Regional Energy System Planning (RESP) Methodology Consultation – Strategic Investment Needs

3 December 2025

- Elgan Roberts - Regional Energy Strategic Planning Lead
- Katie Harrison - RESP Methodology Projects Lead
- Jonny Sadler - RESP Engagement & Communications Manager

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Agenda

1. Welcome & Introduction – Jonny Sadler
2. Methodology Consultation Overview – Katie Harrison
3. Product Overview – Elgan Roberts
   - Poll Survey
4. Q&A– All
5. Next Steps & How to get involved - Jonny Sadler

Methodology Consultation Document

https://www.neso.energy/document/372156/download

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2. Methodology Consultation

Katie Harrison
RESP Methodology Projects Lead

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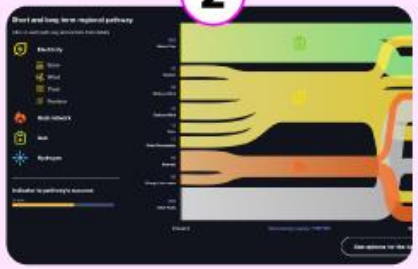
Five components of a RESP

The What...

The Regional Energy Strategic Plan

Nations and Regions Context 1

Pathways 2



Consistent Planning Assumptions 3

Spatial Context 4

Specification of Strategic Investment Needs 5

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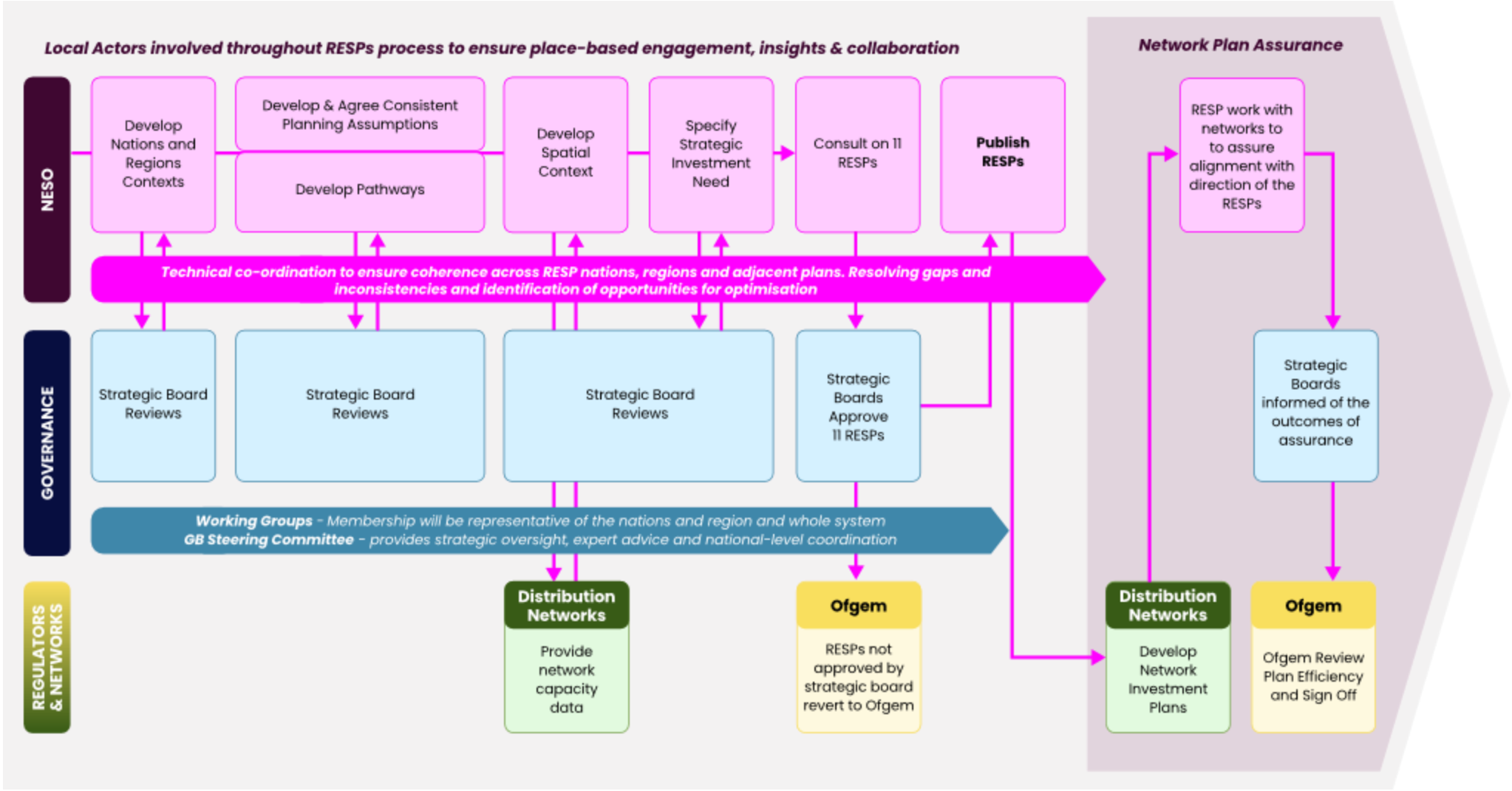
End-to-end Process



