Public

05 Gas Advisory Council

29th January 2026

IGEM House

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General Updates

- Terms of Reference Amendments: Data Classification System

- Personnel Updates:
  - Matt Newman – National Gas
  - Tony Dicicco – ESB (Energy UK)
  - Gavin Fraser – Equinor (Energy UK)

- Process for guests

Actions Review

ID	Description	Owner	Status
4.01	NESO will add future look ahead of expected upcoming consultation, live links and status to the headline report	NESO	Closed – included expected look ahead as well as live links to the headline report.
4.02	NESO to respond to NGT regarding role in CCUS	NESO	Closed – Whilst NESO does not have any formal obligations in CCUS, it will be considered as part of our Strategic Energy Planning. NESO will update the GAC if there are any changes to our role regarding CCUS. Ongoing discussions with NGT around CCUS developments.
4.03	NESO will discuss with MH in further detail the origins of the Baringa proposal as well as completing a literature review before progressing the hydrogen blending project proposal.	NESO	Closed – Baringa project proposal no longer to be progressed
4.04	NESO will develop more of a proposal of FTE equivalent need for project development.	NESO	Closed – further detail provided on time/resource pull for specific projects
4.05	NESO will run revisit FoG work and ensure work is continued and built on rather than starting again.	NESO	Closed – NESO has revisited FoG work and will endeavour to include in the FMP.
4.06	NESO will re-work project initiation documentation, and programme structure for the GAC inline with discussions to date.	NESO	Closed – updated project initiation documentation and kick off meetings have been held.

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05 GAC Agenda

29th January 2026 – IGEM House

Time	Topic	Lead
10:00-10.15	Welcome – Actions Review & General Updates	Grant Wilson
10.15-10.30	NESO Headline & Change Report	Martin Shannon & Michelle Niits (NESO)
10.30-12.00	NESO Updates: EMAC Emergency Process Assessment FES Costings	 Lizzie Blaxland (NESO) Urmi Mistry (NESO) Mike Thompson (NESO)
12.00-12.45	Lunch	
12.45-14.30	FMP Review	GMS Team (NESO)
	Break	
14.45-15.30	GAC Project Updates	GMS Team (NESO)
15.30-15.45	AOB & Close	Grant Wilson

NESO Headline Report

Martin Shannon &
Michelle Niits

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NESO Publications

- **Gas Supply Security Assessment (26th November 2025)**

What: Analysis of the future gas supply security. The assessment considers the availability, reliability and deliverability of gas volumes to meet a range of GB demand scenarios, five and ten years ahead.
Why it matters: Ensuring the UK can meet gas demand during winter peaks or supply disruptions, key for energy security and consumer confidence as the system transitions.
https://www.neso.energy/what-we-do/resilience-emergency-management/gas-supply-security-assessment

- **Gas Options Advice Report (9th December 2025)**

What: the GOA evaluates investment proposals from National Gas Transmission that will meet the gas networks capabilities in GB.
Why it matters: GOA aims to shape the future gas system by ensuring proposals meet system needs, offer value for money and protect the environment, maintain resilience and benefits consumers.
https://www.neso.energy/what-we-do/strategic-planning/gas-options-advice-goa

- **FES Economics (11th December 2025)**

What: the first analysis of the whole-economy system costs of the four NESO FES pathways, including CAPEX and OPEX.
Why it matters: introducing a cost element to the FES analysis allows industry and those that use FES to take a clearer view of the pathways and the potential impacts
https://www.neso.energy/publications/future-energy-scenarios-fes/fes-documents#:~:text=FES%202025%20%2D%20Economic%20Annex%20Documents

- **Major Grid Connection Reform Package and supplemental guidance on queue management (8th December 2025)**

What: detailed guidance and technical principles explanation on Connection Reform
Why it matters: Accelerates low-carbon project connections, including hydrogen and biomethane assets, reducing delays and improving transparency.
https://www.neso.energy/document/374006/download

Key Publications: October - January

1. . DESNZ launched the "Gas System in Transition: Security of Supply" consultation; closes Jan 2026.
   - Examines future gas resilience and integration of hydrogen and biomethane into supply planning, shaping infrastructure and market design. - *Robert Seaton DESNZ (who presented at the last GAC 04)*

2. Ofgem consulted on future obligations for traditional gas metering post-2025; closed 2 Dec 2025.
   - Addresses regulatory changes as fossil gas declines and low-carbon gases emerge, ensuring consumer protection and system integrity.

3. DESNZ released the "Call for Evidence on Hydrogen to Power and Interconnectors" on the 2nd Oct 2025; closed 27th Nov 2025.
   - Seeking views on how to categorise hydrogen to power to inform potential changes to the Capacity Market to enable participation

4. DESNZ launched the DESNZ and Baringa report on "Hydrogen to Power Cost and Barriers" on the 14th Jan 2026.
   - DESNZ commissioned Baringa to review and assess the technical readiness, cost implications and deployment barriers for hydrogen based power generation technologies in the UK.

5. *Pending: DESNZ Hydrogen Blending consultation response is expected soon – Victoria Robinson DESNZ Hydrogen blending*

Headline Report: Code Updates Oct – Dec

- A new 6-month review group has been created for 0917R - Should biomethane producers fully bear the cost of propanation, and are there more equitable options for funding the activity?
- 0903 The Introduction of a Single NTS Capacity Reference Price has been issued to Ofgem for a decision with a recommendation not to implement by the UNC Panel
- 0894/A Facilitating Biomethane entry into the GDN by exporting methane from the GDN into the NTS via Compression has been issued to Ofgem for a decision with a recommendation to implement the original proposal
- NG have amended the Network Entry Provisions at Isle of Grain
    - a change in the lower Wobbe Limit from 47.2 MJ/SCM to 46.5 MJ/SCM; and
    - a change in the lower Gross Calorific Value from 36.9 MJ/SCM to 36.0 MJ/SCM
- UNC Modification Proposal 0912S – PARCA Quarterly NTS Entry Capacity minimum duration quantity was unanimously approved by the Nov 2025 UNC Panel
- The Gas Distribution Networks, Encoder (Joint Office) and Xoserve have issued a letter to Ofgem stating they are working on a joint proposal model for the **Gas Code Manager** role to avoid uncertainty from each organisation creating their own model.

