

Public

Ref: FOI/25/126

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29 October 2025

Dear requester

Request for Information

Thank you for your request for information which we received on 25 September 2025. Your request has been considered under the Environmental Information Regulations 2004 (EIR) as we believe that the requested information falls within the definition of environmental information as set out in Regulation 2(1) of the EIR.

Your request

You asked us for the following information:

- 1. Please can you confirm how much has been spent overall by the energy firms on our energy grid infrastructure for the last ten years please? If you could split into years please? How much of this was for actual increase of the energy grid?*
- 2. Can you confirm if you have carried out audit/investigations into each of the energy firms into the money they are receiving and the money being spent on maintaining and increasing our energy infrastructure for the last ten years? Please can you provide a copy with any security issues taken out if necessary?*
- 3. Please can you confirm if you have looked at our internal security of each of the energy firms, in terms of cyber attack for the last five years? I appreciate that this is sensitive information and just a yes/no will suffice?*
- 4. Please can you confirm what action and auditing has been carried out by you in terms of the Heathrow sub station incident? Please can I have a copy of this report please and any recommendations made to the firm looking after this essential sub station?*
- 5. Please can you confirm in the last five years, how much extra capacity has been added to the UK's energy grid capacity, since the closing of our coal power stations?*
- 6. Please can you confirm how much has been given to the energy companies for the last five years, for paying for energy that has not been able to be sent to the grid due to lack of capacity. Noted from the Octopus energy boss who confirmed that tax payers were paying for energy not to be created.*

7. *Please can you confirm that the energy grid in Lincolnshire, has had a risk report undertaken by yourselves in that the grid will have the necessary capacity to take all energy produced. Please could I have a copy of this report?*
8. *Lastly please can you confirm if you have considered under national security the risks posed by having Chinese firms maintaining essential energy infrastructure in the UK for the last ten years? Please could I have a copy of the is report.*

Our response

We confirm that we hold information in scope of only some of the questions in your request. We have responded to each question in turn below.

1. *Please can you confirm how much has been spent overall by the energy firms on our energy grid infrastructure for the last ten years please? If you could split into years please? How much of this was for actual increase of the energy grid?*

NESO does not hold this information.

The electricity transmission network in Great Britain is owned and operated by three Transmission Owners (TOs) – SP Energy Networks, National Grid Electricity Transmission and Scottish & Southern Electricity Networks. The distribution network is owned and operated by Distribution Network Operators (DNOs).

You may wish to request this information from the TOs, DNOs, or from Ofgem, the energy regulator for Great Britain.

2. *Can you confirm if you have carried out audit/investigations into each of the energy firms into the money they are receiving and the money being spent on maintaining and increasing our energy infrastructure for the last ten years? Please can you provide a copy with any security issues taken out if necessary?*

NESO does not hold this information.

NESO is not the energy regulator for Great Britain and does not audit or investigate the use of funds by energy companies.

You may wish to request this information from Ofgem, the energy regulator for Great Britain.

3. *Please can you confirm if you have looked at our internal security of each of the energy firms, in terms of cyber-attack for the last five years? I appreciate that this is sensitive information and just a yes/no will suffice?*

Requests submitted under the Environmental Information Regulations (EIR) are for recorded information held at the time of the request. Requests for ‘yes/no’ responses fall outside of the legislation, unless recorded information that clearly answers that ‘yes/no’ question is held.

We can confirm that we do not hold recorded information in scope of this question.

For information, the National Grid Electricity System Operator (NG ESO) was part of the National Grid PLC group of companies until 30 September 2024. On 1 October 2024 we became the National Energy System Operator (NESO) under government ownership (the Independent System Operator and Planner (ISOP) as designated in the Energy Act 2023).

NESO has a licence obligation (Condition C7.2 of the Electricity System Operator Licence) to understand any risks or threats to the energy system. As NG ESO the same licence obligation was not held.

Compliance with this licence obligation requires an understanding of credible attacks that the energy sector may face but does not require NESO to assess the internal security of individual energy firms.

