

# Winter Outlook 2025/26: Early View

June 2025





# Welcome



Welcome to our early view of winter 2025/26. This report contains our initial assessment of the electricity security of supply outlook for November to March.



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National Electricity  
System Operator

As the electricity system continues to undergo rapid and fundamental transition, maintaining high levels of resilience remains a key priority.

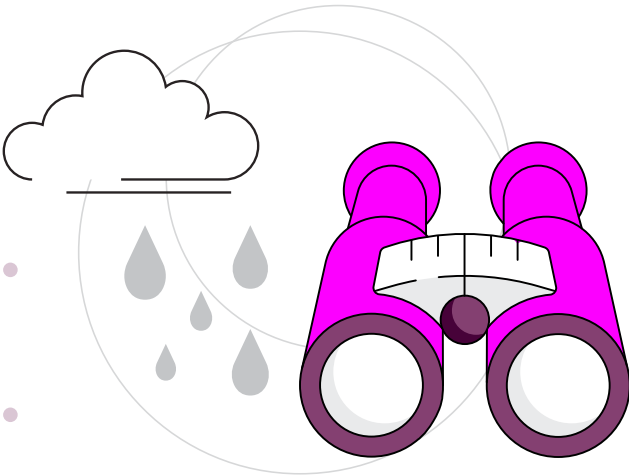
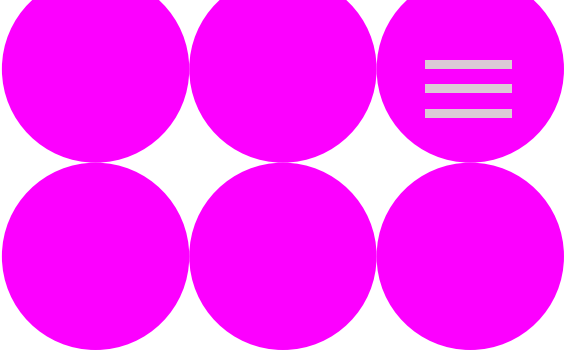
Our seasonal planning and preparation never stops. We bring together a wide range of activities – across system operation, market development, network planning, and resilience and emergency management – to ensure readiness for the season ahead. We prepare for a wide range of eventualities, working closely with strategic partners and stakeholders to consider interactions across electricity and other forms of energy. We continue to develop the tools we have available to reliably operate the system.

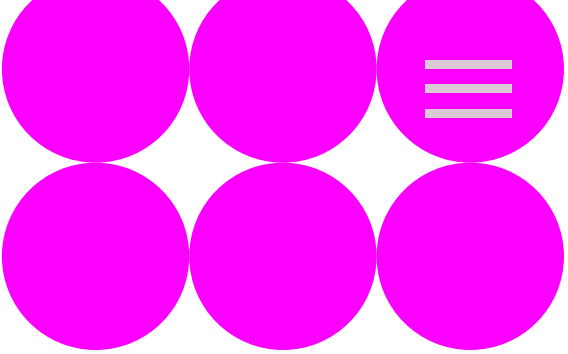
This report provides early visibility of our electricity security of supply analysis for the coming winter. We hope it helps support industry stakeholders to prepare effectively for the period. The full *Winter Outlook 2025/26* report, including

more detailed analysis, will be published in autumn alongside the *National Gas Winter Outlook*. Global energy markets are dynamic and, as such, it is possible that the information presented in the Early View could change by the time we publish the *Winter Outlook* report.

We have also published our *Winter Review and Consultation 2024/25* alongside this report. We welcome stakeholder feedback to help improve our publications and ensure they continue to provide industry with the right information.

To provide feedback, you can email us at [marketoutlook@neso.energy](mailto:marketoutlook@neso.energy) or join us at the [NESO Operational Transparency Forum](#).





