



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Paul Groes

Director, Utility Markets - ICE

OCM Market Update
National Gas Operational Forum

Paul Groes

Director, Utility Markets

17 July 2025

- Please contact Paul if you wish to receive all the slides presented.

Thank you!

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Product information

UK OCM Gas Spot | ICE

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National Gas Q&A Panel
Three Molecule Strategy

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Three Molecule Strategy Q&A Panel

Jake Tudge

Director of Corporate Affairs

Methane

Jenny Phillips

Director of Energy Delivery

Low carbon gas

Alan Stephen

Business Development Manager

Hydrogen

Katie Petherbridge

Innovation Delivery Manager

Carbon dioxide

Luke Rowlands

Business Development Manager

Thank you for attending today's NGEF launch!

We look forward to seeing you online September 11th and in person October 23rd

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