

Transitional Regional Energy Strategic Plan (tRESP)

National Energy System Operator (NESO) Consultation

To: All Chief Executives, Main Contacts and APSE Contacts in England, Scotland and Wales.
For information only Northern Ireland.

1. Executive Summary

The National Energy System Operator (NESO) has launched a consultation on the transitional Regional Energy Strategic Planning (tRESP) process. This forms part of NESO's new statutory role in providing an overarching strategic plan for Great Britain's energy system. Through tRESP, NESO is developing regional and national-level plans that will inform electricity Distribution Network Operators' (DNOs) business planning for the next price control period (ED3, 2028–33) and beyond.

The consultation seeks views on three core components:

1. **Nations and Regions Contexts** – initial datasets and narratives describing demographic, infrastructure, and energy characteristics for each RESP nation and region.
2. **Pathways and Consistent Planning Assumptions (CPAs)** – common demand and generation projections for key low-carbon technologies out to 2050, aligned with NESO's Future Energy Scenarios and supported by a set of standardised assumptions for demand forecasting.
3. **Strategic Investment Need (SI Need)** – early identification of areas where investment ahead of need may be required, based on over 1,700 stakeholder submissions and NESO's initial analysis.

Responses to this consultation will shape the development of the final transitional RESP outputs (due in early 2026) and inform the design of the full RESP framework from 2027 onwards.

Responses are due by Monday 3 November 2025. [Click here](#) to read the full report and [Click here](#) to submit your response.

2. Overview

Nations and Regions Contexts

The Nations and Regions Contexts provide the first iteration of evidence packs for each of the 11 RESP nations and regions (nine English regions, plus Scotland and Wales). These documents combine nationally available datasets with accompanying narratives, with the aim of giving a comparable picture across regions.

Scope and Coverage

Each context covers six thematic areas:

1. **Demographics and socioeconomics** – population growth, age profiles, income levels, fuel poverty, and housing characteristics.
2. **Energy infrastructure** – existing distribution and transmission assets, interconnectors, substations, and storage facilities.
3. **Transport and heating** – uptake of electric vehicles, charging infrastructure, gas versus electric heating, and potential for district heat networks.
4. **Industry and economy** – energy-intensive industries, economic growth drivers, and regional employment.
5. **Generation and storage** – existing renewable and non-renewable generation capacity, distributed generation, and storage projects.
6. **National and regional targets** – climate goals, net zero commitments, and sector-specific ambitions (e.g. transport, buildings).

Presentation and Format

The contexts use geospatial maps, charts, and written narrative, and are published on [NESO's digital platform](#) to support accessibility and usability. They are intended to be both a reference point and a tool for local and regional comparison.

Purpose

The goal is to establish a baseline view of conditions and priorities in each area, which can be tested and refined through consultation feedback and local input. These contexts will inform how NESO and DNOs frame planning assumptions and identify gaps.

Pathways and Consistent Planning Assumptions (CPAs)

NESO is creating demand and generation pathways for each RESP nation and region, modelled at the Grid Supply Point (GSP) level and aggregated upwards to DNO licence and RESP boundaries. These pathways are central to how DNOs will assess future network headroom and plan investment.

Pathways

- Cover short-term (10 years) and long-term (to 2050) time horizons.
- Informed by NESO's Future Energy Scenarios (FES) 2025, the UK Government's Clean Power 2030 Action Plan, and bottom-up DNO data.
- Use the Holistic Transition pathway (high renewables, high consumer engagement) as the basis for consistency with Ofgem's guidance.
- Focus on demand-side building blocks:
 1. Domestic heat pumps
 2. Industrial and commercial heat pumps
 3. Electric vehicles (EVs)
 4. Air conditioning
 5. Domestic district heating
- Focus on generation/storage building blocks:
 1. Solar PV (small and large)
 2. Onshore wind
 3. Battery storage
 4. Power plants (including CHP)
 5. Hydro
 6. Geothermal
 7. Hydrogen and fuel cells

NESO analysis indicates that EVs, heat pumps, and district heating account for over 90% of projected peak demand growth by 2035, while solar, wind, and storage represent over 80% of distribution-connected generation capacity in the same period.

