Five years to 2030

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CP30 Headlines

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Clean Power 2030 Headlines

1 **Clean Power by 2030 is achievable**

- Outer edge of feasibility
- Herculean effort

2 **Clean Power will require doing things differently**

- Major scale-up in delivery
- Multiple major reforms required

3 **Clean Power can bring benefits for GB**

- Carbon targets
- Investment, jobs
- Cut link to gas prices

Defining 'Clean Power' in 2030		
	GB clean power as share of GB consumption[1]	**Share of unabated fossil generation[2]**
Currently	~60%	33%
Clean Power 2030	≥100%	<5%

[1] Annual TWh domestic clean power production over total electricity consumed by GB homes and businesses
[2] Unabated fossil generation as a proportion of total electricity generation excluding exports

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The Clean Power System in 2030

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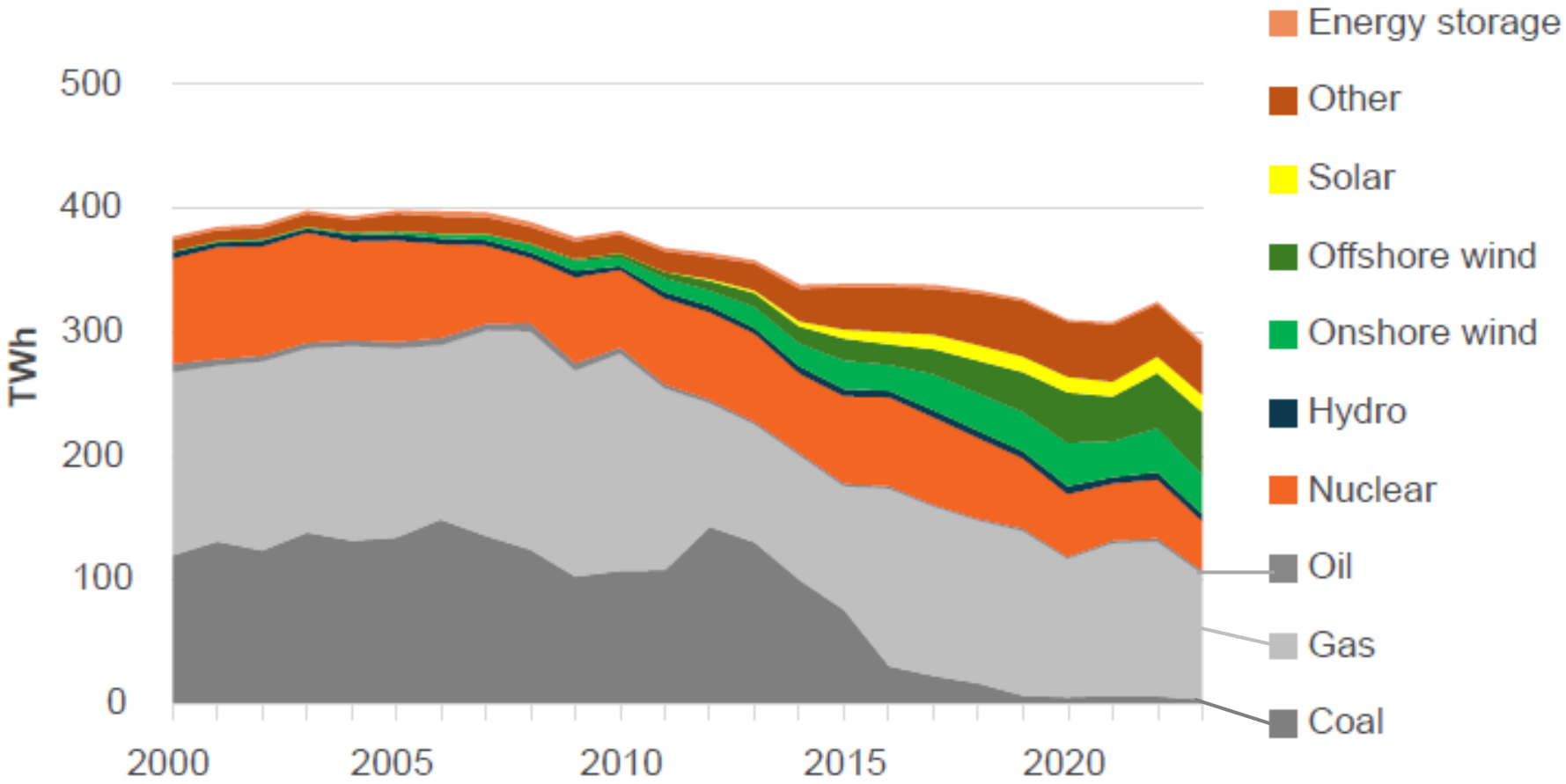
The foundations are in place…

