

Ofgem inquiry into electricity system operation during the June 2026 heatwave – update

Publication date: 19 October 2026

During the week commencing 22 June 2026, Great Britain and Europe experienced unseasonably high temperatures that impacted the operation of our electricity system. This document provides an update on Ofgem’s inquiry into the events of this week, now we have received National Energy System Operator’s preliminary report. This includes an outline of our key lines of enquiry and our planned next steps.

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1. Background

Background to the June 2026 events

- 1.1 The week commencing 22 June 2026 saw a prolonged period of high temperatures with red weather warnings in place across both Great Britain (GB) and Europe. In parts of GB, temperatures rose from a high of 32.5°C on Monday 22 June to a high of 38°C on Friday 26 June. Meanwhile, temperatures across neighbouring European countries neared or exceeded 40°C at times. In France, the electricity system we are most connected with, temperatures reached a record 44.3°C.¹
- 1.2 These weather conditions led to abnormally high demand for electricity in GB and Europe, as well as reduced electricity supply in several places. For example, in France, the extreme temperatures reduced the availability of parts of the French nuclear fleet for safety reasons, whilst in GB, Combined Cycle Gas Turbines (CCGTs) were also unable to operate at full capacity. As a result of these market dynamics, there were periods of reduced electricity margins and high electricity prices across GB and neighbouring markets.
- 1.3 This impacted the operation of the electricity system in GB and led to a range of actions being taken by National Energy System Operator (NESO) – the body responsible for operating our electricity system.

Review of electricity system operation during extreme heat

- 1.4 Ofgem is inquiring into the events of the week commencing 22 June 2026. As the energy system regulator, our aim is to provide transparency about what happened and why, and to identify any measures needed to improve the resilience of the energy system to similar future events. We want to ensure that any lessons are translated into tangible actions and, where necessary, hold parties accountable for any shortcomings.
- 1.5 To inform our inquiry, on 17 July 2026 we formally commissioned NESO to review the notable events of the week. We published a Terms of Reference for this review, setting out a scope of work and a set of governance arrangements.² The work is being completed by a ringfenced NESO Review Team which reports progress to an Ofgem-led Oversight Group. We set out a timeline for the NESO Review Team to provide a preliminary, factual report to the Oversight Group by mid-August.
- 1.6 We agreed to an extension to this deadline to 11 September to ensure all relevant data could be collected, analysed and fact checked with external parties. We have reviewed the NESO Review Team’s preliminary report, and we are now

¹ [Europe heatwave: France, UK and Spain see record temperatures as heatwave grips western Europe - BBC News](#)

² [Regulatory review of the operation and management of the electricity system during the June heat event | Ofgem](#)

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publishing it on our website alongside this document. Section 2 summarises
Ofgem’s main lines of enquiry following our review of the preliminary report.

Independent investigation into the whistleblowing allegations

- 1.7 On Monday 13 July, the NESO Board announced a separate independent investigation by law firm Eversheds Sutherland into specific whistleblowing allegations that were raised in relation to the events of this week in June.³ The investigation examined whether there was deliberate alteration of records or failure to maintain audit trails and whether there was interference with operational decision-making processes. This work was overseen by an independent oversight panel, including Ofgem’s relevant Director-General. Eversheds found there was no deliberate intent to amend documents and keep documents in draft during the week of 23 June. However, they did identify some wider cultural and governance issues which need to be addressed.
- 1.8 The Eversheds report was published on 19 October on NESO’s website. The NESO Board provides the first line of oversight of NESO on corporate matters and is responsible for the immediate response to the recommendations set out in the Eversheds report. As NESO’s sole shareholder, the Government provides a second line of oversight and will hold the NESO Board accountable for its response.
- 1.9 Ofgem is NESO’s regulator, responsible for monitoring NESO’s compliance with regulations and standards and assessing its performance delivering key energy system outcomes. This includes assessing NESO’s compliance with system security standards and its performance operating the electricity network.
- 1.10 The NESO Board has asked NESO management to develop plans to address the issues raised in the Eversheds report and to ensure these are implemented as a matter of urgency. However, the report also highlights several areas that warrant specific further examination through Ofgem’s inquiry into the events in June. This includes questions on whether the system remained secure, whether NESO made appropriate operational decisions and correctly followed its documented order of actions, whether market communications were accurate, and whether NESO was prepared for the impacts of interconnector trading restrictions. These areas are all captured under the scope of our inquiry. We have clarified the Terms of Reference for the NESO Review Team to ensure its final report provides information Ofgem needs in these areas. Ofgem will then obtain any further data necessary to robustly address these questions in our final conclusions.