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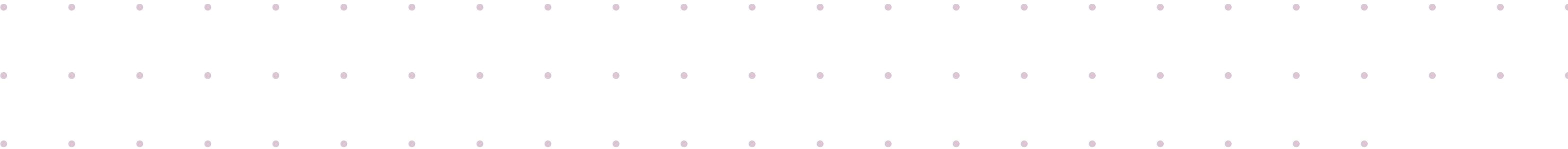
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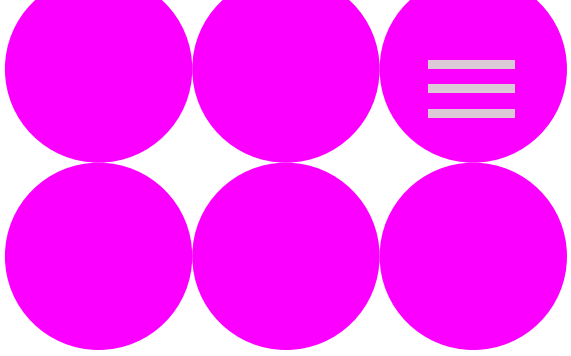
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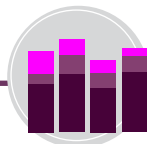
# Early View at a Glance

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## Margins

Our analysis shows that margins are expected to be adequate and within the Reliability Standard. The current Base Case de-rated margin is 6.6 GW – equivalent to 10.9% of Average Cold Spell (ACS) peak demand. The associated Loss of Load Expectation (LOLE) is below 0.1 hours, which is within the Reliability Standard of 3 hours.

This higher de-rated margin is due to increased battery storage capacity, an increase in available gas-fired power generation, the commissioning of the Greenlink interconnector and the ongoing growth in renewable generation. This more than offsets an expected increase in ACS demand.



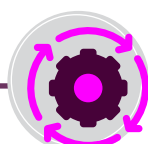
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## Operational surplus

We will continue to meet the challenge of reliably operating a changing electricity system.

We expect there to be sufficient operational surplus throughout winter, allowing for natural variations in weather. There may be some tight days and early indications suggest these are most likely to occur in early December or mid-January.

We continue to develop and adapt balancing services markets to ensure all technologies have clear and efficient routes to support security of supply.



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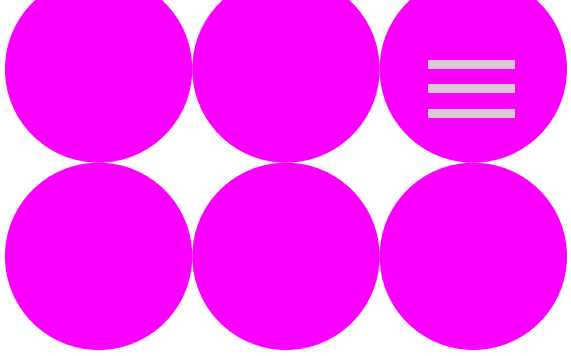
## Markets

In Great Britain, the T-1 Capacity Market auction for delivery in winter 2025/26 secured 7.9 GW of capacity from a diverse range of technologies.

Early indicators suggest adequate generation will be available in key interconnected markets. As in recent winters, we will continue close and active engagement with our neighbouring Transmission System Operators (TSO) to determine how interconnector flows can be optimised and co-ordinated to ensure reciprocal support between countries.

As a prudent system operator, we prepare for a wide range of eventualities and will work closely with Government, Ofgem and National Gas to identify and mitigate potential risks.





# Understanding Adequacy

## Interpreting the metrics in this report

### De-rated margin

Our assessment of the expected excess supply after Average Cold Spell (ACS) peak demand (defined below) and our reserve requirements have been met. We calculate this figure by taking the total technical capacity of generation connected to the transmission and distribution networks and adjust (or de-rate) this capacity based on expected availability and technical characteristics. The de-rated capacity reflects our collective assessment of each technology’s expected firm contribution to security of supply.

