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NESO Operational Transparency Forum

29 January 2025

NESO
National Energy System Operator

Introduction | Sli.do code #OTF

Slido code #OTF

To ask questions live & give us post event feedback go to Sli.do event code #OTF.

- **Ask your questions as early as possible** as our experts may need time to ensure a correct answer can be given live.
- **Please provide your name or organisation**. This is an operational forum for industry participants therefore questions from unidentified parties will not be answered live. If you have reasons to remain anonymous to the wider forum, please use the advance question or email options below.
- **The OTF is not the place to challenge the actions of individual parties** (other than the NESO), and we will not comment on these challenges. This type of concern can be reported to the Market Monitoring team at: marketreporting@nationalenergyso.com
- **Questions will be answered in the upvoted order whenever possible**. We will take questions from further down the list when: the answer is not ready; we need to take the question away or the topic is outside of the scope of the OTF.
- **Sli.do will remain open until 12:00**, even when the call closes earlier, to provide the maximum opportunity for you to ask questions. After that please use the advance questions or email options below.
- **All questions will be recorded and published.** Questions which are not answered on the day will be included, with answers, in the slide pack for the next OTF.
- **Ask questions in advance** (before 12:00 on Monday) at: https://forms.office.com/r/k0AEfKnai3
- **Ask questions anytime** whether for inclusion in the forum or individual response at: box.nc.customer@nationalenergyso.com

Stay up to date on our webpage: https://www.neso.energy/what-we-do/systems-operations/operational-transparency-forum (OTF Q&A is published with slide packs)

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Future deep dive / focus topics

Slido code #OTF

Today's deep dive

120 GVA.s Minimum Inertia System Review

Storm Eowyn preparations

Future

Balancing costs summer feedback – 5 February

Capacity Markets overview – 19 February

NESO Settlements overview (BSAD questions Follow Up) – 26 February

Interconnector Special refresh – 5 March (extended **90 minute** OTF)

If you have questions/suggestions of areas to cover during above presentations or ideas for deep dives or focus topics you would like us to consider, please send them to us at: box.nc.customer@nationalenergyso.com

Balancing Programme March 2025 Webinar

Date: 6 March 2025

Time: 2:00 – 3:30pm

Location: Microsoft Teams

We will share the latest on our Balancing and Forecasting capabilities planned for delivery into the Control Room, and provide an update on progress to shape our capabilities beyond 2025 using customer input.

If you missed our latest November event, you can watch the recordings **here** to learn more about our balancing and forecasting transformation journey and what this means for our customers.

To sign up to the event, click **here**.

To stay up to date with the latest information from the Balancing Programme, subscribe to the NESO newsletter by clicking **here**, and selecting 'Future of Balancing Services inc. Balancing Programme'.

If you have any questions, please contact the team at: **box.balancingprogramme@nationalenergyso.com**

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C9 Annual Review

Standard Condition Licence C9 ***"Procurement and use of balancing services"*** *sets out the obligation on the NESO to publish five statements addressing the procurement and use of balancing services.*

In accordance with C9, we are conducting an annual review of all licence statements, as part of this review we have proposed changes to the five statements which we invite industry to comment on;

- References to C16 updated to C9 as relevant.
- References to other conditions under the transmission licence updated to reflect new condition references under the Electricity System Operator Licence.
- Additional Obligations under NESO ESO Licence
- Updates to services including Balancing Reserve, Quick Reserve, Dynamic Moderation, Dynamic Regulation, Dynamic Containment, Dynamic Firm Frequency Response (DFFR), Demand Flexibility Service (DFS) and MW Dispatch to reflect procurement plans for those services

Our official consultation is open from **24st January 2025**. Please respond by **5pm on 21st February 2025**.

- To view the C9 statements and consultation documents please access the NESO website here
- If you would like to receive notification of future C9 events, consultations and updates, then please sign up to our mailing list.
- Any questions, please contact balancingservices@nationalenergyso.com

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Update on The Future of Registration Webinar from 23 January 2025

Register here to receive updates and invites to future webinars

Slido code #OTF

This webinar explained how we are changing the way we manage Registrations for the Balancing Mechanism (BM).

This webinar provided an overview of::

- What is changing and why
- What this means for you, our customers, and for NESO
- How we will support you and what resources will be available for this
- BM Registration on the Single Markets Platform: Demonstration

and received over 40 questions.

Slides, webinar recording and Q&A have been published at:

Balancing Mechanism Wider Access | National Energy System Operator

under “Registration and Onboarding Drop In Sessions”

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Removal of MODIS REMIT data submissions

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Proposal

- To discontinue REMIT submissions through MODIS.

Why now

- We are planning to migrate MODIS to a new platform later this year – removing this function will simplify that process.
- Most market participants now submit REMIT data directly through the ELEXON portal.

Timeline

- We are proposing to move any remaining parties across to the ELEXON route by July this year.

Customer support

- ELEXON are fully supportive of this change and will provide detailed guidance and support to set up REMIT submissions directly to the ELEXON portal.
- We are happy to discuss this transition in more detail with each party and can organise a separate dedicated session to explain the process for setting up a new submission to the ELEXON portal in more detail.
- Please share the above proposal with your relevant teams if this applies to you.
- Contact us at: box.modis.business@nationalenergyso.com

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ELEXON Portal REMIT submissions

- Since inception, Elexon have provided interfaces to submit REMIT data via a POST API or website interface
- Users are required to create accounts via the Elexon Portal and are then authorised to submit data against specific assets; i.e. BSC Category A Signatories can assign permissions to other users to submit data for their organisation
- REMIT API is resilient, highly available, low latency, supported 24/7 and Elexon will provide a routine test environment
- Further details are available here: https://www.elexonportal.co.uk/remituserguide
-

Slido code #OTF

Help us to improve the OTF

Click here to complete the OTF Survey of 2024 NOW!

Update at 22 Jan:

- **Over 2000 invitations issued**
- **18 responses so far**
- **Closing date:**
  ~~31 January 2025~~
  extended to
  7 February 2025

We value your feedback because it enables us to:

- **Understand our customers needs and expectations**
- **Tailor the OTF approach and content accordingly**
- **Understand what we can do better**

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Future Event Summary

Event	Date & Time	Link
Balancing Programme Beyond 2025 Webinar	30th January 2025 (14:30-15:30)	Register here
OTF Survey Closing Date - **EXTENDED**	~~31st January 2025~~ 7th February 2025	Complete Survey (approx. 5 min)
C9 Annual Review Closing Date	21st February 2025, by 17:00	Link here
Balancing Programme March 2025 Webinar	6th March 2025(14:00 – 15:30)	Register here

Public

120 GVA.s System Performance and Balancing Cost Saving

Qi Zhong
Frequency Risk and Modelling
Market Requirements

NESO
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Contents

To learn what inertia is and how it is produced go to:
What is inertia? | National Energy System Operator"

1. Introduction and Background

Frequency Risk and Control Report (FRCR) Recap

- NESO is obliged to review and set out the GB system frequency control policy at least once in each financial year through the **Frequency Risk and Control Report (FRCR)** process.
- This process was introduced following the 9 August 2019 GB power cut event through the SQSS modification GSR027.
- NESO's analysis clarifies the impact on frequency reliability and cost, and presents recommendations to achieve an appropriate balance.
- Based on current policy – FRCR 2024, NESO
  - Maintain minimum inertia requirement at **120 GVA.s**.
  - Secure all BMU only risks and do not apply additional actions to mitigate all BMU+VS and simultaneous events.
  - Procure **additional 100 MW DC-Low** to further reduce residual risks.
- FRCR 2025 Policy will explore system risks and cost benefits from reducing minimum inertia **from 120 GVA.s to 102 GVA.s**.
- We organised two Technical Webinars in November and December 2024 to explain FRCR methodology, models and data. Please find the records on FRCR webpage.

1. Introduction and Background

- 120 GVA.s minimum system inertia was proposed in FRCR 2023.
- Policy was approved by Ofgem on 9 June 2023.
- **Phase 1** of reducing minimum inertia to 130 GVA.s was implemented on 28 February 2024.
- **Phase 2** of further reducing minimum inertia to 120 GVA.s was implemented on 19 June 2024.
- This system review covers:

What are system outturn inertia?

Do we see more frequency events?

Were the events caused by or related to reduced system inertia?

How much £ saving have we seen?

How much £ saving do we estimate per annum vs. FRCR 2024 estimate?

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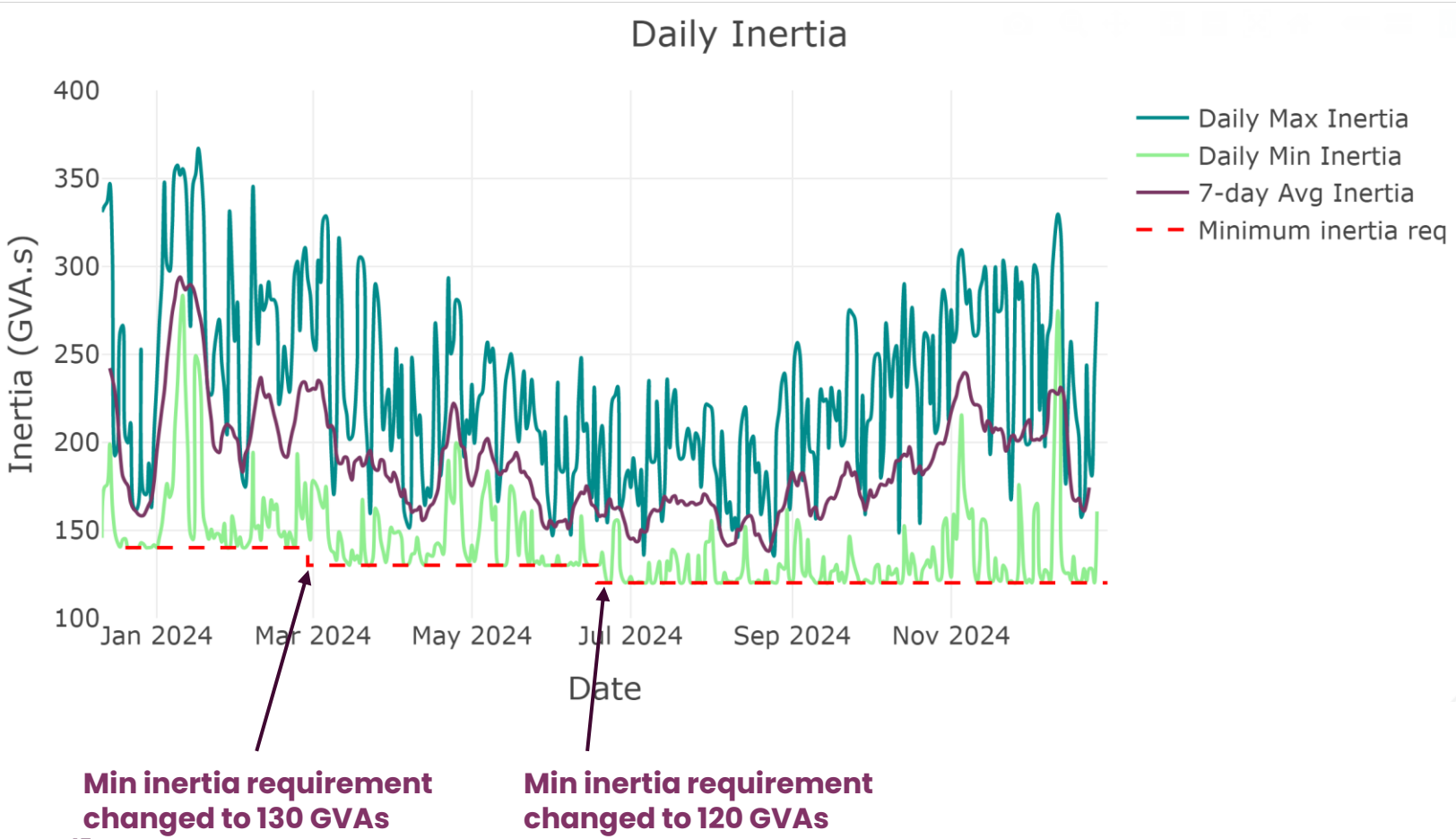
2. System Performance

System Outturn Inertia Profile January – December 2024



- System outturn inertia is estimated as the sum of the inertia provided by **Generators**, the contribution from **Demand Side** and the contribution from **Pathfinder Units.**
- Inertia provided by each generator is calculated based on its running mode and the inertia factor that is submitted to NESO via its compliance process.
- Inertia from the demand side is estimated by a demand inertia factor that is derived based on historical frequency events.
- We explained the calculation in FRCR 2025 Technical Webinar – 2 Model and Data.
- Following implementation of reduced minimum inertia policy, we have seen more occasions system outturn inertia at or close to the minimum requirement although distinct seasonal patterns remains.