Headline Report: Consultations

These are the consultations that have been received and assessed for this period

Title	Issued By	Issued	Deadline
Capacity Market: Hydrogen to Power and interconnectors	DESNZ	02/10/25	27/11/25
Reselling gas and electricity: Maximum Resale Price direction	Ofgem	09/10/25	04/12/25
Modifying the special conditions of the NGT gas transporter licence: statutory consultation	Ofgem	14/10/25	11/11/25
0894/A - Facilitating Biomethane entry into the GDN by exporting methane from the GDN into the NTS via Compression	JO	16/10/25	20/11/25
0912S - PARCA Quarterly NTS Entry Capacity minimum duration quantity	JO	16/10/25	05/11/25
ENNOH's Public Consultation on future hydrogen Network Codes	ENNOH	20/10/25	10/01/26
Shrinkage and Leakage Model Review Final Consultation 2025	JO	23/10/25	20/11/25
Consultation on proposed best available techniques (BAT) implementation guidance for mid-merit gas generators	EA	03/11/25	05/01/26

Title	Issued By	Issued	Deadline
Future of gas transporter traditional metering obligations post-2025	Ofgem	03/11/25	01/12/25
A review of shrinkage volumes on the National Transmission System (NTS)	Ofgem	04/11/25	07/01/26
Debt Relief Scheme: Statutory Consultation	Ofgem	06/11/25	18/12/25
WWU ECPG Methodology	JO	14/11/25	31/12/25
Cadent ECPG Methodology	JO	17/11/25	12/12/25
Ofgem: Establishing a harmonised prioritisation process in the Industry Codes: statutory consultation	Ofgem	20/11/25	12/01/26
0918 - Temporary reintroduction of the enhanced pressure service and increased MNEPOR for BBLC	JO	21/11/25	02/01/26
0907 - Extension to current maintenance period	JO	21/11/25	06/02/26
Gas system in transition: security of supply	**DESNZ**	**26/11/25**	**16/02/26**
SGN ECPG Methodology	JO	26/11/25	31/12/25

Title	Issued By	Issued	Deadline
0909S Refining the Class 2 Individual Valid Meter Reading Requirement Performance Measures	Joint Office	18/12/25	06/02/26
Modifications to the RIIO-3 licences and associated documents	Ofgem	16/12/25	16/01/26
Energy code reform: competitive code manager selection	Ofgem	08/12/25	23/01/25
0915 Debt Relief Scheme Payments (DRSP)s	Joint Office	18/12/25	07/01/26
NGN ECPG Methodology	JO	27/11/25	30/12/25
Carbon capture, usage and storage (CCUS): Ensuring fair access to CO2 infrastructure	DESNZ	28/11/25	06/02/26
Energy Networks Ring-fence Review Consultation	Ofgem	12/11/25	16/01/26

NESO Updates

1. EMAC
2. Emergency Process Assessment
3. FES Economics

Public

Electricity Markets Advisory Council

Please see the EMAC webpage for the slides:

[NESO Electricity Markets Advisory Council (EMAC) | National Energy System Operator]

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Emergency Processes Assessment (EPA) 2026

This section is confidential and has been redacted.

Public

FES 2025: The economics of our pathways

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Agenda

- Approach
- Key findings
- Results
  - Current energy spending
  - Energy costs to 2050
  - Comparing between pathways
- Conclusions

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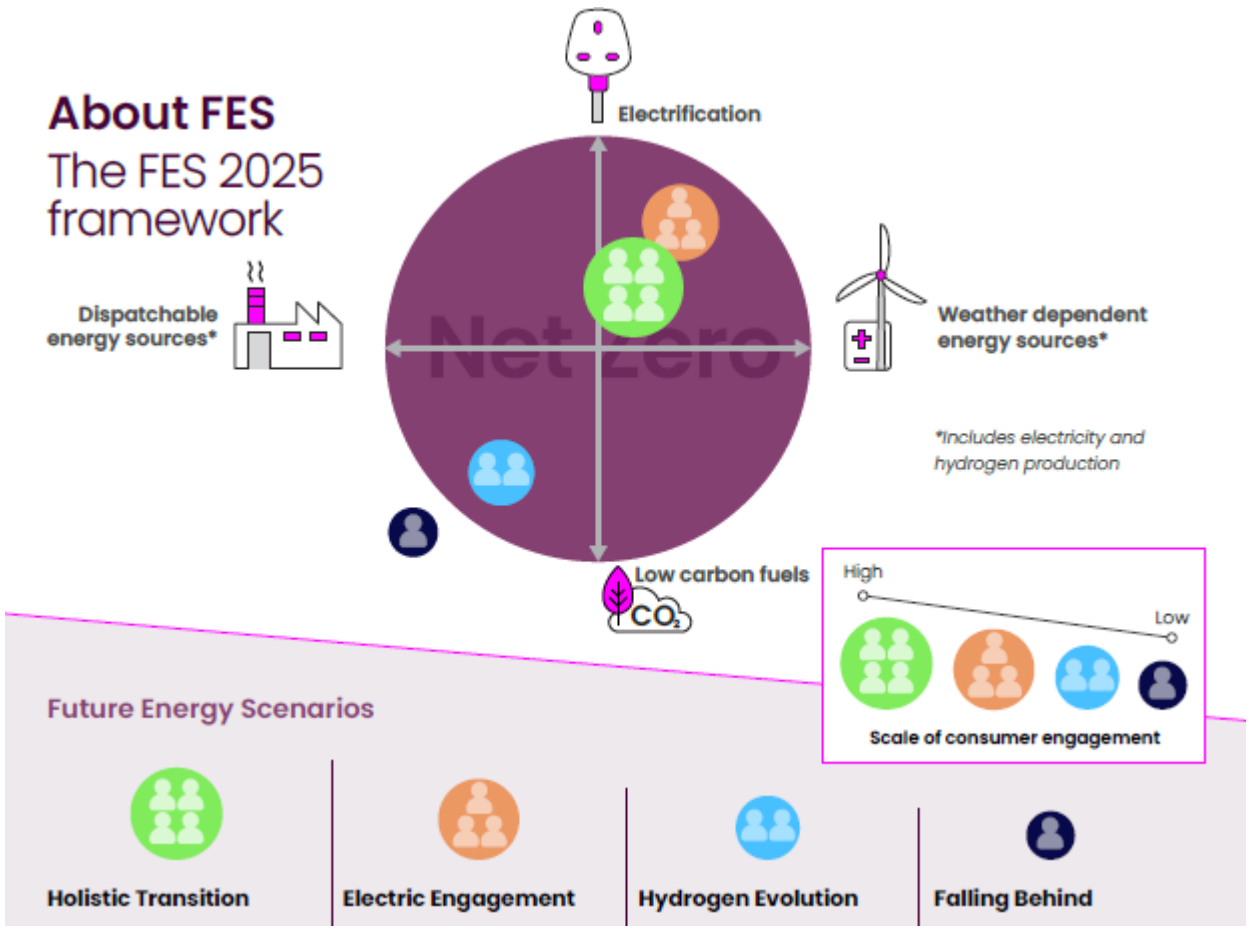
FES recap & economics approach

Future Energy Scenarios 2025 published 14 July.