Efficiency and clean sources have already reduced the share of fossil fuel generation to around a third



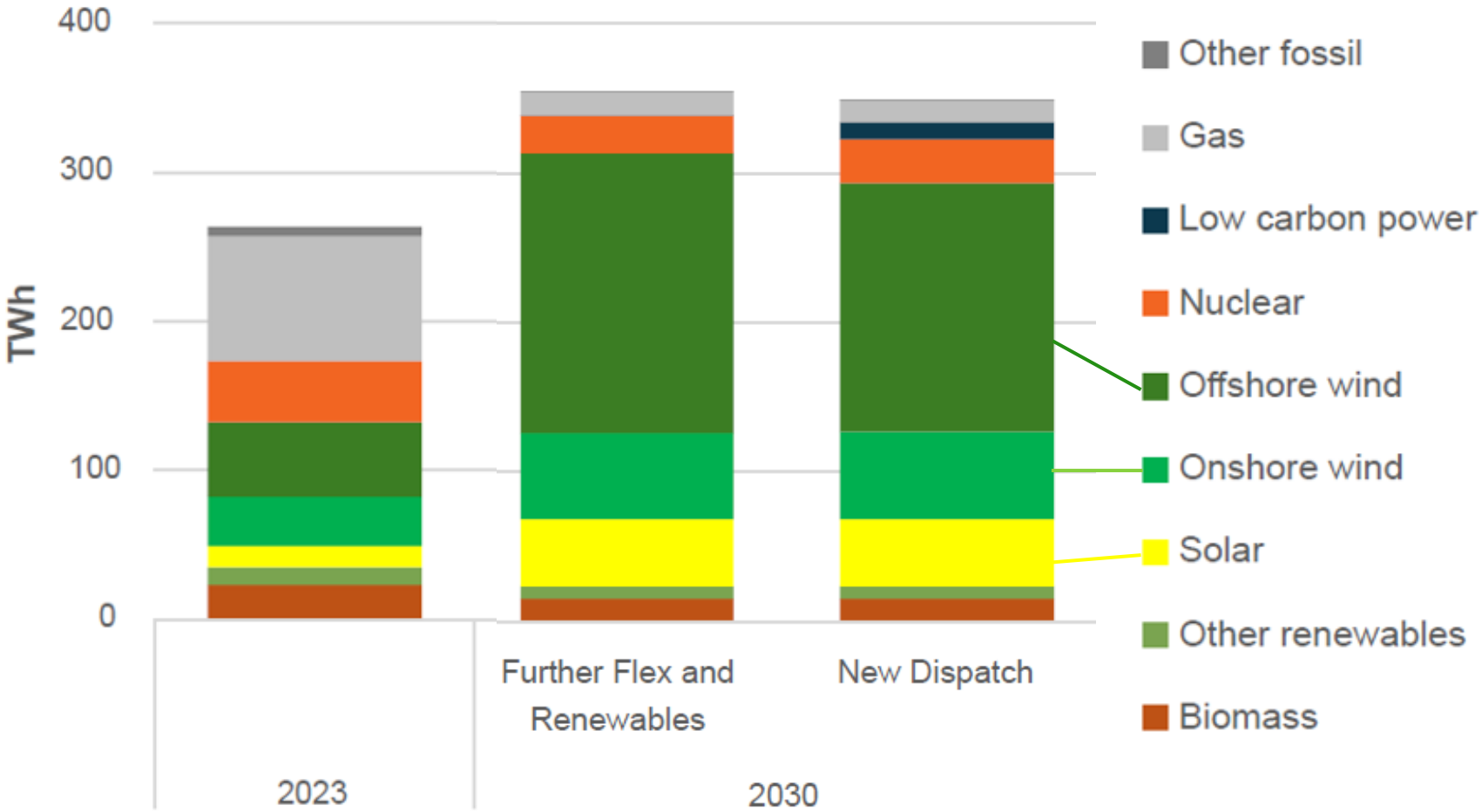
Project pipelines

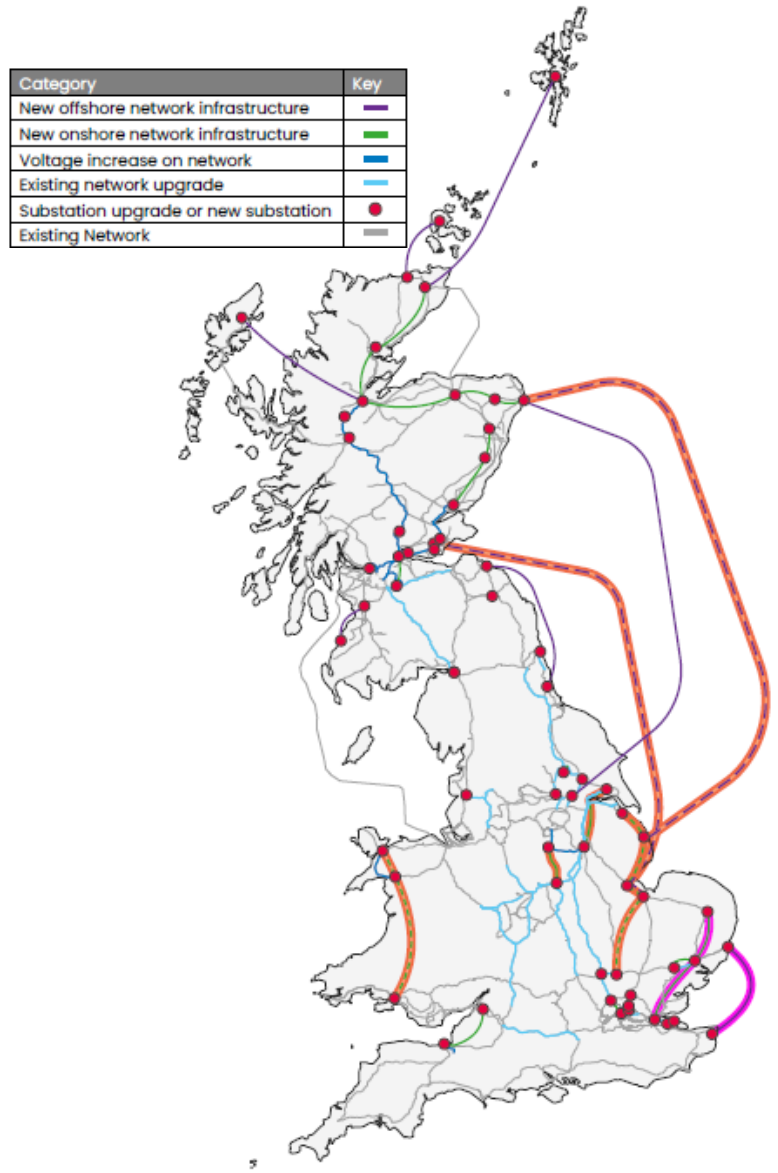
Technology costs

Network plans

Technical capabilities

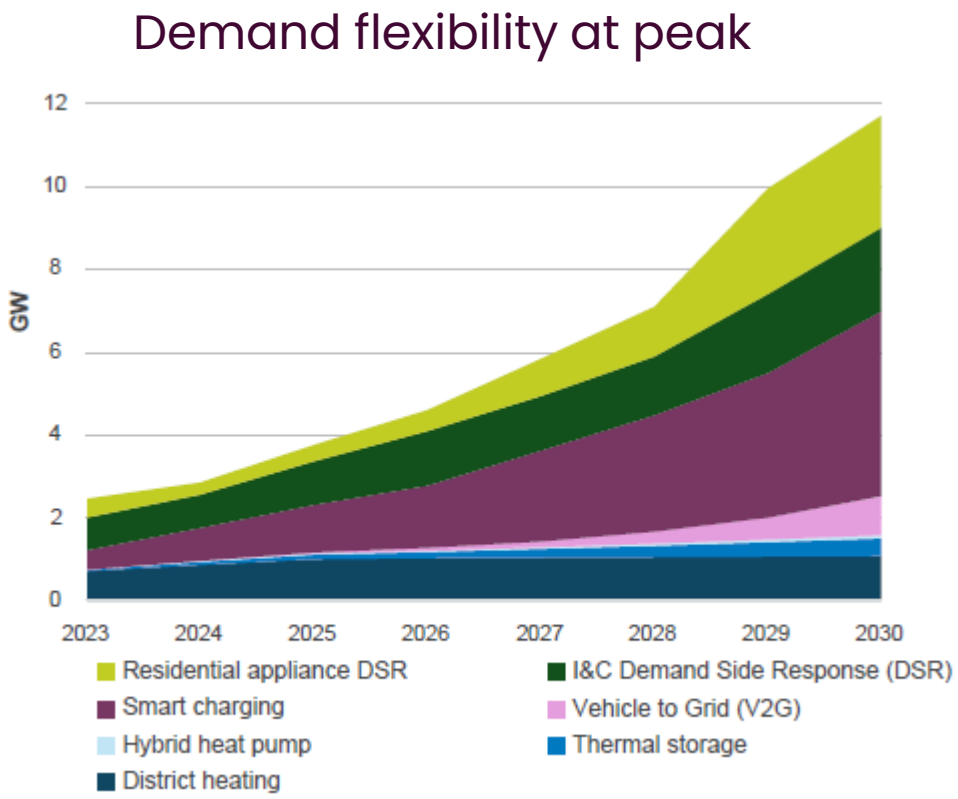
We need a huge scale-up in wind and solar and rapid expansion of the grid





