Public

Ref: FOI/25/103

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23 September 2025

Dear requester

Request for Information

Thank you for your request for information which we received on 26 August 2025.

Your request has been considered under the Environmental Information Regulations 2004 (EIR) as we believe that the information requested falls within the definition of environmental information as set out in Regulation 2(1) of the EIR.

Request

You asked us:

Under the Freedom of Information Act 2000, I request access to all documents and information held by NESO relating to the Clean Power 2030 mission and your technical advice provided to government departments.

NESO-Specific Policy Context: As the independent system operator, NESO provides critical technical advice on electricity system operability, costs, and consumer impacts. This request specifically targets NESO's technical assessments and advice regarding Clean Power 2030 implementation.

Documents Requested:

1. SYSTEM OPERABILITY ASSESSMENTS

- *Complete technical analysis of achieving 95% clean power by 2030*
- *System security assessments with high renewable penetration*
- *Grid stability analysis under various renewable generation scenarios*
- *Frequency response and voltage control requirements with reduced thermal generation*
- *Black start capability assessments in a renewables-dominated system*

2. BALANCING AND CONSTRAINT COST ANALYSIS

- *Detailed constraint cost projections for 2025-2035 period*
- *Regional transmission constraint analysis and mitigation costs*
- *Renewable curtailment forecasts when generation exceeds demand*
- *Backup generation capacity requirements and associated costs*
- *Ancillary services cost projections (frequency response, reserve, reactive power)*
- *Analysis of demand-side response requirements and costs*

3. GRID INFRASTRUCTURE REQUIREMENTS

- *Transmission network reinforcement needs for Clean Power 2030*
- *Distribution network upgrade requirements for renewable integration*
- *Energy storage deployment requirements and system impact analysis*
- *Interconnector capacity assessments and cross-border balancing*
- *Smart grid technology deployment needs and cost implications*

4. ECONOMIC IMPACT ASSESSMENTS

- *All analysis of consumer bill impacts from Clean Power 2030 implementation*
- *System cost analysis including generation, network, and balancing costs*
- *Methodology and assumptions used in cost-benefit analysis*
- *Comparison of system costs under different renewable penetration scenarios*
- *Analysis of wholesale electricity price impacts*

5. TECHNICAL ADVICE TO GOVERNMENT

- *All briefings, reports, and advice provided to DESNZ regarding Clean Power 2030*
- *Technical submissions to government consultations on clean power policy*
- *Responses to government requests for technical analysis or costings*
- *All correspondence with ministers or civil servants regarding system operability*
- *Meeting minutes, presentations, and technical workshops with government officials*

6. MODELLING AND FORECASTING

- *Complete electricity demand forecasts 2025-2035*
- *Generation adequacy assessments under Clean Power 2030 scenarios*
- *Weather dependency analysis and system resilience studies*
- *Seasonal and diurnal generation patterns analysis*
- *Peak demand management strategies and capacity requirements*

7. MARKET MECHANISM ANALYSIS

- *Impact assessment of Contracts for Difference on system operation*
- *Analysis of Capacity Market requirements under high renewable scenarios*
- *Balancing Mechanism cost projections and operational challenges*
- *Assessment of new market mechanisms required for Clean Power 2030*

8. INTERNATIONAL BENCHMARKING

- *Analysis of international experience with high renewable penetration*
- *Comparative studies of European system operators managing renewable integration*
- *Lessons learned from other countries' clean energy transitions*
- *Cross-border balancing arrangements and European coordination*

9. RISK ASSESSMENTS

- *Technical risks associated with rapid renewable deployment*
- *System security risks under various Clean Power 2030 scenarios*
- *Operational challenges and mitigation strategies*
- *Supply security analysis with reduced dispatchable generation*

10. STAKEHOLDER ENGAGEMENT

- *Industry consultation responses regarding Clean Power 2030 operability*
- *Technical working group outputs and stakeholder feedback*
- *Generator and supplier engagement on system operation changes*
- *Consumer group interactions regarding bill impacts*

Specific Technical Questions:

- *What are NESO's calculations for additional balancing costs with 95% clean power?*
- *How does NESO assess the £300 household bill reduction claim?*
- *What backup capacity does NESO calculate is required?*
- *What are the projected constraint payment costs?*
- *How does NESO assess system reliability under Clean Power 2030?*

Time Period: 1 January 2024 to present date

Format Requirements:

- *Both executive summaries AND detailed technical appendices*
- *Underlying data models, spreadsheets, and calculation methodologies*
- *All supporting analysis, not just final conclusions*
- *Regional breakdowns where applicable*

Our response

We confirm that we hold information in scope of your request.

