



ESO Operational Transparency Forum

1 March 2023

You have been joined in listen only mode with your camera turned off

Live captioning is available in Microsoft Teams

- Click on the 3 dots icon / 'More'
- Click 'Turn on live captions'

Introduction | Sli.do code #OTF

Please visit www.sli.do and enter the code #OTF to ask questions & provide us with post event feedback.

We will answer as many questions as possible at the end of the session. We may have to take away some questions and provide feedback from our expert colleagues in these areas during a future forum. **Ask your questions early in the session to give more opportunity to pull together the right people for responses.**

To tailor our forum and topics further we have asked for names (or organisations, or industry sector) against Sli.do questions. If you do not feel able to ask a question in this way please use the email: box.NC.Customer@nationalgrideso.com

These slides, event recordings and further information about the webinars can be found at the following location:

Advanced question can be asked here: <https://forms.office.com/r/k0AEfKnai3>

Stay up to date on our new webpage: <https://www.nationalgrideso.com/OTF>

Future deep dive / focus topics

Coming soon

Interconnectors and Emergency Actions focus area – 8th March

Balancing Markets Winter Costs review (November, December, January, February) – 22nd March

Future

Reserve Reform update – please see the webinar invite – 9th March

Response markets deep dive

System Inertia

Feedback welcomed on our proposed deep dive topics

SO-SO Trades, EA/EI Deep Dive

- Day in the Life of an Interconnector (from both the control room and a trading perspective)
- SO to SO Trades explained
- What is Emergency Assistance (EA)/ Emergency Instructions (EI)?
- When has EA/EI been called upon/requested?
- How are the EA costs recovered
- Case Study: 25th January 2023

If you have any areas that you would like us to cover related to this topic please email:

box.NC.Customer@nationalgrideso.com

Winter Enhanced Actions

Service instructions

The following BM Start-Up instructions were issued over this period:

BMU ID	Instruction Issued	Instruction Cancelled	Notes

Demand Flexibility Service Advanced Anticipated Requirements Notice

BMU ID	Instruction Issued	Instruction Cancelled	Notes

For clarity, going forward we intend to issue a BMRS message for any actions relating to the winter contingency units.

Reserve Reform Update – Quick and Slow Reserve Webinar

As part of our RIIO-2 commitments, ESO intends to introduce a new suite of products to provide reserve to the Control Room. We are therefore pleased to announce that we intend to launch these new products, Quick Reserve and Slow Reserve, towards the end of this year. The main dependency on our delivery plan is the required IT changes to be carried out by ESO's Balancing Programme.

Reserve Reform team will be sending out a separate communication to this audience to provide a detailed update on the delivery plan and service in the next week and there will be an opportunity to discuss further in a webinar on **9th March**.



Reserve Reform - Quick Reserve & Slow Reserve

🕒 Thu, 09 Mar, 10:30 - 12:00 GMT

📍 Online event

Details

Update on delivery plan for the new Reserve products of Quick Reserve and Slow Reserve as well as a recap of the service.

Link to registration: [Click here](#)

Network Access Planning OC2 Forum 07/03/2023

Overview

The Network Access Planning (NAP) team within the ESO are hosting a forum for all parties who have a stake in the outage planning process. It is open to transmission owners, distribution network owners, generators, directly connected transmission customers and anyone else who has a relationship with our Outage Planning teams.

Purpose

This will be our first face to face OC2 Forum since before the start of the pandemic and we are very much looking forward to seeing as many of you as possible. We intend to talk through a variety of topics and hear your views on them.

Topics for discussion to include

- NGESO constraint forecasting methodologies.
- eNAMS developments
- Rationalisation of the OC2 code
- Future automation tools and technologies.
- PODE (planning and data exchange)
- Our BP2 activities

Invites and draft agenda were circulated in mid January to all NAP contacts but we have spaces available and would welcome the opportunity to host as many of you as possible. The time spent on each topic will be determined by consensus and there are voting options in the registration form.

Details of the Event

Date/Time

Tuesday 7th March 09:00 – 17:00

Location

Holiday Inn,
Birmingham Airport - NEC,
Coventry Road,
BIRMINGHAM,
B26 3QW

Register

[REGISTRATION FORM](#)

For further details please contact

box.OC2forum@Nationalgrideso.com

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Relevant Balancing Services (RBS) Guidelines Official Consultation

We welcome industry's views on the proposed changes within our consultation.

We are consulting on proposed changes to the RBS guidelines.

NGESO welcomes industry views on the proposed changes to the RBS guidelines, and **responses are required by close of play on 2 March.**

After industry responses are submitted, NGENSO will produce a report summarising the final recommended changes to be sent to Ofgem for review. A decision is anticipated by 6 April, with RBS guidelines expected to be updated by or before 13 April.