³ [Terms of Reference now published | National Energy System Operator](#)

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2. Emerging findings and lines of enquiry

Ofgem's view of the preliminary report

- 2.1 The NESO Review Team's preliminary report provides a fact-based overview of the events of the week commencing 22 June, in line with our commission for this stage. This includes the timeline and sequence of notable actions and events, supported by evidence gathered from NESO's operational records, market data, and information provided by relevant parties. Additional key information, including analysis of the main causes of the events, NESO's decision-making, and system security impacts, will be provided in the final report later this year.
- 2.2 The report shows that the high temperatures coincided with significant operational challenges throughout the week. Higher-than-expected demand, reduced generation availability, and variable interconnector flows led to tight operating margins, with NESO taking a range of operational and emergency actions to maintain security of supply. On several occasions, most significantly on Tuesday 23 June, the system was operated outside NESO's normal operating ranges.
- 2.3 GB consumers' electricity supply was maintained during this week, but these events are important because they provide a real-world test of our electricity system's resilience during extreme heat. Our overarching line of enquiry is understanding how secure the system was in practice, and whether any improvements to system arrangements are needed as GB and Europe may face more frequent periods of extreme weather in future.
- 2.4 Underneath our overarching line of enquiry are several specific areas that we consider warrant further investigation, as set out below. This section includes Ofgem's view on the most significant points from the preliminary report which have guided our lines of enquiry. This should not be read as a comprehensive summary of the NESO Review Team's findings nor an indication that other aspects of the preliminary report may not be important. We recommend you read the NESO Review Team's report for the detailed account of events.
- 2.5 At this stage, we are not making conclusions on whether the system was secure; whether the regulations governing system operation were correctly followed; and the lessons that can be learned from this episode to strengthen system security for the future. All these areas will be determined when we publish our final conclusions following our review of the NESO Review Team's final report, as discussed further in Section 3.

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Security of the system

Ofgem's view on the key findings from the preliminary report

- 2.6 The preliminary report shows that frequency did not deviate outside statutory limits (0.5 Hz above or below 50 Hz) at any point during the week. There were several instances across the week where frequency was outside NESO's normal operational range (0.2 Hz above or below 50 Hz). This was most notably on Tuesday 23 June when frequency was below 49.8 Hz for significant periods over the evening. On this evening, NESO took extensive operational actions in an effort to restore system frequency, including emergency actions over our interconnectors with the Netherlands and France.
- 2.7 On the evenings of Tuesday 23 and Thursday 25 June, there were periods where power flows on parts of the transmission network are reported to have exceeded NESO's internal constraint limits.⁴

Ofgem's lines of enquiry

- 2.8 A major focus of our inquiry will be to draw conclusions on how secure the system was. We are specifically seeking to understand why frequency remained outside normal operating ranges for significant periods over Tuesday evening, whether the system was secure against the loss of the largest single source of power on the system, why constraint limits were exceeded and what impact this had in practice. This evidence will help us determine whether any changes to operational processes, rules, or standards are required. It will also inform our determinations on whether all relevant security standards were met, and if not, whether the reasons for this were justified.
- 2.9 We note that the Eversheds report has rightly not sought to assess the level of risk on the system but highlights that Ofgem's inquiry will consider whether the system was operating outside security standards, the impact of that on the system and whether that impact had been minimised. This is picked up under our lines of enquiry set out above.

Planning and operational decision making

Ofgem's view on the key findings from the preliminary report

- 2.10 The preliminary report provides a factual timeline for the notable events and key decisions made by NESO's control room on each day of the week commencing 22 June 2026. This includes information on how NESO's forecast operating margin for the evening peak for each day evolved over time, and the actions NESO took in response, both ahead of time and in real time.

⁴ Please see the NESO Review Team's preliminary report for more information on constraint limits.

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- 2.11 In NESO's first, day-ahead system operating plan for the evening of Tuesday 23 June, NESO forecast a shortfall in operating margin which was beyond the 'trigger level' used to consider whether an Electricity Margin Notice (EMN) should be issued. Subsequent plans highlighted in the report between midnight and 13:21 on Tuesday showed either adequate margins or margin shortfalls that did not exceed the EMN trigger level. No EMN was issued by NESO for this day. Over the course of Tuesday afternoon and evening, several combined factors led to NESO taking extensive operating actions, and eventually emergency actions, in an effort to maintain system security.
- 2.12 NESO's first system operating plan for the evening of Wednesday 24 June and a day-ahead plan for Friday 26 June showed operating margin shortfalls beyond the EMN trigger level, and NESO decided to issue EMNs for these periods in response.

