

Public

NESO update on Strategic Energy Planning (SEP)

CIGRE UK

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Overview

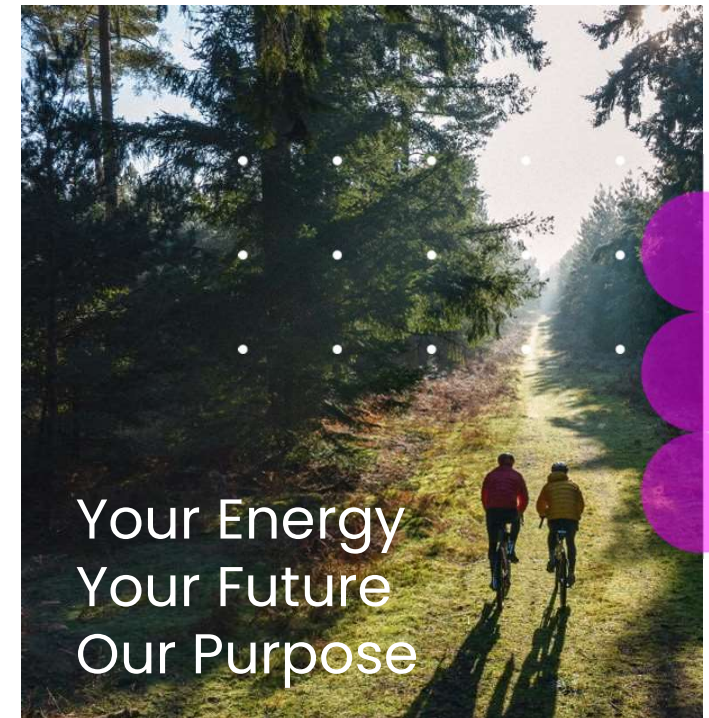
1. National Energy System Operator overview
2. Strategic energy planning (SEP) overview

1. National Energy System Operator overview

Who we are:

The National Energy System Operator, NESO, is an independent, public corporation at the centre of the energy system taking a **whole system view** to create a world where everyone has access to **reliable, clean and affordable energy**.

Our work will be the **catalyst for change** across the global community, forging the path to a **sustainable future for everyone**.



The challenge

Tackling climate change is the challenge of our generation

Our role

Transform the whole energy system and transition to a low carbon future



Our Governance

NESO is operationally independent of government. We plan the electricity and gas systems and operate the electricity system.

Being independent means we can give impartial recommendations to the government and the regulator.

Our shareholder



The Department for Energy Security & Net Zero is responsible for national policy and providing strategic direction and targets in relation to UK energy

