Public

21 October - 15 November

FES 2025:
NESO Pathways to Net Zero

Help shape the 2025 NESO Pathways to Net Zero

NESO
National Energy System Operator

Public

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Introduction

Thank you for taking the time to support the FES 2025 consultation: Help shape the NESO Pathways to Net Zero – this is your opportunity to influence our pathways for 2025 and beyond.

We value all the insight we gather from our engagement activities, which we combine with our modelling and analysis to produce the pathways to net zero.

The feedback you provide will support FES 2025 and future FES cycles.

Help Shape the NESO Pathways to Net Zero is divided into four; you are welcome to answer as many or as few questions as you like.

- FES Methodology
- Energy Demand
- Electricity Supply
- Whole System and Gas Supply
- Modelling and Data
- Other considerations

Whilst providing your contact information is not mandatory, if you do, we will be able to follow up on any points raised in your reply and continue the conversation. The survey closes on 15 November, and we appreciate all responses received.

If there are any questions or you would like to provide further supplementary evidence then please email FES@Nationalenergyso.com

FES Methodology

We are considering moving to having a single pathway in the short-term, branching out to multiple pathways after a certain date. To introduce this, we will need more certainty in the future and therefore will link its introduction to some 'triggering criteria', for example the outcome of the Government's 2026 decision on the role of hydrogen for heat.

- What is your view on us introducing a single short-term pathway? What triggering criteria should be met before we introduce this?
- At what date should this branch out to multiple pathways?
- Do you see the need and value for modelling beyond the 2050 horizon?
- In the absence of us introducing a short-term pathway this year, what is the optimal number of pathways? What narrative should these pathways serve?
- Would your answer to the number or narrative change if these are pathways branching from an initial short-term pathway?
- The counterfactual explores the credible least progress outcome where carbon budgets and net zero are missed. How have you used the counterfactual in the past and what is the best way to present information on the counterfactual in our next FES iterations?

- Would it be useful to provide case studies on High Impact Low Probability (HILP) events in our next publications? If yes, where would you see the most value for these HILP case studies to focus at?

Energy Demand

- How can the accessibility and equality of electric vehicles be improved to increase their adoption?
- What can be done to speed up decarbonisation of heat?
- What enablers will encourage industry to fuel switch, what are the current blockers?
- How can we engage more consumers in flexibility, across all areas? Please specify which sector you are referring to alongside your recommendations.

Electricity Supply

- If we did a highlight a technology not included within the current FES, what would it be and why?
- With the reversal of the onshore wind ban in England, how do you envisage the sector developing in the coming decades? Will the focus be on repowering old sites and/or will new greenfield sites be developed in the near term?
- What impact do you think the changes in policy of the new government will have on the energy transition?
- What is the future potential of private wire networks and how could they evolve to support decentralised energy generation and consumption?

Whole System and Gas Supply

- With negative emissions techniques looking as if they are vital for the UK to meet Net Zero, what specific technologies can be used, when should they be active, and to what extent should they be deployed?
- Do you think that the current Labour policy towards North Sea offshore oil and gas will persist beyond the current new Labour Government? Why and how could it change?
- To what degree can current natural gas (methane) assets be repurposed to use hydrogen? For example, should we convert current gas transport or storage assets for hydrogen usage or should we build new assets specifically for hydrogen. If we use new assets for hydrogen storage, what other realistic options (economically and technically) are there beyond salt caverns?
- Norway remains a major source of the UK's gas, but our supply contracts are set to expire in the next year. Do you think the UK will strike new deals with Norway or other suppliers?
- Do you think the UK could or should import or export hydrogen? Who with and at what scale, as well as in what form? For example, should we invest in a new pipeline to send hydrogen to Germany, or ship it via tankers?

Modelling and Data

- Do you have any suggestions for how we can improve the data that we share as part of the FES process?
- Do you have any suggestions for how we can improve the visualisation or presentation of data from the FES process?
- Do you have any suggestions for how we can improve the clarity of how we carry out the modelling?
- What areas of our modelling do you feel we need to develop over the next few years?

Other considerations

- After FES 2025 we move to a three-year cycle so the following FES will be in 2028. What criteria should trigger us to publish a major update outside of this three-year cycle?
- We currently publish electricity data by substation / Grid Supply Point as this allows users to aggregate up to the regions of interest to them. We plan to continue the same. Do you have any feedback on how we provide regional results?