Economics Annex published **11 December**

- FES pathways are **not cost optimised** – they explore a range of possible futures
- The *Falling Behind* pathway is **not a no-action pathway**
- FES scope is **GB energy** – exclude agriculture (non-energy) & land, aviation & shipping, removals
- We focus on 'resource costs', **excluding taxes and transfers. NOT an analysis of energy bills.**
- Input prices and assumptions mostly the **same across scenarios**
- **CCC data** used to fill gaps in FES data (e.g. industrial capex)

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Key findings

Key findings

- **Energy costs decline to 2050**
  - With learning, efficiency and electrification (more than offsetting increasing demand)
  - From 9-10% of GDP in 2025 to 5-6% by 2050
  - Investment in early years enables operational cost savings in later years

- **Exposure to fossil fuel price volatility substantially reduced**
  - Gas (and oil) price spike in 2022 added 1.8% of GDP to energy costs
  - Equivalent would add 0.3% GDP to costs in 2050 under Holistic Transition pathway

- **Shift from imported fuels to GB investment**
  - In renewables, networks, and efficient electric heating
  - Potential for local jobs; improves air quality and health

- **With carbon costs, Holistic Transition is cheapest path over 2025-2050**
  - If ignore carbon, Falling Behind cheaper, saving around 0.4% of GDP on average annually
  - Can cut that cost with more pathway optimisation, or better technology progress than assumed

- **Uncertainty is high**
  - Range of uncertainty from technology and fuel costs is larger than from pathway choices under central assumptions.

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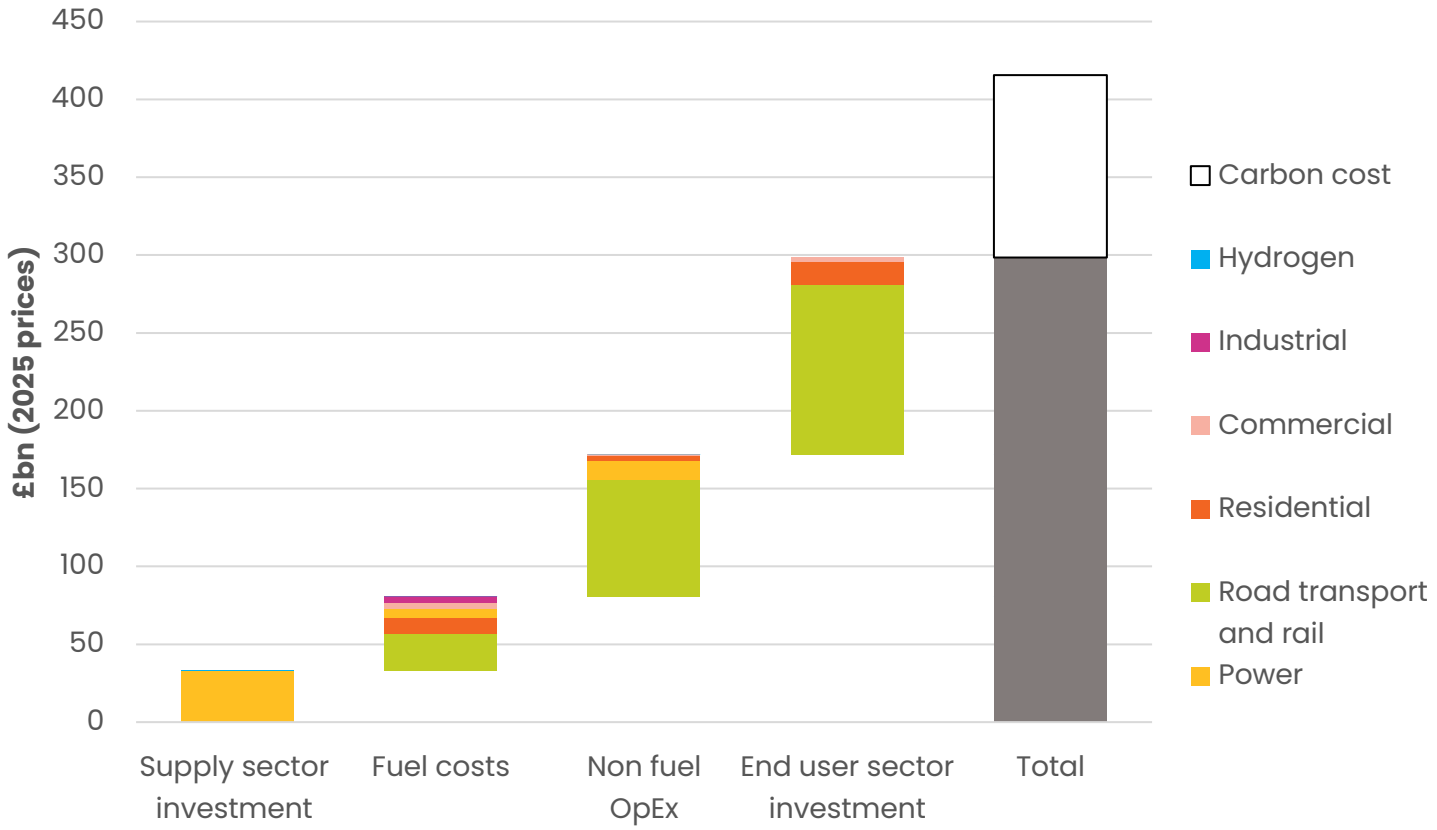
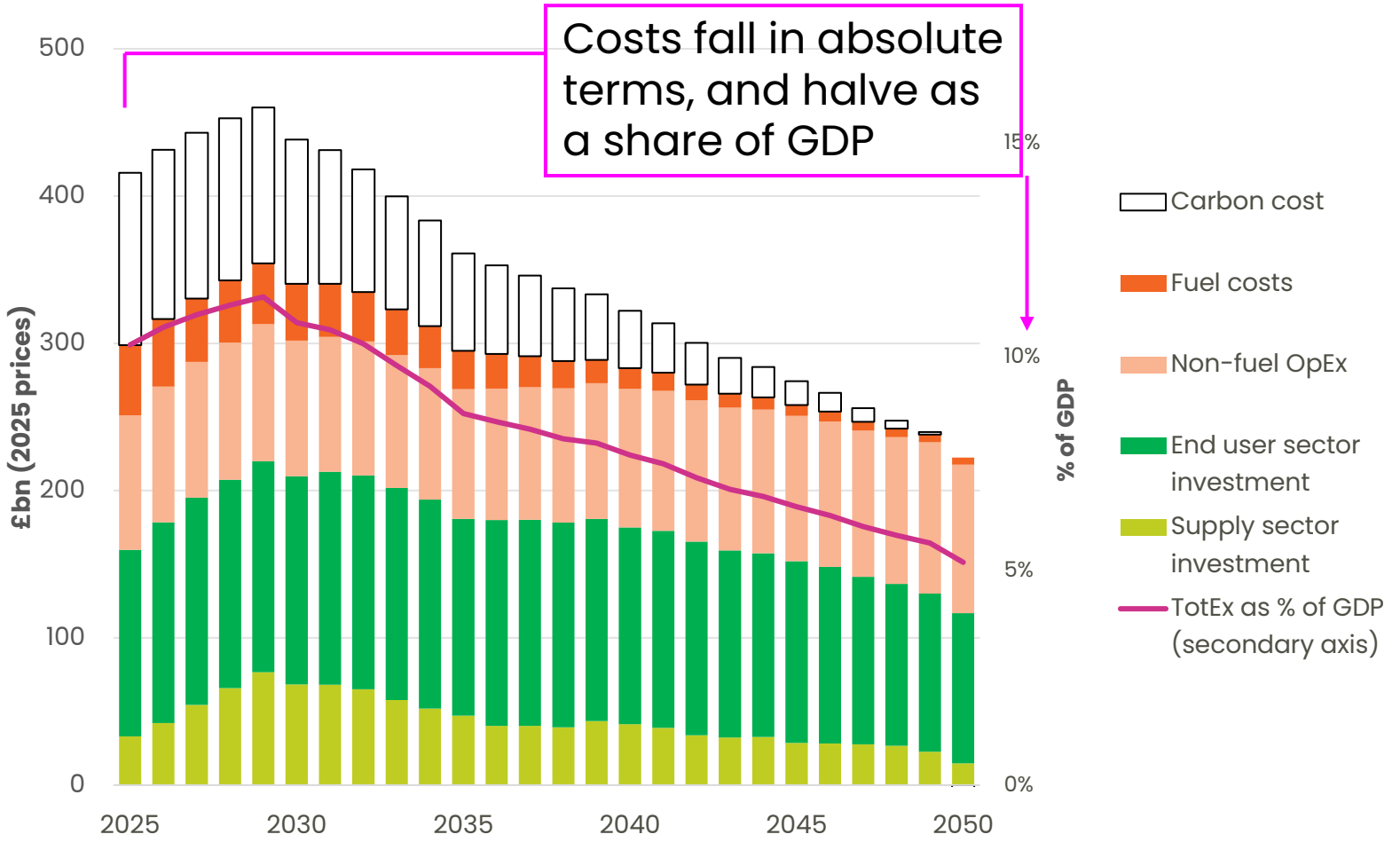
Results