The 'Network and Information Systems Regulations 2018' (NIS Regulations) address the threats posed to network and information systems and aim to improve the functioning of the digital economy. Ofgem and the Department of Energy Security and Net Zero (DESNZ) are the energy sector's joint competent authority for the electricity and gas subsectors. You may wish to request further information from Ofgem and DESNZ.

4. Please can you confirm what action and auditing has been carried out by you in terms of the Heathrow sub station incident? Please can I have a copy of this report please and any recommendations made to the firm looking after this essential sub station?

NESO was commissioned by the Department for Energy Security and Net Zero (DESNZ) and Ofgem to conduct a review into the outage North Hyde Substation outage which took place on 20 March and led to over 70,000 customers and businesses losing power and the closure of Heathrow airport.

The interim report, and the final report are published here: [North Hyde Review | National Energy System Operator](#).

You may also wish to contact Ofgem with respect to their investigation: [Ofgem opens investigation into National Grid Electricity Transmission \(NGET\) for North Hyde Substation fire | Ofgem](#)

5. Please can you confirm in the last five years, how much extra capacity has been added to the UK's energy grid capacity, since the closing of our coal power stations?

NESO manages contracts for connecting and generating power through the electricity transmission system. Further information on NESO's role within in Connections is available here: [Connections | National Energy System Operator](#).

Projects which have a connection agreement with NESO are listed in the TEC Register. These include existing and future connection projects and projects that can be directly connected to the National Electricity Transmission System (NETS) or make use of it. For information on transmission connected generation please see this link: [What is transmission connected generation? | National Energy System Operator](#). If a connection is at a distribution level, the connection contract will be held with the DNO and not with NESO. For information, larger distribution connected projects are also required to go through a Transmission Impact Assessment (TIA) to assess any potential impacts on the National Electricity Transmission System (NETS).

The TEC Register is published twice weekly, and the latest register is available here: [Transmission Entry Capacity \(TEC\) register | National Energy System Operator](#). Please also see enclosed the TEC Register showing contracted TEC as 22/10/2020.

You may be aware of the current connections reform activity. NESO is delivering a transformational change to the way that the grid connections process operates. A key part of this reform is the introduction of the new Gate 2 to Whole Queue (G2TWQ) process, which ensures that only projects meeting specific readiness and strategic alignment criteria progress through the reformed queue. This will mean that following the re-ordering process we will deliver a more orderly and predictable queue with less speculative projects. The evidence submission window closed on 26 August 2025. The TEC register, and other relevant registers, will be updated with which projects are Gate 1 and which are Gate 2 throughout the G2TWQ process. Information on Connections Reform is available here: [Connections Reform | National Energy System Operator](#).

You may be interested in the GB Monthly Energy statistics which illustrate electricity generation sources by month: [Great Britain's Monthly Energy Stats | National Energy System Operator](#). NESO also publishes information and reports on resource adequacy, which assess the potential risks to security of supply and whether there are sufficient available resources to meet electricity demand throughout the year: [Resource adequacy | National Energy System Operator](#).

6. *Please can you confirm how much has been given to the energy companies for the last five years, for paying for energy that has not been able to be sent to the grid due to lack of capacity. Noted from the Octopus energy boss who confirmed that tax payers were paying for energy not to be created.*

Page 19 of the 2025 Annual Balancing Costs Report provides information on thermal constraints costs from 2018/19 to 2024/25: [2025 Annual Balancing Costs Report](#).

For information, NESO's role is to 'balance' the grid. We must ensure enough electricity is supplied to meet the needs of our customers and manage any restrictions that may be on the network. We need a range of tools to be able to balance the grid effectively. This involves energy trading, balancing services, and the Balancing Mechanism (BM). Self-dispatch and re-dispatch strategies are also used in the UK energy market to handle supply and demand and any system limitations.