2. System Performance

Do we see more frequency events?
Were the events caused by or related to reduced system inertia?

- **Frequency Event:** An event where any transmission fault, interconnector trip or any generation/demand change cause the system frequency to be outside of operational limits, for any length of time.
- Following the reduced minimum inertia policy implementation and until the end of 2024, we did not observe more occurrence of frequency events compared to when operating under 140 GVA.s. At the time of the frequency events, the system inertia were much higher than the required minimum level.
- System events that meet GC0105 and GC0151 reporting criteria are published on NESO website.
- Since implementing the lower minimum inertia policy, NESO have observed **Sub-Synchronous Oscillation (SSO)** events in the Scotland network. For all the events, system inertia was higher than the minimum requirement. During one of the events, the system inertia was recorded at 125.6 GVA.s, close to the 120 GVA.s minimum requirement. Our investigations found no correlation so far between lower overall system inertia and the initiation of these SSO events. We resented our investigation findings on OTF. NESO established an SSO Taskforce and working together with the industry to get better understanding and management over the SSO issue. For more SSO current state and plans for future management please refer to our report.

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3. Balancing Cost Saving

How much £ saving have we seen?

- **Methodology**
  - Counterfactual calculation – what could we have spent if the minimum inertia remained at 140 GVA.s?
  - Cost savings are due to the reduced need to instruct additional inertia machines.
  - Cost data is from January to November 2024.
- **Assumptions for Inertia Volume**
  - In the case of an inertia machine, such as a gas-fired combined cycle gas turbine (CCGT), it is assumed to provide a fixed amount of inertia, i.e. 3 GVA.s.
  - Typically, the inertia value of a CCGT machine increases when it is synchronised from 0 to SEL, with a typical value of 250 MW.
  - To maintain system balance, another machine or multiple machines would need to reduce their power output (PN) by 250MW. This is referred to as replacement energy.
  - For details please refer to FRCR 2025 Technical Webinar – 2 Model and Data.

Inertia Unit	Quantity
GVA.s per additional machine	3 GVA.s
Additional machine SEL (Typical)	250 MW
Additional machine MEL (Typical)	500 MW

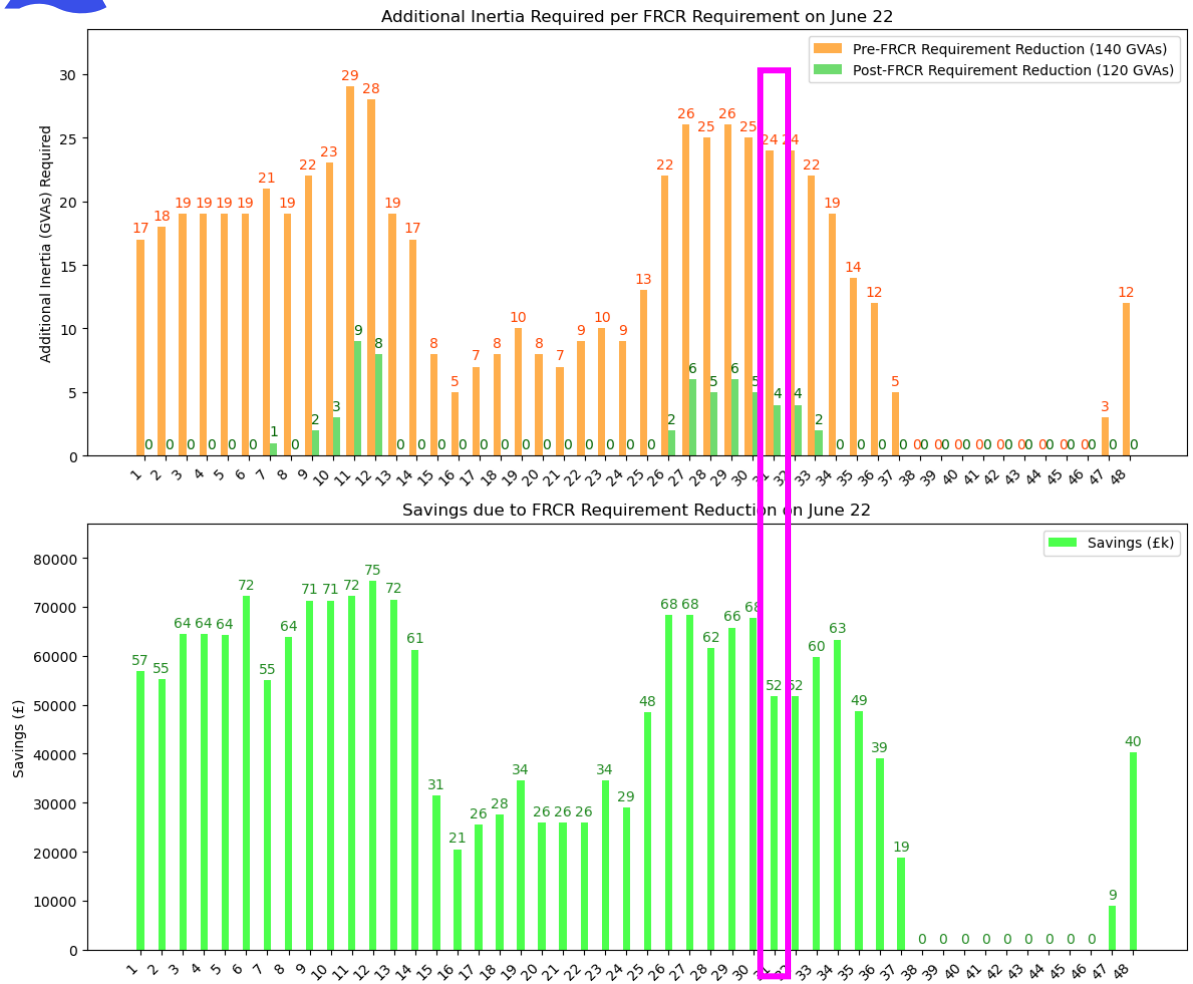
3. Balancing Cost Saving

How much £ saving have we seen?

- **Assumptions for Prices**
  - The **volume weighted average price offer (vwapo)** is calculated by considering the accepted offer price of CCGTs (Gas) who have zero FPN and positive SEL. In cases where the above offer price doesn't exist, the median of marginal gas unit price of the month is used as an estimate.
  - The replacement price represents a general system-wide price, which takes into consideration all possible technologies that could be used for energy replacement. Similarly, the **volume weighted average price bid (vwapb)** is determined by considering the the accepted bid price of all fuel types whose FPN is greater than SEL. When the above accepted bid price doesn't exist, the median of bid price of the month is used as an estimate.
  - For details please refer to FRCR 2025 Technical Webinar – 2 Model and Data.

3. Balancing Cost Saving

How much £ saving have we seen?