The de-rated margin provides a seasonal-level average view of adequacy. It should not be interpreted as a forecast of the minimum operational surplus expected this winter, as interconnector flows, peak demand, wind output and generation availability will vary throughout winter.

### Loss of Load Expectation (LOLE)

A long-term, probabilistic assessment of the expected number of hours per year when demand will exceed supply under normal operations (that is, after standard operational tools – including system notices – have been exhausted but before enhanced or emergency actions have been taken). In most cases, such periods would be managed without any impact on consumers.

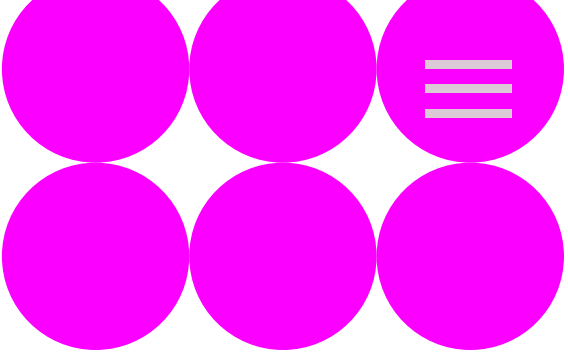
### Average Cold Spell (ACS) peak demand

The estimated peak electricity demand – at the transmission and distribution level – during typical cold weather conditions. As this is an average figure, there is approximately a 50% chance that demand in any given winter will exceed the ACS peak value.

### Operational Surplus

To complement the seasonal view of adequacy provided by the de-rated margin, we also produce a time series of the operational surplus. This is generated by simulating 30,000 scenarios incorporating different contributions of weather, national demand (observed at the transmission level), conventional generation availability, wind output and interconnector availability. For each scenario, we calculate the daily surplus time series across the winter, which provides us with a forecast range for the operational surplus and highlighting where tight periods may occur.





# De-rated Margin

Margins are expected to be within the Reliability Standard. The Base Case margin for 2025/26 is 10.9% of forecast ACS demand, which represents the highest assessments since 2019/20.

We expect there to be sufficient available capacity to meet demand and our reserve requirements this winter. The Base Case de-rated margin is 6.6 GW/(10.9% of ACS demand). The associated LOLE is well within the Reliability Standard of 3 hours.

The de-rated margin assumes a demand of 60.5 GW, which includes 1.7 GW of reserve. All providers with Capacity Market (CM) agreements are assumed to deliver in line with their obligations unless we hold specific market intelligence to the contrary.

**Table 1: Recent history of de-rated margin. Our assessment accounts for asset unavailability and the latest market intelligence, but changes in the generation background may see the de-rated margin vary by the time we publish the *Winter Outlook 2025/26* report.**

Winter	De-Rated Margin (Early View)	De-Rated Margin (Winter Outlook)
2019/20		7.8 GW (12.9%)
2020/21		4.8 GW (8.3%)
2021/22	4.3 GW (7.3%)	3.9 GW (6.6%)
2022/23	4.0 GW (6.7%)	3.7 GW (6.3%)
2023/24	4.8 GW (8.0%)	4.4 GW (7.4%)
2024/25	5.6 GW (9.4%)	5.2 GW (8.8%)
2025/26	6.6 GW (10.9%)	

The year-on-year increase in the de-rated margin is driven by a range of factors including an increase in battery storage capacity at both transmission and distribution levels, an increase in available gas-fired power generation and the commissioning of the Greenlink electricity interconnector.

We undertake pan-European market modelling to assess the ability of neighbouring markets to support Great Britain’s adequacy during a period of tighter margin. Under our Base Case we assume that 6.9 GW (de-rated) of interconnector imports will be available at such times and that wind generation will contribute 3.9 GW (de-rated).