One of the ways in which the grid is balanced is through constraints payments. When there are physical constraints on the electricity network (i.e., the network cannot physically transfer power from one region to another), generators are asked to reduce output to maintain system stability and manage the flows on the network. Generators are then compensated via a constraint payment. Further information on constraints payments is available on the NESO website: [What are constraints payments? | National Energy System Operator.](#)

NESO publishes information on balancing costs, including constraints costs: [Balancing costs | National Energy System Operator.](#)

- The 'MBSS' tab at the bottom of the website linked above provides access to an interactive Monthly Balancing Services Summary Dashboard and related datasets which include information on balancing costs, including constraints costs.
- The 'MBSS archive' tab provides access by financial year to data on balancing costs in the form of monthly PDF reports and related datasets, again including constraints costs.
- Daily Balancing Costs are also available from the 'Daily Balancing Costs' tab.

In relation to costs to UK consumers, Balancing Costs are recovered through part of the Balancing System Use of Services (BSUoS) charge that is allocated to Generators and Suppliers based on a market share of total generation and consumption in each interval. Generators recover these costs through the revenue streams of their business and suppliers recover these costs through their charges to consumers. The everyday household will therefore have a proportion of their electricity bill that recovers the Balancing Costs charged to their Supplier. NESO provides a visualisation dashboard of BSUoS charges in consumer bills on this webpage: [Balancing costs | National Energy System Operator.](#)

7. *Please can you confirm that the energy grid in Lincolnshire, has had a risk report undertaken by yourselves in that the grid will have the necessary capacity to take all energy produced. Please could I have a copy of this report?*

NESO does not hold a specific risk report in scope of this question.

NESO is responsible for strategic network planning, identifying whole energy system needs and ensuring that the system can be designed and built accordingly. Future system requirements are based upon analysis through NESO's [Future Energy Scenarios \(FES\)](#).

The transitional Centralised Strategic Network Plan (tCSNP) ('Pathway to 2030 Holistic Network Design' report, 'Beyond 2030' report and the tCSNP2 Refresh) is a bridge from the Network Options Assessment (NOA) to a new long term strategic approach to future transmission network planning through the Centralised Strategic Network Plan (CSNP). The CSNP will take a broad, whole energy system view to transforming the pace and scale of our planning.

The tCSNP provides NESO's recommendations for which network reinforcement projects should receive investment, and when. While we provide economic recommendations that will enable the

flow of electricity around the transmission system to facilitate the evolving energy landscape, we are not responsible for making the final decision on what, where, and when to invest. More detailed design and consenting of new electricity transmission infrastructure is the responsibility of TOs.

Information on network planning is available on the NESO website [Strategic Planning | National Energy System Operator](#). Links to information on the tCSNP and CSNP are provided below:

- [Transitional Centralised Strategic Network Plan \(tCSNP\) | National Energy System Operator](#)
- [Centralised Strategic Network Plan \(CSNP\) | National Energy System Operator](#)

The [Electricity Ten Year Statement \(ETYS\)](#) is NESO's view of future transmission requirements and the capability of Great Britain's National Electricity Transmission System (NETS) over the next ten years. It is published annually as part of processes to understand what capacity is necessary and feeds into the tCSNP/NOA.

We plan and operate the electricity grid against criteria laid out in the [Security and Quality of Supply Standard \(SQSS\)](#). This is a long-established framework that includes governance for modifications. Current and previous editions of the standard can be found here: <https://www.neso.energy/industry-information/codes/security-and-quality-supply-standard-sqss/sqss-code-documents>

You may also find helpful information on our offshore coordination page: <https://www.neso.energy/about/our-projects/offshore-coordination>.

8. *Lastly please can you confirm if you have considered under national security the risks posed by having Chinese firms maintaining essential energy infrastructure in the UK for the last ten years? Please could I have a copy of the is report.*

Regulation 12(6) of the EIR allows a public authority to respond to a request for information by neither confirming or denying that the requested information is held. Reg 12(6) can be engaged where confirming or denying the existence of such information would adversely affect international relations, defence, national security or public safety.

NESO has a licence obligation to understand any risks or threats to the energy system (Condition C7.2 of the Electricity System Operator Licence). Any information held on specific threats to the energy system would be very sensitive and relate to the security and resilience of the energy system. Confirming or denying whether information is held on any specific risk or threat would reveal the extent to which that risk or threat has been considered as relevant to the security of the energy system, thereby implying its perceived importance.

