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NESO Operational Transparency Forum

12 February 2025



Slido update: click on the three lines to the left of forum title to access previous OTF webinars on our webpage

Slido code #OTF

Introduction | Sli.do 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



Future deep dive / focus topics

Slido code #OTF

Today's deep dives

Balancing costs summer feedback – 12 February

Future

High level introduction to TNUoS – 19 February (postponed from this week)

Capacity Markets overview – 19 February

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

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

Overview of NESO System Access Planning process – 12 March

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



Public

2025/26 Final TNUoS Tariffs Published

• On 31 January, we published Transmission Network Use of System (TNUoS) Tariffs for 2025/26

<u>Tariff Report</u> <u>Tables File</u>

 We are holding a webinar on 13 February 2pm to talk through the tariffs and answer any questions from industry.

Sign up for the webinar

 Along with the final TNUoS Tariffs we published final Annual Load Factors (ALF's) for 2025/26

<u>Tariff Report</u> <u>Tables File</u>

 We published a timetable for TNUoS forecasts for 2026/27

Download the timetable

• For any TNUoS related questions please email us. <u>TNUoS.queries@nationalenergyso.com</u>



Dynamic Regulation (DR) & Dynamic Slido code #OTF Moderation (DM) Requirements Increase

NESO has increased the Dynamic Regulation (DR) and Dynamic Moderation (DM) requirements to 480 MW and 300
 MW respectively since Sunday 2 February for the delivery on Monday 3 February.

	DR-Low (MW)	DR-High (MW)	DM-Low (MW)	DM-High (MW)
Before	330	330	170	200
2 Feb	480	480	300	300

- The decision was made for NESO to better manage significant MW movements observed in recent weeks.
- Increased system volatility could erode post-fault system security. We are working with industry to understand the
 root causes, track system changes and introduce mitigation.
- We continue monitoring system frequency performance and will communicate updated frequency dynamic service requirements on OTF and via our normal communication route before the auction.
- A Pre-fault Frequency Control Modelling Webinar is scheduled to provide an overview of:
 - Our modelling approach for pre-fault frequency control, and
 - Methodology we use to determine DR & DM requirements

Time	14:00-15:30
Date	5 March 2025
Register	<u>link</u>
Advanced Questions	box.nc.customer@nationalenergyso.com; Please include "Frequency Modelling" in email subject



Mandatory Services Overview Update



Further to the <u>Mandatory Services Agreement (MSA) overview</u> originally presented by Steve Miller at the OTF on 7th August 2024.

The NESO website has been updated to include FAQs re:

- > Obligatory Reactive Power Service (ORPS)
 https://www.neso.energy/industry-information/balancing-services/reactive-power-service-orps
- > Mandatory Frequency Response (MFR)
 https://www.neso.energy/industry-information/balancing-services/frequencyresponse-services/mandatory-frequency-response-mfr



Obligatory Reactive Power Service (ORPS) methodology review - webinar

Slido code #OTF

- Our NIA innovation-funded ORPS project is approaching the end of its first phase, which has been focussed on industry engagement.
- We would like to invite ORPS service providers and industry representatives to a
 webinar to share their views on the current payment mechanism and considerations
 for future compensation mechanisms.
- NESO's project partners DNV are hosting the webinar on Wednesday 19th February 14:00 to 15:30
- If you are interested in attending, please contact innovation@nationalenergyso.com

You can find more information on the current ORPS at: Obligatory reactive power service (ORPS) | National Energy System Operator

Webinar: Battery Storage & Skip Rates (data, methodology & next steps)



We will be hosting a Skip Rates Webinar on 27 February 2025.

This webinar will be facilitated by NESO leaders and technical experts. We will be covering more on data, methodology and next steps on our roadmap. You will also have the opportunity to ask questions.

Date & Time details:

Date: 27 February 2025

Time: 13:00 – 14:30

Attendance & who this forum is suited for:

This webinar is specifically tailored for professionals closely involved in dispatch efficiency, battery storage and skip rates. If you are interested in attending, please register via this <u>link</u>.

For any enquiries please contact us by email - Box.Battery-Storage-Strategy@nationalenergyso.com



We will be publishing content from this webinar on our website after the event for those who are not able to attend.



Slido code #OTF

Future Event Summary

Event	Date & Time	Link
2025/26 Final TNUoS Tariffs Webinar	13 th February (14:00-15:30)	Register here
ORPS methodology review	19 th February (14:00-15:30)	Contact: innovation@nationalenergyso.com
C9 Annual Review Closing Date	21st February 2025, by 17:00	<u>Link here</u>
Battery storage & skip rates	27 th February 2025 (13:00-14:30)	Register here
Pre-Fault Frequency Control Modelling Webinar	5 th March 2025 (14:00-15:30)	Register here
Balancing Programme March 2025 Webinar	6 th March 2025(14:00-15:30)	Register here



Wind Physical Notification (PN)

Slido code #OTF

Accuracy Update

NESO have released a revised Guidance Note for Wind FPN Accuracy on 10/02/2025.

Alongside this, a copy of consultation feedback has been uploaded to the Balancing Costs webpage and a summary of NESOs responses.

Revised Guidance Note: <u>Guidance Note - Good Industry</u>
Practice

Consultation Feedback: Consultation responses

NESO feedback summary: NESO feedback

We would like to thank those who provided feedback to the consultation, your contributions have been crucial in shaping the revised Guidance Note.

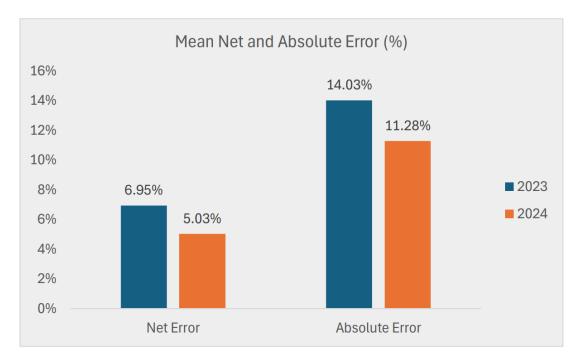


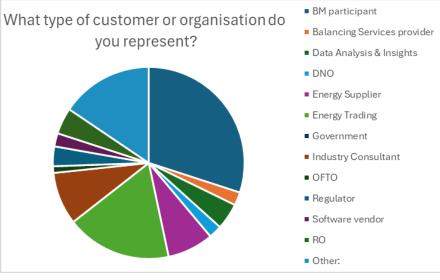
Figure 1: Mean net and absolute errors, 2023 vs 2024.

There has been significant improvements on some BMUs since the initial release of the Guidance Note in August 2024, and this has continued into 2025. The graph shows the mean Net and Absolute errors, demonstrating improvements in FPN accuracy between 2023 and 2024.