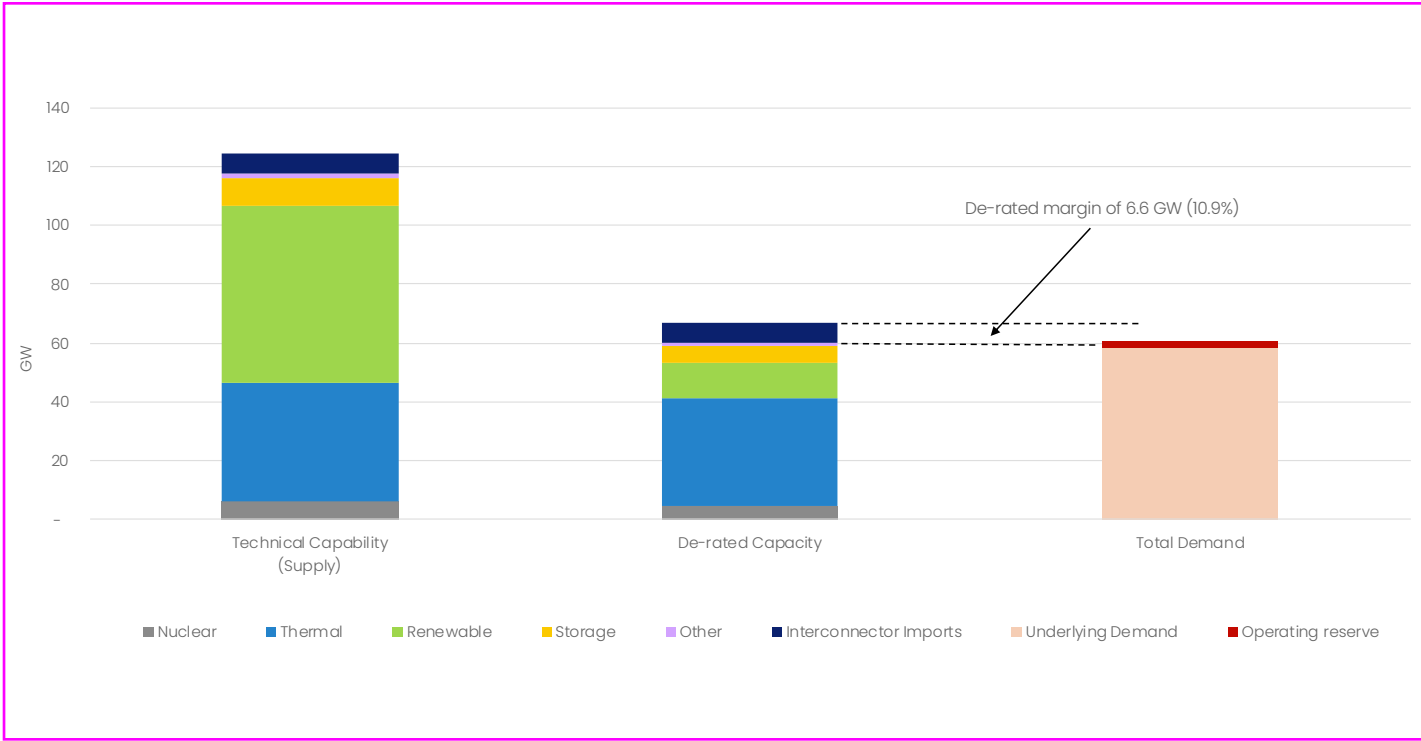


Figure 1: Total technical capacity of transmission and distribution connected supply and the resulting de-rated contribution during a period of system stress is shown against ACS peak demand

# Operational surplus

We expect there to be a sufficient operational surplus throughout winter. There may still be some tight days and, based on the current available information, these are most likely to be in early December or mid-January.

Our modelling indicates that the operational surplus will be sufficient when allowing for the natural variation of demand, wind generation and generator outages. Figure 2 shows the forecast range for the operational surplus this winter (the red plume) compared with the corresponding forecast for winter 2024/25, as published in the *Winter Outlook 2024/25* report (the grey plume). For weekdays in December and January the operational surplus is approximately 400 MW higher on average.

When the shaded region nears 0 GW, there is a risk that the system may become tight, and operational tools, including market notices, could be used to increase margin. This modelling helps us identify when tight periods are most likely to occur. Based on current generator availability, these are most likely to be in early December or mid-January.