Regulation 12(4)(b) of the EIR allows a public authority to refuse a request where the request is manifestly unreasonable. We have determined that responding to your request will impose a disproportionate burden and unjustified level of disruption to NESO.

You have asked for *"all documents and information held by NESO relating to the Clean Power 2030 mission and your technical advice provided to government departments."* As an example of the burden on the organisation that responding to this request would represent, our Clean Power 2030 document library contains 4,342 items. To respond to your request, we would need to go through these items to determine which of them fell within the scope of your request, extract and collate those items and then determine whether we needed to consider any exceptions provided by the EIR. If it took just two minutes per item, this would represent over 144 hours of staff time to review, extract and collate the information that fell within the scope of your request. In some cases, it would no doubt take substantially more time, particularly factoring in any time required to consult with third parties and to redact information where EIR exceptions applied.

The exception in regulation 12(4)(b) is subject to the public interest test. There is a general public interest in public organisations being accountable and transparent and NESO ensures that it upholds as far as possible the presumption of disclosure under EIR. There is a public interest in NESO, as a public corporation, being accountable for its advice. NESO acknowledges that information about our Clean Power 2030 (CP30) advice could help to inform public debate around clean power, energy security, and energy costs which affect private and business consumers. There is a public interest in furthering public understanding of the costs and assumptions used in the development of public energy policy, planning and investment. NESO recognises that there is a public interest in adoption of renewable energy sources and decarbonisation plans which impact on the environment.

Public authorities must, however, be protected from any disproportionate burden caused by requests for information. It is not in the public interest for NESO's resources to be diverted away from delivery of our public tasks and licensed activities. NESO has published its CP30 report with the complete analyses and advice and provided further data which informed the report. This suite of documents provides a complete and accurate set of data, analysis and advice which is easily accessible and available to everyone.

Despite the presumption in favour of disclosure, the excessive burden of responding to your request means that we conclude that the public interest lies in maintaining the exception in Regulation 12(4)(b) of the EIR. This is because we believe that to respond to your request would represent a disproportionate burden on the organisation and its staff (both in terms of cost and

time), and the speculative nature of this request means that we cannot clearly determine that the value or purpose of the request would justify the burden.

NESO makes a wide range of information publicly available and engages with the public on a wide range of issues. In the advice and assistance section below, we have provided links to publicly available information.

This concludes our response to your request.

Advice and assistance

Regulation 9 of the EIR require a public authority to provide advice and assistance. You may wish to refine your request in such a way that we would be able to allocate reasonable resource to managing the review of the information held.

We have provided links below to publicly available information that may assist you to narrow the focus of your request. Framing your request as a specific question may assist us in narrowing down the information that you require and the teams that may hold that information. Requests that ask for all records which refer to or mention a particular subject, name, word or phrase tend to result in voluminous search results, whether we conduct centralised automated searches or ask employees to search their own records. Limiting your request to a particular type of record, such as minutes of meetings or briefings, may also assist us in providing a focused response. The FOIA and EIR do not require you to explain why you are requesting the information, but providing some level of description of the purpose behind the request may also assist in reducing the scope of the searches.

Should you submit a refined request, we will consider it as a new request under the information rights legislation.

- The CP30 report and supporting documentation are available on the NESO website: Clean Power 2030 | National Energy System Operator.
    - System operability is covered in Chapter 2.9. Our detailed operability analysis is presented in Annex 3: Operability and operations analysis.
    - The costs and benefits of a clean power system are covered in Chapter 5. Annex 4: Costs and benefit analysis details the analysis and methodology behind our findings, covering approach and assumptions, climate, carbon, environment, and cost analysis.
    - The core elements of a clean power system to be delivered by 2030 are covered in Chapter 2. Further detail on the basis of our analysis and stakeholder feedback at technology level can be found in Annex 1: Electricity demand and supply analysis.

- Information on Grid reinforcements is included in Annex 2: Networks, connections and network access analysis.
- Chapter 4.1 covers the various market arrangements and investment support schemes that are in the process of, or will need, reform to reach clean power and operate the system efficiently.
- Our CP30 information, including workbooks and assumption log is available on our website Clean Power 2030 | National Energy System Operator. The workbook contains all the graphs and associated data for our CP30 report and annexes.
- Chapter 1.5 provides information about our engagement with stakeholders in developing our CP30 advice.

- NESO has also responded to a request for information on the calculations behind the costings in the CP30 report. All responses to requests submitted to NESO under the EIR or FOIA are published in our disclosure log: Freedom of Information and Environmental Information Regulations | National Energy System Operator. The relevant request has reference number EIR/24/0005. You can also search the disclosure log for other responses relating to CP30 if you are interested in what we have been asked for previously.

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)