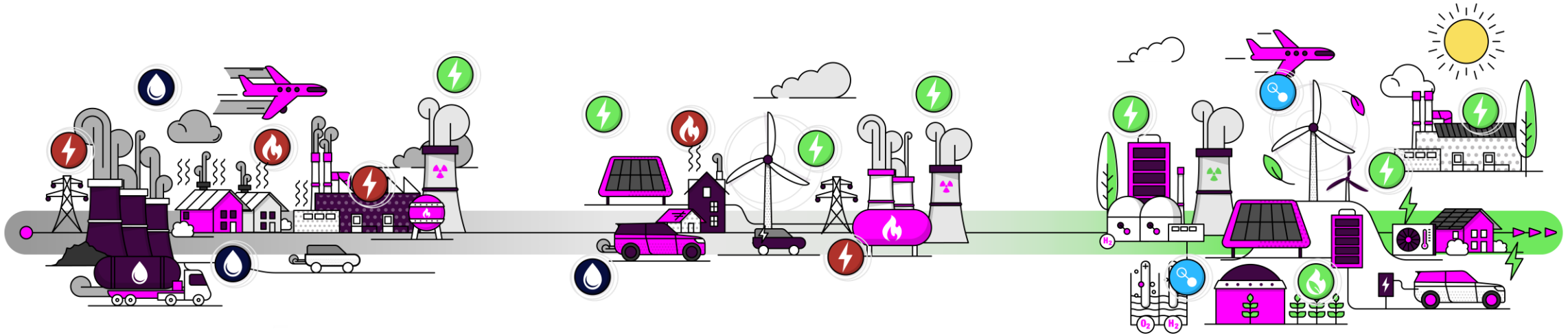
General

The Strategic Spatial Energy Plan – Addressing Great Britain's Long-Term Energy Needs

Alice Etheridge, Head of Strategic Spatial Energy Planning, NESO

NESO
National Energy System Operator

Decarbonisation: a whole-system challenge



Key

Oil

Natural Gas

Fossil Fuel Electricity

Green Electricity

Biogas

Hydrogen

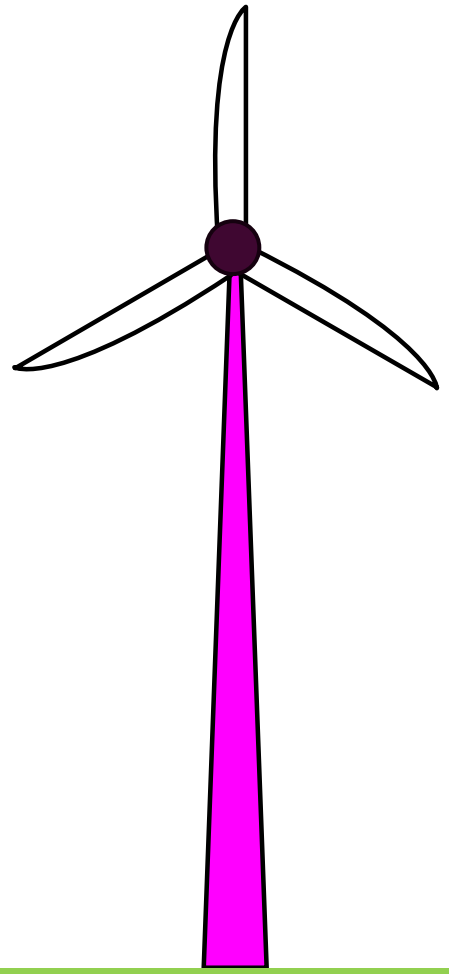
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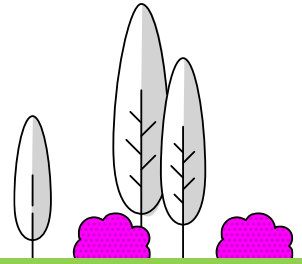
Strategic Spatial Energy Plan

The SSEP will accelerate clean, affordable and secure energy through greater certainty.

The plan will assess the locations for electricity generation, and storage of electricity and hydrogen on a zonal basis.