This forecast is based on current generator availability submissions, which are likely to change before publication of the *Winter Outlook 2025/26* report. The forecast range in Figure 2 shows the 90% confidence level. As such, we expect there to be days (approximately 5%) where the surplus falls below this range. Notwithstanding the year-on-year improvement, prevailing conditions may result in tight days, requiring us to use standard operational tools, including system notices. We expect sufficient capacity to be available to respond to these signals.

We also expect there to be a significant number of days when Great Britain could support exports to neighbouring markets, if required.

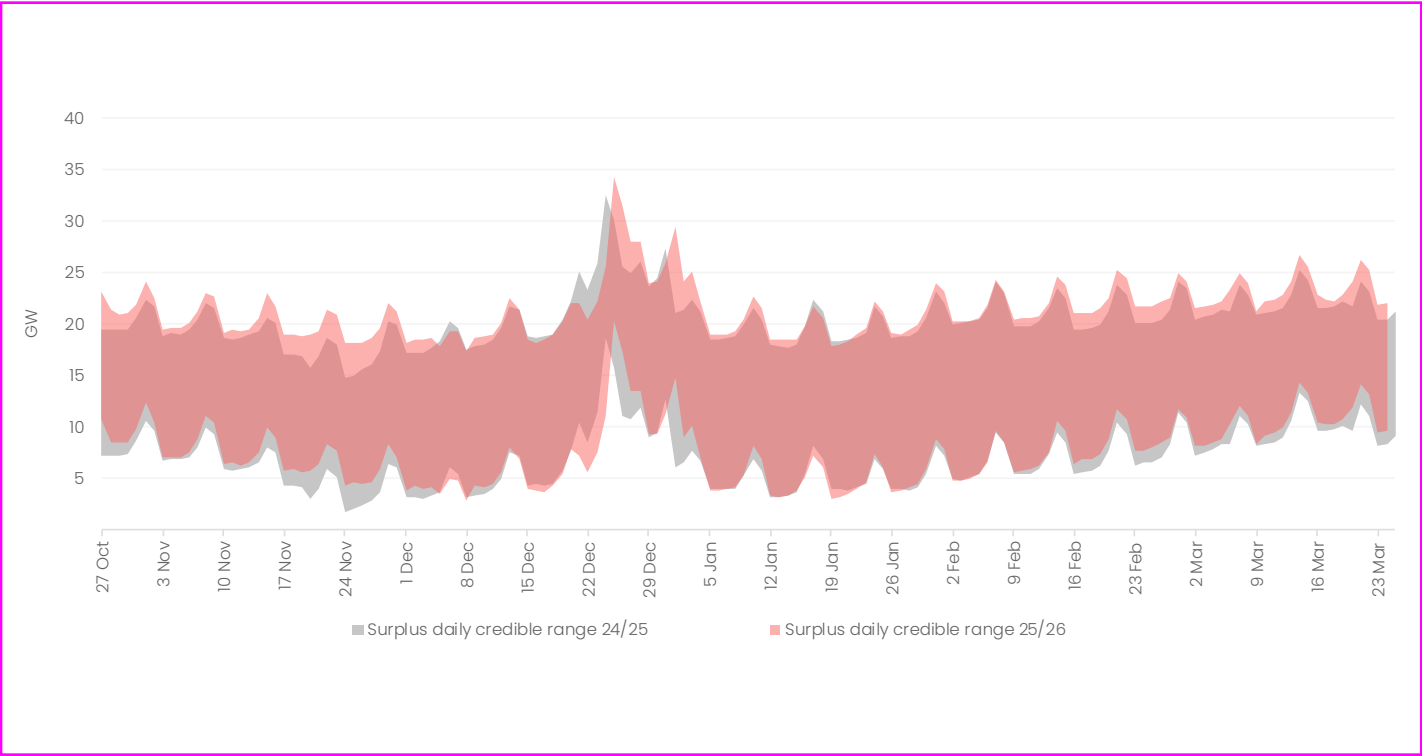
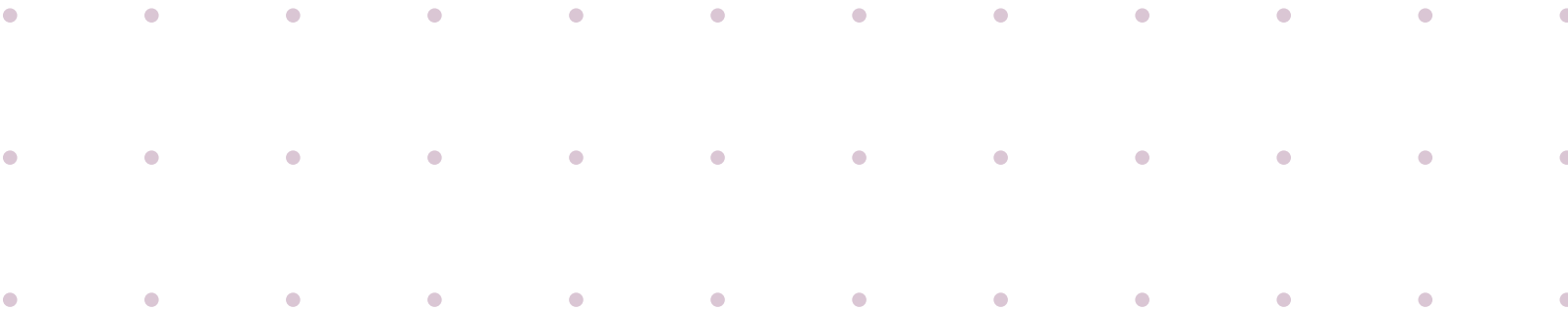
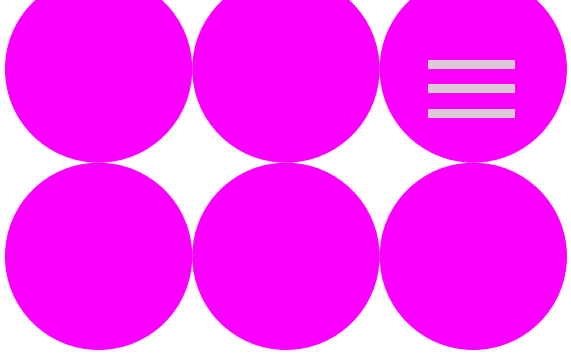