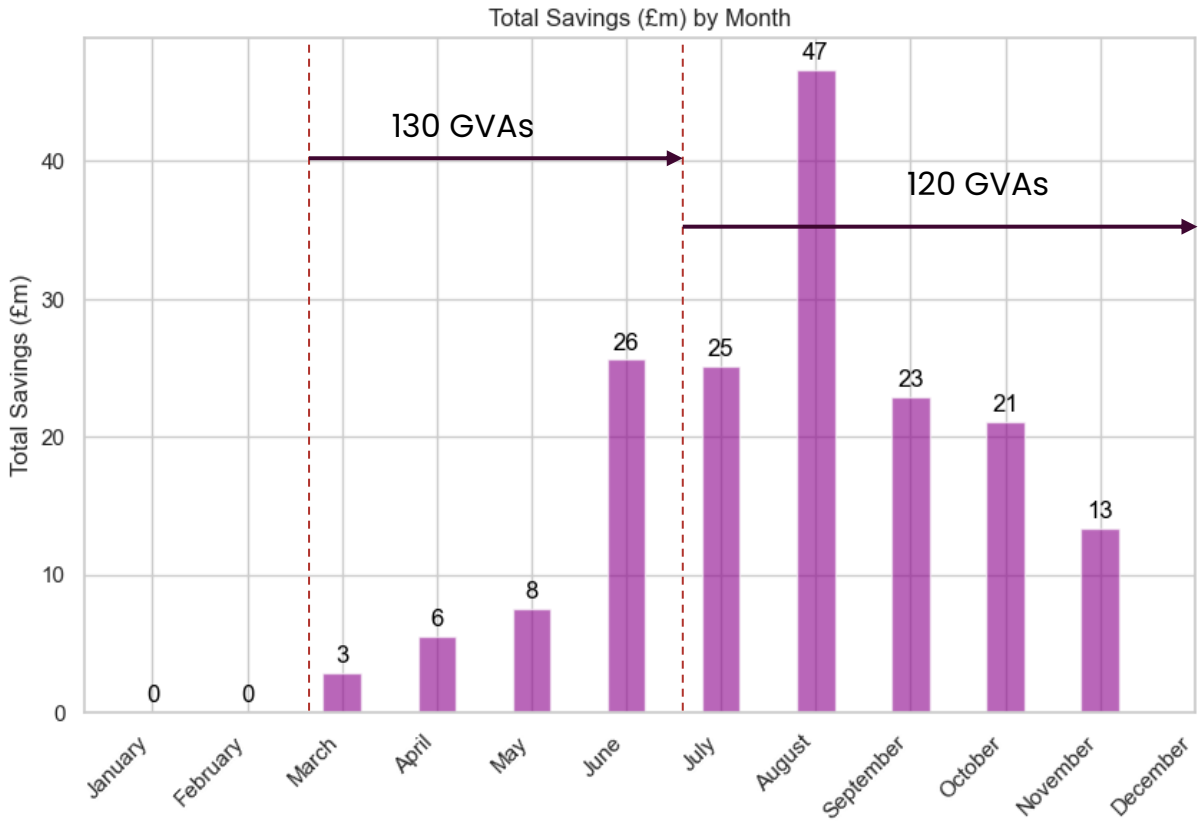
Example of calculation – 22 Jun 2024

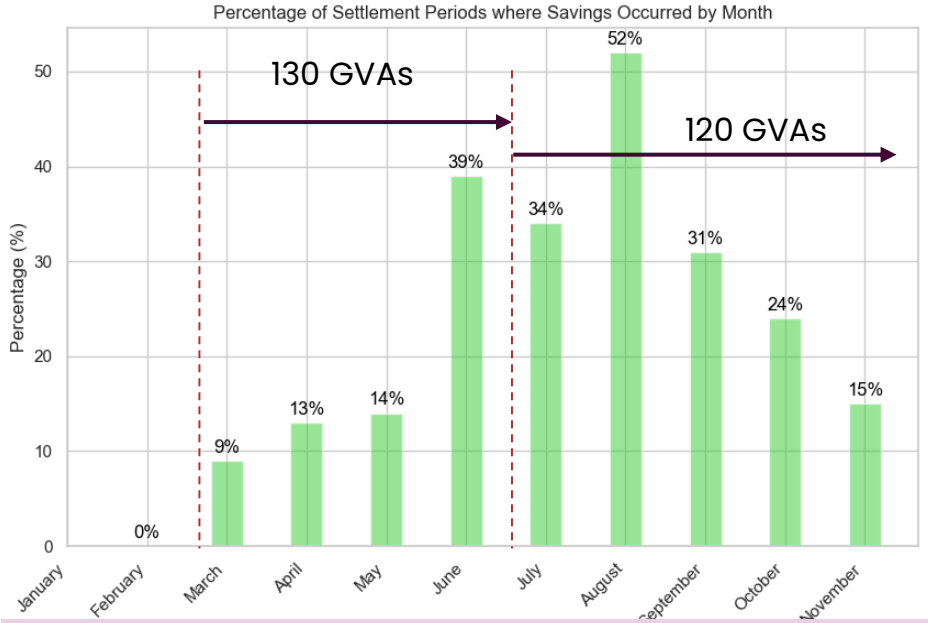
- Top chart shows additional inertia required per day per SP against **existing inertia (market provided + voltage + pathfinder units),** if the system requirement is 140 GVA.s, or 120 GVA.s.
- Highlighted is SP31.
- The existing inertia was recorded as 116 GVA.s, the additional inertia required (via BM Actions) is 24 GVA.s to meet 140 GVA.s(amber bar) and is 4 GVA.s to meet 120 GVA.s (green bar).
- The savings can be derived as

  Savings = (ceil(24/3) – ceil(4/3)) * 250MW * 0.5h *(vwapo - vwapb) = £52k
- The total savings on 22 June is £2m.
- **The total savings in June 2024 is £26m.**

3. Balancing Cost Saving

How much £ saving have we seen?

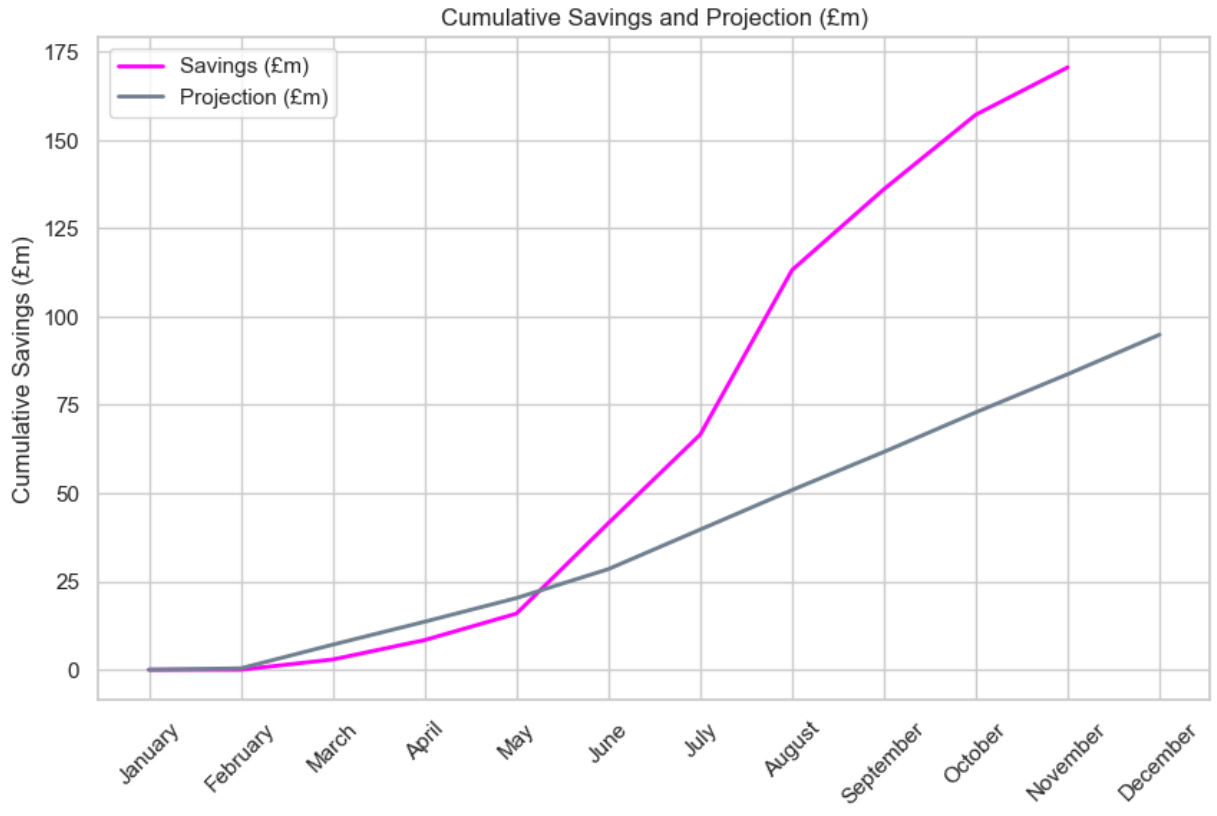




- Saving **following minimum inertia reduction generates between £3m and £47m per month.**
- Savings are due to less inertia machines being required to meet reduced inertia requirement.
- Variations among months are driven by the specific system conditions of the month.

3. Balancing Cost Saving

How much £ saving do we estimate per annum vs. FRCR 2024 estimate?



- Cumulative savings are achieved above projection estimated in FRCR 2024.
- Please note, in FRCR model we consider average offer and bid price from historical data and adjust by gas and electricity prices.

Inertia price data in FRCR 2024	
Typical CCGT offer price	£140.00
Typical bid (reposition) price	£50.00

Inertia price data in FRCR 2025	
Typical CCGT offer price	£112.50
Typical bid (reposition) price	£42.50

4. Next Steps

	**What are system outturn inertia?**	£	**How much £ saving have we seen?**
	**Do we see more frequency events?**		**How much £ saving do we estimate per annum vs. FRCR 2024 estimate?**
	Were the events caused by or related to reduced national inertia?		

- We will continue monitoring system performance following this methodology / framework.
- Results will be included in FRCR 2025 report.
- We welcome your thoughts and questions to our methodology and results.
- Please contact box.sqss@nationalenergyso.com for questions and comments.

5. FRCR 2025 Project Update

- We presented FRCR 2025 Project Plan on OTF 20 November 2024. Please refer to the record.
- On 27 January 2025, NESO kicked off an integrated technical assurance review with Accenture supported by NESO Engineering Assurance team.
- **Two-phase assurance:**
  - Phase 1 (3 weeks from 27 Jan to 14 Feb 2025): Assuring the FRCR process from the underlying studies through to policy development.
  - Phase 2 (2 weeks): Post FRCR 2025 consultation, assuring the processing of feedback from industry.
- A report will be provided at engagement closure, commenting on the rigour of the process to assemble and process data and information, and the extent to which NESO's conclusions are supported by that information and the governance throughout.
- **Updated key milestones:**
  - Methodology and Guidance Document publication: By end of February 2025
  - Consultation: March 2025
  - **Webinar:** Mid of March – Date TBD and will communicate in mid February via OTF and SQSS email
  - **Final submission:** mid May 2025

Public

Storm Éowyn Preparation

Cristian Ebau

Upstream Technical Policy
Operational Readiness

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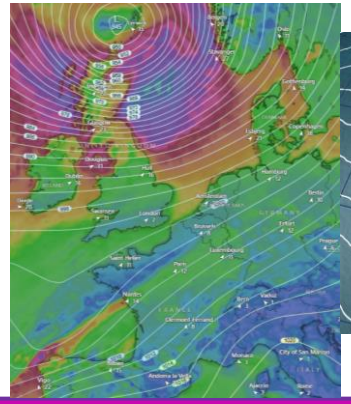
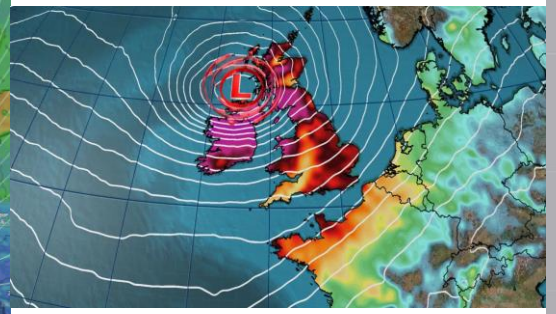
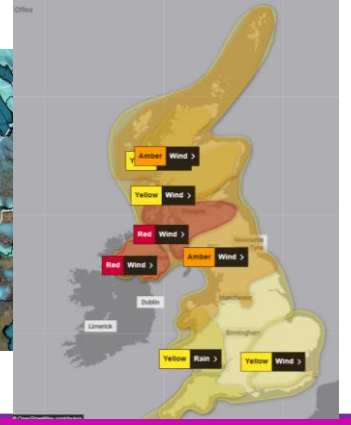
Timeline







Tuesday to Wednesday 21/01/2025 – 22/01/2025
Met Office named Storm Éowyn expected to bring strong winds across the UK.

NESO teams monitoring weather forecast informed ENCC the storm likely to bring strong winds across the UK on Friday and into Saturday, with the strongest winds of 80 mph likely to hit Scotland.

Thursday 23/01/2025:
Met Office issued for Friday
Red weather warnings for wind across Northern Ireland, southern Scotland and the Isle of Man.
Amber and Yellow warnings for northern Scotland, Wales and England.

ENCC and support teams during Weekend & Weekly Strategy meeting discussed Storm Éowyn scenarios and potential impact on system operations.

Precautionary measure, similar to the strategy used during Storm Ciaran in November 2023 were taken.

Friday to Saturday 24/01/2025 – 25/01/2025:
Storm Éowyn made land fall in Scotland from about 06:00 hrs.

50 Circuit trips on the transmission system in Scotland and North of England.

Sunday onwards 26/01/2025:
ENCC continued to monitor and liaise with Transmission Owners.