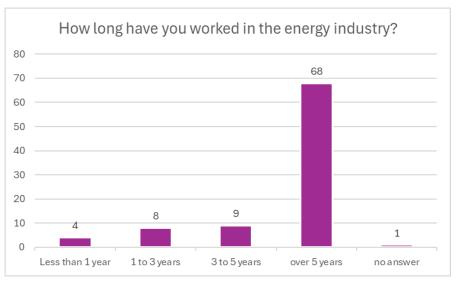
FPN – Final Physical Notification: this is the final notification of expected level of generation made by units in the Balancing Mechanism at least 60 minutes ahead of each settlement period

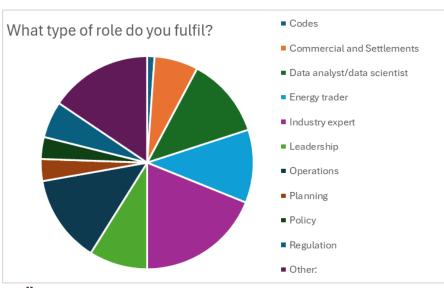


OTF Survey of 2024: first look

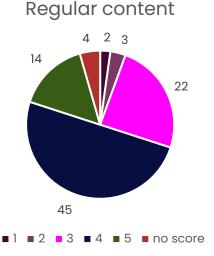


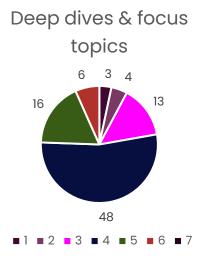
90 responses













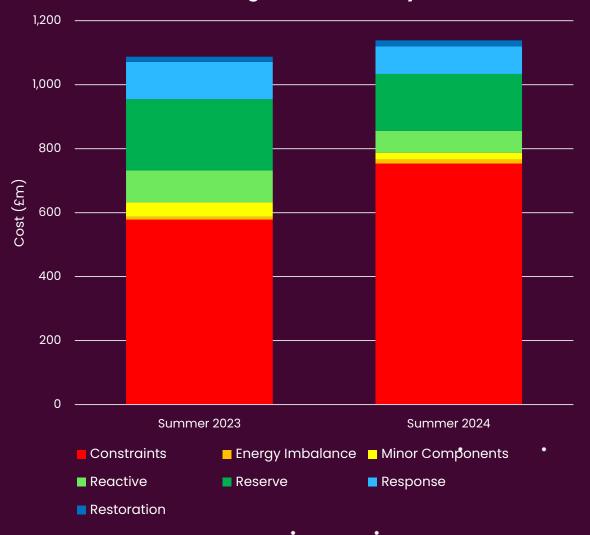
Executive Sumary

Welcome to the Summer 2024 Balancing Costs Report. This report provides a look back at balancing costs and associated market dynamics from April to September 2024.

Key messages:

- Overall, balancing costs and volumes across summer 2024 were up 4% (costs) and 46% (volumes) compared to summer 2023.
- An increase in constraint volumes (particularly in June and August) was the main driver of these increases, rising 60% across the summer 2024 period year-on-year. This was linked to a sizable increase in wind generation, especially in Scotland, combined with reduced constraint limits driving up wind curtailment.
- Battery dispatch volumes have increased significantly compared to last year with the volume of bid and offers accepted for batteries increasing by 409% and 348% respectively.
- NESO has made reductions to the system's inertia requirements since summer 2023 which has contributed to significant stability cost savings across summer 2024.

Balancing Costs Summary

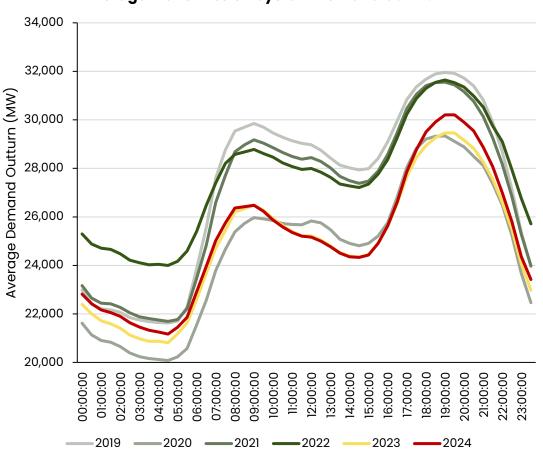




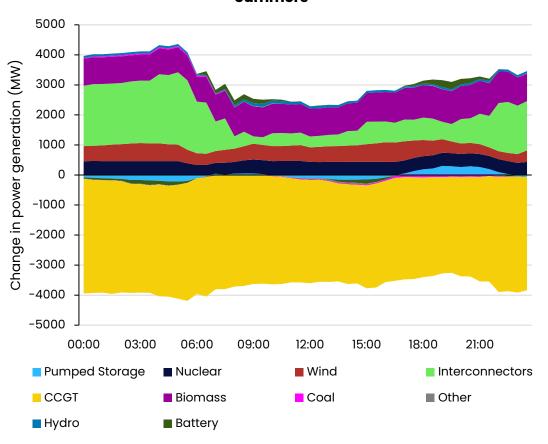
Slido code #OTF

System Conditions

Average Transmission System Demand Out-turn



Change in Power Delivered By Fuel Types Between Summers

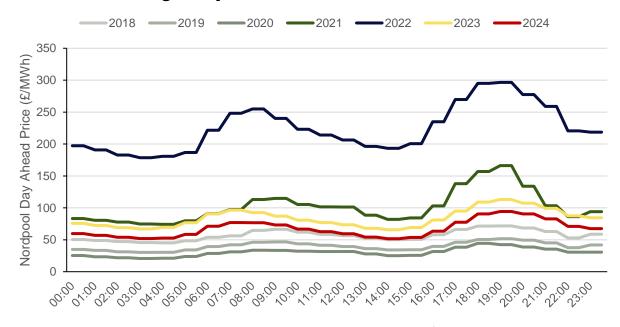




Market Conditions

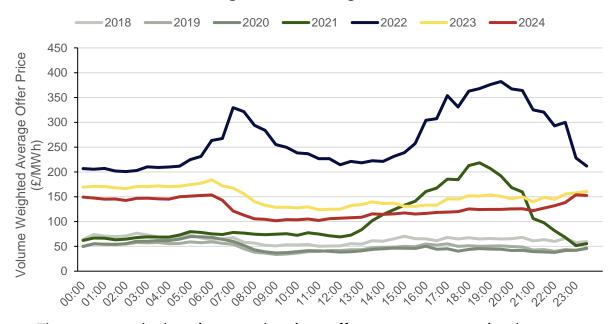


Average Day Ahead Wholesale Market Price



- Year-on-year, Nordpool day-ahead market prices have decreased by 20% and are 70% lower compared to the global energy price spike in 2022
- However, prices remained 18% above the 2018 level
- Trends were similar to summer 2023 with daily peaks less significant than the summers of 2021 and 2022.