Pink = need accelerated delivery
Orange =accelerated delivery lowers constraints

New sources of flexibility are vital for clean power



Long Duration Energy Storage (LDES) up from 3 GW to 5-8 GW*

Interconnector capacity increases from 8.4 to 12.5GW*

5-6x more battery storage, providing short-term flexibility within day

Clean dispatchable generation has an outsized value

Note: LDES included at 4-6 GW and interconnectors at 12-14 GW in 2030 in the Government's *Clean Power 2030 Action Plan*.

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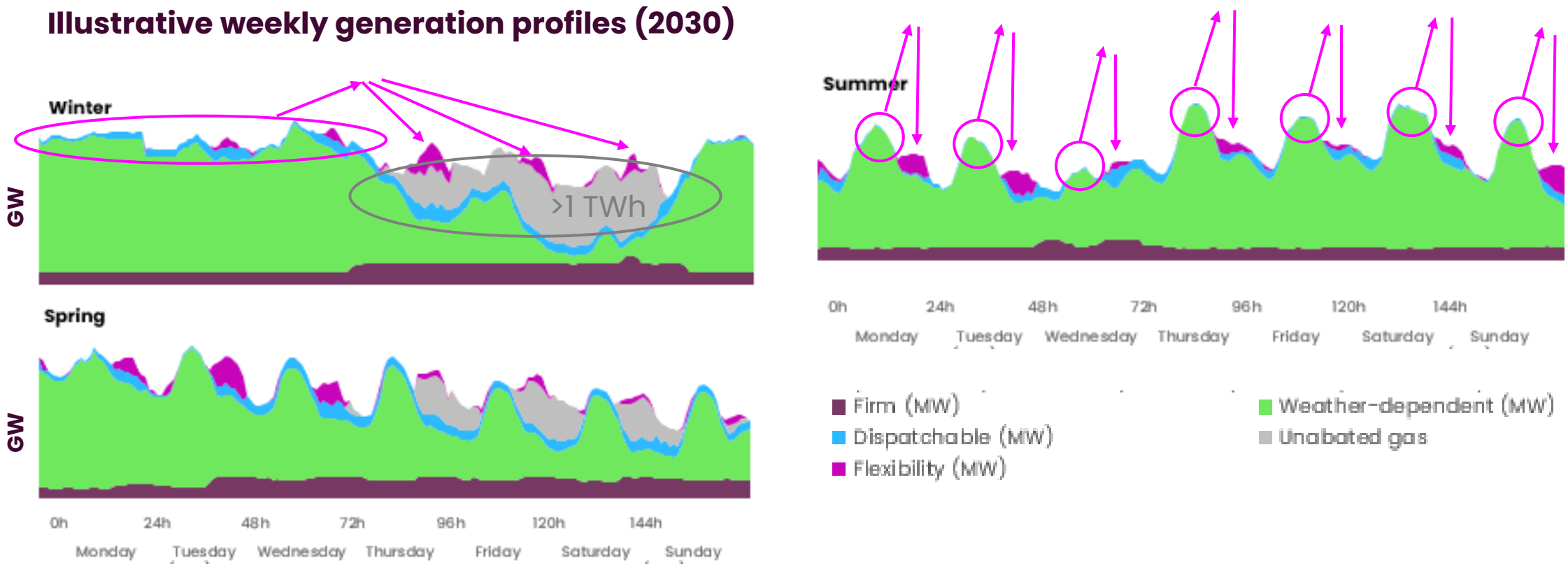
Gas still has an important (though much much smaller) role for security of supply