Estimated resource costs of energy and energy using assets in 2025 in Holistic Transition pathway



Notes: *Supply side investment includes capital expenditure in the electricity and hydrogen sectors. End user sector investment captures capital expenditure in road transport and rail, residential, commercial and industrial sectors. Fuel and non-fuel OpEx refers to expenditure in both supply and end user sectors. In total energy costs, the cost in a few subsectors represent incremental value in comparison to the Falling Behind scenario due to the nature of the available datasets.*

Total energy cost in the Holistic Transition pathway (2025-2050)



Notes: Definitions as in graph in slide 7. In total energy cost for the net zero pathways, the cost in a few subsectors is the incremental value in comparison to the Falling Behind scenario due to the nature of the available datasets.

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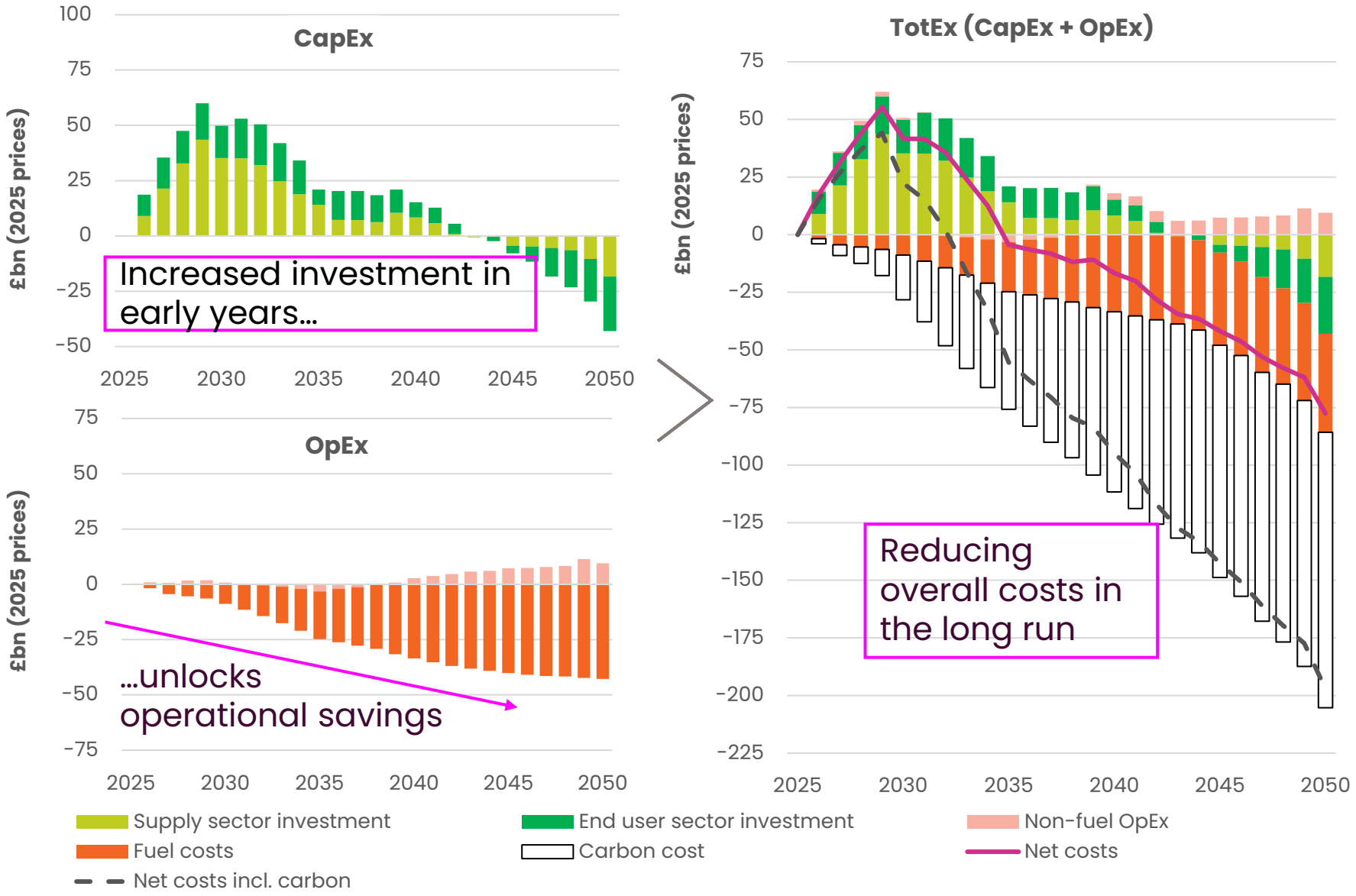
Change in costs from 2025 (Holistic Transition)