Volume Weighted Average BM Offer Price

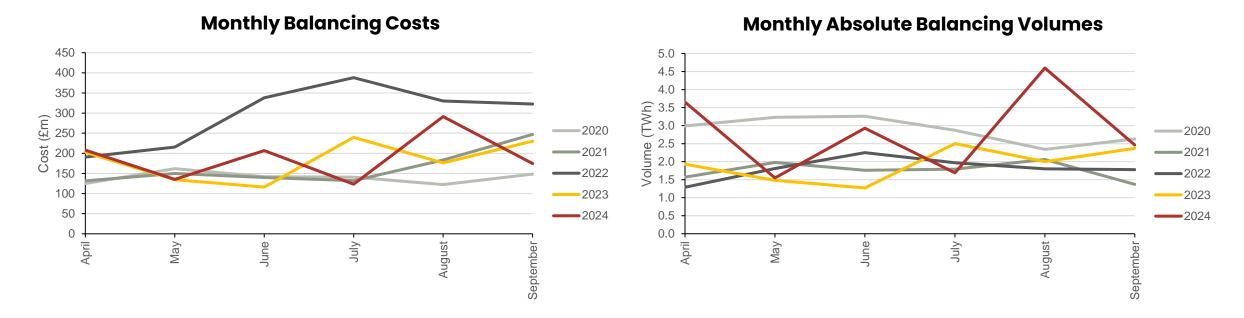


- The average balancing mechanism offer acceptance price has fallen compared to summer 2023.
- Lower market prices have supported this fall year-on-year.
- There has been a greater utilisation of battery units in the BM since the implementation of the Open Balancing Platform (OBP) and VWA offer prices for batteries have fallen 24% year-on-year.



Balancing Costs Overview





Overall, monthly balancing costs across summer 2024 were on average 12% higher compared with summer 2023. However, there was significant monthly variation with June and August having much higher balancing costs than in their respective months in 2023, while July and September had lower costs.

A similar trend is observed with the monthly absolute balancing volumes, where both June and August each saw a 130% increase in volume over their respective periods in 2023, mirroring the rise in balancing costs in these months. A notable exception to this was in April 2024 which saw an 89% increase in absolute balancing volumes but only a 3% increase in balancing costs, which is largely explained by an almost 45% reduction in the Day Ahead price between April 2023 and April 2024.

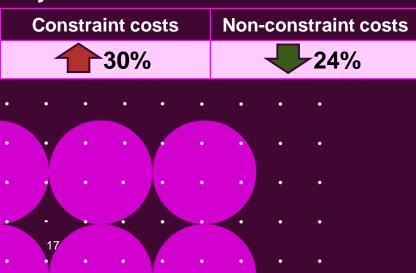


Cost bracket comparisons

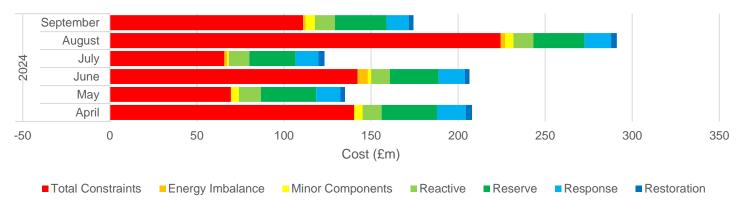
Constraint costs in summer 2024 have increased by 30% compared to last year, due to an increase in constraint volumes linked to a rise in wind generation year-on-year.

In contrast, non-constraint costs have decreased by 24%, largely due to lower wholesale prices. The continued development of balancing services over the last year has also contributed to lower prices across many cost components.

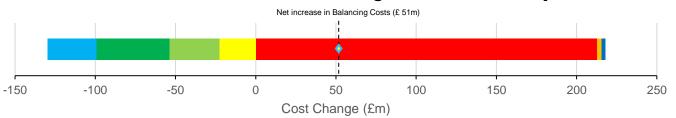
Key trends S23 to S24:



Actual Cost Breakdown - Summer 2024



Total cost change - Summer last year



Total balancing costs across the summer of 2024 decreased in most categories. There was some relatively small increases in the energy imbalance cost and restoration cost between April and September, but most of the increase has been driven by a sizeable increase in constraint costs. This is reflected unequally across the summer, with July and September having lower constraint costs than in the same period in 2023, while June and August had significantly higher constraint costs compared to 2023. This has led to a net increase of £51m in balancing costs between summer 2023 and summer 2024.

Constraint costs were high in June due to a sizable increase in wind generation, especially in Scotland. Meanwhile in August there were a combination of active constraints, some outages in Scotland and extreme weather with Storm Lilian and the remnants of Hurricane Ernesto in the latter half of August pushing up constraint volumes.

Bid costs and volumes

The total cost of bids has increased in summer 2024 reflecting an increase in offers accepted for wind.

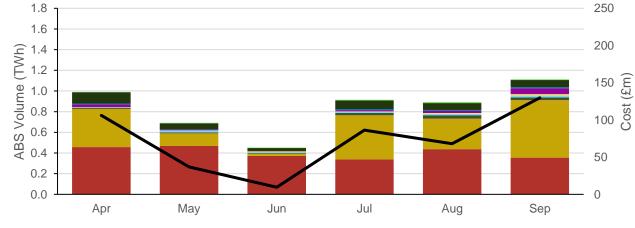
The total cost of bids across summer 2024 was £593m. This is an increase of 35% compared to summer 2023.

This increase is primarily driven by an increase in the total volume of bids accepted between the two periods, up by 16% year-on-year, and specifically a larger volume of bids accepted for wind, which was up 89%. Bid actions on wind generators tend to cost more than conventional fuel types as wind generators often need to factor subsidies (which are based on metered output) into their bid prices to avoid losing this revenue when turned down. Due to higher wind outturn across summer 2023, combined with reduced constraint limits due to outages, a larger number of wind bid were accepted, consequently pushing up the total bid cost.

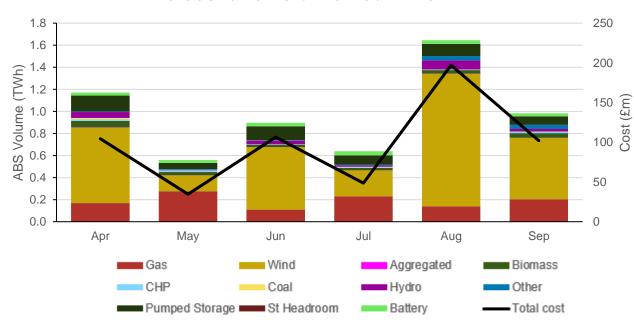
Key highlights for summer 2024:

- The total cost of bids accepted for wind across summer 2024 was £454m, up 54% compared to the previous summer.
- Wind outturn increased 14% between summer 2024 and summer 2023, with the two highest wind months occurring in April and August.
- The volume of bids accepted for battery units increased by 409% year-on-year (totalling 182GWh in summer 2024). The launch of the Open Balancing Platform In December 2023 is supporting greater utilisation of battery units in the BM.