Our regulator



Ofgem is the energy regulator for Great Britain

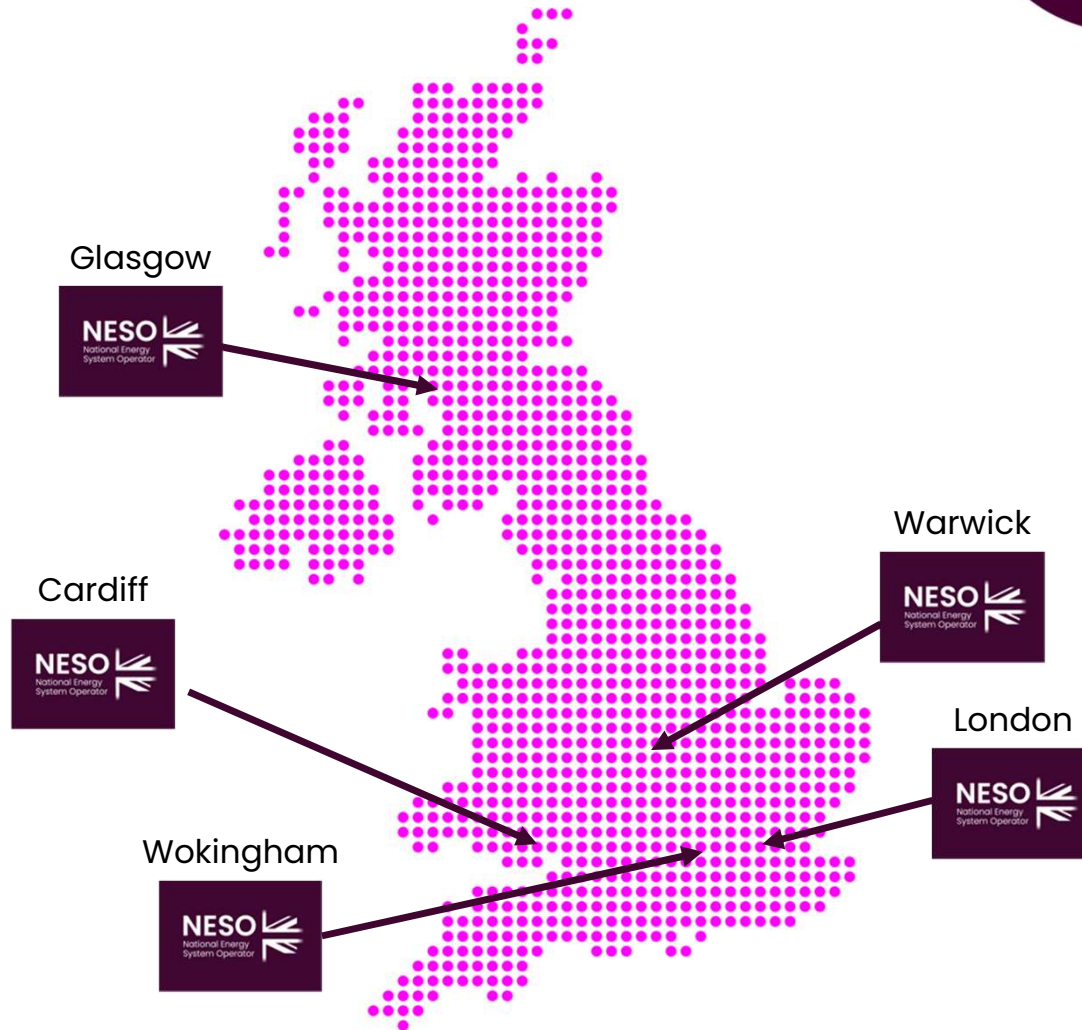
Independent NESO Board

The NESO Board oversees our strategic direction, ensuring compliance with regulations and mitigation of corporate risks.

The Board ensures that we build strong relationships with customers and it evaluates performance.

Our Locations

We have offices in Glasgow, Warwick, Wokingham and London but our people work across Great Britain and internationally.