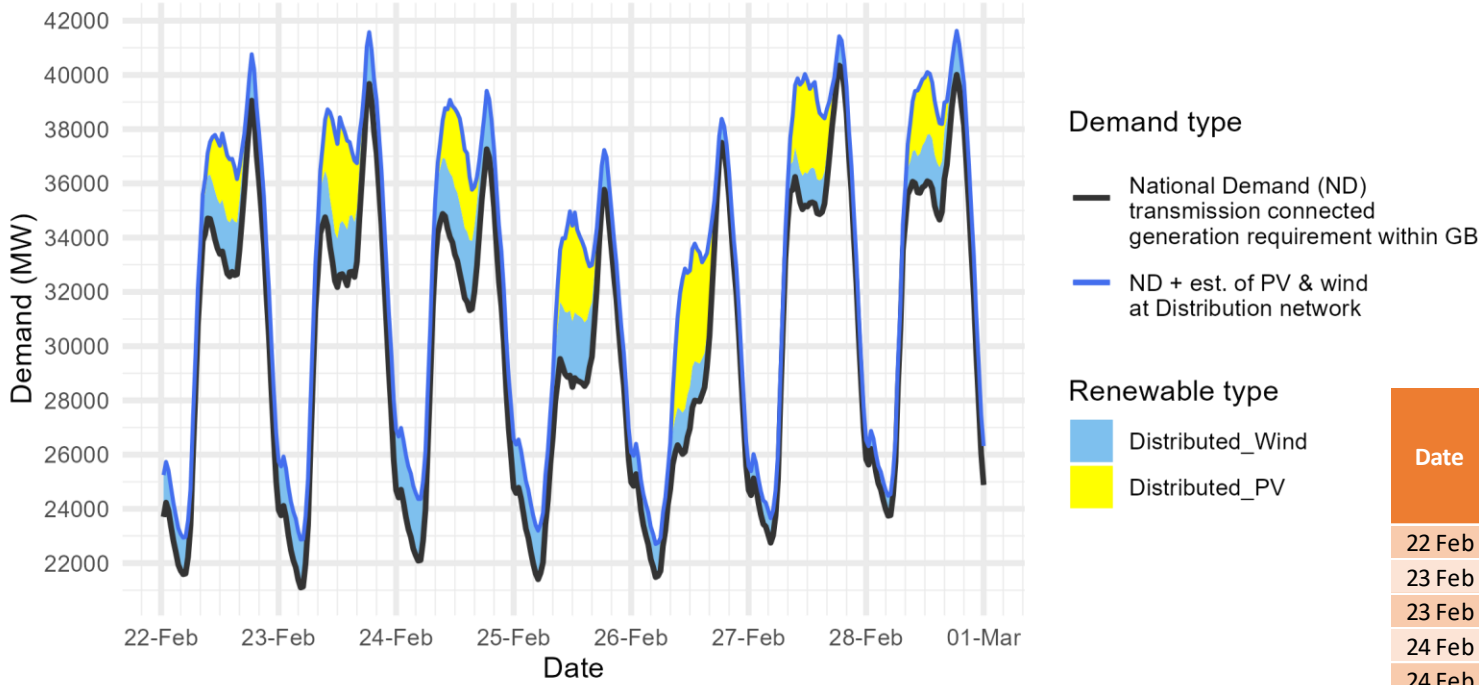
All 'Official' consultation material can be found on the EMR Website, under Capacity Market Guidance; Consultation documents [here](#)