Bid cost and volume - Summer 2023



Bid cost and volume - Summer 2024



Offer costs and volumes

The total cost of offers has fallen in summer 2024, although volumes increased.

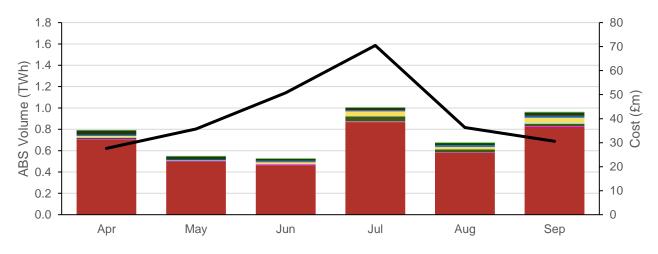
The total cost of offers across summer 2024 was £168m. This is a decrease of 33% compared to summer 2023.

Despite this reduction in cost the total volume of offers accepted was up 31% on the previous year. Lower costs are instead linked to a reduction in wholesale prices between the two periods which was 20% lower across summer 2024. The generation mix of offers is similar across both summer periods with gas offers continuing to dominate. However, the volume of battery offers has increase by 348% year-on-year, following the launch of the OBP which is supporting greater utilisation of batteries in the BM.

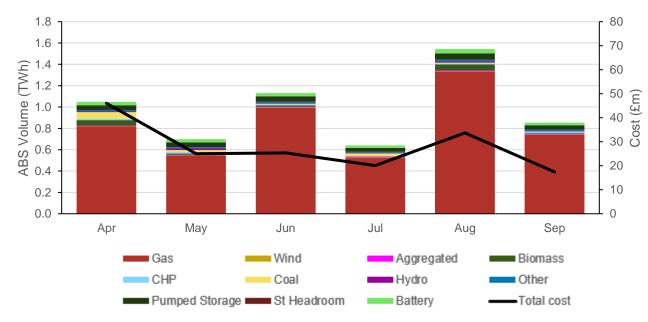
Key highlights for summer 2024:

- April was cost month for offers totalling £46.0m, while August was the highest volume month at 1.5TWh.
- Similar to previous years, gas dominated offer costs and volume at £142m and 5.0TWh respectively across the summer period.
- Offer costs and volumes for battery units increased significantly compared to summer 2023, with a total offer cost of £4.0m and volume of 183GWh.

Offer cost and volume - Summer 2023



Offer cost and volume - Summer 2024



Read the Report for More Information

- 1. Weekly Overviews
- 2. Further System Dynamics
- 3. Further Market Dynamics
- 4. More detail on our Balancing Actions
- 5. Dynamics on our Ancillary Service prices
- 6. Imbalances
- 7. Developments in our initiatives to reduce Balancing Costs

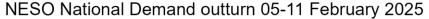
- 8. Goodbye to coal
- 9. Case Studies over the Summer

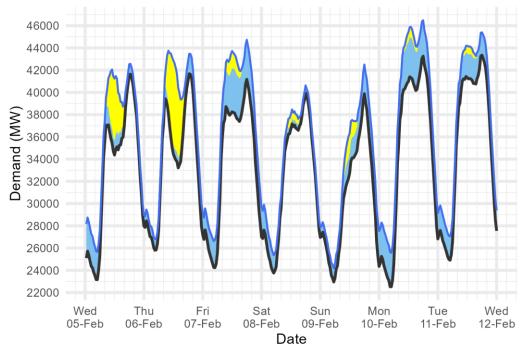
Balancing Costs Summer Report 2024



Demand | Last week demand out-turn

Slido code #OTF





Demand type

- National Demand (ND) transmission connected generation requirement within GB
- ND + est. of PV & wind at Distribution network

Renewable type

Distributed

Distributed PV

Peaks and troughs

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

Date	Daily Max Dist. PV (GW)	Daily Max Dist. Wind (GW)
05 Feb 2025	5.6	3.1
06 Feb 2025	7.6	2.1
07 Feb 2025	1.6	4.0
08 Feb 2025	0.8	2.5
09 Feb 2025	1.9	3.2
10 Feb 2025	1.0	3.6
11 Feb 2025	0.7	2.3

OUTTURN

OUTTURN

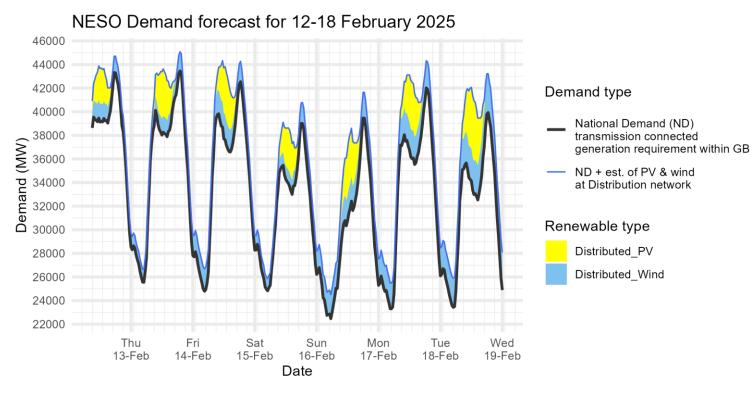
Date	Forecasting Point	National Demand (GW)	Avoidance est. (GW)	N. Demand adjusted for TA (GW)	Dist. wind (GW)
05 Feb 2025	Evening Peak	41.6	0.0	41.6	0.9
06 Feb 2025	Overnight Min	25.8	n/a	n/a	1.0
06 Feb 2025	Evening Peak	41.7	0.0	41.7	1.8
07 Feb 2025	Overnight Min	24.2	n/a	n/a	2.5
07 Feb 2025	Evening Peak	41.2	0.0	41.2	3.6
08 Feb 2025	Overnight Min	23.8	n/a	n/a	1.6
08 Feb 2025	Evening Peak	39.9	0.0	39.9	0.7
09 Feb 2025	Overnight Min	22.9	n/a	n/a	1.2
09 Feb 2025	Evening Peak	39.9	0.0	39.9	2.6
10 Feb 2025	Overnight Min	22.5	n/a	n/a	3.1
10 Feb 2025	Evening Peak	43.3	0.0	43.3	3.2
11 Feb 2025	Overnight Min	24.9	n/a	n/a	2.1
11 Feb 2025	Evening Peak	43.3	0.8	44.1	2.1

Distributed generation

Peak values by day

Demand | Week Ahead





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 <u>do not include</u> 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 <u>does not include</u> demand supplied by non-weather driven sources at the distributed network for which NESO has no real time data.