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Demand | Last week demand out-turn

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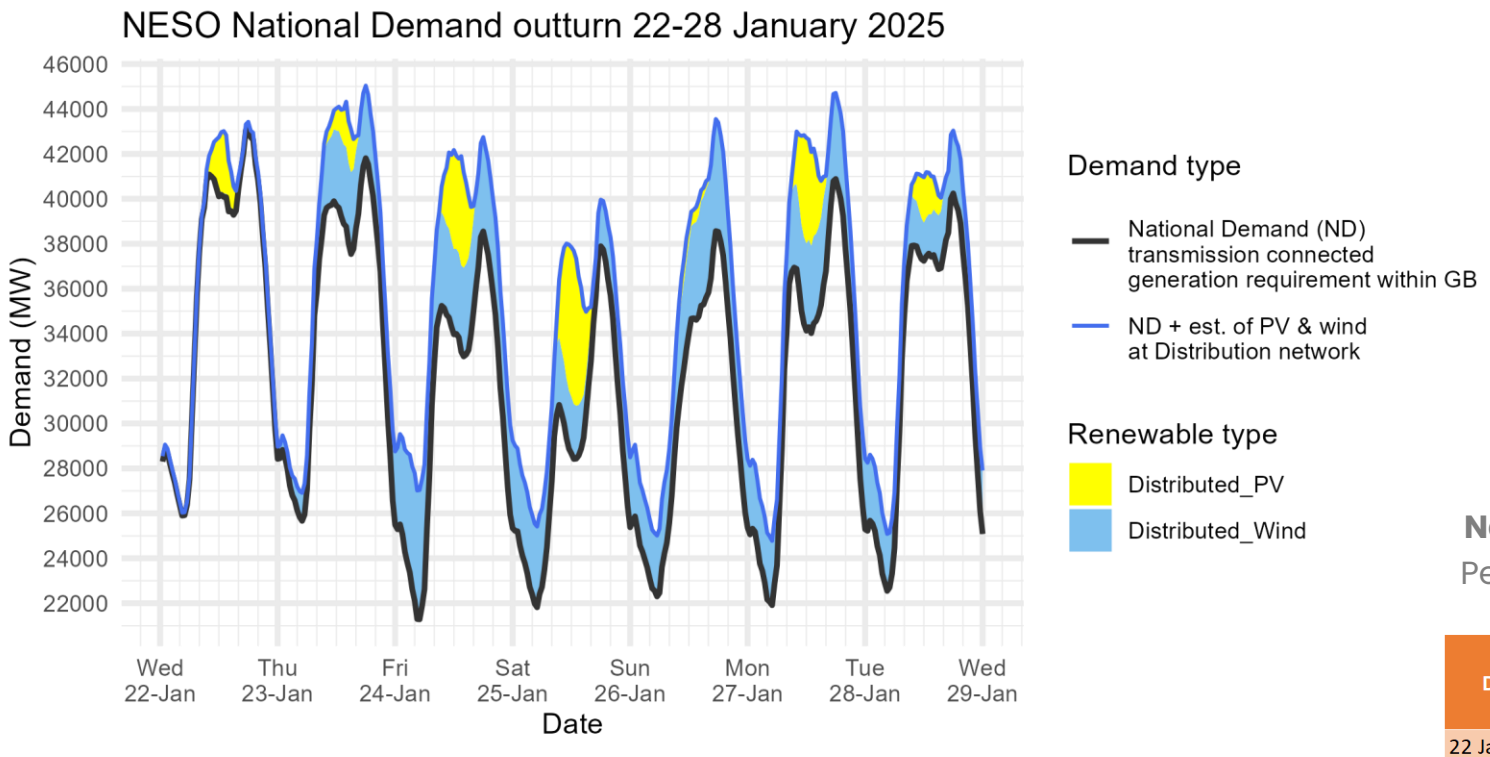

The black line (National Demand ND) is the measure of portion of total GB customer demand that is supplied by the transmission network.

ND values do not include export on interconnectors or pumping or station load

Blue line serves as a proxy for total GB customer demand. It includes demand supplied by the distributed wind and solar sources, but it does not include demand supplied by non-weather driven sources at the distributed network for which NESO has no real time data.

Historic out-turn data can be found on the NESO Data Portal in the following data sets: Historic Demand Data & Demand Data Update

Distributed generation

Peak values by day

Date	OUTTURN	
	Daily Max Dist. PV (GW)	Daily Max Dist. Wind (GW)
22 Jan 2025	2.8	0.5
23 Jan 2025	2.0	3.6
24 Jan 2025	4.9	5.8
25 Jan 2025	6.8	3.8
26 Jan 2025	1.0	5.0
27 Jan 2025	4.7	3.9
28 Jan 2025	2.0	3.0

National Demand

Peaks and troughs

Date	Forecasting Point	FORECAST (Wed 22 Jan)		OUTTURN			
		National Demand (GW)	Dist. wind (GW)	National Demand (GW)	Triad Avoidance est. (GW)	N. Demand adjusted for TA (GW)	Dist. wind (GW)
22 Jan 2025	Overnight Min	26.2	0.2	25.9	n/a	n/a	0.1
22 Jan 2025	Evening Peak	44.2	0.4	43.2	0.0	43.2	0.3
23 Jan 2025	Overnight Min	25.3	1.2	25.7	n/a	n/a	1.2
23 Jan 2025	Evening Peak	40.8	3.8	41.8	0.0	41.8	3.2
24 Jan 2025	Overnight Min	20.9	5.3	21.3	n/a	n/a	5.8
24 Jan 2025	Evening Peak	37.8	4.3	38.6	0.0	38.6	4.2
25 Jan 2025	Overnight Min	21.2	3.7	21.8	n/a	n/a	3.6
25 Jan 2025	Evening Peak	36.8	2.9	37.9	0.0	37.9	2.1
26 Jan 2025	Overnight Min	22.2	2.2	22.3	n/a	n/a	2.7
26 Jan 2025	Evening Peak	37.0	4.3	38.6	0.0	38.6	4.9
27 Jan 2025	Overnight Min	19.9	5.1	21.9	n/a	n/a	2.9
27 Jan 2025	Evening Peak	39.2	4.4	40.9	0.0	40.9	3.8
28 Jan 2025	Overnight Min	21.7	4.0	22.5	n/a	n/a	2.5
28 Jan 2025	Evening Peak	40.2	3.6	40.2	0.0	40.2	2.8

Demand | Week Ahead

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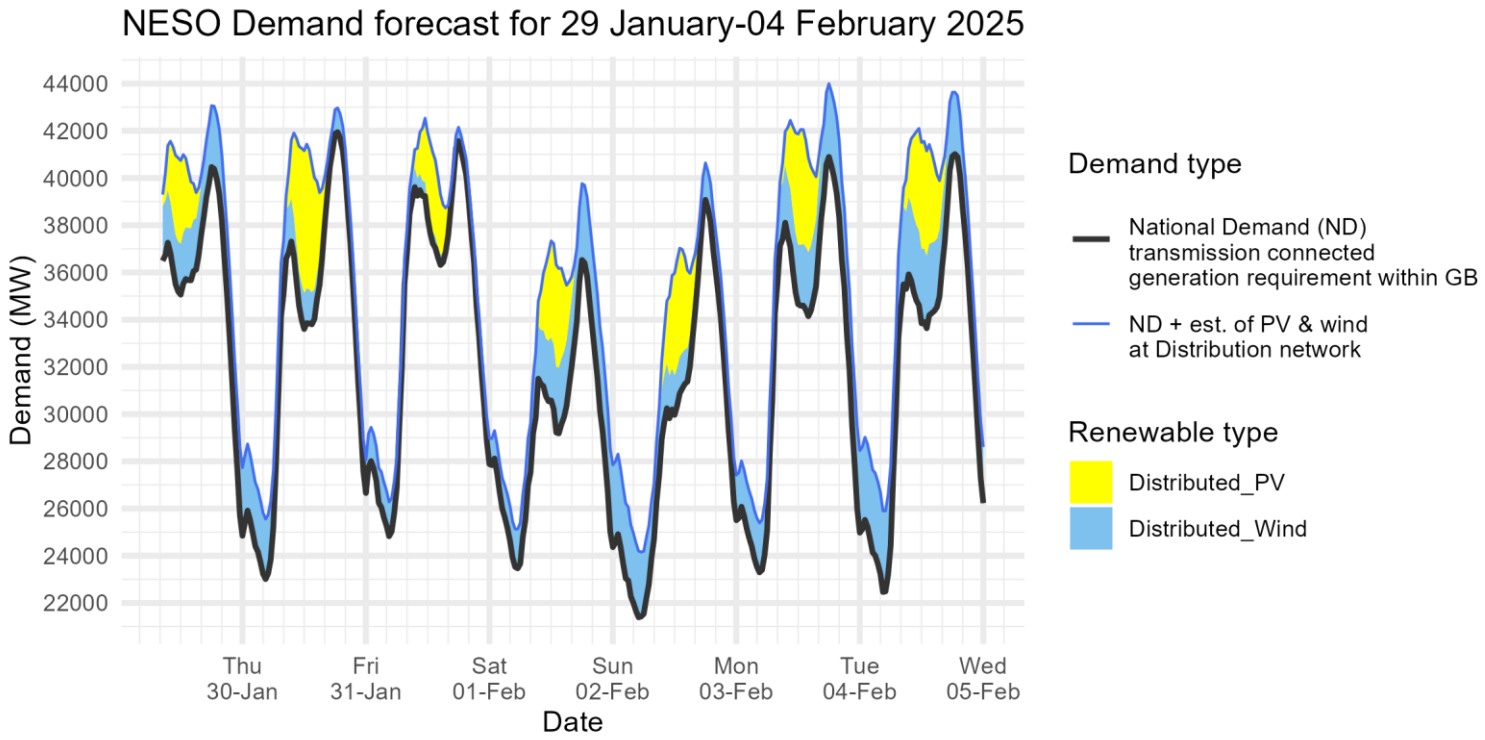

The black line (National Demand ND) is the measure of portion of total GB customer demand that is supplied by the transmission network.

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Blue line serves as a proxy for total GB customer demand. It includes demand supplied by the distributed wind and solar sources, but it does not include demand supplied by non-weather driven sources at the distributed network for which NESO has no real time data.

Historic out-turn data can be found on the NESO Data Portal in the following data sets: Historic Demand Data & Demand Data Update

National Demand

Peaks and troughs

		FORECAST (Wed 29 Jan)	
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)
29 Jan 2025	Evening Peak	40.5	2.6
30 Jan 2025	Overnight Min	23.0	2.5
30 Jan 2025	Evening Peak	41.9	1.0
31 Jan 2025	Overnight Min	24.8	1.5
31 Jan 2025	Evening Peak	41.6	0.6
01 Feb 2025	Overnight Min	23.5	1.7
01 Feb 2025	Evening Peak	36.5	3.2
02 Feb 2025	Overnight Min	21.4	2.8
02 Feb 2025	Evening Peak	39.1	1.6
03 Feb 2025	Overnight Min	23.3	2.1
03 Feb 2025	Evening Peak	40.9	3.1
04 Feb 2025	Overnight Min	22.5	3.4
04 Feb 2025	Evening Peak	41.0	2.6

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Operational Margins | Week Ahead

Slido code #OTF

How to interpret this information

This slide sets out our view of operational margins for the next week. We are providing this information to help market participants identify when tighter periods are more likely to occur such that they can plan to respond accordingly.

The table provides our current view on the operational surplus based on expected levels of generation, wind and peak demand. This is based on information available to NESO as of 22nd January and is subject to change. It represents a view of what the market is currently intending to provide before we take any actions. The interconnector flows are equal to those in the Base case presented in the Winter Outlook.

The indicative surplus is a measure of how tight we expect margins to be and the likelihood of the NESO needing to use its operational tools.

For higher surplus values, margins are expected to be adequate and there is a low likelihood of the NESO needing to use its tools. In such cases, we may even experience exports to Europe on the interconnectors over the peak depending on market prices.

For lower (and potentially negative) surplus values, then this indicates operational margins could be tight and that there is a higher likelihood of the NESO needing to use its tools, such as interconnector trading and issuing margins notices. We expect there to be sufficient supply available to respond to these signals to meet demand.

Margins are adequate for the next week.