[Sign up](#) for notifications on RBS publications and updates

Any questions, please contact balancingservices@nationalgrideso.com

Demand | Last week demand out-turn

ESO National Demand outturn 22-28 February 2023



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

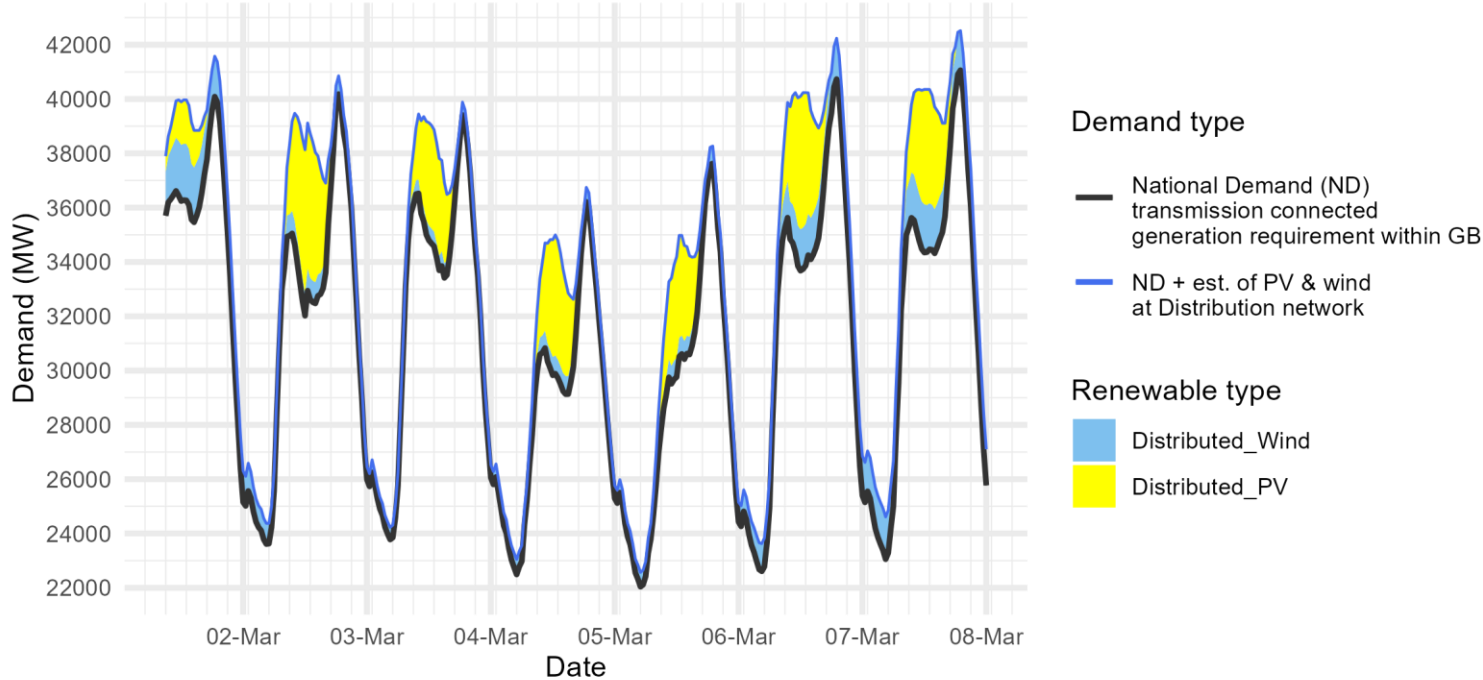
Blue line serves as a proxy for total GB customer demand. It includes demand supplied by the distributed wind and solar sources, but it **does not include** demand supplied by non-weather driven sources at the distributed network for which ESO has no real time data.

Date	Forecasting Point	FORECAST (Wed 22 Feb)		OUTTURN			
		National Demand (GW)	Dist. wind (GW)	National Demand (GW)	Triad Avoidance est. (GW)	N. Demand adjusted for TA (GW)	Dist. wind (GW)
22 Feb	Evening Peak	38.9	1.7	39.1	0.0	39.1	1.7
23 Feb	Overnight Min	21.5	1.7	21.1	n/a	n/a	1.8
23 Feb	Evening Peak	38.9	2.2	39.7	0.0	39.7	1.9
24 Feb	Overnight Min	21.5	2.5	22.1	n/a	n/a	2.3
24 Feb	Evening Peak	38.5	1.8	37.3	0.0	37.3	2.1
25 Feb	Overnight Min	21.3	1.4	21.4	n/a	n/a	1.8
25 Feb	Evening Peak	35.3	1.2	35.8	0.0	35.8	1.5
26 Feb	Overnight Min	21.5	0.9	21.5	n/a	n/a	1.2
26 Feb	Evening Peak	37.0	0.9	37.5	0.0	37.5	0.9
27 Feb	Overnight Min	22.6	0.8	22.7	n/a	n/a	0.9
27 Feb	Evening Peak	40.7	1.0	40.3	0.0	40.3	1.0
28 Feb	Overnight Min	23.2	1.0	23.7	n/a	n/a	0.7
28 Feb	Evening Peak	40.6	1.2	40.0	0.0	40.0	1.6

Historic out-turn data can be found on the [ESO Data Portal](#) in the following data sets: [Historic Demand Data](#) & [Demand Data Update](#)