Baseline and Alignment

- Baseline year is being standardised to 2025 to align with FES 2025.
- Because DNOs apply different methods for baseline estimation, NESO has developed a bottom-up, consistent approach using primary datasets.
- Pathways are mapped from GSP feeding areas to RESP boundaries, with adjustments for differences in geography and dwelling numbers.
- An alignment review framework checks that pathways:

- Match expected trends for EVs and low-carbon heating uptake;
- Are consistent with UK carbon budgets;
- Reflect Clean Power 2030 targets for distributed generation and storage.
- GSPs in Scotland are connected to transmission at a lower voltage than in England and Wales and are smaller and more numerous. Therefore, based on feedback from the Scottish DNOs, the tRESP Pathways will also be provided in a version which aggregates Scottish GSPs to form GSP groups at 132kV, to provide a more appropriate granularity for the alignment review.

Consistent Planning Assumptions (CPAs)

- Provide a standardised methodology for translating pathways into network demand impacts.
- Draft CPAs have been developed for:
 - Electric vehicles
 - Residential heat pumps
 - Residential appliance and lighting efficiency improvements
- These cover both end-to-end modelling processes and default assumption values, ensuring DNOs assess peak demand consistently.
- CPAs are presented in a workbook alongside a methodology and design document which can be found [here](#).

Strategic Investment Need (SI Need)

SI Need is a new NESO assessment intended to highlight areas where network investment ahead of need may be justified during the ED3 period.

Definition

SI Need covers areas not yet captured in:

- the existing connections process;
- the tRESP pathways; or
- the Distribution Future Energy Scenarios (DFES) produced by DNOs.

Evidence Base

- Built on over **1,700 submissions** to NESO's 2025 Request for Information.

- Submissions included data from electricity and gas DNOs, local authorities, developers, and wider stakeholders across RESP nations and regions.

Assessment Methodology

- Based on Ofgem’s proposed two-dimensional framework, refined into NESO’s methodology.
- Considers both:
 - **Strategic value** – potential contribution to growth, decarbonisation, and resilience;
 - **Delivery uncertainty** – planning status, technical readiness, and policy dependencies.

Outputs

- Draft maps, hotspot examples, and narratives identifying where early signals of emerging need are present, to see these [click here](#).
- A developing “in development register” that tracks areas requiring monitoring even if investment is not yet imminent.

Purpose

SI Need aims to provide DNOs and stakeholders with early indicators of areas requiring strategic coordination, cross-vector alignment, or whole-system investment planning.

3. Consultation Questions

This consultation seeks stakeholder views across six sections. Please note this briefing provides only an overview of the questions. Organisations are strongly encouraged to read the full consultation document before providing responses, as detailed context, evidence, and supporting analysis are set out there.

Each organisation should submit only one response to the consultation.

Sections and Questions

Section 1 – About you / your group / your organisation
(Administrative information about who is responding.)

Section 2 – Your engagement to date with RESP
(Information on your previous involvement or input to RESP activities.)

Section 3 – Nations and Regions Contexts

1. Are the Nations and Regions Contexts accessible, clear, and easy to interpret? What improvements would you like to see?
2. How well do the Nations and Regions Contexts reflect your understanding of your nation or region?
3. Do you agree with the elements and topics included in the Nations and Regions Contexts? Is there anything missing you would have expected to see?
4. How do you envisage using the Nations and Regions Context(s)?
5. Do you have any feedback on the data selected for the specific topics included in the Nations and Regions Contexts?
6. Do you have any feedback on how the data was presented visually?
7. What additional data should be considered for the transitional RESP or the full RESP?

Section 4 – Pathways

8. The purpose of the tRESP Pathways is to drive consistency across DNO forecasting, as part of their business plans for 2028–2033 (ED3). Are the steps being taken to drive consistency, via baselining and alignment, clear and proportionate? Are the set of tRESP building blocks and the approach to creating Pathways fit for purpose?
9. Will your organisation use the Pathways? If yes, which of the building blocks and for what purpose?
10. Pathways will be published for each building block, down to Grid Supply Point (GSP) feeding area, and for each RESP nation/region. What is your preferred format for receiving the Pathways?