Day	Date	Notified Generation (MW)	Wind (MW)	IC Flows* (MW)	Peak demand (MW)	Indicative surplus (MW)
Thu	30/01/2025	42319	4860	4370	42550	4730
Fri	31/01/2025	43632	2740	4370	42260	4170
Sat	01/02/2025	43632	13770	4370	37180	15570
Sun	02/02/2025	44682	7190	4370	39190	12900
Mon	03/02/2025	45578	12370	4370	40670	14310
Tue	04/02/2025	45578	12560	4370	41500	13850
Wed	05/02/2025	45595	9960	4370	41600	12620

*Interconnector flow in line with the Winter Outlook Report Base Case but will ultimately flow to market price

Margins do not include NESO enhanced or emergency actions

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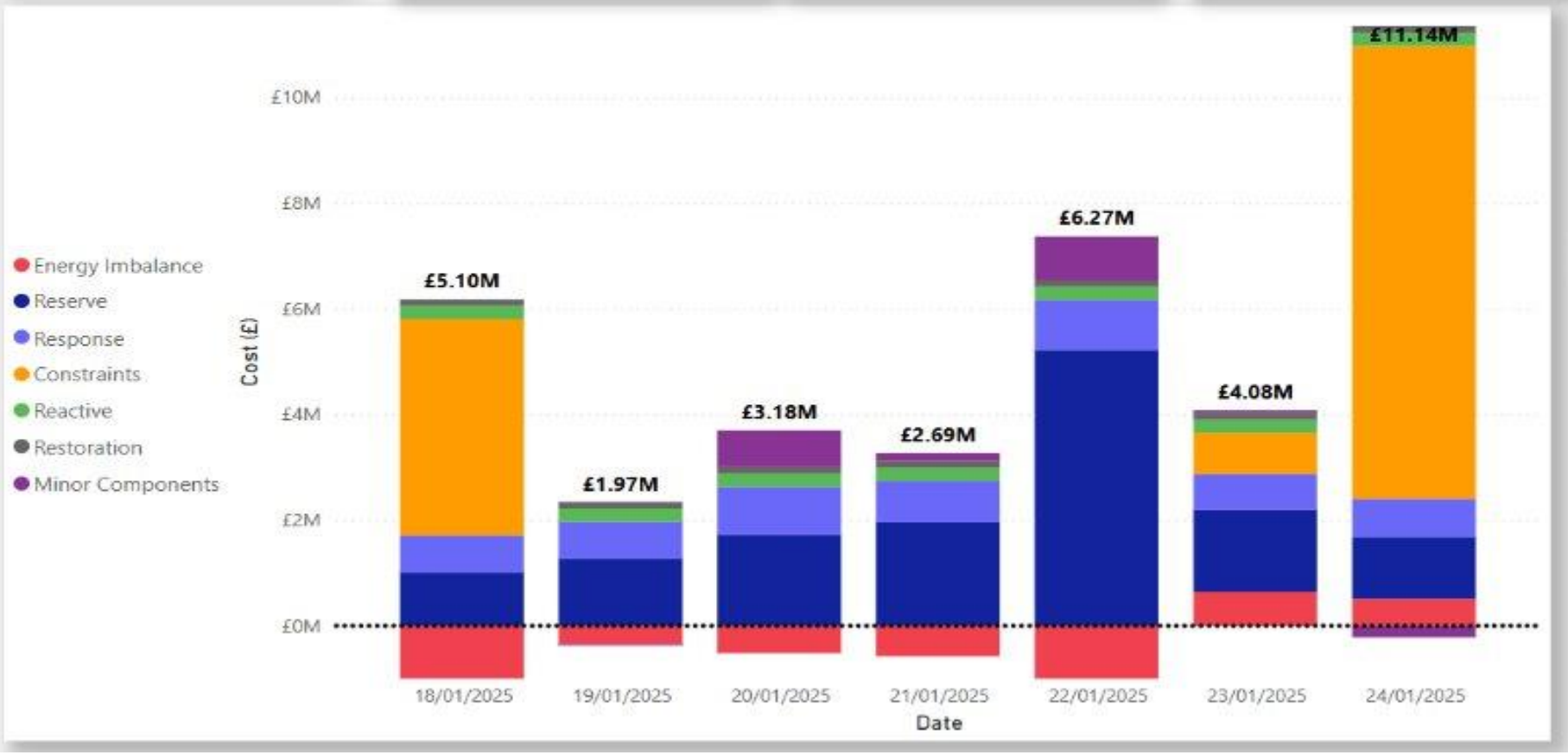
NESO Actions | Category Cost Breakdown

Slido code #OTF

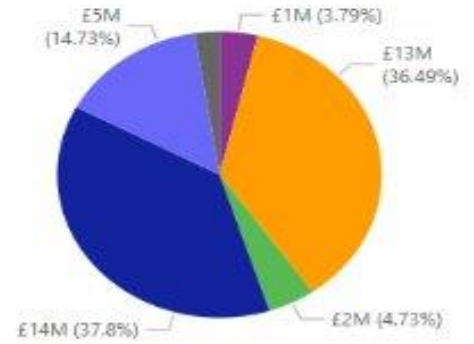
Date
18/01/2025 24/01/2025

Weekly Total Costs (£)	Last Week Total Costs (£)	Past 30-Day Average Costs (£)
£34.4M	£71.0M	£7.9M



Date	Total Outturn Cost
18/01/2025	£5,102,045
19/01/2025	£1,972,291
20/01/2025	£3,182,965
21/01/2025	£2,694,732
22/01/2025	£6,268,791
23/01/2025	£4,078,995
24/01/2025	£11,135,250
Total	£34,435,070

Weekly Cost (£) and Share (%)



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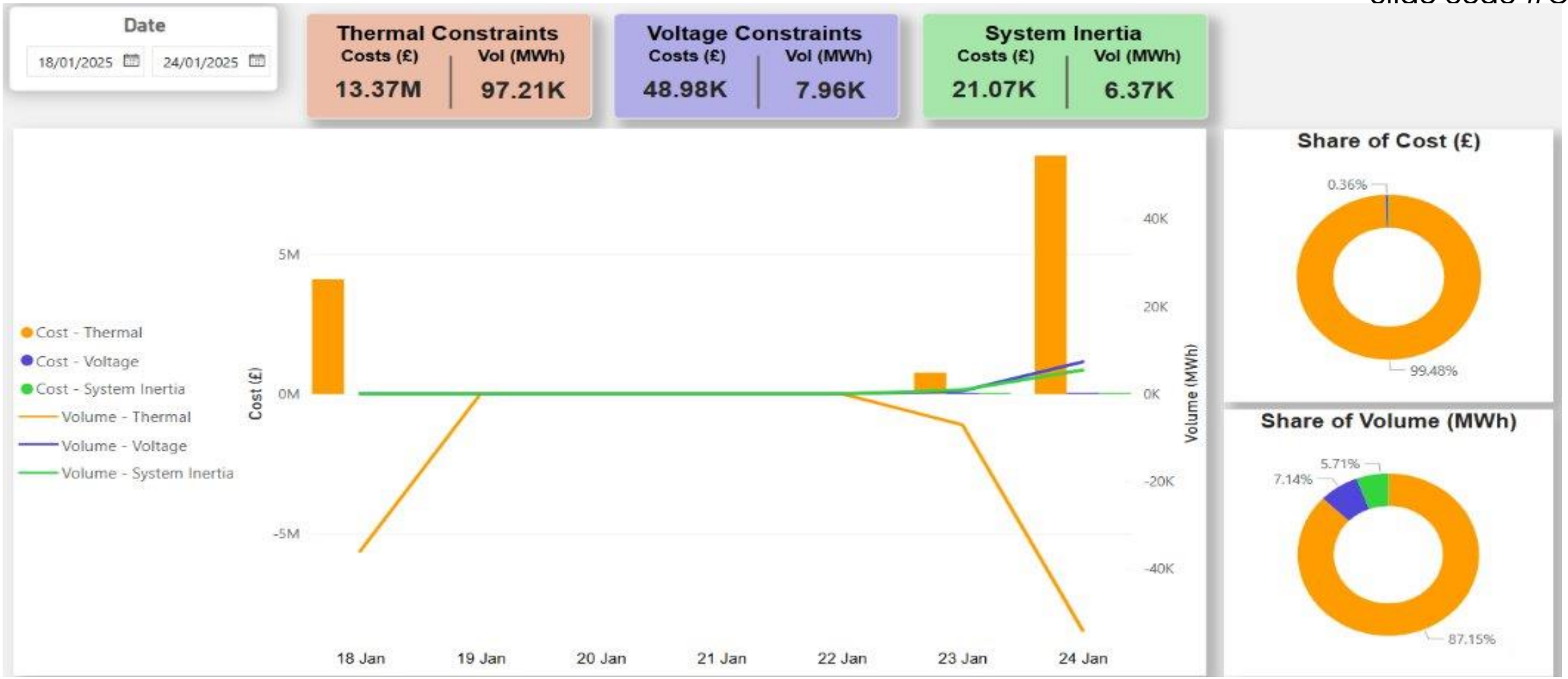
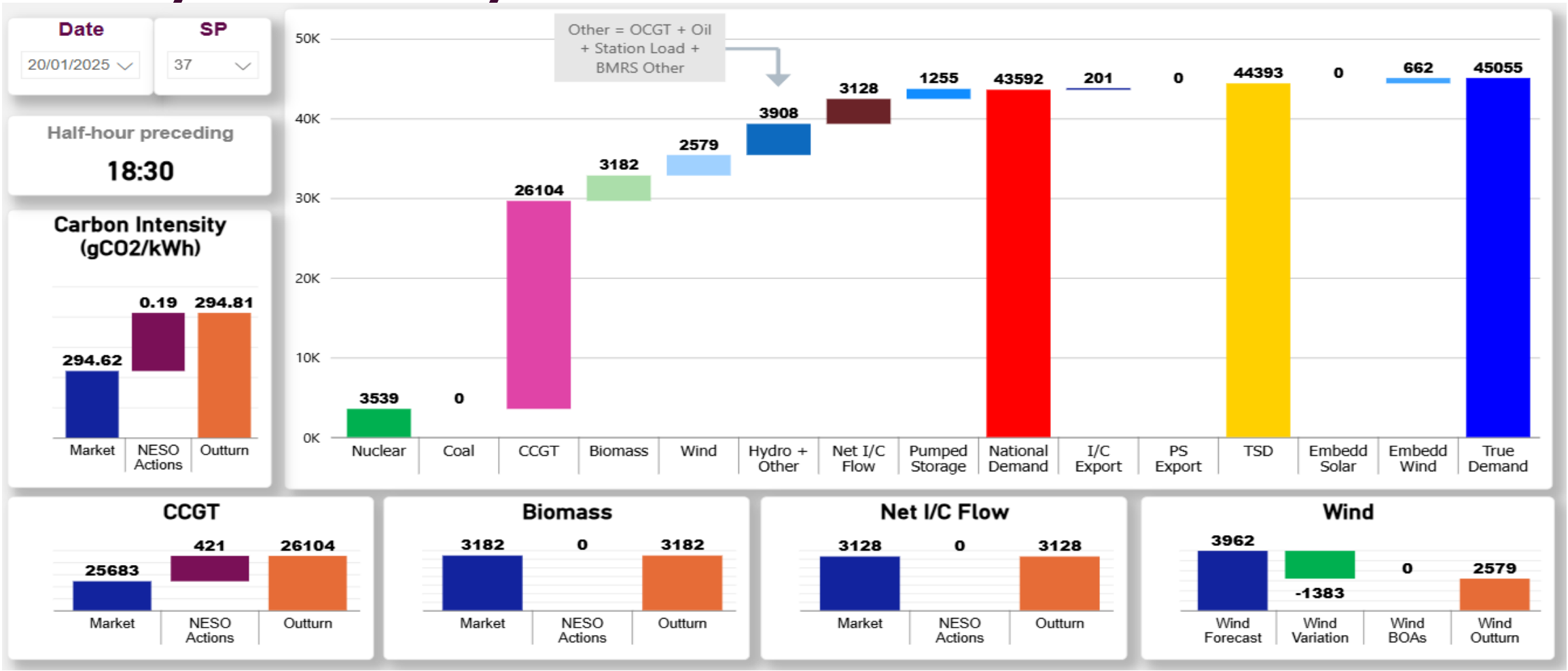
NESO Actions | Constraint Cost Breakdown