Figure 2: Comparison of the forecast operational surplus range (90% confidence level) for winter 2024/25 (grey) and winter 2025/26 (red)





# Markets

**Our analysis suggests that imports will be available when required, supported by adequate electricity supply across Europe.**

In Great Britain, the supply-side picture has improved. The T-1 Capacity Market auction for delivery in winter 2025/26 secured 7.9 GW of capacity from a diverse range of technologies. This, combined with an increase in available gas-fired generation and continued growth in renewable generation and battery storage capacity, more than offsets an expected increase in peak demand.

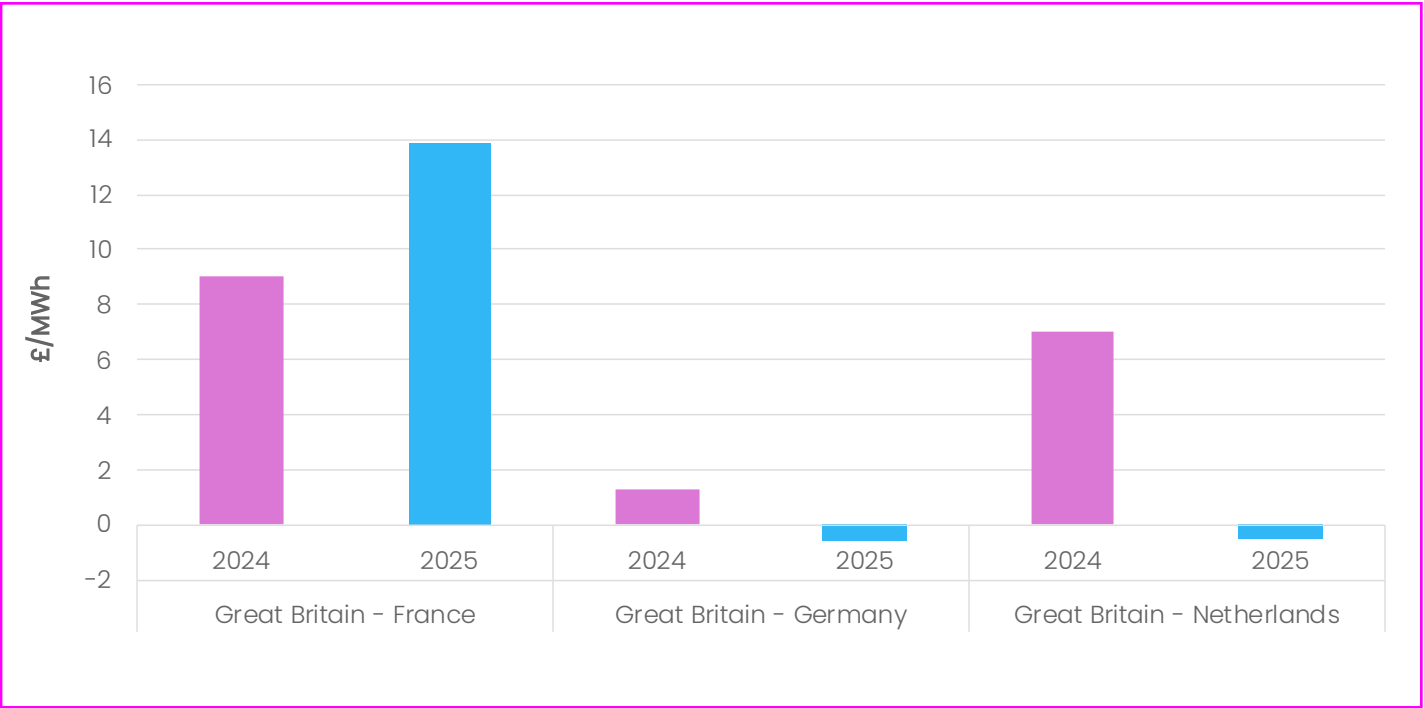
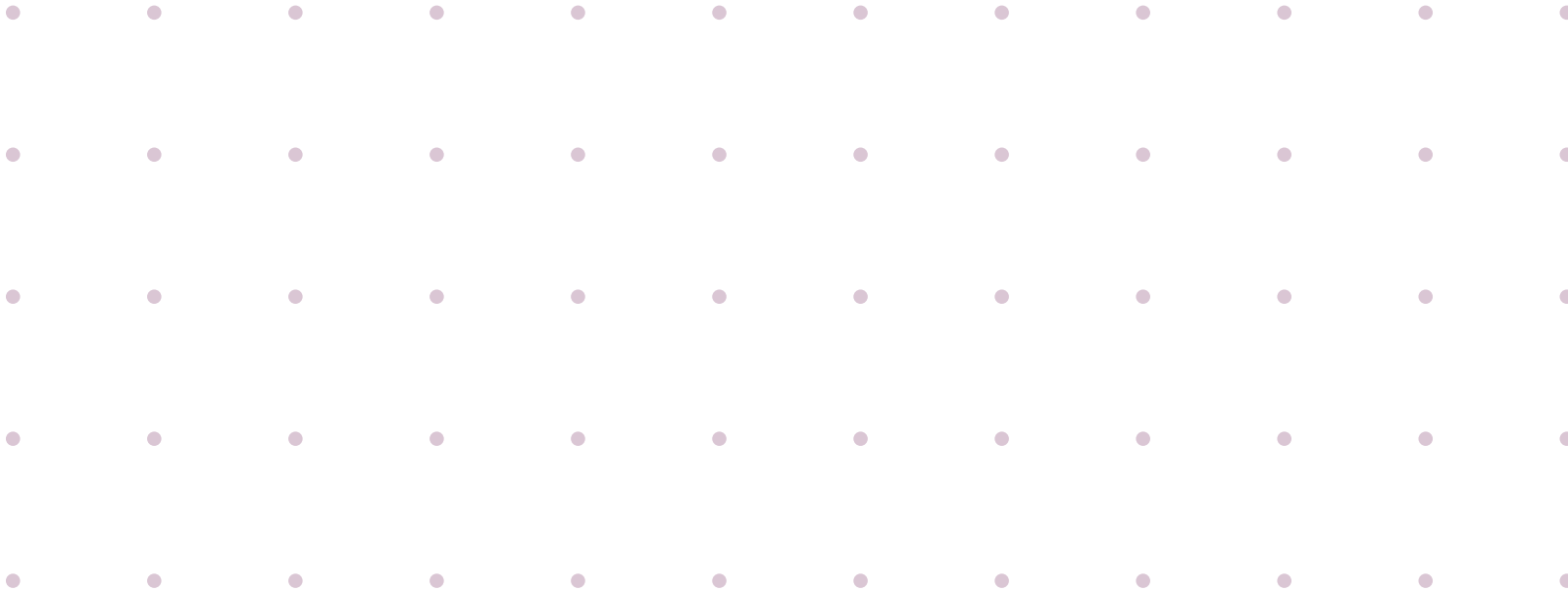