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3. Strategic Investment Need Overview

Elgan Roberts
Regional Energy Strategic Planning Lead

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Ofgem expectations in Draft RESP Guidance

- *"NESO must set out its approach to identifying, categorising, and providing appropriately detailed specifications of areas of Strategic Investment Need within each of the RESP nations and regions."*

- *"The RESP methodology must describe how potential areas of Strategic Investment Need in each of the RESP nations and regions will be identified through structured nation and region stakeholder engagement, including the production of the Nations and Regions Contexts, and through analysis of the RESP Pathways and Spatial Context outputs."*

What is Strategic Investment Need?

Strategic Investment Need focuses on energy needs that are:

- ✓ of significance to the nation or region (necessary to deliver key nation and region values and priorities)
- ✓ of high economic and/or system value
- ✓ more complex to assess due to timescales, geography, or required trade-offs between energy types, priorities or stakeholders, and
- ✓ those requiring network investment ahead of certain needs

What it is NOT

Strategic Investment Need **is not** about:

- × straight forward (non-complex) energy needs of significance to the nation or region that will be met by "business as usual" approaches to network planning.
- × the maintenance of networks to ensure safety, resilience and security of supply.
- × straight forward, lower-value, load-related expenditure resulting from single-energy-type network planning.
- × energy needs that are currently well provided for through the current connections processes run by energy networks.

Moving from tRESP to full RESP

Identifying needs:

- Drawing from priorities and complexities identified in the Nations and Regions Contexts, pathway modelling and spatial context
- Using digital tools to improve efficiency and collaboration with external stakeholders including a targeted RFI playing a supporting role

Assessing needs:

- Moving towards more quantitative, objective approaches
- Assessing uncertainties related to the scope of the energy need

In development register:

- Will be populated with the out-of-scope energy needs from the tRESP SI Needs process. This will be a key input into the full RESP SI Need assessment process

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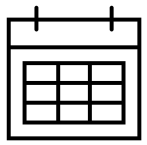
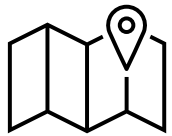
Complex energy needs



Timescale complexities

Areas of strategic energy need that are likely to be complex in terms of delivery over time.

For example - the energy needs for an economic growth area such as AI Growth Zones, Freeports or Investment Zones.



Geographical complexities

Areas of strategic energy need that span more than one network operator.

For example - a strategic development area identified within a Local Government plan with significant energy needs that spans the boundary of two network license areas.

Trade-off complexities

Areas of strategic energy need that may have conflicting objectives when it comes to energy types, priorities and stakeholders.

For example - the decarbonisation of an industrial cluster involving more than one energy vector and stakeholders with potentially conflicting objectives or require coordination between vectors.