Source: NESO, CP30 Further Flex and Renewables scenario.
*Note: **Firm** includes nuclear, hydro, CHP and waste. **Weather-dependent** includes onshore wind, offshore wind and solar. **Dispatchable** includes biomass, pumped hydro, gas with CCS and hydrogen to power. **Flexibility** includes batteries and residential flexibility. Chart only shows when flexibility is discharging, not charging.*

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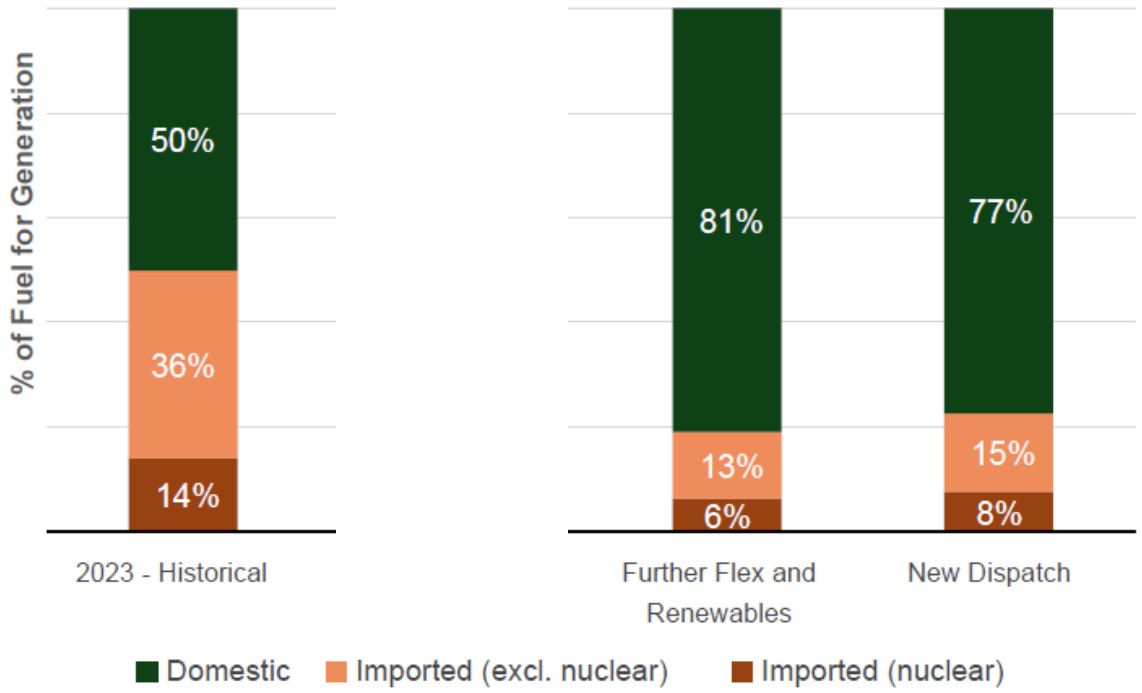
Impacts of a clean power system

Split of imported and domestic fuel for generation



CO_2

Reduce emissions below CCC net zero path

Investment, jobs, local economic opportunities

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Without increase in costs to consumers