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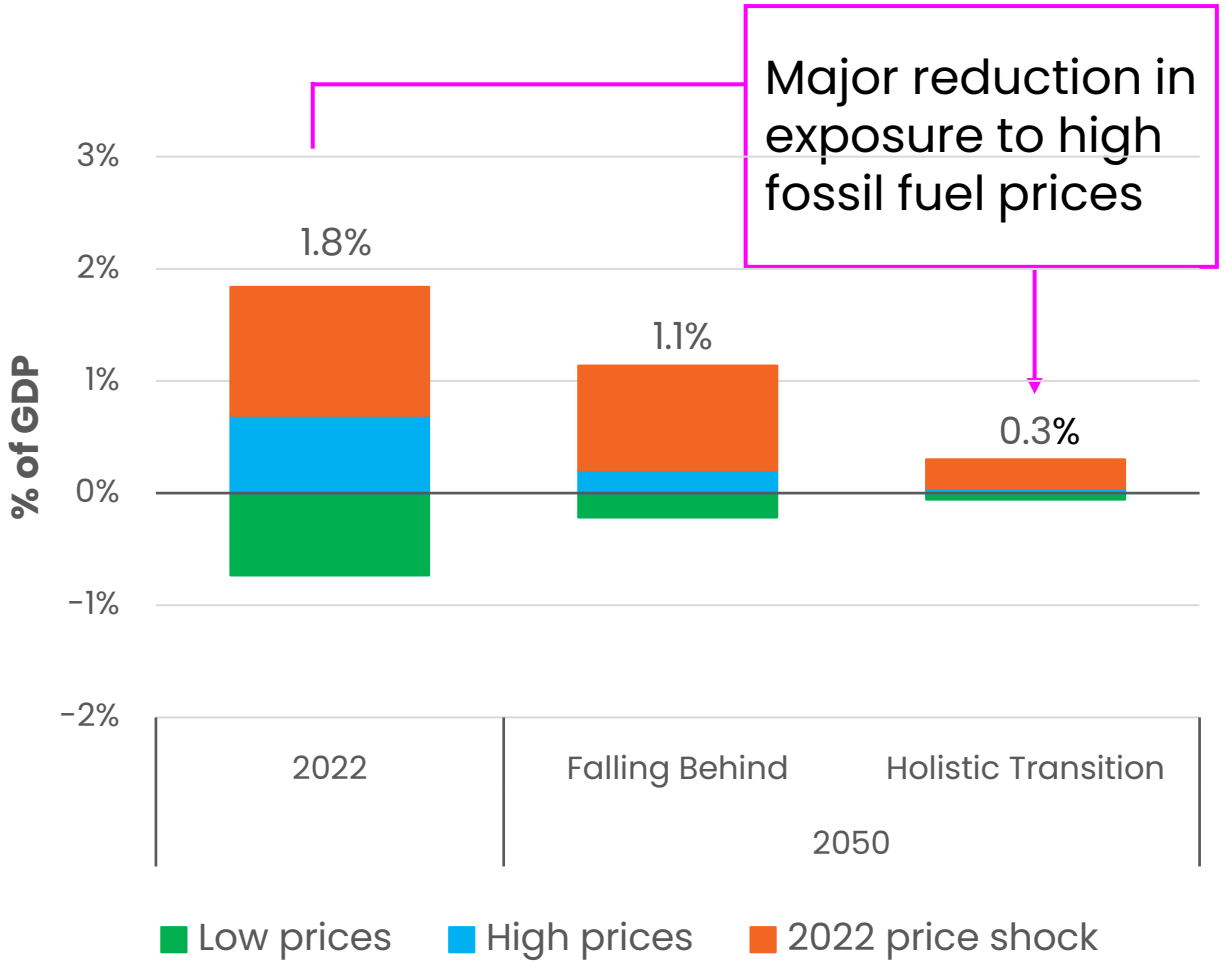
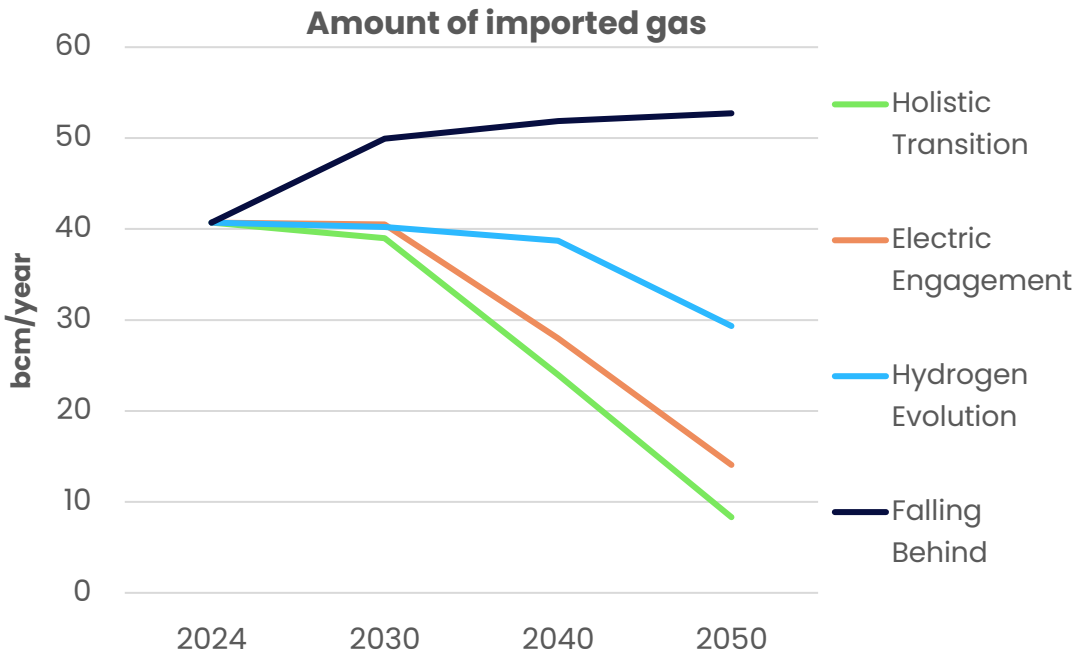
GDP shock from change in energy costs under High and Low fuel prices



