

Public

tRESP

Nations and Regions Context Methodology and Detailed Design

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1.1 Introduction

This document outlines the methodology for the transitional RESP's (tRESP) Nations and Regions Contexts, developed by NESO, to support the RII0-ED3 price control setting, providing an initial overview of the conditions and priorities across each RESP nation and region. The prototype tRESP Nations and Regions Contexts will be published alongside the other key publications of the tRESP consultation (Pathways, Consistent Planning Assumptions (CPAs) and Strategic Investment Need (SI Need)) in September 2025 before a final, enhanced version is released in January 2026.

While the full RESP Nations and Regions Contexts will develop a comprehensive understanding of conditions and priorities for each nation and region, The Contexts will draw on embedded engagement through RESP Teams and additional national and regional datasets. tRESP will develop Nations and Regions Contexts to provide an initial assessment of conditions and priorities, drawing on RESP engagement and relevant qualitative and quantitative sources, with a greater focus on consistency between nations and regions than for full RESP. The tRESP Nations and Regions Contexts have been developed with a specific focus on factors influencing ED3 and will be refined following consultation feedback and engagement with customers and regional stakeholders.

1.2 Scope

1.2.1 *What is tRESP Nations and Regions Context?*

The tRESP Nations and Regions Contexts present essential background information on key elements and topics at a RESP nation or region level or below, in a consistent and comparative way, while allowing for national and regional divergence where necessary to enable a fair reflection of conditions, key challenges, opportunities and priorities. Where possible, national datasets and sources have been used to inform the quantitative elements of the Contexts as a starting point; these sources have been interrogated, analysed and aligned to each RESP, providing a consistent baseline of each nation and region's energy landscape, infrastructure, economic landscape and role in the Great Britain (GB) whole energy system. They consider local inputs where possible and provide clarity and consistency across multiple network areas, enabling more nationally and regionally focussed planning and analysis.

The Nations and Regions Contexts reflect local priorities rather than superseding them, providing essential background information on key elements, themes and topics. The Contexts align with the Pathways through consistent use of data, visualisations, and technologies aligned to the themes included in the component, with some divergence in specific data themes. Further work is underway to achieve consistent cross-component alignment.

Through an extensive desktop research exercise, supported by engagement in RESP nations and regions, including engagement with customers and stakeholders in the RESP forums and targeted bi-laterals, the scope of the Nations and Regions Contexts has been refined and agreed to cover the following themes:

- Demographics and socioeconomics

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- Energy infrastructure
- Transport and heating
- Industry and economy
- Generation and storage
- National and regional targets and ambitions

Under each of these themes, a number of data areas and topics have been included. In these areas, we have produced a mixture of geospatial visualisations, charts and qualitative narratives, for each nation and region, aligned to key qualitative and quantitative themes and elements. These are hosted on a digital platform available via the NESO website, to enhance accessibility and usability. The Nations and Regions Contexts also contain summaries, outlining implications and relevance for tRESP, which have guided the selection of themes and data topics.

Whilst deciding what was in-scope for tRESP Nations and Regions Contexts, we also had to consider what to exclude for the purposes of tRESP. This was guided by our desire to set a consistent starting point, whereby the full RESP from 2026 could build and introduce greater levels of granularity and local input.

Excluded from tRESP Nations and Regions Contexts	Reason for exclusion
Additional data from local actors to develop a detailed bottom-up view of conditions and priorities for the nations and regions.	The need for consistency between and within nations and regions across selected data topics and themes has meant that nationally available sources, which have been fully validated have been prioritised. Area-specific datasets would have risked consistency issues, requiring greater levels of data processing and validation. Where appropriate, we have referenced additional data or information in our accompanying narratives. Area-specific datasets will be considered in the full RESP Nations and Regions Contexts.
Embedded engagement in nations and regions and coordination with local stakeholders.	In the full RESP, the Nations and Regions Contexts will be the starting point of our cycle and will be based on wide-spread place-based engagement. This was not fully achievable for tRESP given the time constraints. Therefore, engagement has been delivered primarily through our newly recruited RESP Teams across England, Scotland and Wales. They have carried out engagement in their respective nations and regions, including through our RESP forums. We recognise that local customers and stakeholders possess a wealth of relevant additional knowledge. Many have developed and collated a number of data sources

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	relevant to specific nations and regions. These will feature more prominently in the full RESP.
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The above points will instead be within the scope of the full RESP Nations and Regions Contexts publication, as indicated in Figure 1.