Slido code #OTF



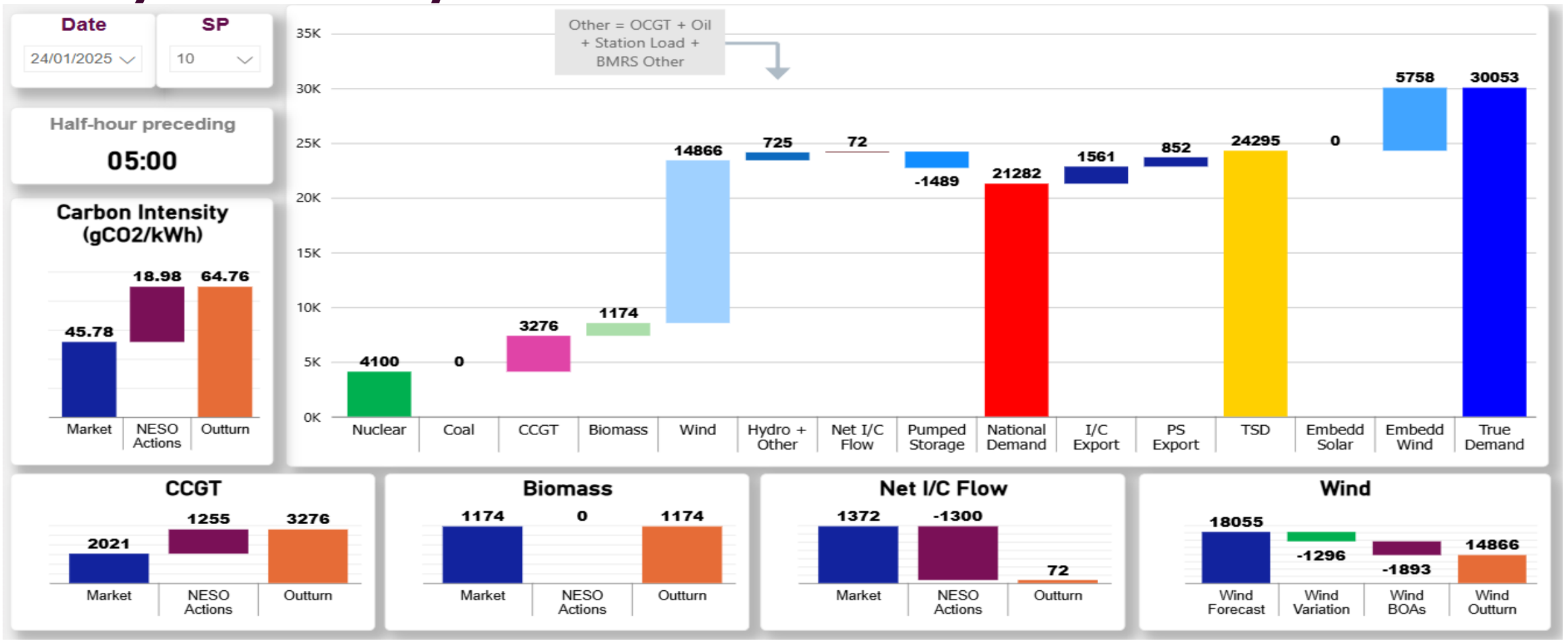
NESO Actions | Peak Demand – SP spend ~ -£3.28k Monday 20th January

Slido code #OTF



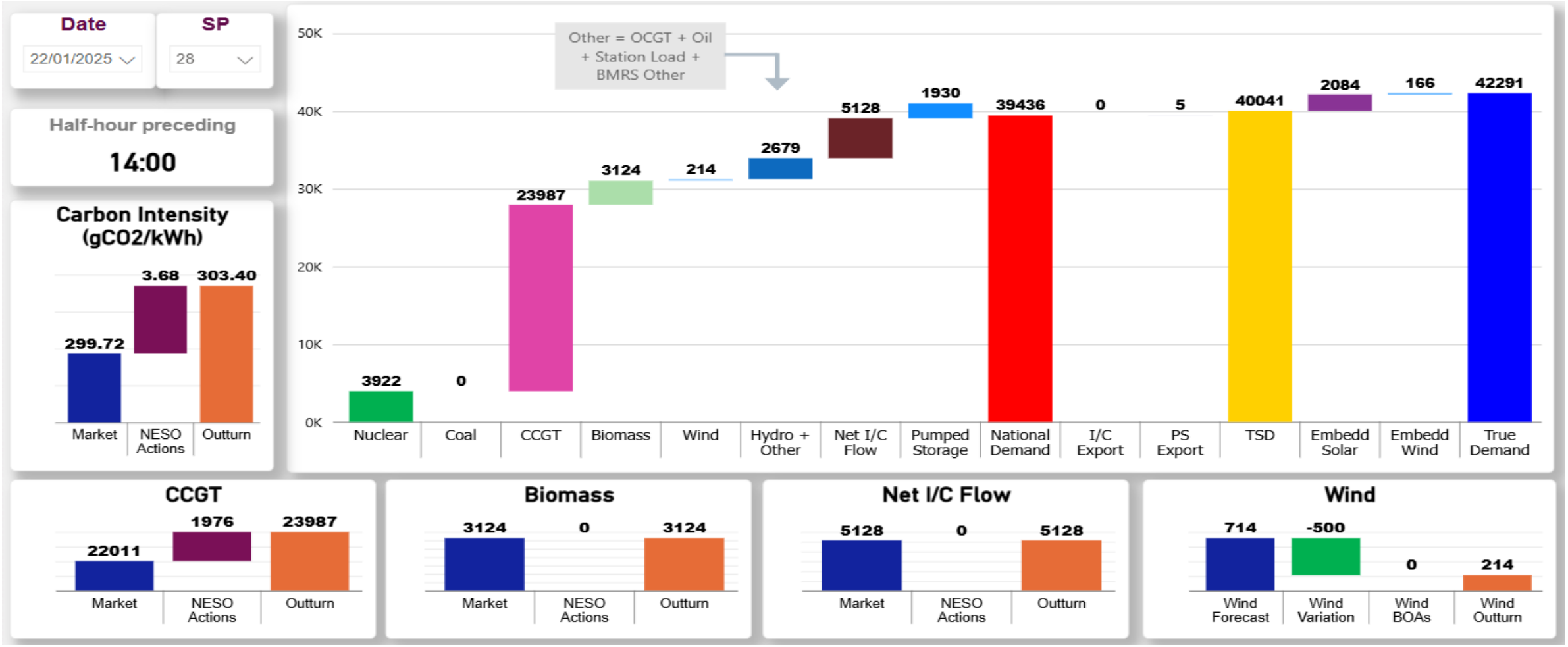
NESO Actions | Minimum Demand – SP spend ~ £350k Friday 24th January

Slido code #OTF



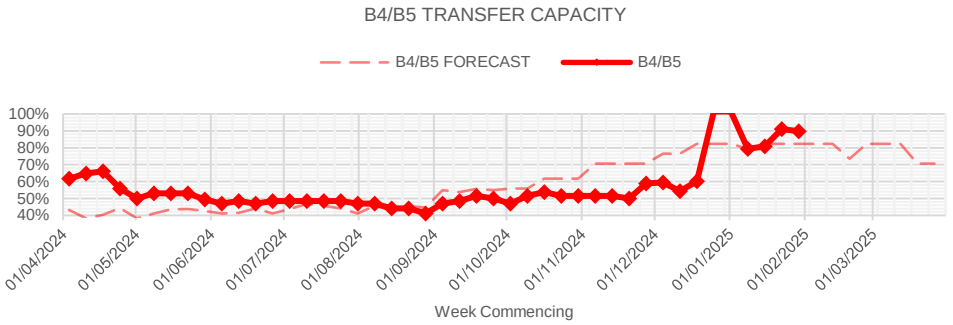
NESO Actions | – Highest SP spend ~ £432k Wednesday 22nd January