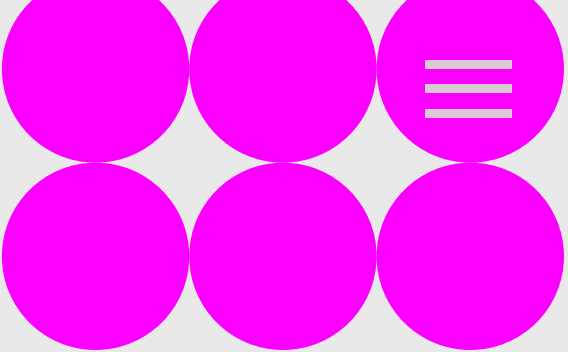
Figure 3: Peak (7am – 7pm) wholesale power price differential between Great Britain and selected European markets as of 30 May for the respective front winter

Electricity flows across interconnectors are primarily driven by price differentials between markets. Figure 3 shows the year-on-year change in Great Britain’s peak power price premium over selected European markets as of 11 June in the respective year. Global energy markets remain dynamic, and actual prices may differ significantly by the time we publish our *Winter Outlook 2025/26* report. This was observed last year as the evolving fundamental picture saw Great Britain’s peak power price premium increase as winter approached.

In Europe, our early assessment indicates adequate generation availability for the coming winter. As a prudent system operator, we prepare for a wide range of eventualities and actively monitor developments in global energy markets. We work closely with Government, Ofgem and National Gas to identify, assess and mitigate potential risks.







# Get in Touch

Email us with your views on the *Early View of Winter 2025/26* at [marketoutlook@neso.energy](mailto:marketoutlook@neso.energy) and we will get in touch.

**You can also write to us at: Energy Security Modelling**  
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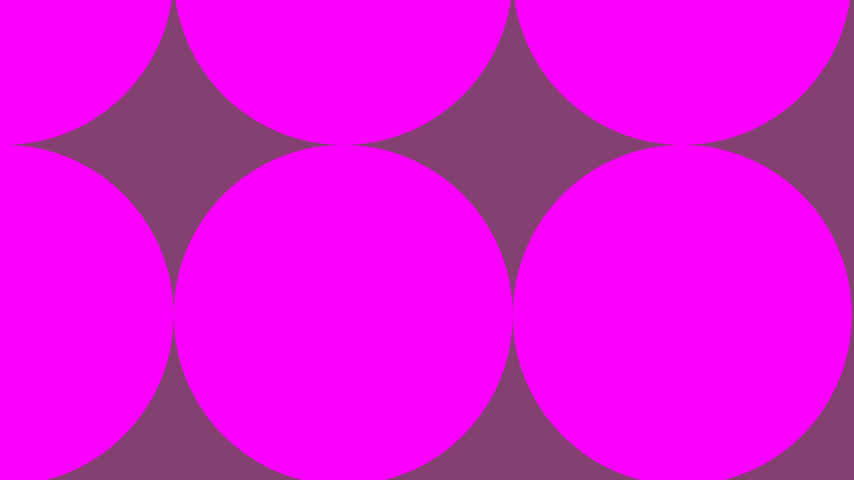
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