Ofgem's lines of enquiry

- 2.13 The decisions NESO takes ahead of time directly influence market behaviour and how the control room must respond in real time. To draw firm conclusions about system resilience, we need to understand whether any shortcomings in NESO's planning assumptions or processes exacerbated system stress or whether the challenges encountered were largely unavoidable and driven by other external factors that may need addressing.
- 2.14 We are specifically seeking to understand the extent to which NESO's planning assumptions supported effective decision-making across the week. For Tuesday 23 June, we wish to establish whether NESO correctly followed its operational order of actions, whether an EMN or any other system notice should have been issued, and whether any additional operational steps should have been taken.
- 2.15 We note the Eversheds report has raised some cultural and governance issues whereby NESO control room staff may have felt reluctant to issue EMNs and/or felt risks to the system were being minimised. It is for the NESO Board to take forward the recommendations made in that report including how to address the culture of reputational sensitivity affecting operational decision making. We will consider the points raised by witnesses in the Eversheds report concerning whether all procedural requirements were met as part of the lines of inquiry set out above.

Interconnector flows

Ofgem's view on the key findings from the preliminary report

- 2.16 Across the week, high electricity prices in neighbouring European markets and interconnector flows impacted NESO's operation of the GB electricity system. This was most notably on Tuesday 23 June when the within-day price of electricity in France rose to approximately £1,200/MWh, compared with approximately £600/MWh in GB. This caused a significant change from scheduled imports to

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exports over the course of the day, including approximately 5GW less electricity supply from France than scheduled at the day-ahead stage.

- 2.17 In May this year, following discussion with European Transmission System Operators (TSOs), NESO had introduced restrictions on the amount of electricity it could trade across interconnectors to minimise operability challenges on neighbouring systems.⁵ On all days, NESO actively traded electricity across the interconnectors to manage operating margin and constraints. On Monday and Tuesday of this week in June, NESO's trades were within these pre-agreed trading limits. NESO's trades exceeded these limits for the remainder of the week with the permission of the impacted TSOs.
- 2.18 Across the week, NESO also set different restrictions on interconnector exports. On Tuesday evening, NESO received emergency assistance from the French TSO, following ongoing discussions about the availability of support in both directions. NESO also issued an Emergency Instruction to our interconnector with the Netherlands, requesting it to reduce exports from GB to zero for an approximate two-hour period.

Ofgem's lines of enquiry

- 2.19 We want to fully understand the impact of interconnector flows on GB system operation and the extent to which they can provide reliable operating margin and support during pan-European weather events. This is so we can determine whether existing arrangements are fit for purpose and understand what the June 2026 events might mean for future adequacy and resilience planning.
- 2.20 We are specifically seeking to understand how NESO factored interconnector risks into its operational planning, why significant changes in flows may have been hard to anticipate and mitigate, and whether NESO was sufficiently prepared for the impacts of the interconnector trading restrictions introduced in May 2026. We are also examining whether NESO made effective use of its ability to apply restrictions on exports and whether it had any issues accessing emergency support when it was required.
- 2.21 We note the Eversheds report refers to the change in interconnector trading practice in May 2026 and proposes that Ofgem's inquiry considers the impact that had during the week of 22 June given that it appeared to represent the first significant challenge faced by the control room since May. We pick this up in our lines of enquiry above.

⁵ [Interconnector trading restrictions for NESO | National Energy System Operator](#)

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Demand forecasting

Ofgem's view on the key findings from the preliminary report

2.22 The preliminary report shows that there were at times material differences between NESO's day-ahead forecasts and actual electricity demand across the week. From Monday to Thursday, actual demand was consistently higher than NESO's day-ahead forecasts with the largest errors reaching approximately 2GW. This pattern reversed on Friday when actual demand was mostly below the day-ahead forecast. There were also several times in the afternoons and evenings when demand changed in ways the control room did not anticipate. Our interpretation of the report is that some of these unexpected changes led to excursions in frequency outside NESO's normal operating limits.

Ofgem's lines of enquiry

- 2.23 NESO's forecasts of demand are critical as they affect market behaviour and directly influence the actions the control room takes to operate the system. A lack of understanding of demand patterns during extreme temperatures could increase risks to system security in the future, as this makes it harder to ensure electricity demand and supply are balanced.
- 2.24 We are specifically seeking to understand whether errors were the result of deficiencies in NESO's forecasting models and assumptions, or whether there are any systemic issues with current market frameworks or data availability which make demand patterns during extreme heat too difficult for NESO to reasonably predict. We wish to establish whether there are any changes which could be introduced to NESO's processes or access to data to prevent recurrence of the issues faced in June. We are also seeking to understand whether uncertainty relating to distribution system activities was a significant contributing factor.

Generation availability

Ofgem's view on the key findings from the preliminary report

2.25 Throughout the week, CCGTs reduced their maximum available capacity below normal levels due to the expected impact of high heat on equipment and operations. On some days, capacity reductions of up to 1.7GW were seen compared to the estimates provided to the control room on the previous day. On Wednesday 24 June, NESO sought feedback from CCGTs on their availabilities and issued a letter asking for information to be updated to account for the hot weather.

