

Freedom of Information (FOI) request

Received: 27 February 2025
Date: 26 March 2025
Ref: Sent by email from enquiries@theccc.org.uk
Published: www.theccc.org.uk/about/transparency

Your request:

Dear Climate Change Committee,

Re: Freedom of Information Request - Energy Grid Modelling and Analysis

I am writing to request information under the Freedom of Information Act 2000 regarding the detailed methodology and data behind your energy grid modelling as referenced in your main report and the supplementary report "Reasonable worst-case stress-test scenarios for the UK energy sector in the context of the changing climate (Newcastle University)".

Specifically, I request:

1. The complete set of energy modelling calculations used to inform your conclusions, including:

- The temporal resolution of your modelling (hourly, daily, or other interval measurements)
- The full time series data used in your analysis
- The methodology for determining capacity factors during low renewable output periods

2. Detailed information on your projected electricity demand scenarios:

- Projected peak loads on the grid across different seasons and weather conditions
- The magnitude and duration of projected energy deficits, particularly those identified as reaching 80-120 GW for extended periods

3. Your complete mitigation strategy for addressing sustained renewable generation deficits, including:

- Specific generation sources allocated to cover the identified deficits when renewable output falls below 20% capacity factor

- How the modelled 38 GW of dispatchable gas capacity, 35 GW/139 GWh of battery storage, 7 GW/433 GWh of medium-duration storage, and 8 GW of nuclear capacity are deployed during these periods
- Any additional measures or imports planned to address shortfalls during extended low-wind scenarios

4. The evidential basis and calculations supporting the adequacy of your proposed energy mix to maintain security of supply during worst-case scenarios.

If you need any clarification or if any part of this request is unclear, please do not hesitate to contact me. If this request is too broad or will incur excessive cost, I would be grateful if you could advise me as to how I might refine it.

I am a capable python programmer and data scientist, so I am happy to receive the data directly as in the language it is modelled in. As a publicly funded organisation I assume you have a github page where you post all of your models?

I look forward to your response within the statutory 20 working days.

Yours faithfully,

[name redacted]

Our response:

Thank you for your request. We have handled your request under the Freedom of Information Act 2000 (FOIA).

We are refusing this request under Section 22 of the FOIA, as this information is intended for future publication. We will be publishing the Seventh Carbon Budget methodology on 21 May 2025. This will be available on the Publications page of the CCC website.

Information disclosed in response to this FOIA request is releasable to the public. In keeping with the spirit and effect of the FOIA and the government's Transparency Agenda, this letter and the information disclosed to you may be placed on the CCC website, together with any related information that will provide a key to its wider context. No information identifying you will be placed on the CCC website.

If you are dissatisfied with the handling of your request, you have the right to ask for an internal review. If you are not content with the outcome of the review, you may apply directly to the Information Commissioner for a decision. In keeping with our transparency policy, the information released to you will be published on www.theccc.org.uk. Please note that this publication will not include your personal data.

Kind regards,

Climate Change Committee