National Demand

Peaks ar	nd troughs	FORECAST (Wed 12 Feb)		
Date Forecasting Point		National Demand (GW)	Dist. wind (GW)	
12 Feb 2025	Evening Peak	43.3	1.4	
13 Feb 2025	Overnight Min	25.5	1.1	
13 Feb 2025	Evening Peak	43.5	1.6	
14 Feb 2025	Overnight Min	24.8	1.9	
14 Feb 2025	Evening Peak	42.5	1.7	
15 Feb 2025	Overnight Min	24.8	1.0	
15 Feb 2025	Evening Peak	39.0	1.7	
16 Feb 2025	Overnight Min	22.5	2.0	
16 Feb 2025	Evening Peak	39.5	2.2	
17 Feb 2025	Overnight Min	23.3	2.2	
17 Feb 2025	Evening Peak	42.0	2.3	
18 Feb 2025	Overnight Min	23.4	2.5	
18 Feb 2025	Evening Peak	39.9	3.2	



Operational Margins | Week Ahead



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 22^{nd} 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	13/02/2025	44297	6000	5120	44060	6960
Fri	14/02/2025	43947	7550	5120	43150	8960
Sat	15/02/2025	44658	7840	5120	39610	13600
Sun	16/02/2025	44752	11440	5120	40070	15180
Mon	17/02/2025	44939	11110	5120	42620	13360
Tue	18/02/2025	45446	14260	4740	40530	17170
Wed	19/02/2025	45458	13820	4740	40040	17000

^{*}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



NESO Actions | Category Cost Breakdown

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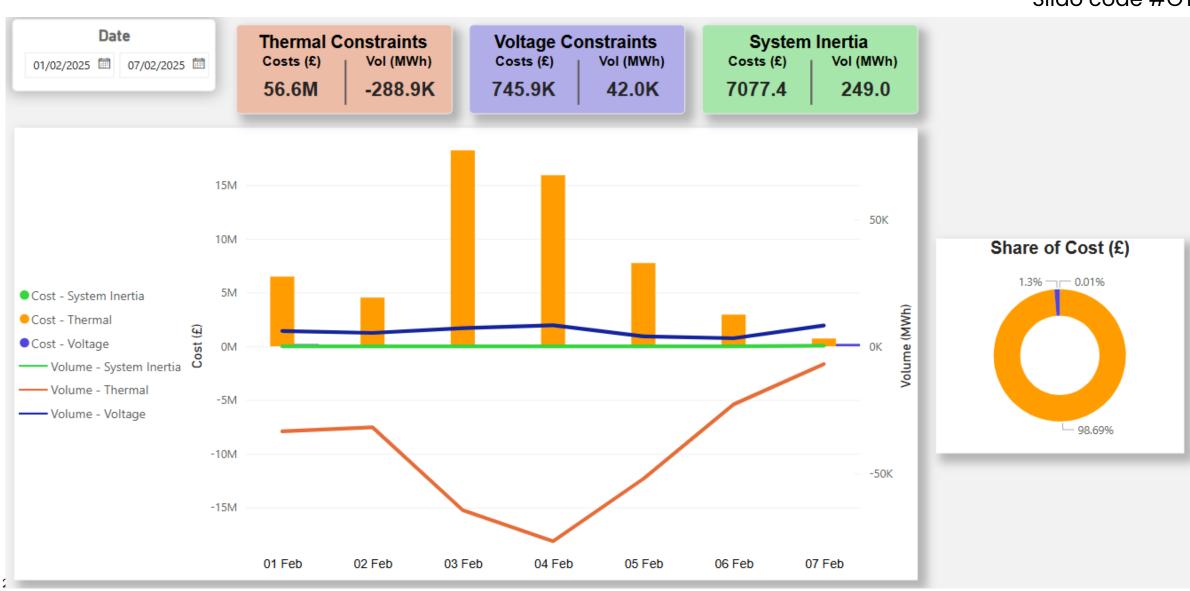


Total Outturn Cost	Date	
£9,150,370	01/02/2025	
£6,969,614	02/02/2025	
£20,108,201	03/02/2025	
£19,404,988	04/02/2025	
£10,794,095	05/02/2025	
£5,305,476	06/02/2025	
£4,045,593	07/02/2025	



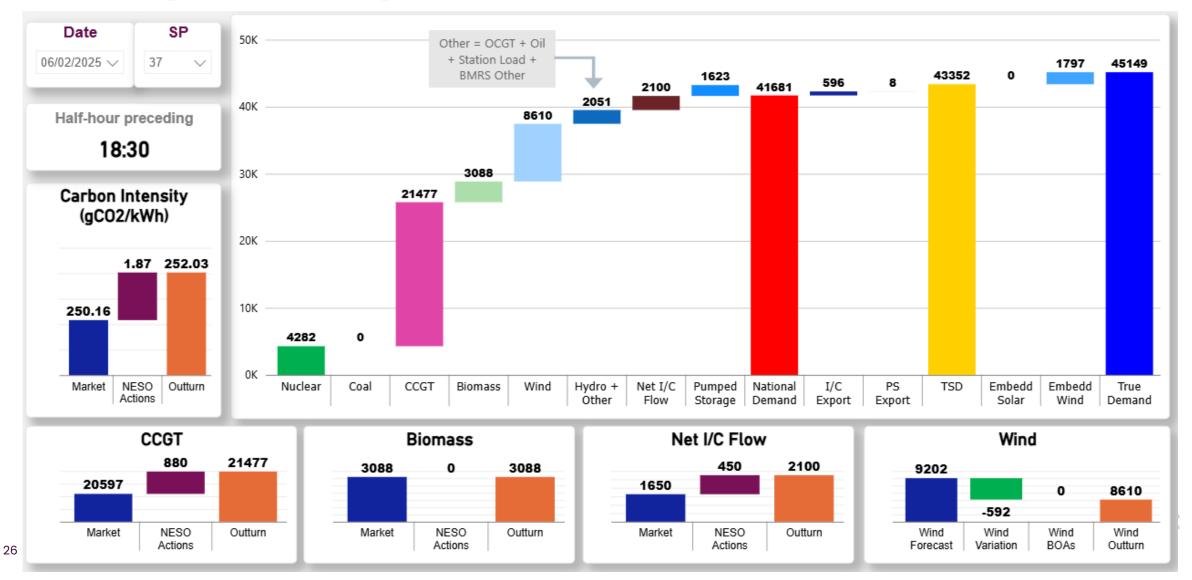
NESO Actions | Constraint Cost Breakdown