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Complex Strategic Energy Needs

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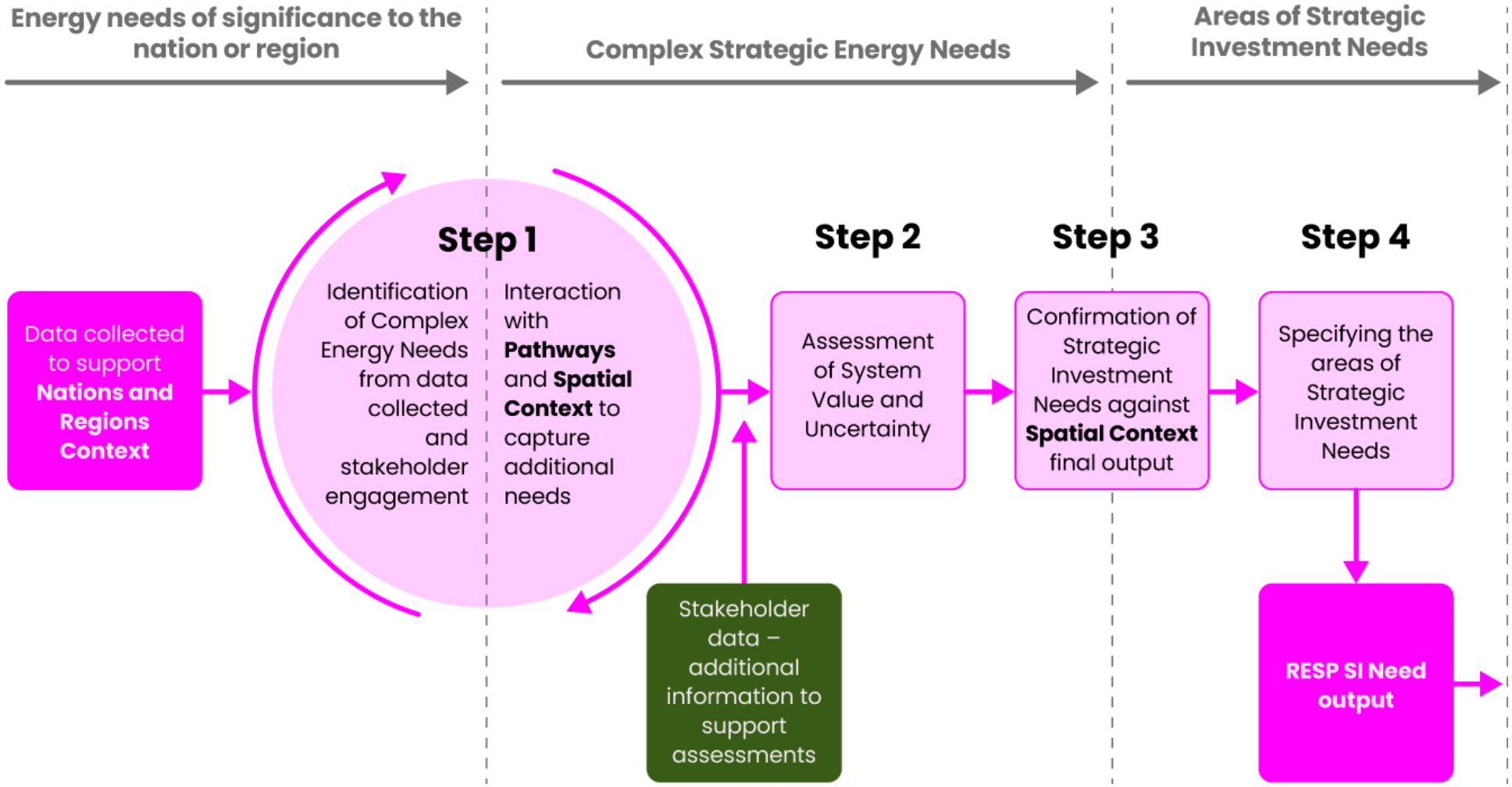
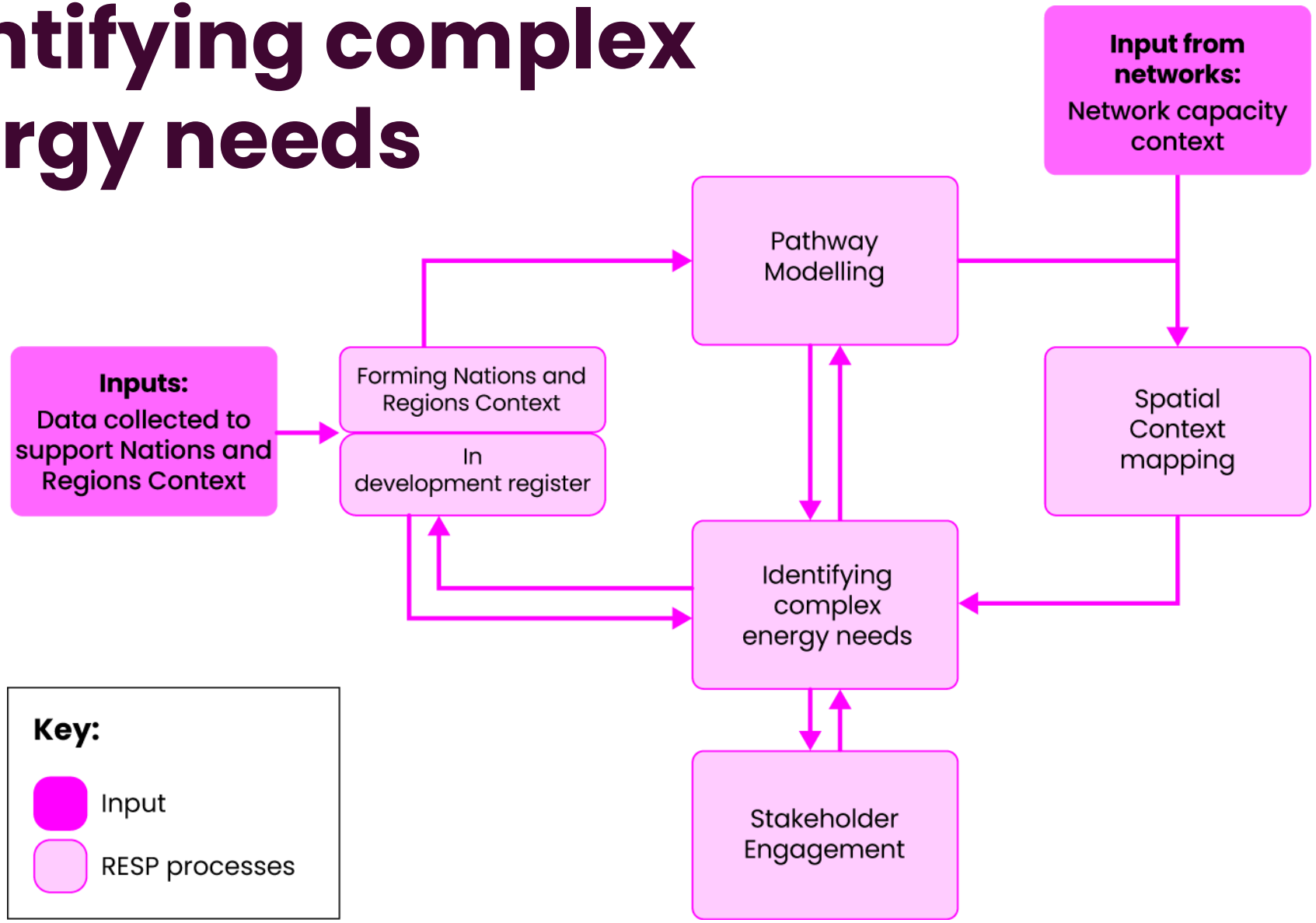
Step-by-step process