Reflecting reduction in gas consumption and imports

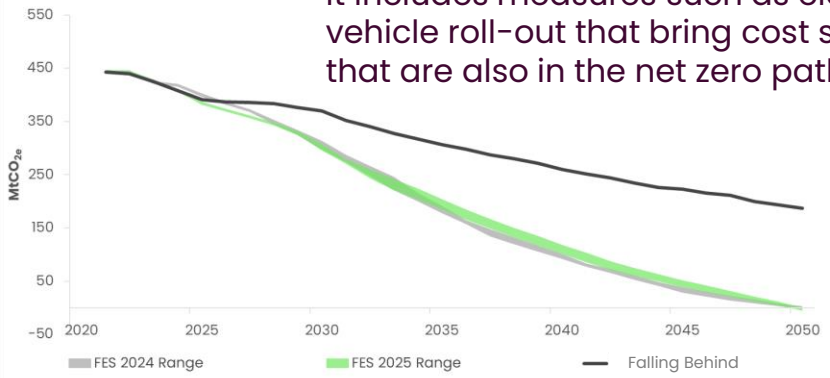


Comparing between pathways

Caution is needed comparing between pathways

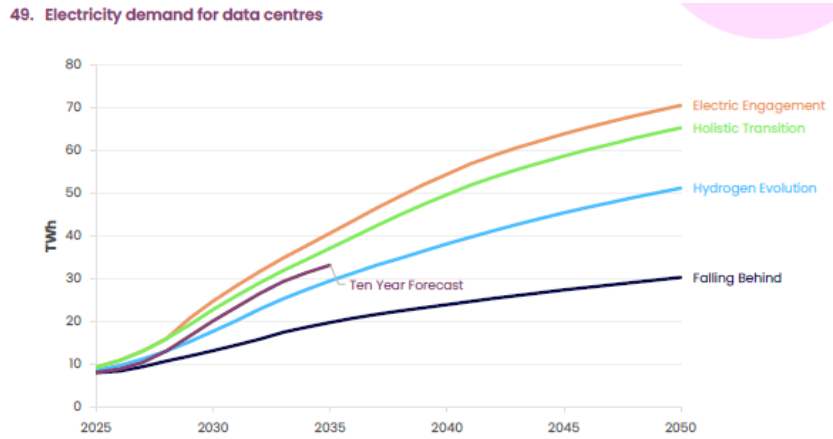
Emissions

Falling Behind is not a no-action baseline. It includes measures such as electric vehicle roll-out that bring cost savings that are also in the net zero pathways



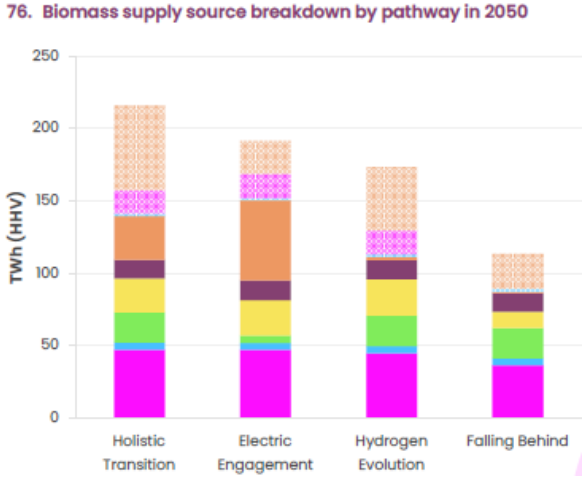
Demand

Different underlying assumptions, for example on Data Centre demand, heat pump efficiency