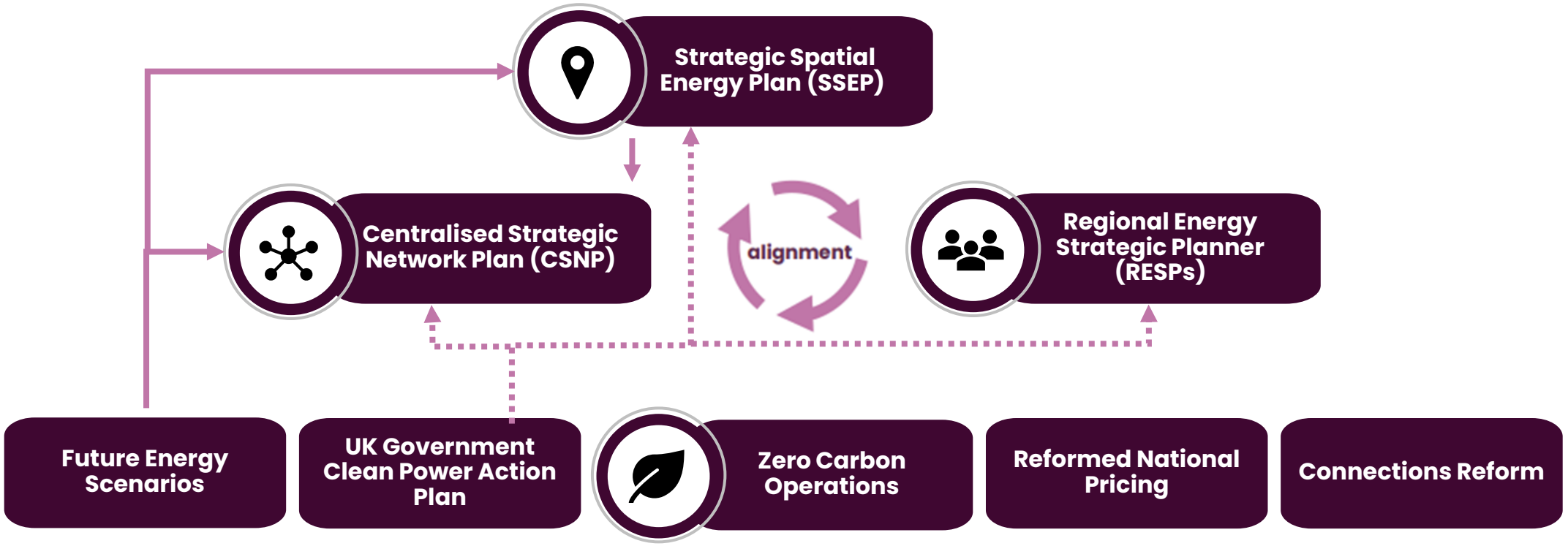
This will provide a government and Ofgem-endorsed plan that firmly sets the context for the nation's energy requirement.





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Strategic Energy Planning (SEP)



What the SSEP considers

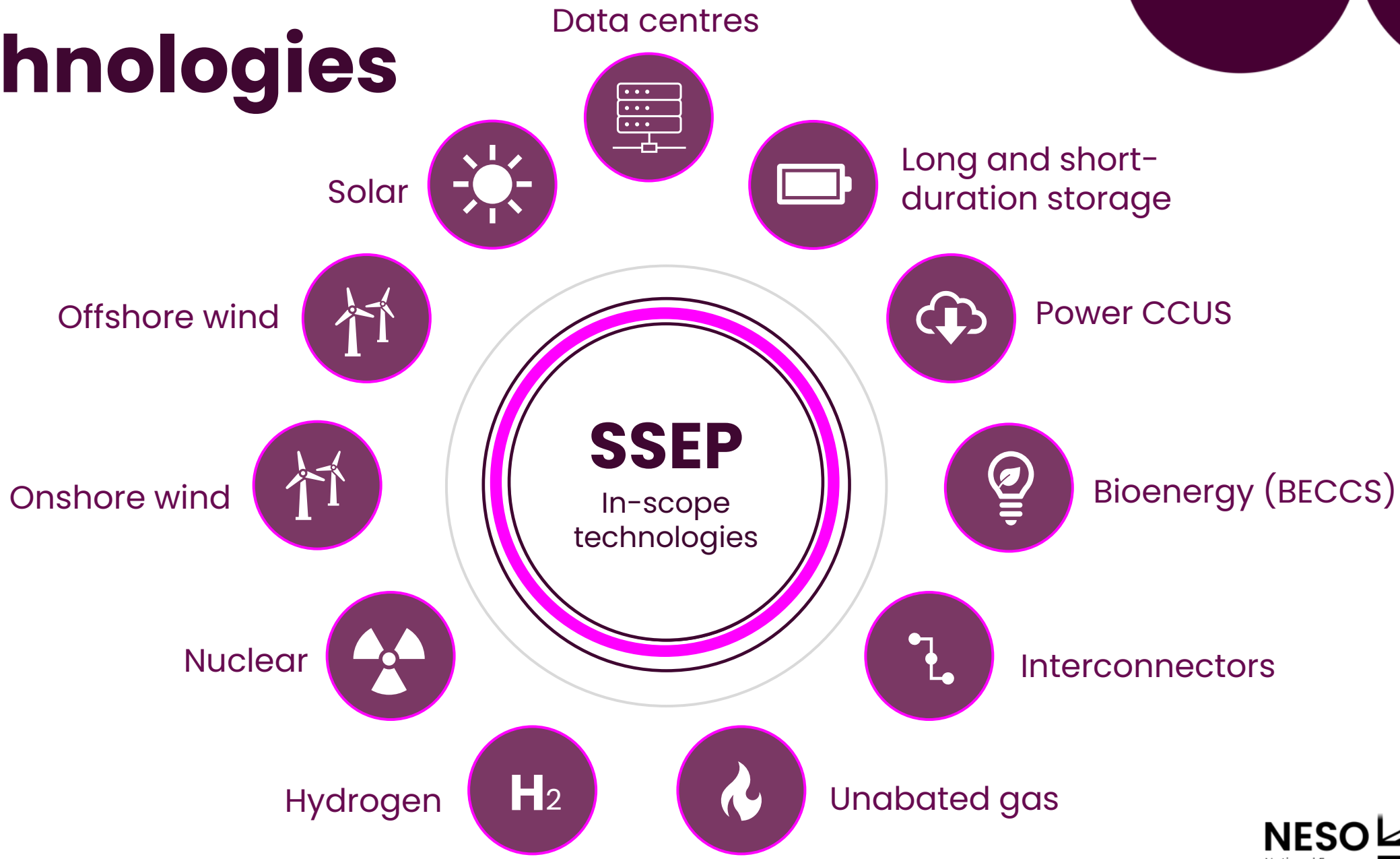
- Community/societal views
- Decarbonisation targets
- Economic costs
- Environmental protection
- National priorities
- Network needs and operability
- Other sea/land uses
- Practical delivery
- Secure supply