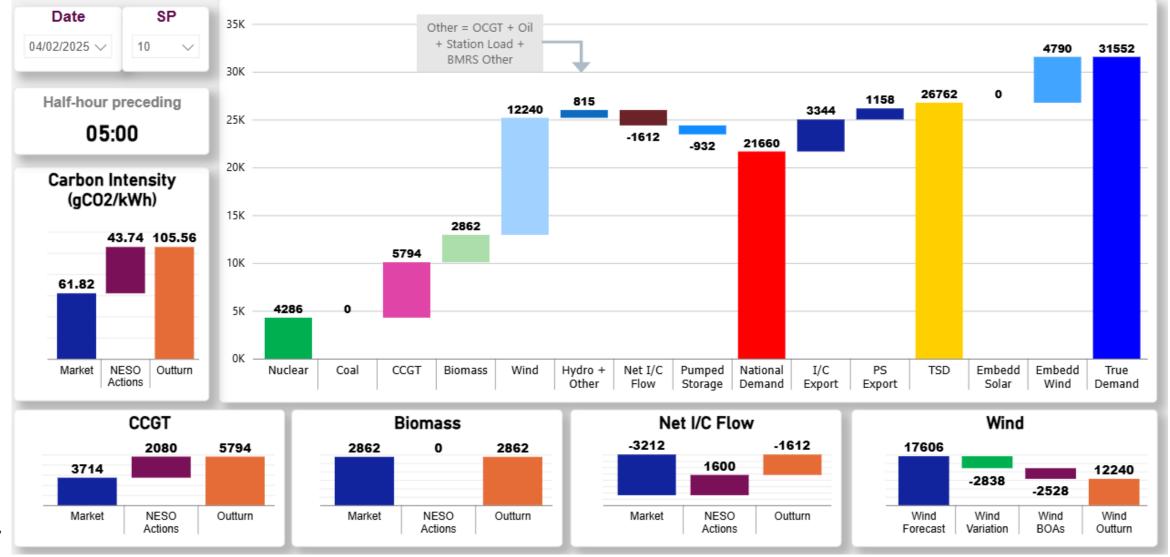
NESO Actions | Peak Demand - SP spend ~ £50k Thursday 6th February





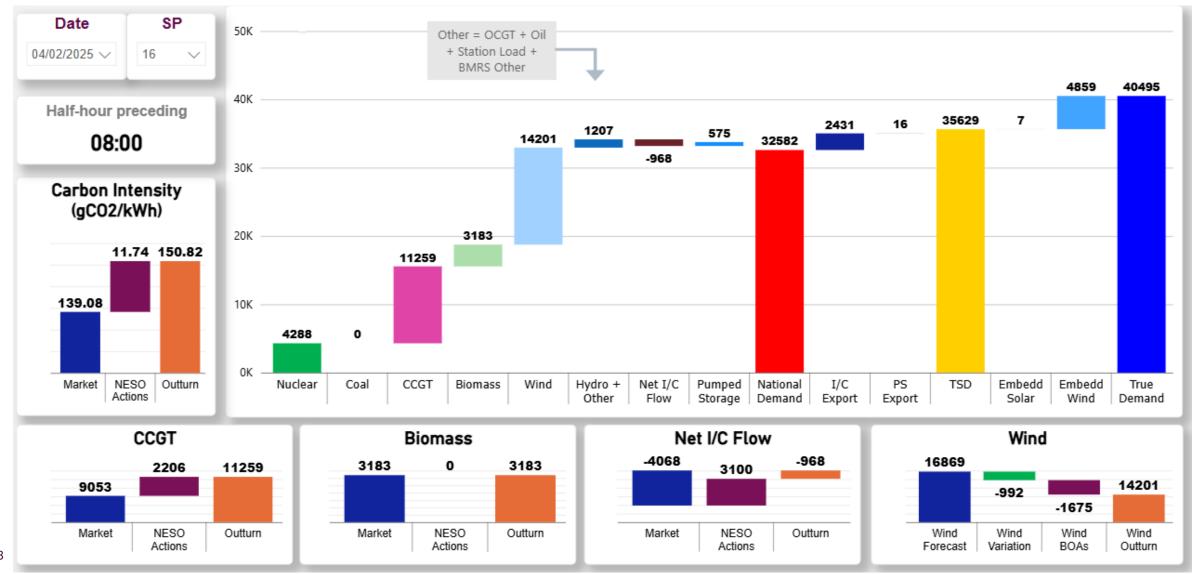
NESO Actions | Minimum Demand – SP spend ~ £608k Tuesday 4th February

Slido code #OTF

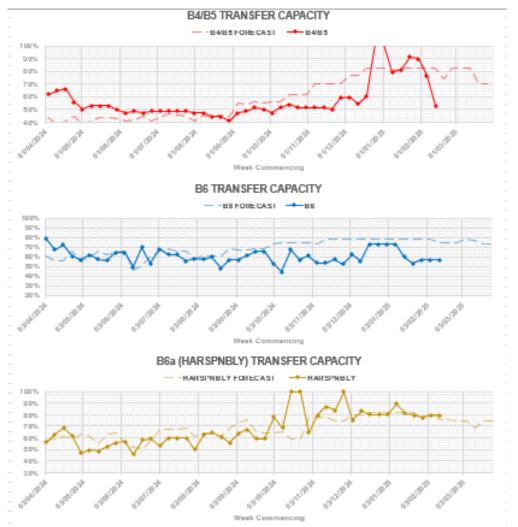


NESO Actions | - Highest SP spend ~ £621k Tuesday 4th February



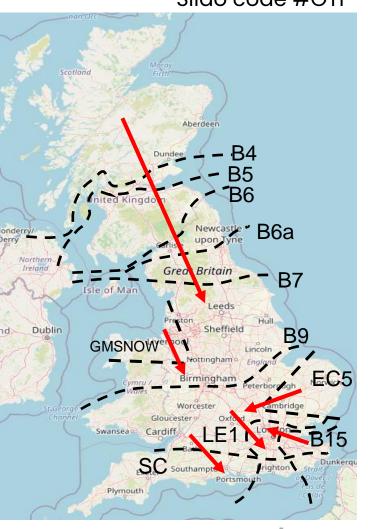


Transparency | Network Congestion



Boundary	Max. Capacity (MW)	Current Capacity (%)
B4/B5	3400	53%
B6 (SCOTEX)	6800	57%
HARSPNBLY	8000	79%
B7 (SSHARN)	8325	84%
GMSNOW	4700	55%
EC5	5000	100%
LE1 (SEIMP)	8500	76%
B15 (ESTEX)	7500	99%
SC1	7300	100%



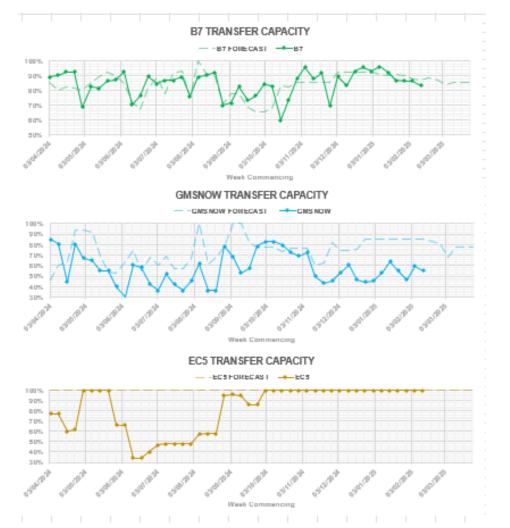


Day ahead flows and limits, and the 24-month constraint limit forecast are published on the ESO Data Portal: Constraints Management