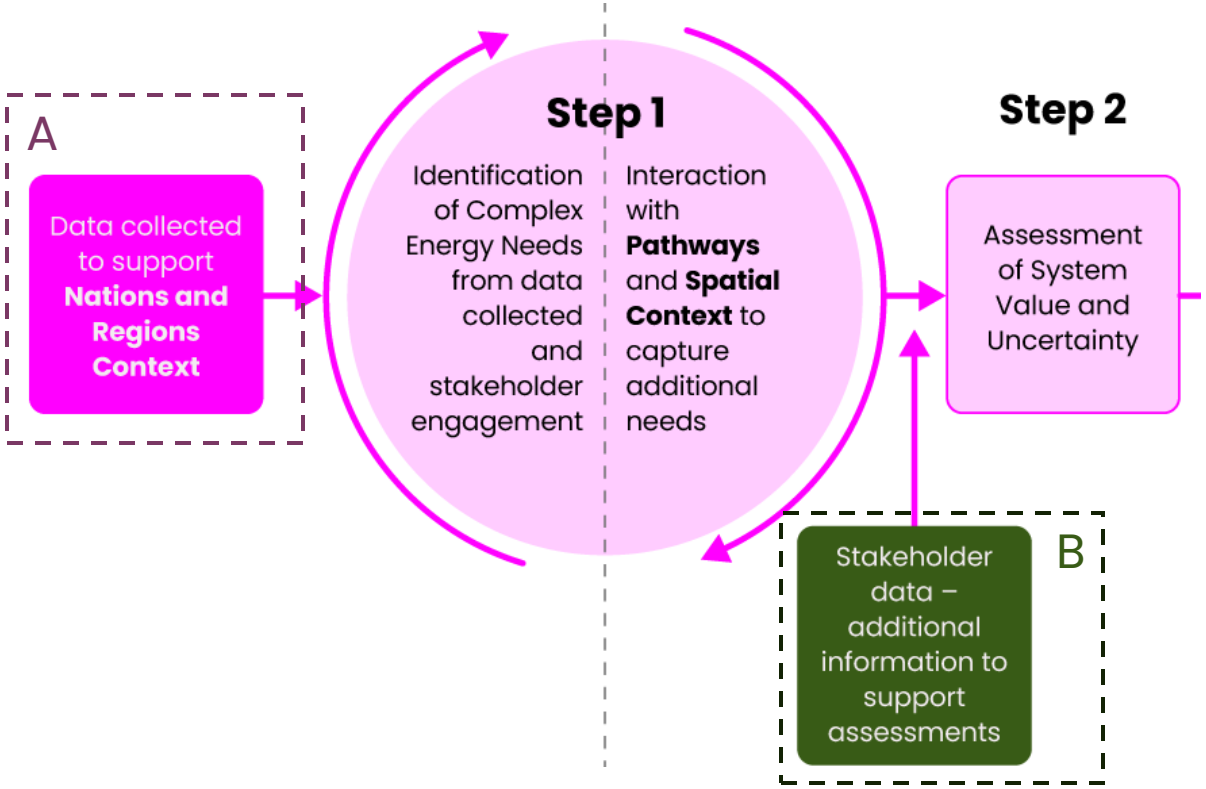


Step 1: Identifying Complex Energy Needs

Identifying complex energy needs



Requesting additional information to populate ‘energy need insight’



‘Energy need insights’ populated from:

A. the initial data and insights collected to identify energy needs that have been screened for regional significance & complexity, and

B. additional information requested from stakeholders (targeted request for information) to verify the data/insights collected, fill in any gaps and provide supporting evidence where required

Why do we need additional information?

To attain the level of detail needed to:

- assess system value and uncertainty
- model as part of pathways and spatially
- specify the strategic investment needs in a meaningful way for Networks and Ofgem

Step 2: Assessing System Value and Uncertainty

Establishing System Value

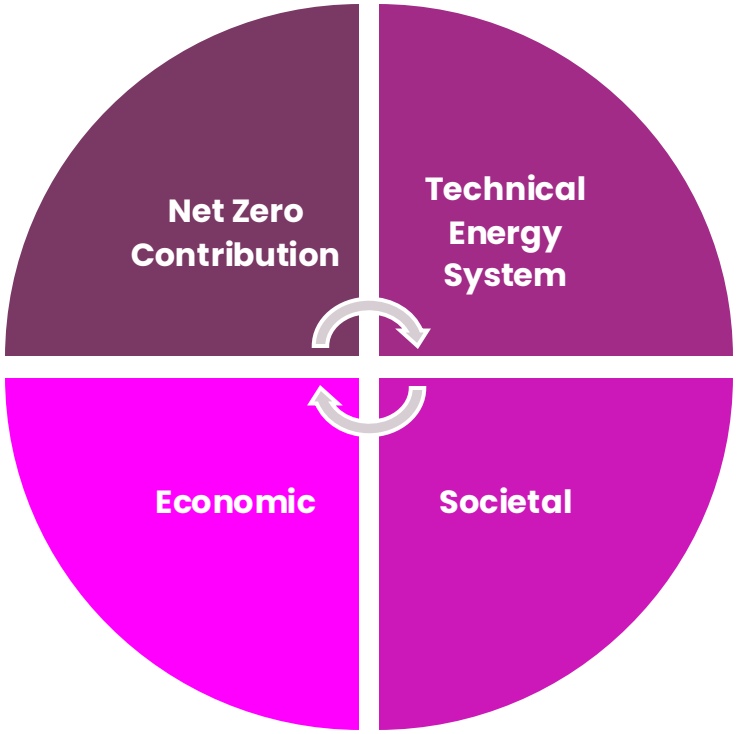
The system value assessment will align with the decision-making principles of the RESP.