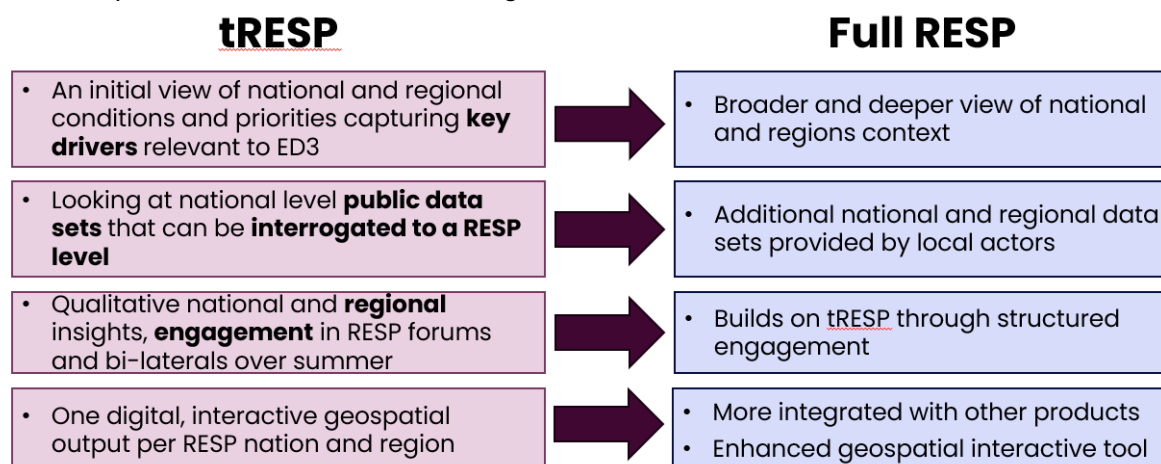


Figure 1: Evolution of Nations and Regions Contexts from tRESP to full RESP.

1.2.2 **What value will this bring to RIIO-ED3?**

The tRESP Nations and Regions Contexts will enhance RIIO-ED3 by supporting energy system planning. It will provide an independent, coherent and consistent view of each nation and region's conditions, priorities and ambitions to customers and stakeholders across GB. This will offer a consistent framework while also capturing insights specific to each nation and region.

1.2.3 **Alignment to other tRESP publications**

The Nations and Regions Contexts are the first of four key components of transitional Regional Energy Strategic Planning (tRESP), alongside Pathways, Consistent Planning Assumptions (CPAs), and Strategic Investment Need (SI Need).

The Contexts, and in particular its equivalent component in full RESP, will help inform the identification and assessment of future SI Need and the composition of energy requirements, defined as projects, programmes, and initiatives. The Nations and Regions Contexts, and the insights they provide, will enable RESP to engage customers and stakeholders to better understand the broader pipeline of energy needs, across the whole energy system, as RESP evolves into full RESP.

Once SI Need Assessments are completed, outcomes will be compared with relevant Contexts and insights to identify any gaps in activity, energy infrastructure, or energy demand. This will help guide future updates and additions to Nations and Regions Contexts through continued analysis and engagement. The design of the product and the way it processes, packages and presents data supports the addition of new data sources and themes, enabling the digital platform to evolve over time as RESP evolves from transitional to full.

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The tRESP Pathways component models projected changes in supply and demand within RESP nations and regions. Nations and Regions Context aligns with these pathways through consistent use of data, visualisations, and technologies aligned to the themes included in the component, with some divergence in specific data themes. Further work is underway to achieve consistent cross component alignment.

1.2.4 ***Ofgem specifications***

The tRESP Open Letter¹ details that each RESP area will include “an initial view of regional conditions and priorities, informed by regional stakeholders, capturing key drivers of network investment”. NESO has designed the scope of the tRESP Nations and Regions Context publication around this guidance to ensure alignment, while undertaking a tailored assessment approach to identify and evaluate the unique characteristics, challenges, and opportunities of each RESP nation and region.

1.3 **Assessment**

1.3.1 ***NESO assessment process***

The development of the tRESP Nations and Regions Context reports was underpinned by a thorough assessment process that enabled the identification of key drivers of network investment within the ED3 price control. NESO ideated an extended list of potential topics and datasets for inclusion in the final publication through internal workshops, leveraging insights from NESO’s regional RESP Teams and desktop research. This collaborative approach facilitated the capture of diverse regional insights and priorities, ensuring that the final publication accurately reflects the unique characteristics of each nation and region while maintaining a focus on ED3 and consistency.

Subsequently, structured assessment criteria were applied in three key stages against each proposed topic to iterate and refine the long list, enabling the development of a holistic overview of each RESP nation and region whilst ensuring NESO could deliver a credible product.