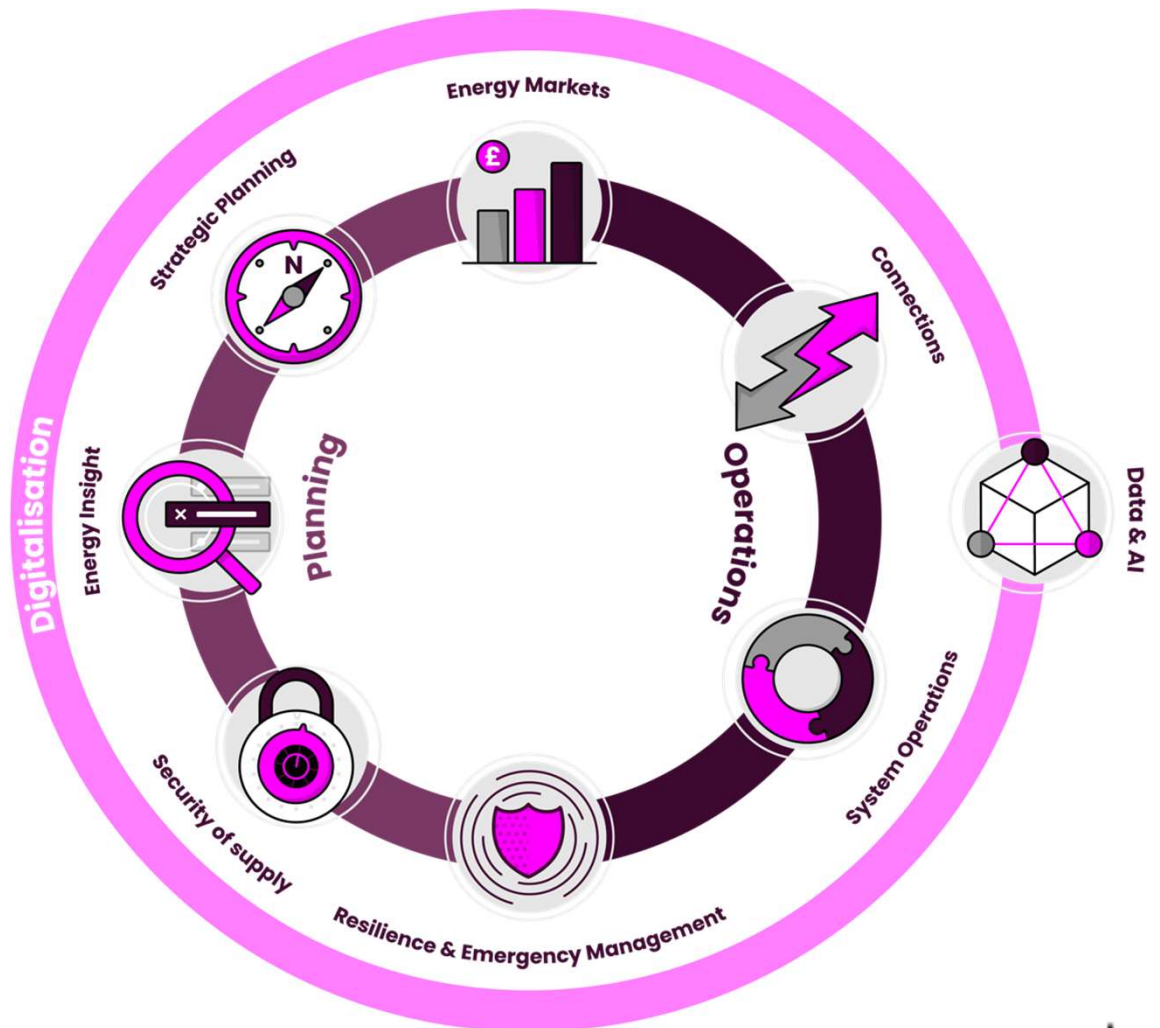


What we do:

We bring together **eight activities** required to deliver the plans, markets and operations of the energy system of today and the future.

Bringing these activities together in one organisation encourages **holistic thinking** on the most **cost-efficient** and **sustainable solutions** to the needs of our customers.

<https://www.neso.energy/what-we-do>



Strategic planner role

NESO will act as a body independent of asset owners to coordinate system design and planning efforts across the energy system



Strategic planning

For the first time in industry, we will **coordinate system design and planning efforts across the whole energy industry** so planning and investment decisions can be optimised to deliver GB's net zero objectives at the most equitable cost to consumers.

Our three overarching roles are the following:

- **Strategic Spatial Energy Planning**
- **Centralised Strategic Network Planning**
- **Regional Energy Strategic Planning**



Facilitate Net Zero target while ensuring energy security



Deliver regional and national whole energy solutions



Consider the impact on communities



Consider the impact on the environment



Consider costs to consumers and deliver economic strategies

CSNP framework

Our vision

Provide an **independent, coordinated, and longer-term approach to wider network planning** in GB to help meet the government's net zero ambitions

Provides a **network blueprint for the country**, mapping demand and optimal locations for onshore and offshore transmission infrastructure to support a decarbonised energy grid.



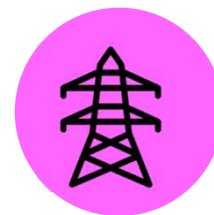
25-year horizon,
on a three-year
cycle



Co-ordinate
reinforcements and
anticipate investments
ahead of infrastructure
delivery



Balance development
against **environment/
community impacts** to
maximise benefits



Understand transmission
infrastructure needed for
**onshore/offshore
electricity transmission**
and **interconnectors**



Strategic Spatial Energy Plan (SSEP) overview

Accelerate clean, affordable, secure energy through certainty

The SSEP will accelerate and optimise Great Britain's transition to clean, affordable and secure energy by taking a holistic approach and providing greater certainty for key stakeholders.

Zonal approach, taking account of environment and communities

Splitting Great Britain's energy system into zones to assess the optimal locations for electricity generation and storage of electricity and hydrogen.

Options identified using economic, environmental and technical input, with considerable societal, stakeholder and political engagement planned.

SSEP will not focus on specific projects, leaving the energy market or subsequent processes to determine the specific projects and exact locations.