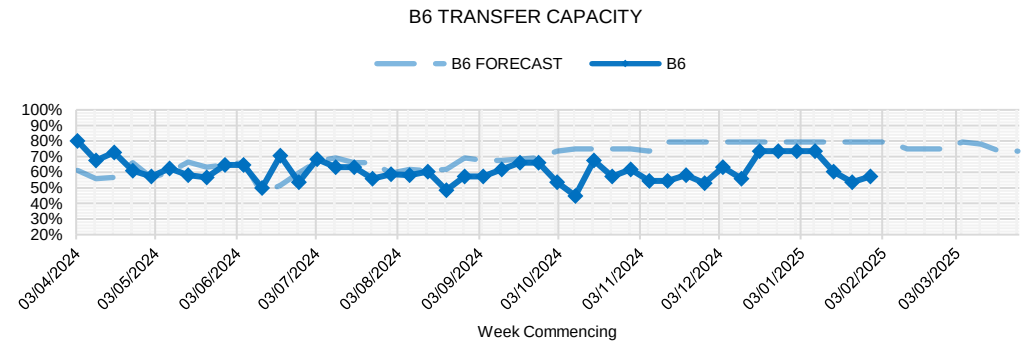
Slido code #OTF

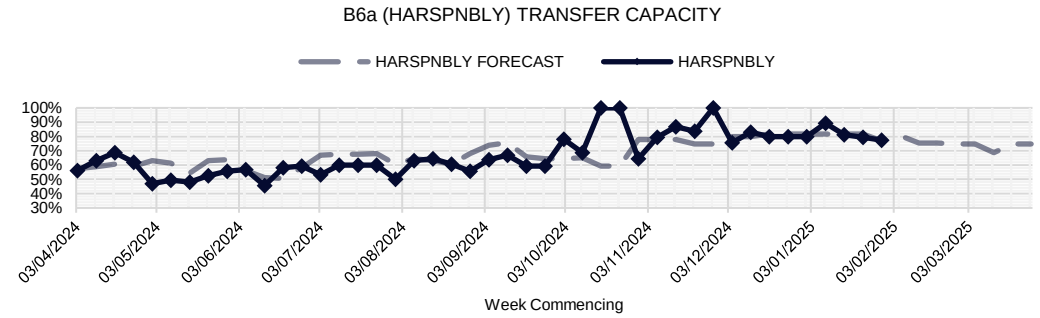


Transparency | Network Congestion

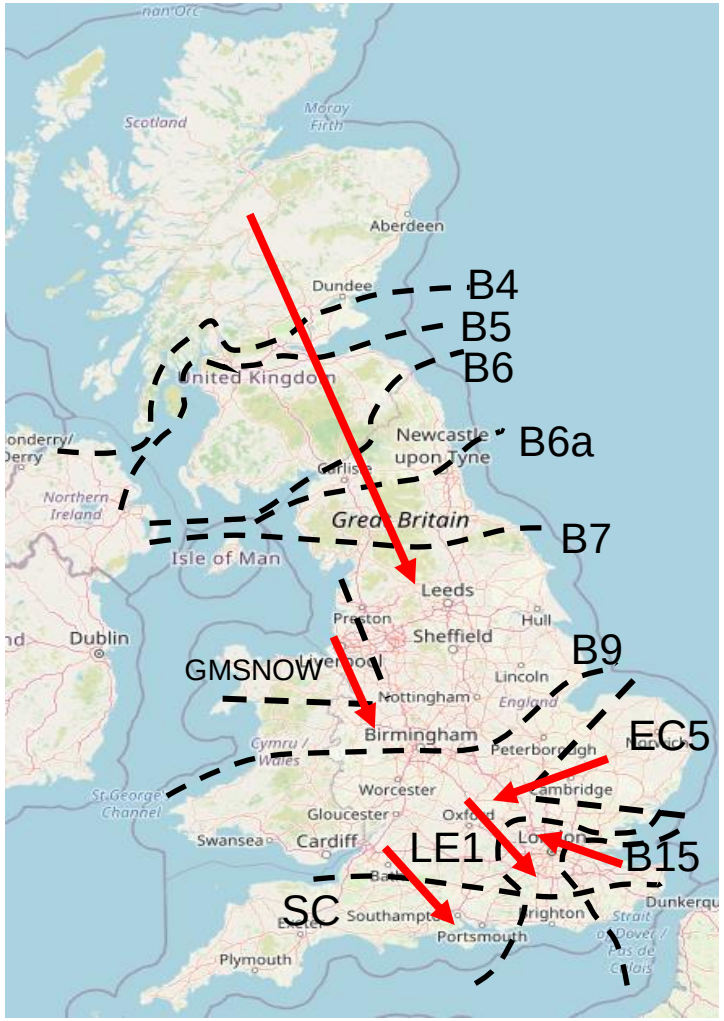
Slido code #OTF







Boundary	Max. Capacity (MW)	Current Capacity (%)
B4/B5	3400	90%
B6 (SCOTEX)	6800	57%
HARSPNBLY	8000	78%
B7 (SSHARN)	8325	86%
GMSNOW	4700	47%
EC5	5000	100%
LE1 (SEIMP)	8500	75%
B15 (ESTEX)	7500	100%
SC1	7300	100%



Day ahead flows and limits, and the 24-month constraint limit forecast are published on the ESO Data Portal: Constraints Management

(The forecast and day ahead limits may vary due to changes in the outage plan. The plan is reviewed periodically throughout the year to ensure we are optimising system conditions, whilst managing any necessary outage plan changes)

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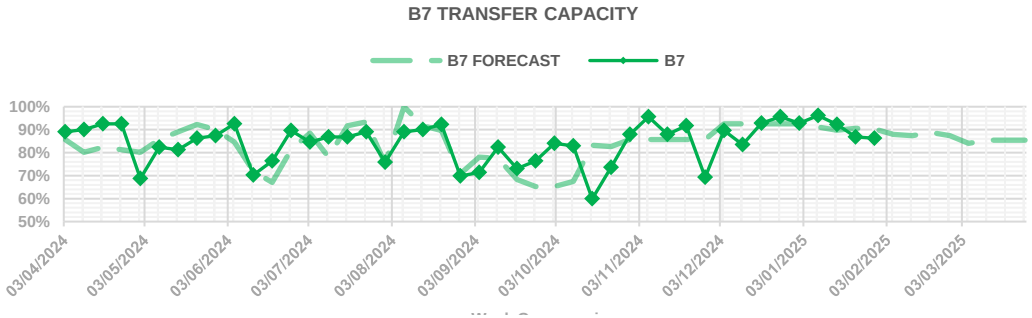
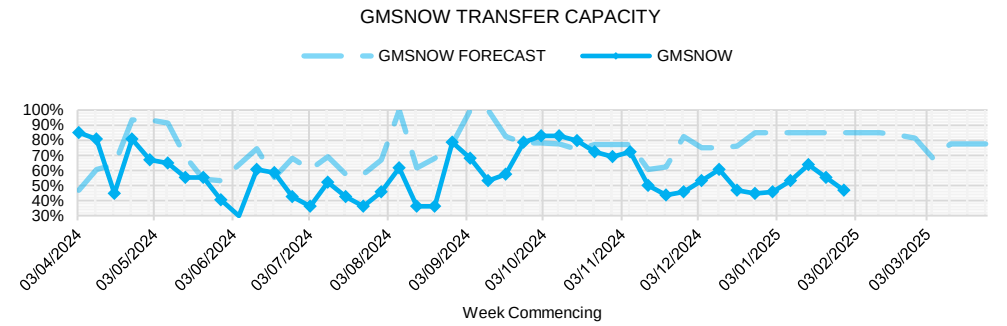
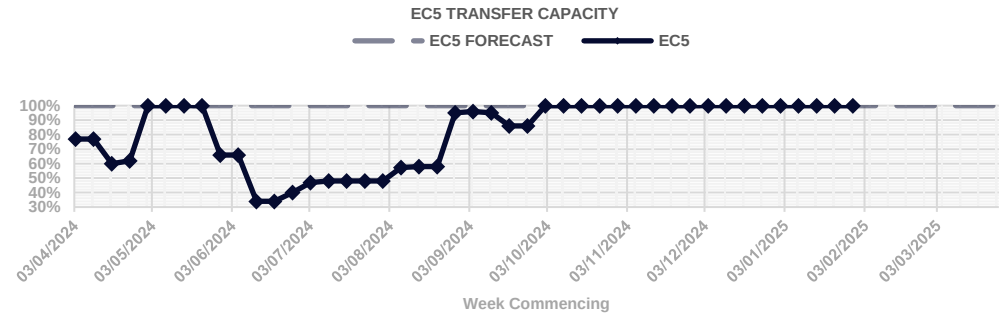
Transparency | Network Congestion

Slido code #OTF







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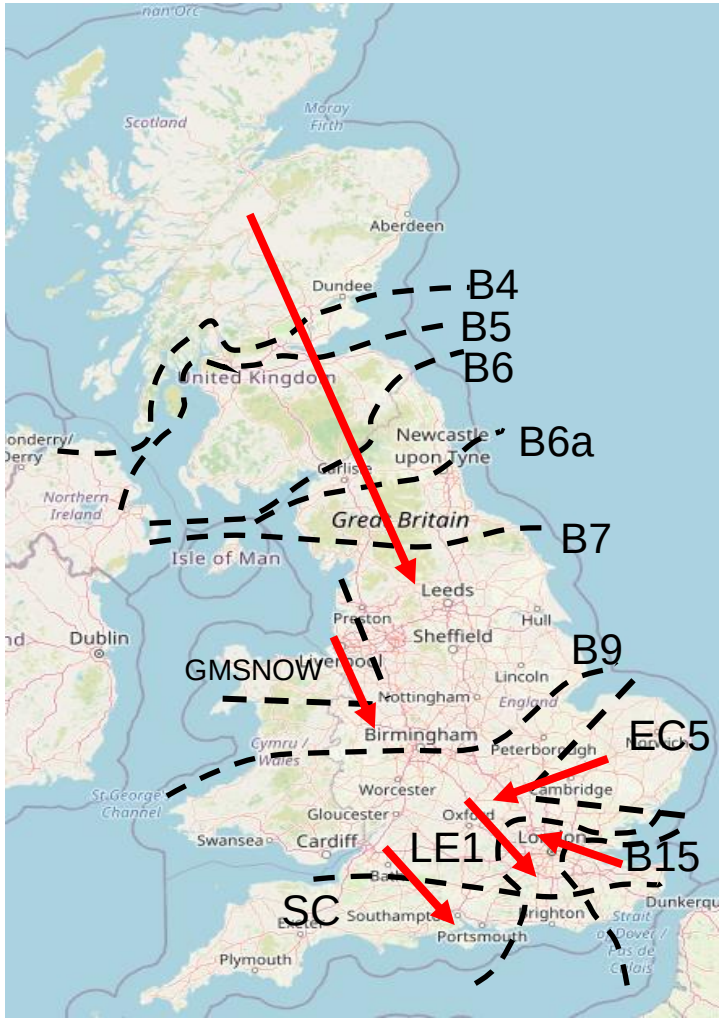

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Transparency | Network Congestion

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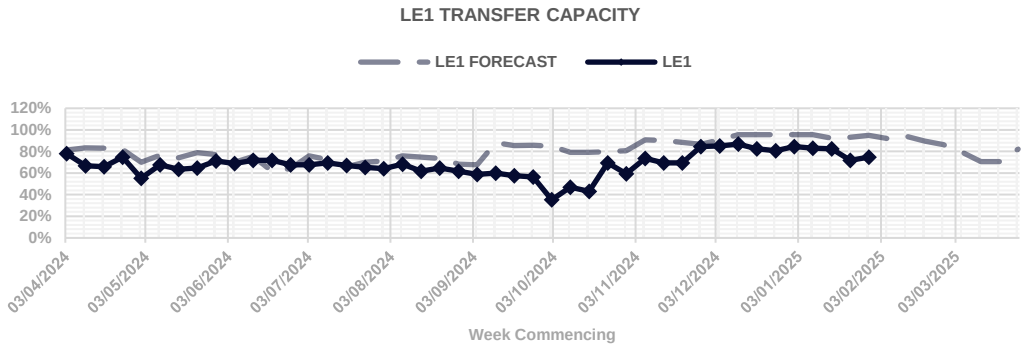