Reduced exposure to gas price spikes

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Next steps

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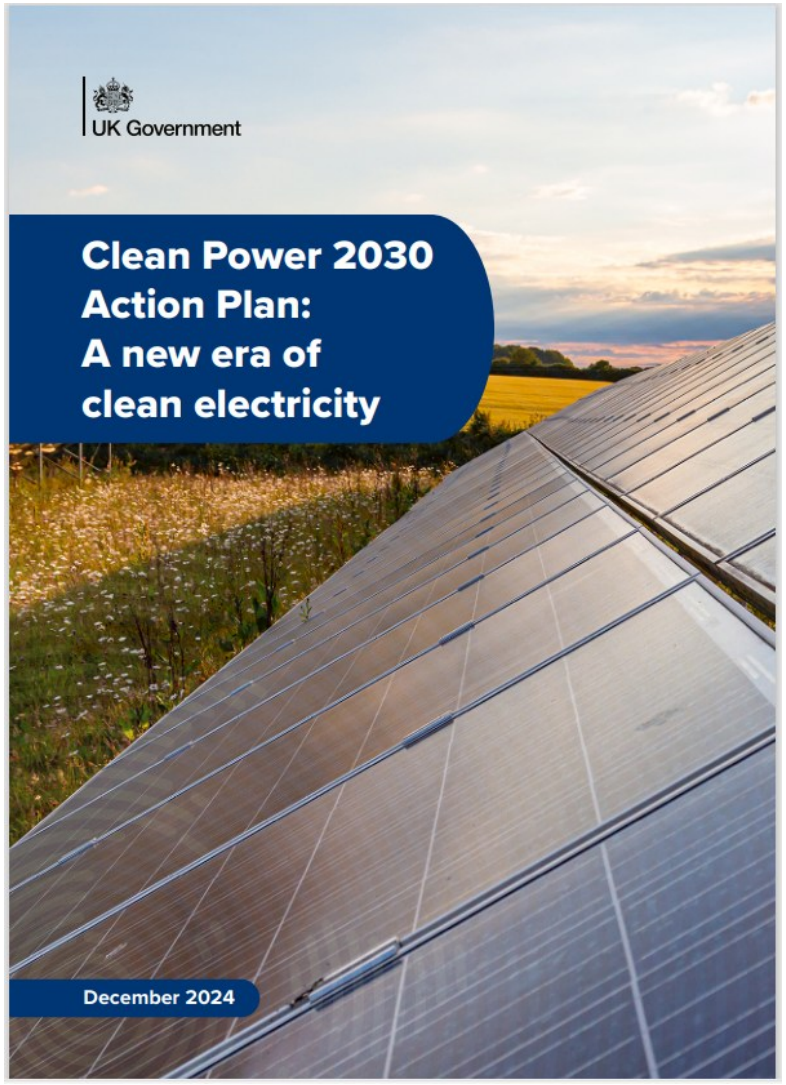
The UK Government's Clean Power Action Plan



- Published on 12 December 2024.
- Defines the Clean Power target – in line with the NESO advice
- Sets out the proposed ranges for generation capacity – based on NESO and DESNZ analysis
- Accepts the NESO recommendation for the network build required to deliver clean power by 2030
- Sets out where action is needed on:
  - Generation and flexibility
  - Planning and consenting
  - Electricity networks
  - Reforming electricity markets
  - Supply chains and workforce

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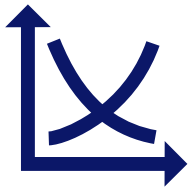
Speed and collaboration are fundamental for Clean Power 2030



Mission Control & the Clean Power Action Plan

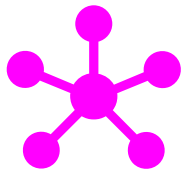
Planning reforms

Supply chains & workforce

Key decisions, including

- REMA (Market Arrangements)
- Renewable auction Round 7
- Bilateral negotiations
- Low Carbon Flexibility Roadmap
- LDES Cap and Floor

Connections reform



Strategic Energy Plans

NESO as a delivery partner

- Digitalisation and Innovation
- Markets Roadmap, Operability Strategy & Balancing Programme
- Grid forming batteries
- Skip rates

Key
Government
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Thank you

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