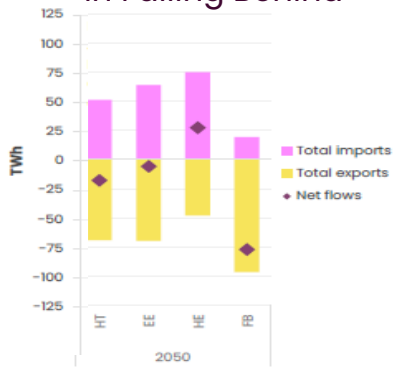
Bioenergy

Different biomass supply assumptions between pathways



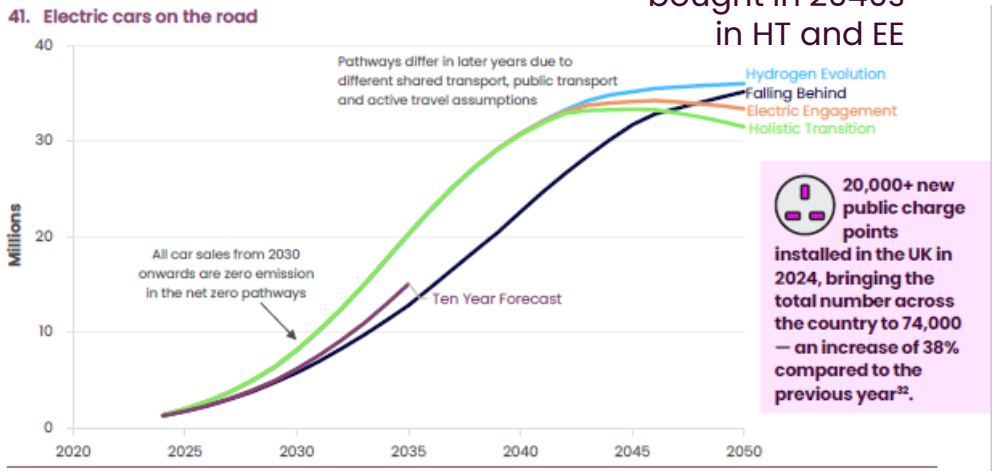
EU markets

Slower EU decarb in Falling Behind



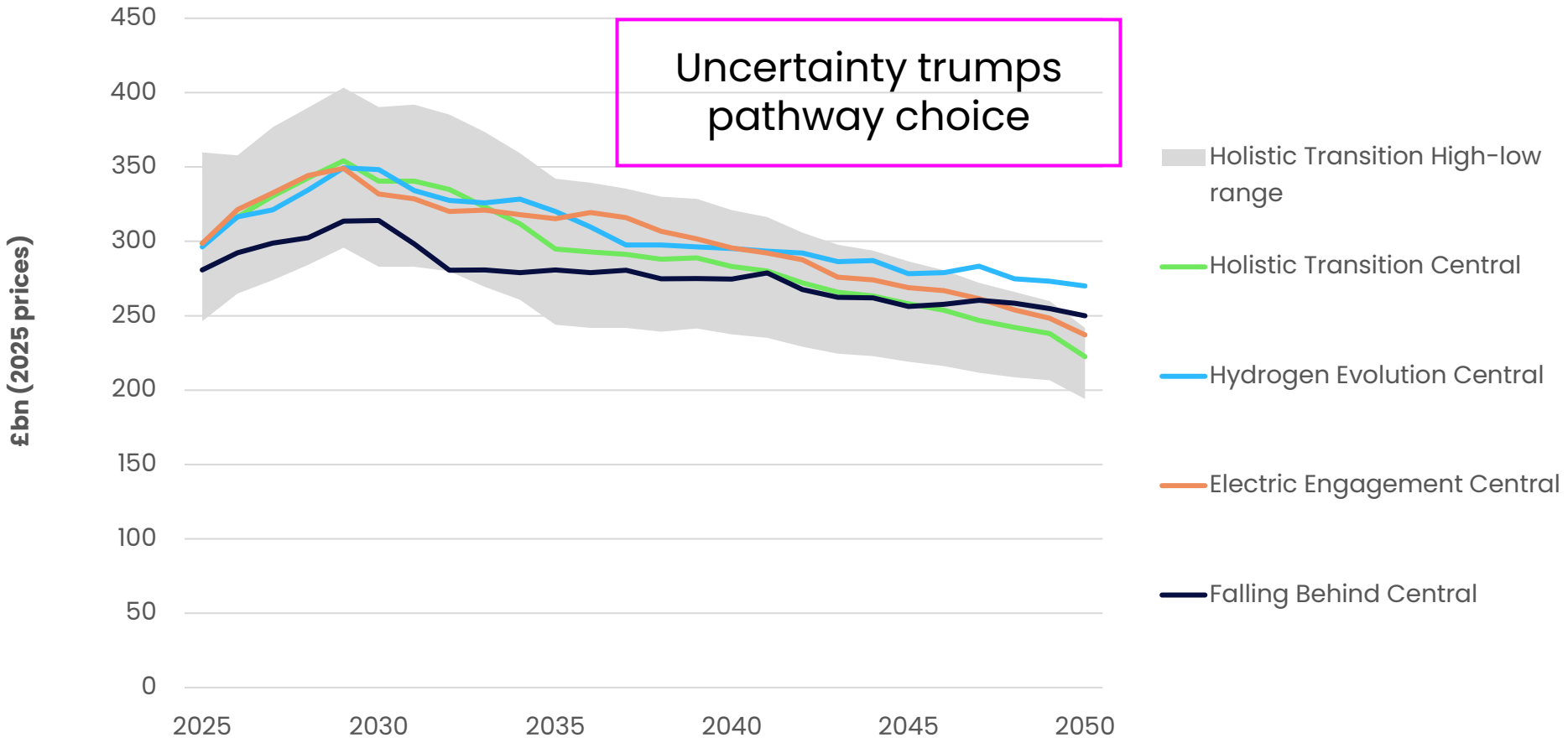
Autonomous vehicles

Fewer cars being bought in 2040s in HT and EE



20,000+ new public charge points installed in the UK in 2024, bringing the total number across the country to 74,000 — an increase of 38% compared to the previous year[32].

Central cost estimates for pathways v. uncertainty range for the Holistic Transition



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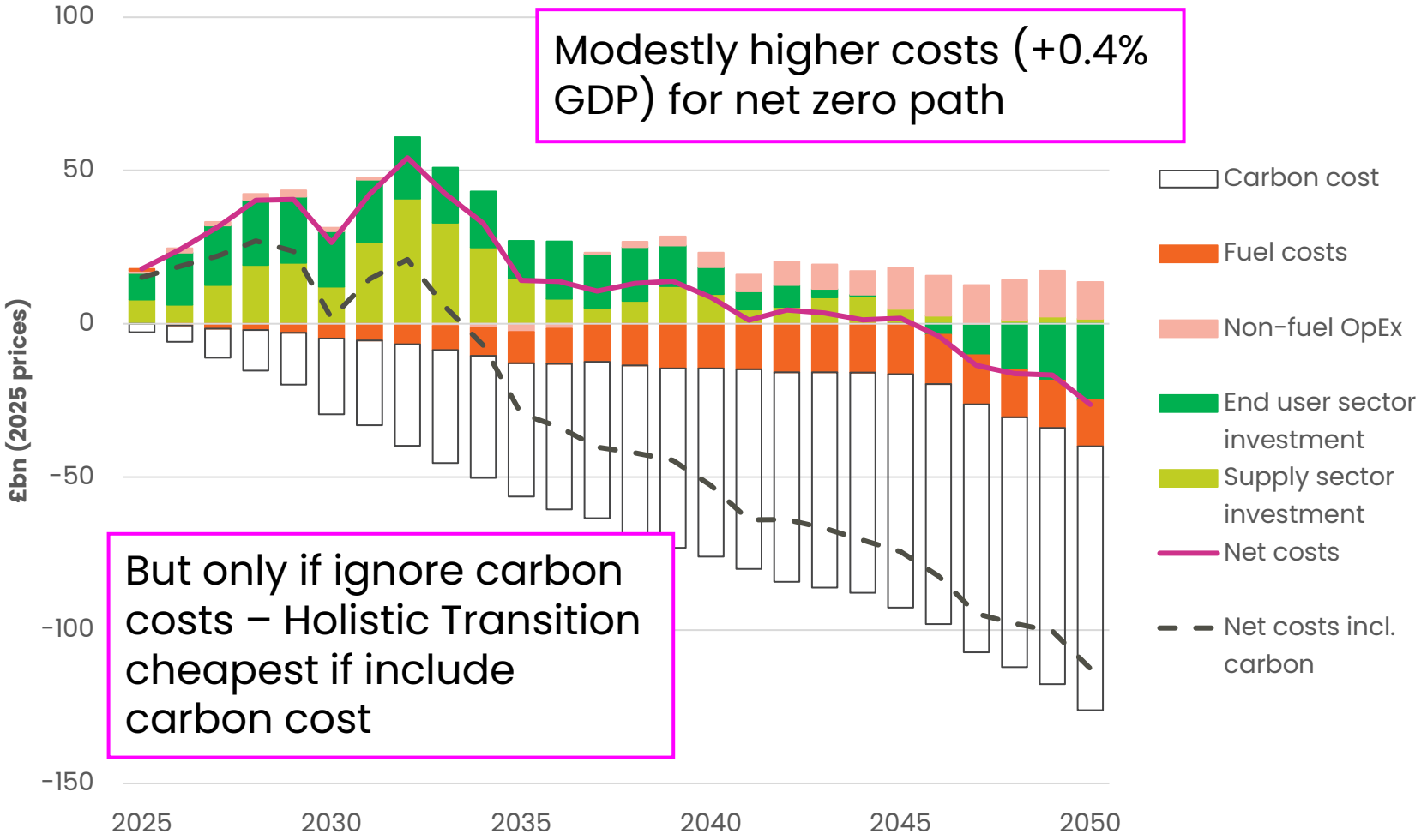
Total cost of Holistic Transition pathway compared to Falling Behind scenario, central case