Ofgem's lines of enquiry

2.26 We want to ensure there is a clear understanding of the availability of GB generation capacity during periods of extreme temperature, as well as effective

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shorter-term data exchanges between generators and NESO. This is important because deficiencies in either area can lead to inaccurate planning and operational decisions, increasing risks to security of supply.

- 2.27 We are specifically seeking to understand the extent to which the impacts of extreme temperatures on generator availability were effectively foreseen and mitigated by both NESO and generators, and whether the short-term operational information provided by generators to NESO gave the control room sufficient visibility. We will also identify whether there are any broader lessons about the availability of all capacity types during high temperatures that may need to be factored into future capacity and resilience planning.

Balancing services performance

Ofgem's view on the key findings from the preliminary report

- 2.28 At times during the week, NESO required the extensive use of balancing services to manage tight system conditions. At various points in the report, the NESO Review Team notes that some services did not provide the volumes of energy or availability that NESO had expected or instructed. However, the report does not at this stage provide information on the level of under-delivery or under-procurement for each service, why this occurred, or the impact this had.

Ofgem's lines of enquiry

- 2.29 NESO relies on the balancing services it procures to operate the electricity system securely and cost-effectively. The events of June 2026 provide an important opportunity to assess whether these services delivered the capabilities required when the system was under stress. We are seeking to understand the performance of all balancing services during periods of system stress, whether this was abnormal and why, and whether any regulatory interventions or framework changes are needed to mitigate future risks.

Market response

Ofgem's view on the key findings from the preliminary report

- 2.30 NESO experienced various unexpected demand fluctuations during the week, as well as jumps in frequency coinciding with the start and end of Settlement Periods. The preliminary report notes this could be driven by different factors, including changes in embedded generation, price signals, and resulting market behaviour. As discussed above, NESO issued EMNs for Wednesday 24 June and Friday 26 June, but the preliminary report does not assess the market's response to these notices and whether that differed from other days.

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Ofgem’s lines of enquiry

- 2.31 The way the market reacts to price signals and emergency notices directly impacts the actions NESO needs to take as the system operator. Understanding whether the market responded as we would expect during a stress event is another important consideration when looking at overall electricity system resilience. We are seeking to understand the extent to which the GB market can effectively and predictably self-balance and respond to tight margins, or whether any changes to arrangements may be required to improve the interaction between electricity market dynamics and system operation.

Updated terms of reference

- 2.32 The NESO Review Team's final report will provide additional information and analysis that Ofgem needs to address our lines of enquiry. The Terms of Reference we established at the start of this review remain broadly aligned with our lines of enquiry, but we have made several updates to existing elements to ensure that the scope of the NESO Review Team’s final report is clear. We have published the updated Terms of Reference on our website.⁶

⁶ Please see: [Regulatory review of the operation and management of the electricity system during the June heat event | Ofgem](#)

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3. Next steps

NESO Review Team’s final report

- 3.1 The NESO Review Team will submit its final report to Ofgem by 11 December. Work by the NESO Review Team on the final report is already underway and we will continue to oversee progress through the Oversight Group.
- 3.2 An important aspect of the NESO Review Team’s final report will be the lessons learned from the heatwave. This includes the NESO Review Team’s views on whether any changes to control room processes, regulations, or market arrangements may be required and who should take these changes forward. Some lessons from the events of June are already emerging, and we expect NESO to implement any necessary changes to its system operation processes without delay, so they are in place ahead of next summer.

Process for Ofgem’s final conclusions

- 3.3 The preliminary report suggests that the context of the week commencing 22 June was a combination of extreme weather, system-wide operational challenges and changing market conditions across Europe. While the report provides a valuable factual foundation, there are still important questions to be answered regarding system security, operational decision-making and the effectiveness of existing market and operational arrangements. Further evidence and analysis will be required before Ofgem can determine whether improvements to operational practices, regulatory frameworks or industry arrangements are needed.
- 3.4 Once we have received the final report, we will work at pace to consider the findings and form an independent Ofgem view. We expect this to include formal requests for information, interviews with individuals from NESO’s system operating teams, and engagement with other impacted stakeholders.
- 3.5 We aim to publish our conclusions on whether the GB electricity system remained secure and whether security standards were maintained during the June 2026 events, as soon as possible after receiving the final report and no later than 31 January 2027. If our inquiry finds instances where there is material reason to believe a licensee has not complied with its obligations, then we will consider opening enforcement investigations. We will publish our conclusions on the lessons learned from these events no later than 31 March 2027, setting out a clear, timebound plan of action to help ensure the sector is better prepared for any extreme heat periods in the future.