We are mindful of the potential for the 'mosaic' effect when public authorities confirm or deny that information is held. Whilst we are in no way suggesting that you intend to use this response from NESO for malicious purposes, any response under the EIR or FOIA is to the world at large,

including terrorists and other bad actors. In the current geopolitical and security environment, there is a need for NESO to take a very careful approach.

We are therefore refusing to confirm or deny whether we hold recorded information in scope of this question on the basis of EIR regulation 12(6) by virtue of regulation 12(5)(a). Regulation 12(5)(a) provides an exception to disclosing requested information if it would adversely affect international relations, defence, national security or public safety.

Public Interest Test

As we are engaging regulation 12(6) by virtue of regulation 12(5)(a) we are required to undertake a 'public interest test' i.e., consider whether in all the circumstances of the case the public interest in neither confirming nor denying whether the requested information is held outweighs the public interest in doing so. The 'public interest' is not necessarily the same as what the public may be interested in.

There is always a general public interest in transparency and accountability. NESO acknowledges that there is a public interest in energy matters and that the public are interested in the security of GB's energy supply. The public is naturally interested in cyber security matters, particularly in the context of recent high profile cyber-attacks on large companies and organisations. There is a public interest in informing debate and understanding policy decisions in relation to national infrastructure.

There is, however, an extremely weighty public interest argument in protecting critical national infrastructure and the security of energy supply. NESO needs to protect critical national infrastructure in a volatile and hostile geopolitical climate in which energy related infrastructure and sources have been targeted in other parts of the world. Cyber-attacks are rated as a Tier 1 threat by the UK Government and evidenced in the recently published National Security Strategy 2025 addressing the very real and heightened threats facing the UK including its CNI.

NESO must balance its transparency obligations with protecting the resilience of the network and the security of supply. Although mindful of the presumption in favour of disclosure (and thereby in confirming or denying that information is held) under the EIR, we are conscious of the substantial public interest in national security and protecting critical national infrastructure. Having weighed up the public interest arguments our opinion is that the public interest lies in upholding Regulation 12(6) by virtue of Regulation 12(5)(a) and thereby neither confirming nor denying whether information in scope of this question is held.

Note regarding the engagement of the exception provided at Regulation 12(4)(a) – information not held

Where we have explained that we do not hold recorded information which falls within the scope of your request, we are relying on the EIR exception at Regulation 12(4)(a) which states that a public authority may refuse to disclose information if it does not hold that information when an

applicant's request is received. All EIR exceptions are subject to public interest test (PIT), however the Information Commissioner's Office (ICO) recognises that it is not possible to carry out a meaningful PIT where information is not held.

This concludes our response to your request.

Advice and assistance

Please see our website for information about NESO's role: [What we do | National Energy System Operator](#).

For more information about the Transmission Operators and Distribution Network Operators, please visit: [How do the UK's energy networks work? - Energy Networks Association](#).

We have made every effort to respond to the questions that you have asked in compliance with the information rights legislation and have advised where we do not hold information. Where we have been able to provide recorded information in response to your questions, we hope this has helped you to understand NESO's role and the information that we hold. Should the information that we have provided not meet your intended aims, we hope that it allows you to formulate more specific questions. There is guidance on the ICO website on the formulation of information requests: [How to access information from a public authority | ICO](#).

Next steps

If you are dissatisfied with our handling of your request, you can ask us to review our response. If you want us to carry out a review, please let us know within 40 working days and quote the reference number at the top of this letter. You can find our procedure here: [Freedom of Information and Environmental Information Regulations | National Energy System Operator](#). The ICO's website also provides guidance on the internal review process: [What to do if you are dissatisfied with the response | ICO](#).

If you are still dissatisfied after our internal review, you can complain to the Information Commissioner's Office (ICO). You should make complaints to the ICO within six weeks of receiving the outcome of an internal review. The easiest way to lodge a complaint is through their website: www.ico.org.uk/foicomplaints. Alternatively, they can be contacted at: Wycliffe House, Water Lane, Wilmslow, SK9 5AF.

Thank you for your interest in the work of the National Energy System Operator (NESO).

Regards,
The Information Rights Team, National Energy System Operator (NESO)