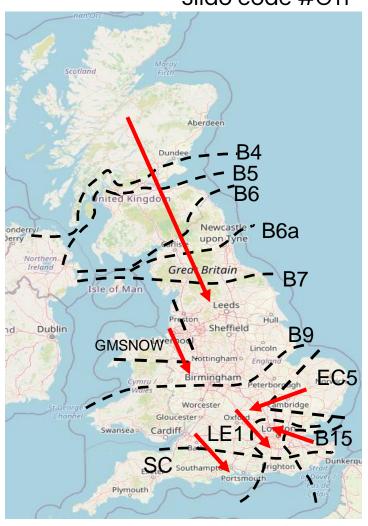
(The forecast and day ahead limits may vary due to changes in the outage plan. The plan is reviewed periodically throughout the year to ensure we are optimising system conditions, whilst managing any necessary outage plan changes)

Transparency | Network Congestion

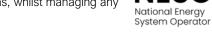


Boundary	Max. Capacity (MW)	Current Capacity (%)
B4/B5	3400	53%
B6 (SCOTEX)	6800	57%
HARSPNBLY	8000	79%
B7 (SSHARN)	8325	84%
GMSNOW	4700	55%
EC5	5000	100%
LE1 (SEIMP)	8500	76%
B15 (ESTEX)	7500	99%
SC1	7300	100%



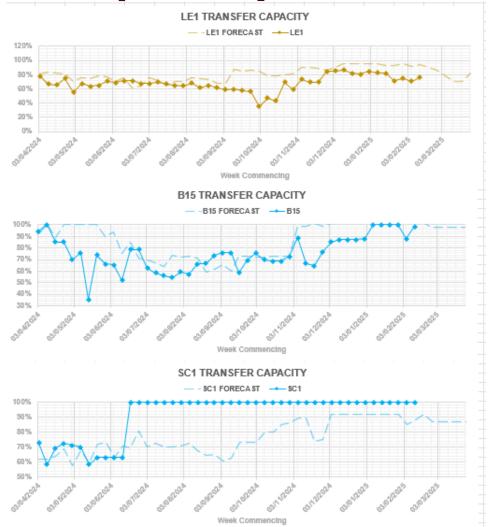


Day ahead flows and limits, and the 24-month constraint limit forecast are published on the ESO Data Portal: Constraints Management



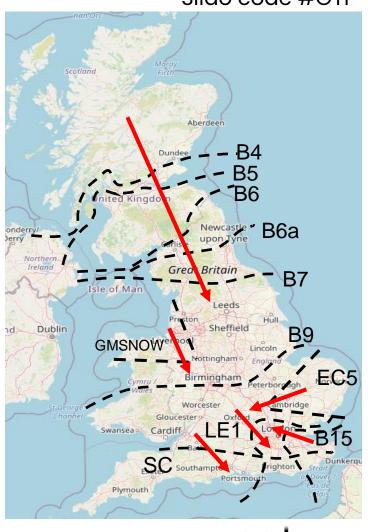
(The forecast and day ahead limits may vary due to changes in the outage plan. The plan is reviewed periodically throughout the year to ensure we are optimising system conditions, whilst managing any necessary outage plan changes)

Transparency | Network Congestion



Boundary	Max. Capacity (MW)	Current Capacity (%)	
B4/B5	3400	53%	
B6 (SCOTEX)	6800	57%	
HARSPNBLY	8000	79%	
B7 (SSHARN)	8325	84%	
GMSNOW	4700	55%	
EC5	5000	100%	
LE1 (SEIMP)	8500	76%	
B15 (ESTEX)	7500	99%	
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, whist managing any necessary outage plan changes)

Skip Rates

Slido code #OTF

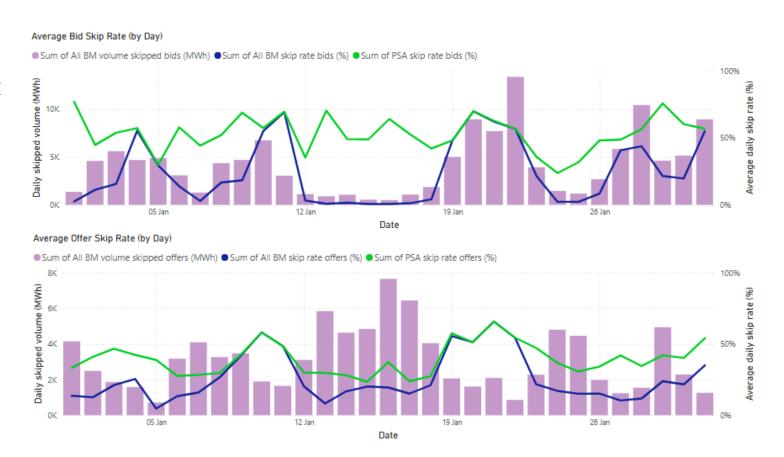
We will be sharing the previous week's skip rate and welcome your comments on if you find this valuable and feedback on how we present this data.

As this is the first week, we have presented stage 5 data for the whole of January.

	Offe	Offers		Bids	
Average Skip Rate	All BM	PSA	All BM	PSA	
January	18%	34%	11%	53%	

Skip rate data is available <u>here</u>.

Previous webinar recordings about the skip rate methodology can be found on the <u>skip rate</u> and <u>battery storage</u> pages on our website.





Skip Rates – 'In Merit' datasets



We recognise that these datasets aren't as intuitive as they could be – specifically the column headings. Please be reassured that we are looking at ways to improve this - we will update the documentation to include this information and will also discuss the datasets in more detail at the webinar on 27th February.

We will use 'accepted' and 'instructed' differently in this context, even though they are normally the same.

These datasets show the units that should have been instructed if decisions were solely based on price, rather than all units that were instructed. Therefore this dataset does not match the total accepted volume datasets in Elexon.

In Merit Volume = Accepted Volume + Skipped Volume

In Merit Volume

- This is the recreated in merit stack showing the lowest cost units that were available to meet the requirement, where the requirement is based on the volume of units that were actually instructed
- Therefore this is the volume that should have been accepted if decisions were solely based on price
- The sum of this column is the total instructed volume in the 5 minute period (subject to the relevant exclusions)

Accepted Volume

- This is the volume that was accepted in merit, as a subset of the 'In Merit Volume' column i.e. how much volume was accepted in merit
- The sum of this column will be less than the sum of the 'In Merit Volume' column, unless there is no skipped volume
- Note: this column does not list all instructed units

Skipped Volume

• This is the volume that was skipped, as a subset of the 'In Merit Volume' column – i.e. of the volume that we should have instructed, how much was skipped

It's possible that the list of units increases, decreases, or stays the same between stages, but the total 'In Merit Volume' will always remain the same (or no volume is excluded) or decrease (due to exclusions).