This is to ensure consistency and coherence in our approach.

This is a complex area and the specific criteria, method of quantification, tools for analysis weightings, and implementation of the framework are still being developed by NESO.

We will continue to engage with Ofgem, networks and other stakeholders to further develop this. The values chosen align with:

- the approach taken in wider Strategic Energy Plan methodologies developed by NESO
- Ofgem's definition of place-based engagement factors
- the tRESP Values
- the World Economic Forum's definition of system value



Assessing System Value

Value	Description	Proposed Method of Assessment & Criteria
Net Zero Contribution	• Expected environmental impact of the energy need –Greenhouse Gas Emissions (GHG) impacts	Quantitative criteria Expected GHG impact (reduction in CO2 vs the baseline scenario) – in line with UK Gov GHG reporting guidelines
Technical Energy System	• Expected contribution to provide a more efficient, resilient and secure energy system. – focused on whole system impacts and optimisation	Qualitative criteria • Expected contribution to an efficient and optimised energy system; e.g. contribution to systems integration and optimisation, improved efficiency, flexibility, clean generation
Economic	• Expected economic impact / benefits of the energy need	Quantitative criteria • Regional Gross Value Added • Jobs created or safeguarded
Societal	• Expected societal impact of the energy need – including impact on societal objectives	Qualitative criteria • Impacts on fuel poverty (expected reductions) • Impact on Nation / Region defined objectives (linked to consolidated priorities)

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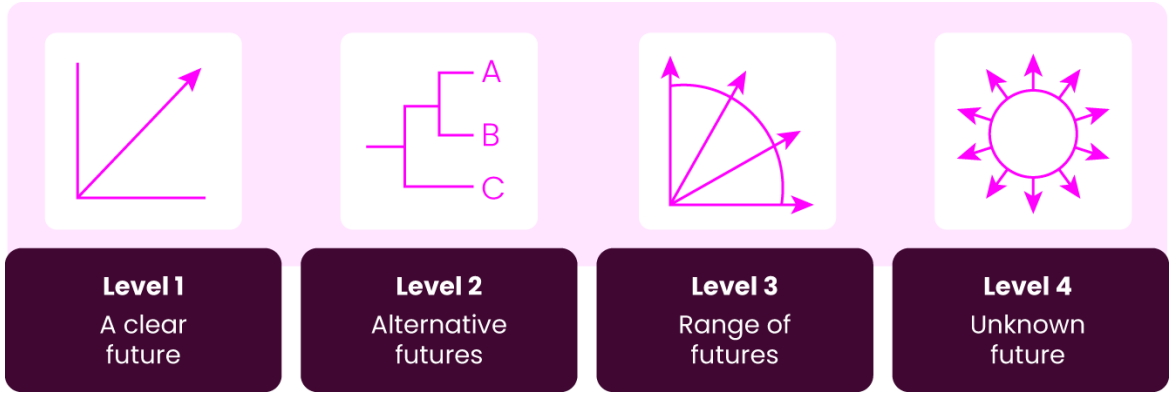
Identifying & Assessing Uncertainty

Using the UK Governments Aqua Book guidance, we've outlined an approach for identifying and assessing uncertainty.