Regional Energy Strategic Plans (RESP)

Why?

To achieve local and national net zero targets we need:

1. **To accelerate electricity network investment** – enable heat & transport decarbonisation
2. **Consistency** – same approach for all network companies
3. **Whole system** – joined-up plan for all aspects of energy system

Where? (proposed)



Who? (proposed)

Ofgem – defining role

NESO – delivering role

Strategic Boards & Working Groups

Local authorities:

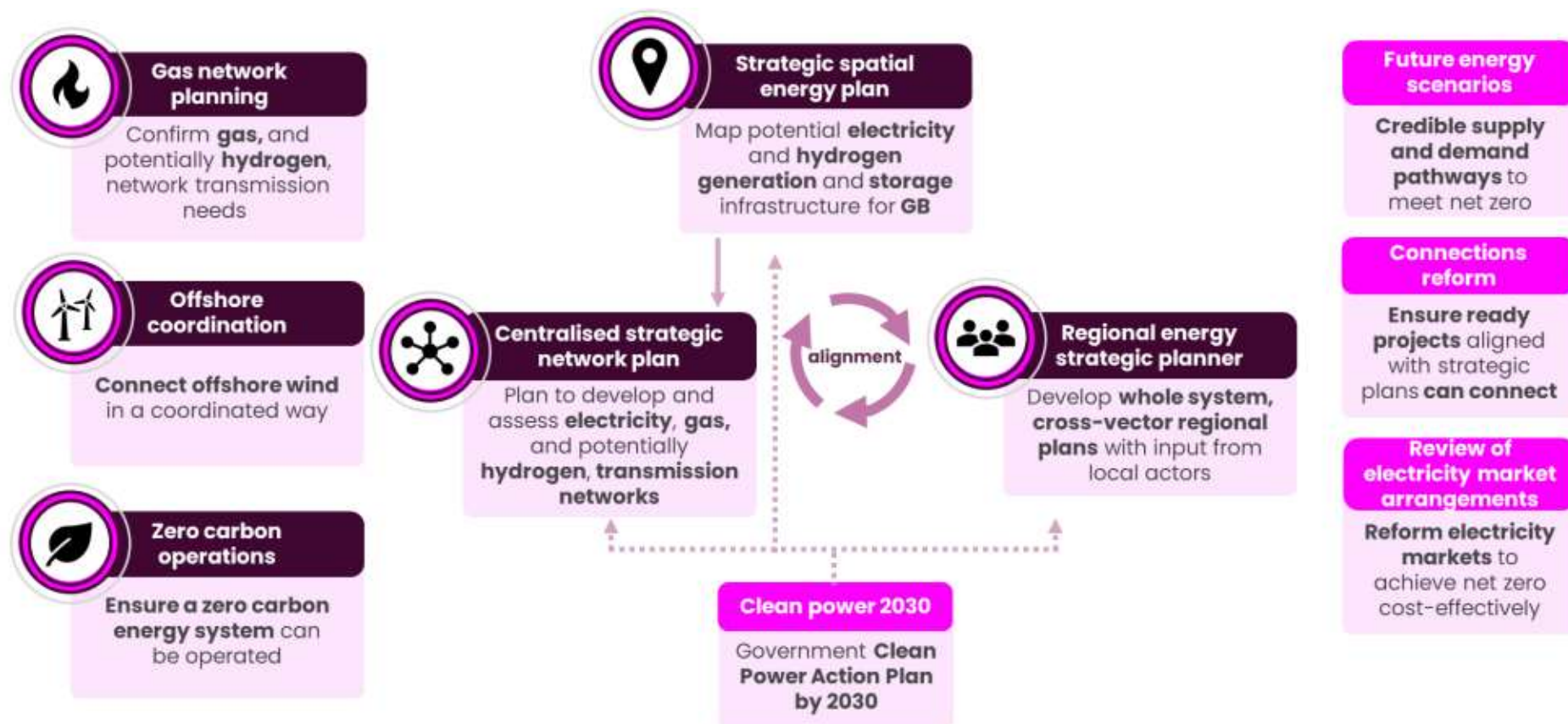
England: CAs, CCs, unitaries
Scotland & Wales: unitaries