Modestly higher costs (+0.4% GDP) for net zero path

But only if ignore carbon costs – Holistic Transition cheapest if include carbon cost

+ Reduced FF volatility
+ Investment boost
+ Possible trade (& risk) effects if renege on climate goals
+ Air quality & health
+ Savings post-2050

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Conclusion

Recap of key findings

- Energy costs projected to decline in long term
- Exposure to fossil fuel price volatility substantially reduced
- Shift from imported fuels to GB investment
- Uncertainty is high
- With carbon, Holistic Transition cheapest over 2025-2050; around 0.4% GDP saving from Falling Behind if ignore carbon

Choices matter – in policy and strategy:

- Keep cost of capital low
- Efficient system dispatch
- Coordination across system
- Energy saving and flexibility
- Electrify transport ASAP
- Deploy lower cost options

Strategic planning **AND** Markets

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FMP Feedback

Future Market Plan Discussion

Disclaimer: Work contained herein is still in draft / work in progress format and subject to change

Gas Future Market Plan Structure

Indicative Future Market Plan Structure	
Context and Scenarios	Understanding the current state of the market explaining the methodology to how the central challenges were reached
Central Challenges	NESO's view of the 5 central challenges facing the gas market during the transition. Broken down into sub-area's to provide more detail on the different aspects of the challenges.
Strategic Questions / Evidence Gaps*	Understanding the evidence gaps and outstanding strategic questions that come out of the central challenges that may potentially lead to further work for NESO, Industry or Government/Regulator.
Next Steps / Action Plan*	Action plan detailing what potential projects and actions NESO (and the GAC) will commit to doing between FMP delivery cycles.
Conclusion	

- As the Gas Future Market Plan / Roadmap is starting to take shape, we are still validating and testing the structure of the document
- We hope the GAC and wider industry engagement will help support the content across all the chapters. This will be through GAC meetings as well as bilaterals and roundtables.
- We hope to work with the GAC to define what future projects and programmes for the GAC will look like.

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Challenge and Validation

Feedback Questions

1. Developing the Central Challenges – how we have explained our method for arriving at the “Central Challenges”

2. Central Challenges Categories – whether there are any gaps, missing challenges or objections to our current central challenge categories

3. Central Challenges Content – within the further detail displayed in the Central Challenges breakdown, are there any other key points you feel should be discussed within the individual challenges

Developing the central challenges

Challenge Development and Testing

Identification

Context and Scenarios

Assessing our Future Energy Scenarios (FES) to identify needs and target changes out to 2050 in molecule markets
Aligning context and scenarios with other cross-NESO analysis (e.g. GSSA, Clean Power 2030) to ensure coordinated approach to pathways out to Net Zero and tailored gas market messaging
Scanning policy and regulatory landscape of key focus areas within the GB gas sector (working with DESNZ and Ofgem)

Market Design

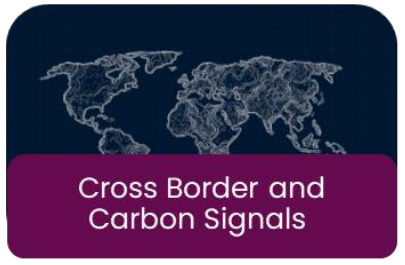
Using the existing framework developed by WEMS, we can break down the current state of the Gas Market. This gives us an as-is representation of the market. From here we can look at issues that we know exist from our stakeholder engagement Context & Scenario and understand which areas of market design are impacted.

Stakeholder Engagement

Engage cross-industry with experts/SME to get a view of the issues/challenges they are facing and how they map onto areas of market design.
Hold Gas Advisory Council (GAC) forums to collaborate on gas market projects, gather expertise and insights and test FMP development

Central Challenges

Five central challenge areas where we think Gas Markets need to evolve to support decarbonisation and the transition to 2050.



Next Steps


Jan
Feb
March
April
FMP
29th Jan
05 Gas Advisory Council
- Central Challenges
12th March
Interim Gas Advisory Council
~ Strategic Questions & Action Plan
28th April
06 Gas Advisory Council
~ Draft Future Market Plan
Ongoing Industry Engagement through bilateral's, round tables and GAC Project sessions
NESO Drafting FMP
First Draft
GAC Projects
Biomethane GAC Project
Hydrogen Blending GAC Project
Gas Storage GAC Project
17th March
GAC project deadline for submission to FMP

GAC Project Updates

Gas Storage

Discussions held so far:

4th Dec 2025: Session with Owen Hind and team to discuss the Gas Supply Security Assessment (GSSA).

17th Dec 2025: Discussion with Rob Seaton, DESNZ, regarding the Gas System in Transition consultation.

Agreement, during this meeting, to pause the Gas Storage project, in line with the consultation. GAC Membership focussed on delivering quality consultation responses to the consultation closing 19th Feb.

Next Steps (Short Term):

- Organise GAC/NESO/DESNZ meeting to discuss methodology.
- Await initial response from consultation.
- When the consultation closes, facilitate bi-lateral conversations (if/where required).

Action Number	Action
1	Arrange a call with DESNZ analysts (and Baringa representative if possible) in January to discuss the methodology, economic analysis, and scenarios being used for the consultation.
2	Hold a half-hour pre-meeting with the working group to frame and prepare targeted questions for the upcoming session with DESNZ analysts.

Biomethane

Discussions held so far:

17th Dec 2025: Kick off biomethane working group session with working group members and other stakeholders

Key outputs

- Project plan agreed, and work package 2 is underway
- Key upcoming milestone: stakeholder engagements with biomethane producers
- DESNZ: Keep up to date with DESNZ developments, especially the upcoming consultation, will provide updates to DESNZ as the project progresses.

Next Steps (Short Term):

- Complete Work Package 2 – aim to have summary outputs by March

Action Number	GAC Actions
1	Make final summary outputs that will form part of the final report available to GAC members for input/review.

Hydrogen Blending

Discussions held so far:

15th Dec 2025: Hydrogen Blending Working Group Kick- off Session

Key Outputs

- Project plan agreed, and work package 2 is underway
- Initial workshops will focus on System Value, with FTI consulting, E3G and others presenting on work to date.
- Additional workshops in the pipeline include Technical Feasibility & Operational Readiness and Safety, Standards and Regulatory Readiness with teams from Cadent and National Gas from the Blending Implementation Programme

Next Steps (Short Term):

- Stakeholder workshops across main workstreams

Action Number	GAC Actions
1	Scheduling DESNZ Consultation Response workshop once published
2	Arranging stakeholder workshops

AOB

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Thank you for your time