Identifying Uncertainty

Scope-related	• Location • Capacity/Scale • Energy type • Timescales
Risks	• planning certainty • funding certainty • Technology Readiness Level (TRL) • policy stability
Data & analytical	• Data confidence

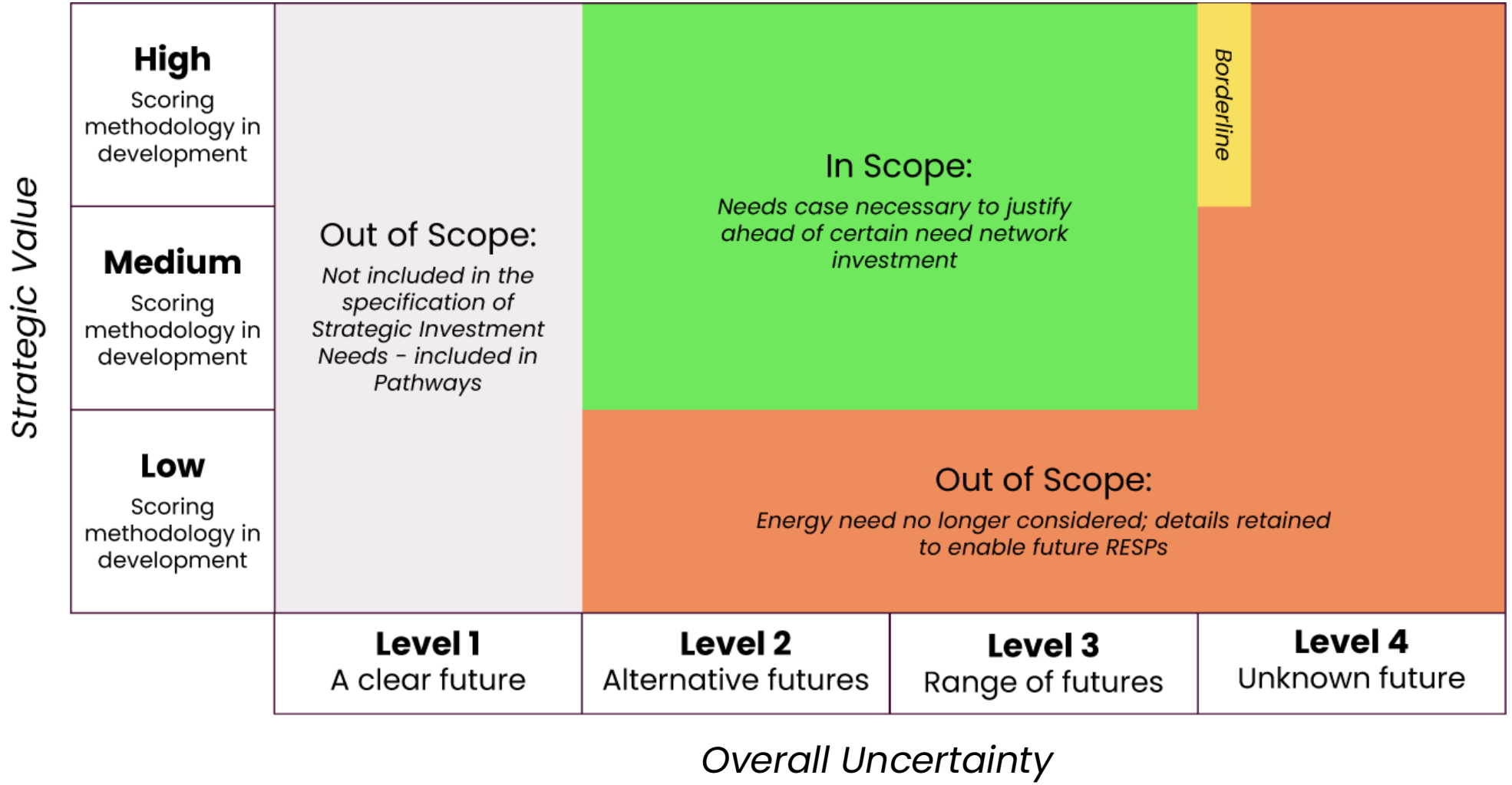
Assessing Uncertainty



Uncertainty assessment criteria

Assessment Criteria	Level 1 a clear future [High Certainty]	Level 2 alternative futures [Medium Certainty]	Level 3 range of futures [Low Certainty]	Level 4 unknown Future [Very Low Certainty]
Location	There is a specific location identified for the energy need, with no viable alternatives being considered.	There are distinct options for possible sites for the energy need.	The location options aren't fixed and could be anywhere within a broad area, e.g. Middle layer Super Output area (MSOAs) or Local Authority area	It's not known where this energy need will be met. No specific site, nation or region has been identified.
Capacity	The required capacity of the energy need is well-defined and agreed upon	There is more than one potential distinct capacity outcome for the energy need.	The capacity of the energy need could fall anywhere within a wider range.	The size of the energy need is unknown, with there not being enough information to provide a reasonable range.
Timescale	The energy need has a fixed and agreed delivery date or timeframe.	The delivery date or timeframe is not yet confirmed, but a short delivery window has been proposed and is awaiting confirmation.	The delivery timeframe is not confirmed; only a broad delivery window has been identified.	There is no indication of when the energy need will arise.

In or Out of Scope



Step 3: Confirming Investment Need

Confirmation of SI Need

In-scope energy needs will be checked against the final Spatial Context output to confirm if a specification for strategic investment need is required.

Through this process, NESO will work with networks to highlight areas where network capacity cannot support future growth and meet strategic objectives.

Step 4: Specifying Investment Need

Specification of Strategic Investment Need

Location
(spatially mapped area of strategic energy need)

Network licence area

Categorisation
(in development)

Capacity
(demand or supply – scale of capacity needed to meet the identified strategic energy need and expected growth in demand or supply)

Energy type
(relevant energy type(s) involved (electricity, gas, hydrogen, heat))

Network level
(for SI Needs we expect this to be primary network level and above for electricity distribution and medium pressure and above for gas distribution)

Connection date