Networks: DNOs & GDNs

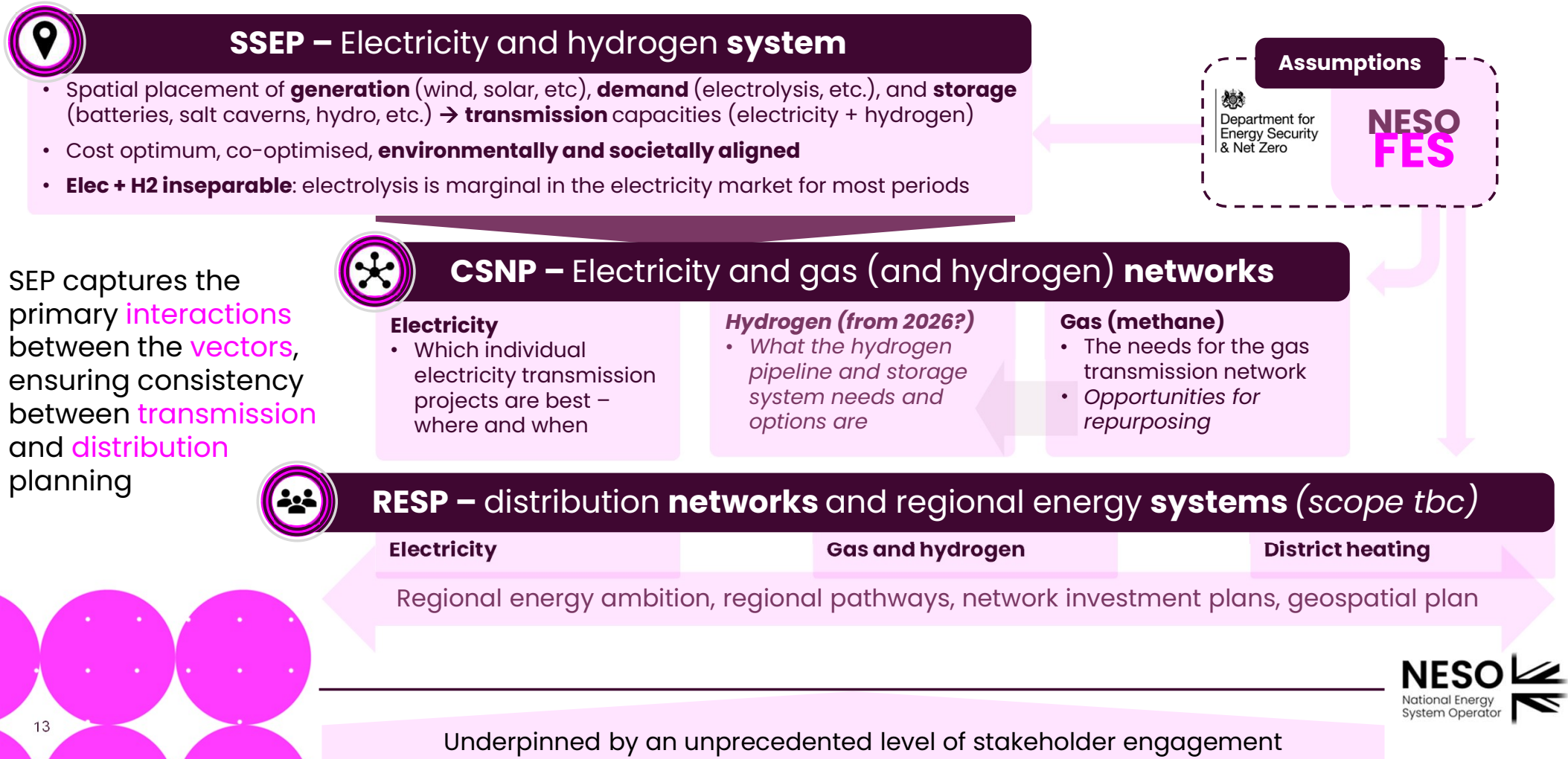
Other local actors: relevant to energy system & spatial planning

Note: Orkney & Shetland will be included in the map as part of the RESP policy framework, expected to be published by Ofgem in early-2025

Strategic energy planning interactions



Strategic Energy Planning – ‘whole system’ planning in practice



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Thank you

NESO

<https://www.neso.energy/what-we-do>

Strategic Energy Planning

<https://www.neso.energy/what-we-do/strategic-planning>

Contact

[insert presenter's email]