Previously Asked Questions

Slido code #OTF

Q: Ref deep dive today, is the BoA flagging consistently applied when plant run for inertia but also replacing constrained MW in Scotland? Thanks, Christopher

A: A BOA for ROCOF or System Inertia (typically an Import constraint) can be utilised for replacement energy in the case of an export constraint. However, our system identifies these two actions by using the BMU_ID of the generator for the primary system action (ROCOF or System Inertia) and notifies us of the secondary role related to constraint margin.

RoCoF = Rate of Change of Frequency (costs of reducing the size of the largest possible infeed loss to make sure that the ROCOF protection relays are not triggered)

Q: Why has GC0105 reporting been dropped for the last few months from https://www.neso.energy/industry-information/industry-data-and-reports/system-performance-reports

A: According to the Grid Code OC3.4.3, "the System Incidents Report (GC0105) is to be published at latest on the last working day of the second month after each reporting month (in other words the report for January would be published on the last working day of March, and so on)". The most recent GC0105 report available on NESO's portal corresponds to November 2024. This means that no reports have been dropped and the portal is up to date. The report for December 2024 is due for publication on the last working day of February 2025.

Previously Asked Questions



Q: Thanks for answer - I have already reached out to Settlements .box but no answer. If NSL disbsad volumes are being monitored daily, then would you not already know if we should or should not apply those NSL volumes on Monday to NIV calc? Is there some feedback loop we can access for this

A: Thank you for raising this – we are monitoring this on a daily basis but on this occasion, it was missed so we do apologise for this. This will be resubmitted and the trades removed from BSAD.

Q: For 3-Feb until 4-Feb am BMRS didn't have FPNs for Moyle or EWIC...again. FPNs feed into IMBALNGC, a view of the system that Participants trade and redespatch off, .: in NESO's interest to present the most complete dataset to the BMRS and .: market. Can NESO investigate why no FPNs were published?

A: The interconnectors had problems submitting the data. Their submissions got out of sequence and thus the uploads were being rejected. We have been working with them to correct this and get them back online.



Previously Asked Questions



Q: High wind speed shutdown of wind farms was a particular concern in previous storms. Particularly regards the control room's ability to predict or understand expected behaviour. NESO have worked with the sector on this - were improvements seen this time round and what was the scale of such actions?

A: We are continually making improvements to our wind forecasting process. Our forecast is for generators output of wind turbines and the potential levels of wind generation cut out.

While difficult to make direct comparisons between storms, we always learn from the experience of one storm and decide whether there is anything that can be adjusted to make understanding behaviour in future storms easier.

At the height of Storm Éowyn, we forecasted a risk of wind cut-out of around 8GW. However, we would not expect this to fully materialise as units would be instructed off in advance to manage constraints, and operators shutting down to reduce the risk of damage to turbines.



Previously Asked Questions



Q: How come the boundaries used in the OTF presentation don't match the boundaries on the day-ahead constraint flows and limits page on the NESO portal?

A: There is a high level of complexity to the derivation of constraint boundaries on the network as they change dependent on system conditions such as circuit outages and background generation and demand. The boundaries on the NESO portal are the main generic constraint boundaries that we see throughout the year whilst the constraint boundaries in the OTF presentation more closely match the system conditions week to week.





NESO teams are working on these questions, we will answer them in full on the settlements deep dive on 26 February

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?

Q: (05/02/25) Hi. Is there any update on when the price of the Viking Link SO-SO trades on the 8th Jan will be published?

It was previously advised they would be visible to the market from the 30th Jan when the Elexon settlement run was updated - but they do not appear to have been published still.

Slido code #OTF

Q: (03/02/25) BSAD shows that SPs 34-48 on 2nd February contained 700MW of downreg over North Sea Link at a £0 price. We are assuming this is a reoccurrence of the issue detailed in slide 20 of the January 8th OTF. Is this correct?

That slide said that: "Going forwards a change is required to our system to ensure these incorrect values are not picked up in future", can we have an update on when this work is likely to be finished? Thanks a lot.

Q: (05/02/25) Why has there been multiple days over the last few days with an NSL BSAD priced at 0 £/MWh. NSL doesn't stray from its DA nominations so would be good to know what this is as this affects the cashout price.

A: Yes, the 2nd February event is not a trade and flowed through to BSAD incorrectly. We are monitoring this on a daily basis but on this occasion, it was missed so we do apologise for this. This will be resubmitted and the trades removed from BSAD. We are reviewing other dates and are still working through the system change requirements and hope to provide an update soon.



Q: (29.01.2025) I like most, pretty well understand how you operate and switch on and off to maintain supply, what we really want to know if what's happening Unfortunately, getting new power connected to the grid, what source and when!

A: This topic is outside the scope of the OTF; however, we recommend reviewing our Connections Reform webpage, where you can learn about the CP2030 plan, and how our Connections Reform activities align with it up to 2030 and beyond, and the fundamental changes happening to the way developers get in the connections queue. The <u>Transition to Reform section</u>, gives detail on next steps, and some more detail on the direction of new connections.





Q: (04/02/25) Please can NESO give some context as to why procured DM and DR volumes increased from 3rd Feb? Is this driven by fundamentals in the market changing, leading to an increase in the required DM and DR response volume?

A: In the past weeks, we have observed significant MW movements. The increased system volatility could erode post-fault system security. Therefore, the decision was made to improve system security.

We are working with industry to understand the root causes, tracking system changes and introducing mitigations.

We will continue monitoring system frequency performance and will communicate updated frequency dynamic service requirements on OTF and via our normal communication routes before the auction.

We are also introducing a pre-fault frequency control modelling webinar on 5th March 2025, to better demonstrate how DR&DM are used. Please refer to the OTF slides on 5th Feb for the link.



Outstanding Questions



NESO teams are still working to answer these questions

Q: NESO only send IPs to the BMU – this is a limitation of EDL – was this not meant to be resolved in the EBS1 2010 system refresh parties paid for?

Q: The previously asked questions say that there are sometimes indicative prices given for SO-SO trades to the control room. Can these be published real-time, or at least reasonably quickly? They would be a significant improvement on the current £0 value.

Q: Thank you for responding to my question from 18/12/2024 but you didn't answer it. I've read the latest Operability Strategy Report (I note that an update is overdue; the last edition was published in December 2023, and in the Foreword Julian Leslie states that the OSR is "annual". Furthermore your answer in the 5 Feb slide pack links to the Jan 2024 webinar Q&A document, not the report). Have the actions outlined in 2023 been taken? Or what further changes (engineering or control room protocols) still need to be made to enable periods of zero-carbon running?

Reminder about answering questions at the NESO 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



slido



(i) 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!



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

Managing questions at the NESO Operational Transparency Forum



- 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 <u>box.nc.customer@nationalenergyso.com</u>
- All questions asked through Sli.do will be recorded and published, with answers, in the Operational Transparency Forum Q&A on the webpage: <u>Operational Transparency Forum | NESO</u>
- 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 found in the appendix of this slide pack.