(expected date for when a connection is likely to be needed, including uncertainty bounds)

Needs case

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Specifying Need

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5. Q&A

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6. Next Steps & How to get involved

Jonny Sadler
RESP Engagement & Communications Manager

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Timeline

Nov 2025	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Summer 2026

RESP Methodology

- 17th: consultation launch
- 16th: consultation closes
- End-March: proposed final Methodology submitted to Ofgem and DESNZ
- Final RESP Methodology + 'you said, we did report'

- Deep-dive Webinars - Round 1 (25th Nov -3rd Dec)
- Deep-dive Webinars - Round 2 (if required)

- RESP Forums – Winter 2025/26
- RESP Forums – Summer 2026

tRESP

- Final tRESP published

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How to respond to the consultation

1. Please submit your response by **11.59pm on 16 January 2026**
2. Please submit your response via the **Qualtrics platform:**

English: **Cymraeg:**

3. If you are not able to submit your response via Qualtrics, please contact box.consultations.resp@neso.energy by 9 January 2025, at the latest.
4. Responses are saved as you progress through the form, so you don't have to complete all questions at once. **Please note that they are only saved when you go to the next page of the survey.**
5. You will be able to download a copy of your responses as a PDF at the end.
6. FAQs will be published on the RESP Methodology consultation section of the NESO website
7. If you have any questions, please email: box.consultations.resp@neso.energy

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RESP Forums – Winter 2026

Nation / Region	Date	Time
North West	3rd February	13:00-14:30
South East	5th February	10:00-11:30
London	5th February	14:00-15:30
North East, Yorkshire & the Humber	9th February	14:00-15:30
South West	10th February	14:00-15:30
Wales	10th February	10:00-11:30
East of England	11th February	11:00-12:30
West Midlands	11th February	13:30-15:00
East Midlands	12th February	13:00-15:00
Central England	12th February	14:00-15:30
Scotland	12th February	11:00-12:30

Forum 4 Agenda

(subject to change)

- Updates on wider RESP activities
- Final tRESP
- RESP Methodology Update
- SSEP Update
- Next Steps

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Further information on RESP

Look out for future Forum dates

NESO newsletter sign up

RESP web pages

Contact the RESP team

box.resp@neso.energy

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Thank you

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