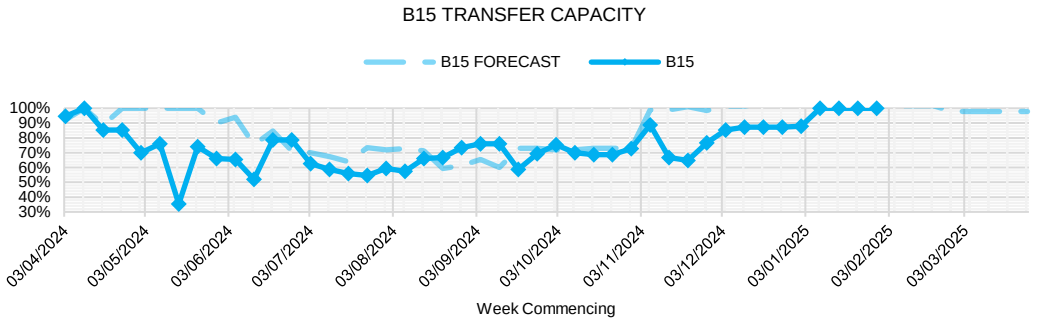

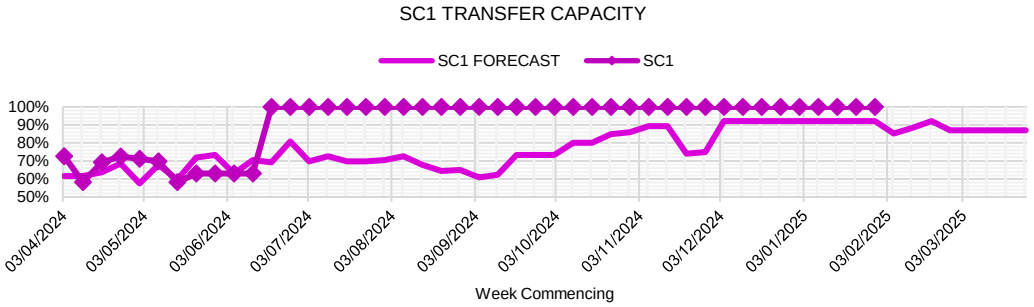

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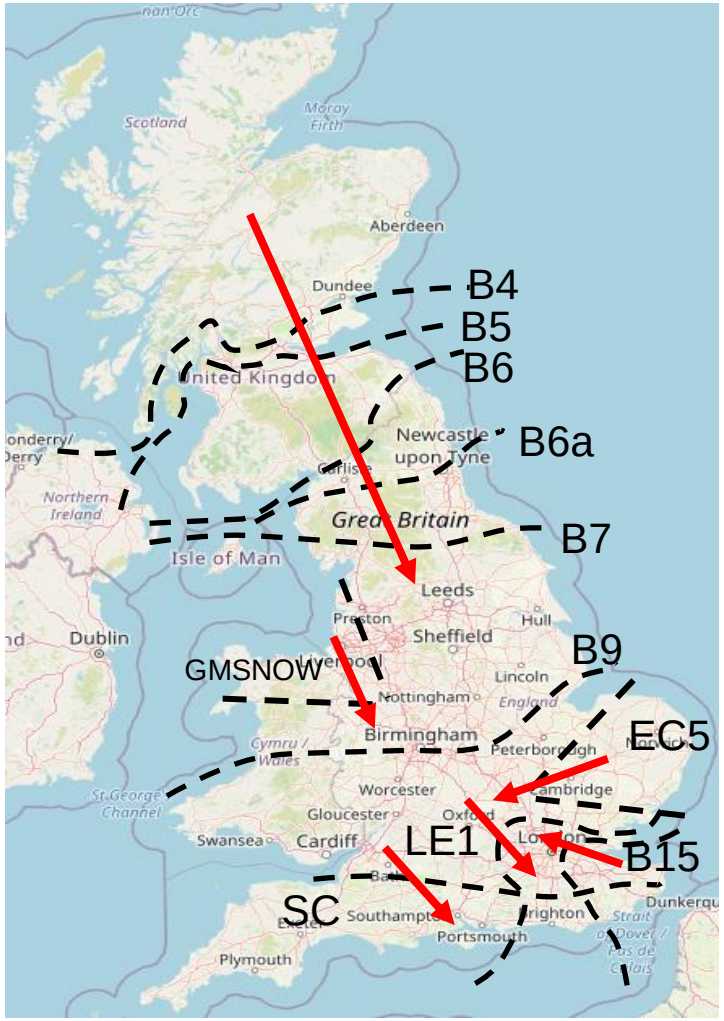
ESO Data Portal: Constraints Management



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Previously Asked Questions

Slido code #OTF

Q: If you submit outages into Elexon will this also feed through to update electricity Generator Availability and Margin Analysis (eGAMA) ?

A: Yes. All REMIT submissions regardless of the submission route are published on ELEXON's Insights platform and fed back into eGAMA for the margin calculations etc.

Q: On slide-deck sign-off would it be possible, even if you are awaiting sign-off of new or more abnormal topics/ discussions, to send out a partial slide-deck early and update later? this would be helpful to the audience preparing for these sessions.

A: Thank you for the suggestion.

We won't be publishing different versions of the slide pack, but we have put steps in place to ensure where possible the content is reviewed on Tuesday, leaving only the final time sensitive content to be signed off on Wednesday morning.

Previously Asked Questions

Slido code #OTF

Q: Thanks for the presentation on Initial National Demand Out-Turn (INDO). For the mentioned audit of INDO methodology, over what timeline do plan on completing this or getting views from industry?

A: As two main and independent systems are involved, we would estimate these audits to conclude approximately three months from now.

Q: In the INDO deep dive you state that operationally metered electricity storage module charging is excluded from INDO. From what date did you exclude it? When are you planning on publishing electricity storage module charging demand in the same way that you publish pump storage demand?

A: NESO didn't enact the methodology from a specific date - the exclusion is how we expect the INDO formula to function. But the Audits should reveal any discrepancies from this.

Regarding the Electricity Storage Module (ESM) charging (Demand) publication. We are expanding our internal "Fuel types" categories as part of the project to move the Balancing Mechanism registrations processes to the Single Markets Platform (SMP). Following this we need to update the downstream Systems and BMU Reference data. This will then allow us to extract and publish the ESM demand data.

You can register for updates on changes to the BM Registration process and view the recent webinar using the links on the earlier slides.

Previously Asked Questions

Slido code #OTF

Q: Only a monopoly buys energy with no agreed price! How would you know the price was going to be less than Value of Lost Load (VoLL) and therefore you were acting economically and efficiently?

A: Depending on the agreement with the connecting TSO, the control room will either have firm or indicative prices for SO-SO trades prior to confirming the trades. This allows us to assess the value of the trades against other options available to us. If indicative prices are used, then the final value of the trades is agreed with the TSO and updated as soon as possible.

Q: When are you going to update your view of station load given the significant change in the make up of the GB generation fleet?

A: Thank you for your question, we are already planning to update our view of station load and will provide a further update once a timeframe has been established.

Advance Questions

Slido code #OTF

Q: (20/01/2025) On Elexon's Insights solution the Generation by Fuel Type report uses the BMU-Fuel Type spreadsheet to map BMUs to specific fuel types. Elexon states that this fuel type categorisation by BMU is undertaken by NESO. According to the spreadsheet itself, it was last updated on 16th July 2024 and there are clearly a lot of operationally metered BMUs that entered service in 2024 that are not included. Please can you update the spreadsheet and commit to updating it on a more frequent basis, ideally monthly.

A: Apologies for the delay in updating this spreadsheet. The updated version will be sent to Elexon by the end of this week. Going forward we will consider more effective ways to update this data, perhaps from the Single Markets Platform once we have aligned all of our registration processes there.

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Advance Questions

Slido code #OTF

Q: (08/01/2025)

Original question from 08/01/2025 Webinar Recording here [43:31] - *"We have been having issues with BOAs on Battery assets where the BOA has ended but the asset has not been brought back to it's original physical notification. Is this something grid is aware of and fixing?"*

We will be responding to the individual on their specific unit examples – but feel there are two pertinent points for the wider OTF

For all BMUs we use the rule that we return a BOA to the maximum of PN or MIL. Without this rule a BMU would find it difficult to report if they were having technical issues meaning that the available power at the site has changed.

The 30 minute rule is meant to be a temporary work around and as part of Grid Code change GC0166 we are introducing two new parameters (Maximum Delivery Offer & Maximum Delivery Bid) which will then allow BMUs to redeclare MIL and MEL as they have been traditionally used. In this case the BMU will follow its PN but will redeclare its MIL so that the System Operator does not issue a following BOA that cannot be honoured due to the state of charge. Because of these kinds of issues we are keen to implement GC0166 as soon as possible.

A separate issue arises because NESO sends instruction points (IP) and zero points (ZP) for publication by Elexon. However, NESO only send IPs to the BMU – this is a limitation of EDL that can only handle a maximum number of data points in a single instruction. This has always been the case (for more than 20 years!) but in recent times we have a larger number of small BMUs with very fast ramps. This means that a IP and ZP can be within the same minute but data is published at a one minute granularity.

NESO is considering the best way to represent this which will require changes to our current and future systems.

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Outstanding Questions

Slido code #OTF

NESO teams are still working to answer these questions

Q: Hi, could you outline what further changes (engineering or control room protocols) are still required to be made to enable periods of zero-carbon running?

Q: Now its 2025, do you forecast any periods that could result in 100% low carbon dispatch? and could NESO balance that?

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Advance Questions

Slido code #OTF

NESO teams are still working to answer these questions

Q: (10/01/2025) On Wed. 8th January, it appears that NESO conducted a SO-SO trade with the Danish SO to flow MW across the Viking Link in periods 34-38.

On the BMRS these trades appear T-flagged for system reason but at zero price. The NESO DataPortal also shows the volume at £0/MWh and T-flagged.
With the trade input at £0/MWh, the volume is unlikely to occupy its correct place in the Offer stack and .: the presented indicative view of cashout to the market on the BMRS won't be as good as it could be.**

Is there a reason why when, the SO-SO trade is entered, that a price cannot be input too at the same time so that the market has a better indicative cashout view?
Market participants will now have to wait until Settlement Run data is published, the earliest possible would be II run on 15th January with SF run on 30th January.

Q: (15/01/2025) Why were arbitrage tagged BSAD with VKL (£0) for SPs 36 & 38 last Wednesday included but not for surrounding SPs when VKL was emergency instructed?

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Reminder about answering questions at the NESO OTF

Slido code #OTF

- **Questions from unidentified parties will not be answered live**. If you have reasons to remain anonymous to the wider forum, please use the advance question or email options. Details in the appendix to the pack.
- **The OTF is not the place to challenge the actions of individual parties** (other than the NESO), and we will not comment on these challenges. This type of concern can be reported to the Market Monitoring team at: marketreporting@nationalenergyso.com
- **Questions will be answered in the upvoted order whenever possible**. We will take questions from further down the list when: the answer is not ready; we need to take the question away or the topic is outside of the scope of the OTF.
- **Slido will remain open until 12:00**, even when the call closes earlier, to provide the maximum opportunity for you to ask questions.
- **All questions will be recorded and published** All questions asked through Sli.do will be recorded and published, with answers, in the Operational Transparency Forum Q&A on the webpage: https://www.neso.energy/what-we-do/systems-operations/operational-transparency-forum
- **Takeaway questions** – these questions will be included in the pack for the next OTF, we may ask you to contact us by email in order to clarify or confirm details for the question.
- **Out of scope questions** will be forwarded to the appropriate NESO expert or team for a direct response. We may ask you to contact us by email to ensure we have the correct contact details for the response. These questions will not be managed through the OTF, and we are unable to forward questions without correct contact details. Information about the OTF purpose and scope can be found in the appendix of this slide pack

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slido

Audience Q&A

ⓘ Start presenting to display the audience questions on this slide.

Slido code #OTF

Feedback

Please remember to use the feedback poll in Sli.do after the event.

We welcome feedback to understand what we are doing well and how we can improve the event for the future.

If you have any questions after the event, please contact the following email address: box.nc.customer@nationalenergyso.com

Click here to complete the OTF Survey of 2024 NOW!

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Appendix

Purpose and scope of the NESO Operational Transparency Forum

Purpose:

The Operational Transparency Forum runs once a week to provide updated information on and insight into the operational challenges faced by the control room in the recent past (1-2 weeks) and short-term future (1-2 weeks). The OTF will also signpost other NESO events, provide deep dives into focus topics, and allow industry to ask questions.

Scope:

Aligns with purpose, see examples below:

In Scope of OTF

Material presented i.e.: regular content, deep dives, focus topics
NESO operational approach & challenges
NESO published data

Out of Scope of OTF

Data owned and/or published by other parties
e.g.: BMRS is published by Elexon
Processes including consultations operated by other parties e.g.: Elexon, Ofgem, DESNZ
Data owned by other parties
Details of NESO Control Room actions & decision making
Activities & operations of particular market participants
NESO policy & strategic decision making
Formal consultations e.g.: Code Changes, Business Planning, Market development

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Managing questions at the NESO Operational Transparency Forum

Slido code #OTF

- OTF participants can ask questions in the following ways:
  - Live via Slido code #OTF
  - In advance (before 12:00 on Monday) at https://forms.office.com/r/k0AEfKnai3
  - At any time to box.nc.customer@nationalenergyso.com

- **All questions asked through Sli.do** will be recorded and published, with answers, in the Operational Transparency Forum Q&A on the webpage: Operational Transparency Forum | NESO
- **Advance questions** will be included, with answers, in the slide pack for the next OTF and published in the OTF Q&A as above.
- **Email questions** which specifically request inclusion in the OTF will be treated as Advance questions, otherwise we will only reply direct to the sender.
- **Takeaway questions** – we may ask you to contact us by email in order to clarify or confirm details for the question.
- **Out of scope questions** will be forwarded to the appropriate NESO expert or team for a direct response. We may ask you to contact us by email to ensure we have the correct contact details for the response. These questions will not be managed through the OTF, and we are unable to forward questions without correct contact details. Information about the OTF purpose and scope can be found in the appendix of this slide pack.

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