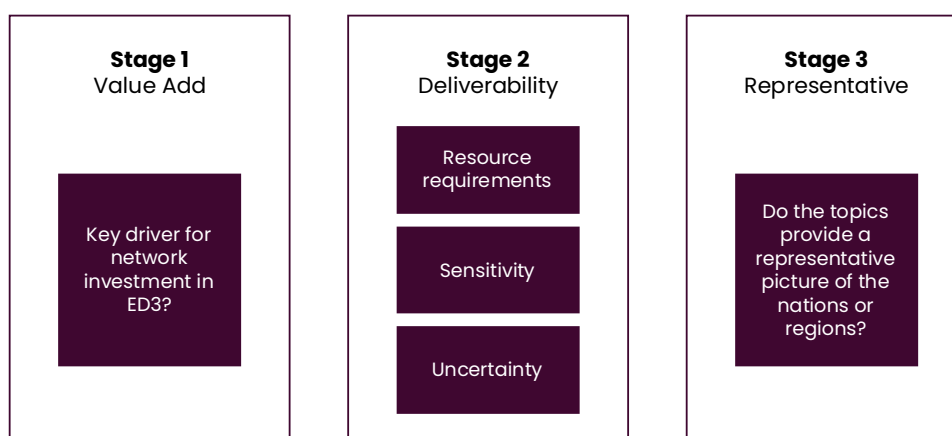


Figure 2: tRESP Nations and Regions Context data and topic selection process

¹ Open Letter regarding the scope of the transitional Regional Energy Strategic Plan.

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1. **ED3 Value Add:** This initial assessment evaluates the contribution of each topic to regulatory decision-making.
2. **Resource Requirement:** Considers the level of resource required to secure the relevant datasets for the proposed topic and consolidate these into a credible, robust and auditable position.
3. **Sensitivity:** Evaluates the interpretability of the data associated with each topic and the potential need for additional engagement to accurately articulate the findings.
4. **Uncertainty:** Addresses the level of confidence in the availability and consistency of data across all regions associated with each topic.
5. **Representative:** Following completion of the prior assessments, the Contexts were assessed ensure it provided a representative view of the nation or region.

By applying these lenses and evaluation approach, NESO has ensured that the tRESP Nations and Regions Context reports are refined and strategically aligned with the objectives of the ED3 price control. After reviewing the publications from this initial assessment, the proposed topics have either been selected for inclusion in the final tRESP Nations and Regions Context reports or taken forward for further evaluation for the full RESP Nations and Regions Context methodology. For topics that are excluded from the tRESP Nations and Regions Context publication, the RESP national and regional Teams may opt to include qualitative insights on them in the supporting narratives, where relevant, for their respective tRESP Nations and Regions Context publications.

1.3.2 **Data assurance**

The development of the tRESP Nations and Regions Context publication has utilised and analysed publicly available datasets, primarily those published by official government sources, to ensure a high standard of data credibility. Where possible, data points were cross-referenced with alternative sources to validate consistency and build confidence in the Contexts.

Data covering a range of relevant themes were systematically consolidated and processed using standardised methods to enable comparability across RESP nations and regions in GB, in line with NESO data governance and assurance. We use a single authoritative repository to store our input data, with version control, to ensure consistency and reproducibility.

Quality assurance checks were applied throughout all stages of data handling to identify gaps, inconsistencies, or anomalies. Where limitations were identified, such as uneven data coverage or varying definitions between sources, appropriate mitigations were introduced. This included the documentation of assumptions, clear communication of caveats, and, where relevant, assessments of uncertainty to maintain transparency.

Stakeholder engagement (outlined in further detail in the below section) was a key element of the assurance process. Input from subject matter experts and relevant regional

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stakeholders helped contextualise the findings and provided an additional layer of validation, ensuring the Contexts were both robust and fit for purpose.

1.3.3 **Stakeholder engagement approach**

Over the past six months, NESO's regional RESP Teams have been engaging with regional customers and stakeholders to enhance their existing understanding of the RESP nations and regions. Building on this, draft emerging versions of the tRESP Nations and Regions Context publication were shared at each summer RESP forum to gather stakeholder insights. Each RESP Team presented an emerging view of their respective nation or region's Context and invited regional stakeholders to provide their comments and input, particularly on the relevance and criticality of the content and data topics included. The messaging to these regional actors on the Contexts emphasised the specific focus on tRESP and its objective in supporting ED3, highlighting that it is not as comprehensive as the full RESP Nations and Regions Context publication will be. The insight gained will be reviewed and either included in the final tRESP publication or taken forward to be assessed as part of the full RESP Nations and Regions Context methodology.

Additionally, NESO will collaborate with networks to review the tRESP Nations and Regions Contexts, ensuring that the energy infrastructure section accurately reflects their networks. This will be achieved through bi-laterals with gas and electricity networks. As part of the consultation process, NESO will update the tRESP Nations and Regions Context publication based on stakeholder feedback received ahead of the final publication in January 2026.