Section 5 – Consistent Planning Assumptions (CPAs)

11. The objective of the tRESP CPAs is to drive consistency across DNO demand forecasting as an input to their business plans for ED3 (2028–2033). Will your organisation use the tRESP CPAs for other purposes? If so, what purpose? Is the format of the CPA value workbook usable for this?
12. Are the definitions of the CPAs clear, as described in the tRESP methodology, detailed design document, and CPA value workbook?
13. Based on the methodology, do you agree with the values established as tRESP CPAs in the value workbook? If not, are there additional or alternative data sources which

are more appropriate? (Answers should reference specific CPA numbers, e.g. EV01, and should consider: reliability of source, relevance, timeliness, location-specific data, changes over time, and climate impacts.)

14. Do you agree with the scope and granularity of the assumptions in the CPA value workbook, considering the balance between materiality and implementation complexity? If not, can you provide evidence for a more or less detailed approach?

Section 6 – Strategic Investment Need (SI Need)

15. Do you feel the definition and framing of Strategic Investment Need (SI Need) is clear?
16. Are the emerging SI Need areas broadly aligned with the framework set out, including the use of strategic value and uncertainty as assessment criteria?
17. Does the combination of RESP area narratives, maps, and hotspot descriptions provide a clear and helpful picture of where emerging needs are arising? Is the level of detail suitable for your purposes?
18. What level of geographic detail would be most useful in future versions? (e.g. local authority boundaries; project-level detail; place-based clusters or zones; GSP boundaries; thematic areas such as heat networks or industrial clusters; lower-layer super output areas/data zones; or other.)
19. Do you see a role for these outputs in supporting local planning, infrastructure alignment, or investment proposals?
20. Are there any locations you would expect to see identified as SI Need that are not currently being assessed? Please highlight these, and where possible provide supporting information.

4. APSE Comment

APSE would encourage our member Councils to familiarise themselves with this consultation and the extensive information, which is contained within, as well as ensuring that they respond to the consultation providing their views on, for example, the Strategic Investment Need. Across UK local authorities, there are numerous examples of renewable energy projects. APSE believes it is essential that local authorities remain at the forefront of sharing best practice in the field of renewables energy schemes and energy cost efficiency measures.

APSE Scotland are delighted to be welcoming North Ayrshire Council to our next Scotland Commercialisation, Income Generation and Social Value Network on 19 November to discuss

their recent solar farm initiative. If you would like up sign up for this Network to hear more about this initiative, please [click here](#).

To enable APSE local authority members to learn more about NESO and the Regional Energy Strategic Planning (RESP), both APSE Scotland and APSE Energy have had a number of NESO speakers at previous APSE events. To access the Scotland presentation from Fergus Tickell, Regional Energy Strategic Planning Manager, National Energy System Operator (NESO) please [click here](#) and for information on the presentation from Welsh NESO representatives please [click here](#). These networks provide an excellent opportunity to gather information, share learning and best practice as well as discuss the themes and areas of focus for the Energy and Renewables services. For more information on any of our networks please [click here](#)

If your council is not yet a member of APSE Energy please [click here](#) for more information or email James Jefferson, APSE Principal Advisor within the APSE Energy team on jjefferson@apse.org.uk

Sophie Boyle,
Research and Information Officer
sboyle@apse.org.uk

Louise Melville,
Principal Advisor (Scotland)
lmelville@apse.org.uk

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Networks are a free service included as part of your authority's membership of APSE and all end with an informal lunch to facilitate networking with peers in other councils. If you do not currently receive details about APSE network meetings and would like to be added to our list of our contacts for your service area please email enquiries@apse.org.uk

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Association for Public Service
Excellence 3rd floor, Trafford House,
Chester Road, Manchester M32 0RS.
telephone: 0161 772 1810 fax: 0161
772 1811 web: www.apse.org.uk