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Public

Technologies



Strategic Spatial Energy Plan (SSEP)

Key external milestones (as of October 2026)



- *Dates are subject to the timing of the UK Energy Secretary's decision on the preferred pathway.*
- *The SSEP consultation will provide information on the selected pathway and the other options included in the Pathway Options Report*

Completed — **Upcoming**

Public
Public

Pathway Options Report submission

Submitted to co-commissioners in August 2026.
The most significant milestone for spatial energy planning to date.

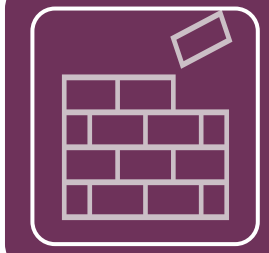
Six pathways	For ministerial decision-making	Independent and evidence-based	Preferred pathway to consultation
• To deliver future energy needs • Meet security of supply standards and align with legally-binding carbon budgets	• Confidential report to support ministerial decision-making • Information on pathway options to be published in our future publications	• Independent of government and commercial interest • Years of evidence, analysis and stakeholder engagement	• UK Energy Secretary selects preferred pathway, with Scottish and Welsh governments' advice • NESO consults on the pathway before publishing the first SSEP*

*Dates subject to the timing of the UK Energy Secretary's decision on the preferred pathway

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Pathway Options Key Messages



Common foundation

All six pathways deliver a secure, net zero energy system and share a common direction of travel, including substantial renewable generation, network development, system flexibility and firm low-carbon generation.



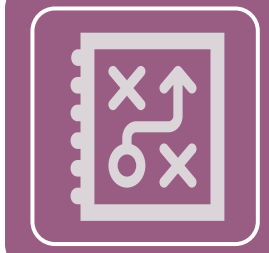
Every pathway has impacts

All pathways are deliverable, but none are without impact, reflecting different balances between cost, environmental, societal, spatial and delivery considerations



Proceed with confidence

The common direction of travel across pathways provides confidence that many decisions can be progressed now, while preserving flexibility in areas where uncertainty remains.



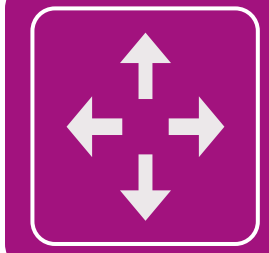
From strategy to delivery

The SSEP is a strategic plan that will be implemented through market, connection, and planning processes and will provide the strategic direction needed for network planning.



Strategic choices remain

Important strategic choices for government remain, particularly regarding the future role and scale of onshore renewables, offshore wind, and nuclear power, which will influence future costs, delivery risks and the range of available options.



Designed to evolve

A three-year refresh cycle will reflect developing evidence, maturing technologies and changing local, regional and national priorities.

Public
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Reformed National Pricing puts SSEP at the heart of investment

RNP challenges

Reform balancing and settlement arrangements to **improve operational efficiency**

Improve constraint management to **reduce volume and cost of** handling **constraints in BM**

Stronger locational investment signal to influence **efficient siting of new assets**

SSEP will sit at the heart of investment decisions

How can investment levers be designed to enable SSEP implementation?
- Directiveness
- Lever co-ordination

SSEP implementation hinges on **investment levers sending the right signals**.

Project profitability is key to drive investment.

RNP offers an opportunity to think about this holistically and introduce wholesale change to legislation, codes, and regulations at pace.

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SSEP will influence signals that impact business case and FID



SSEP

Sets the zonal pathway for generation and storage:

- What technologies are needed
- Where they are needed
- When they are needed

→



CSNP

Plans the transmission network needed to support the SSEP pathway

RNP Siting & Investment Levers



Connections

Controls entry to the firm Gate 2 queue*

- Connection Capacity Thresholds (CCTs) limit the volume of connection capacity

* currently using CP30 and 2035 permitted capacity ranges



Charging

Provides locational price signals

- Locational charges (e.g. TNUoS) influence siting decisions
- Locations become more/less attractive based on local impact on constraints



Subsidy schemes

Channels revenue support towards the plan

- CfDs, CM, LDES, RAB, etc.
- Can incorporate locational reforms
- Helps determine which projects reach FID



Market outcome

Projects that get built **should** align more closely with the SSEP

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Thank you

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