Output

As mentioned, Nations and Regions Context reports will be published for each RESP nation and region, covering a range of topics with comparisons to GB averages (where appropriate) to highlight relevant differences.

1.3.4 **Regional landscape, conditions and ambitions**

This initial section focuses on those aspects of regional landscape, challenges and opportunities, that are key drivers for investment for ED3.

Demographics & Socioeconomics	Energy Infrastructure	Transport & Heating	Industry	Generation & Storage	Targets
Local Governance	Gas Distribution	Electric Car Uptake	Industrial Clusters	Renewable Projects and Project pipeline	CP30
Population	Electricity Distribution	Public Charging Infrastructure	Freeports / Green Freeports	Storage Projects & Project Pipeline	LAEP / LHEES Coverage
EPC Splits	Electricity Transmission	Heat Networks	Enterprise Zones / Areas	H2 Funded Projects	Targets & Ambitions
Fuel Poverty		Domestic Gas Connections	Investment Zones		SSEP Ambitions
		Heat Pump Installation Data	Industrial Energy Demand		

Figure 3: Proposed content for tRESP Nations and Regions Context.

Each overarching topic (Demographics and Socioeconomics, Energy infrastructure, Transport and Heating, Industry, Generation and Storage, and Targets) features, where possible, a range of geospatial and graphical outputs, supplemented by qualitative

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narratives and summaries that provide deeper context and insights. The Targets & Ambitions and SSEP Targets sub-topics consist of written summaries that provide essential insights into the strategic direction and objectives shaping the energy landscape and influencing national and regional priorities. These qualitative narratives and summaries have been developed by each RESP Team, leveraging their expertise and knowledge gained through sustained regional stakeholder engagement. This input ensures the reports are contextually grounded, tailored to regional priorities, and enhanced with the nuance required to complement the quantitative analysis.

1.3.5 ***Summary and implications for tRESP***

In this section, the insights from each data topic will be summarised and synthesised to outline the potential implications for tRESP and RIIO-ED3. This aspect of the tRESP Nations and Regions Context publication will explore the critical drivers for network investment, considering factors such as demographic trends, energy generation capacity, and infrastructure constraints.

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Appendix

Figure 4: Data sources for selected tRESP Nations and Regions Context topics.

Selected Topic	Data Source(s)	Coverage
Local Authority Boundaries	Office for National Statistics Local Authority Boundaries – (Local Authority Districts (May 2025) Boundaries UK BFE (V2) Open Geography Portal)	Great Britain
DNO Boundaries	NESO Data Portal – GIS Boundaries for GB DNO Licence Areas – GIS Boundaries for GB DNO Licence Areas National Energy System Operator	Great Britain
GDN Boundaries	Shape files sourced from GDNs and Find My GDN	Great Britain
Population	ONS Population Estimates – England and Wales	England and Wales
	Scotland Population Estimates	Scotland
Fuel Poverty	Local Authority Specific (2022-2024) England Overall (2024)	England
	Local Authority Specific (2017-2019) Scotland Overall (2023)	Scotland
	LA Specific (2018)	Wales
EPC Splits	England and Wales – EPC Statistical Release – March 2025	England and Wales
	England and Wales – Live tables on performance of building certificates	
	Local Authority Specific (2017-2019) Scotland Overall (2023)	Scotland
Heat Networks	Heat Network Planning Database (HNPD)	Great Britain
H2 Funded Projects	UK Hydrogen Project Map	Great Britain
Upcoming Renewables (Generation & Storage Projects)	Renewable Energy Planning Database (REPD), April 2025	Great Britain
Total EV chargers	DfT – Public Electric Vehicle Charging Infrastructure	Great Britain
EV uptake	DfT – VEH015 and VEH0142	Great Britain
Industrial Clusters	Industrial Clusters – Zero Carbon Hubs	Great Britain
	Further data for Wales – SWIC and NEWID	Wales

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Selected Topic	Data Source(s)	Coverage
Freeports / Green Freeports	UK Freeports	Great Britain
Enterprise Zones / Areas	England Enterprise Zones	England
	Wales Enterprise Zones	Wales
	Scotland – Enterprise Areas	Scotland
Investment Zones	UK Investment Zones	Great Britain
LAEP / LHEES Coverage	Energy Systems Catapult – Ready for RESP 2025	England and Wales
	The Local Heat and Energy Efficiency Strategies (LHEES) (Scotland) Order 2022 – set out that local authorities must prepare, publish and update a strategy and delivery plan on or before 31 December 2023	Scotland
CP30	UK Government Clean power 2030 Action Plan – connections reform annex	Great Britain