Demand | Week Ahead

ESO Demand forecast for 01-07 March 2023



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

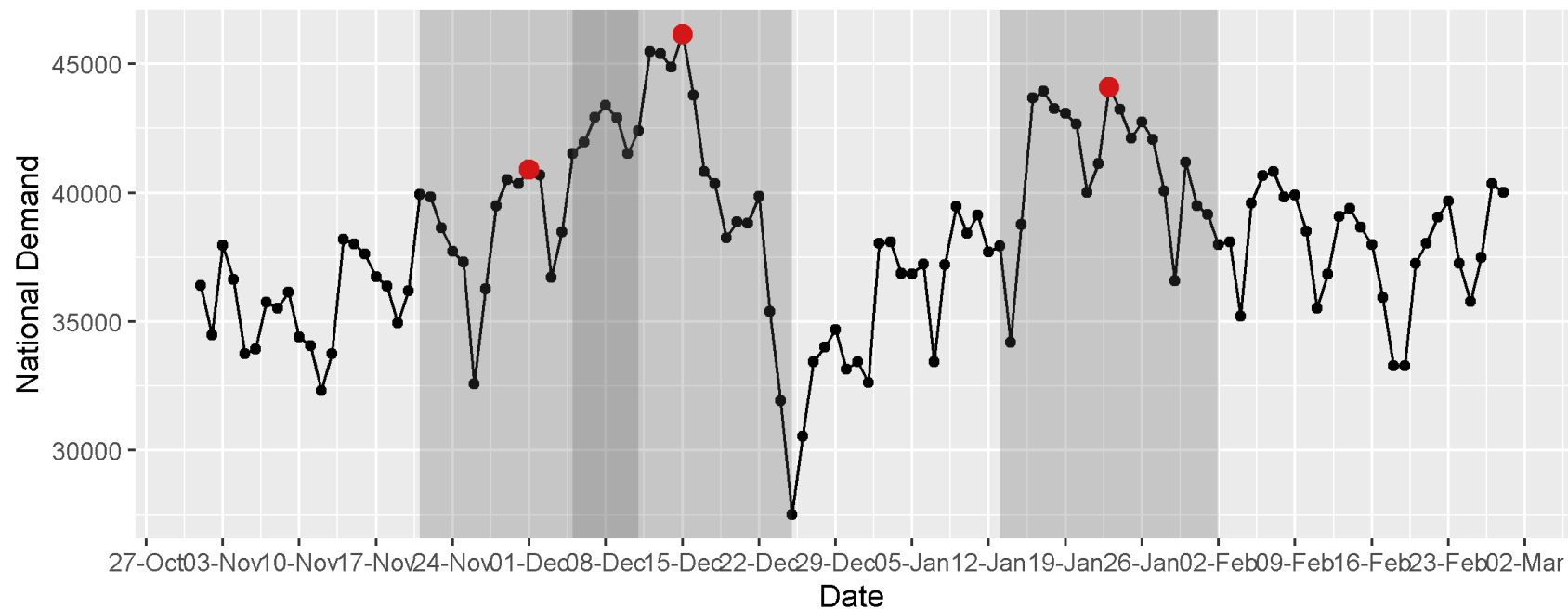
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Historic out-turn data can be found on the [ESO Data Portal](#) in the following data sets: [Historic Demand Data](#) & [Demand Data Update](#)

		FORECAST (Wed 01 Mar)	
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)
01 Mar 2023	Evening Peak	40.1	1.5
02 Mar 2023	Overnight Min	23.6	0.8
02 Mar 2023	Evening Peak	40.2	0.7
03 Mar 2023	Overnight Min	23.8	0.5
03 Mar 2023	Evening Peak	39.4	0.5
04 Mar 2023	Overnight Min	22.5	0.6
04 Mar 2023	Evening Peak	36.2	0.5
05 Mar 2023	Overnight Min	22.0	0.5
05 Mar 2023	Evening Peak	37.6	0.6
06 Mar 2023	Overnight Min	22.6	1.0
06 Mar 2023	Evening Peak	40.7	1.5
07 Mar 2023	Overnight Min	23.1	1.6
07 Mar 2023	Evening Peak	41.1	1.4

Triad avoidance: indicative triad data based on operational metering



ESO operational metering			
Date	Time of peak (HH ending)	National Demand (MW)	Estimated triad avoidance (HH corresponding with the time of the peak) (MW)
15/12/2022	1730	46147	0
23/01/2023	1800	44109	200
01/12/2022	1800	40909	200

ESO does not include station load.

Indicative triad demand on Elexon's BMRS [website](#) quotes "GB Demand" which is based on the Transmission System Demand definition (it adds 500MW of station load onto the National Demand). Also, it shows time as half hour **beginning**.

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 National Grid ESO as of 1 March 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 ESO needing to use its operational tools.

For higher surplus values, margins are expected to be adequate and there is a low likelihood of the ESO 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 ESO needing to use its tools, such as 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. This is based on our current assessment and is subject to change.

Day	Date	Notified Generation (MW)	Wind (MW)	IC Flows* (MW)	Peak demand (MW)	Indicative surplus (MW)
Thu	02/03/2023	42416	3030	4400	41240	3980
Fri	03/03/2023	40980	2130	4400	39870	3130
Sat	04/03/2023	40017	3100	4400	36630	6410
Sun	05/03/2023	41555	2340	4400	37680	6070
Mon	06/03/2023	41605	7050	4400	41220	7220
Tue	07/03/2023	42365	6620	4400	41430	7290
Wed	08/03/2023	42245	4650	4400	42030	4630

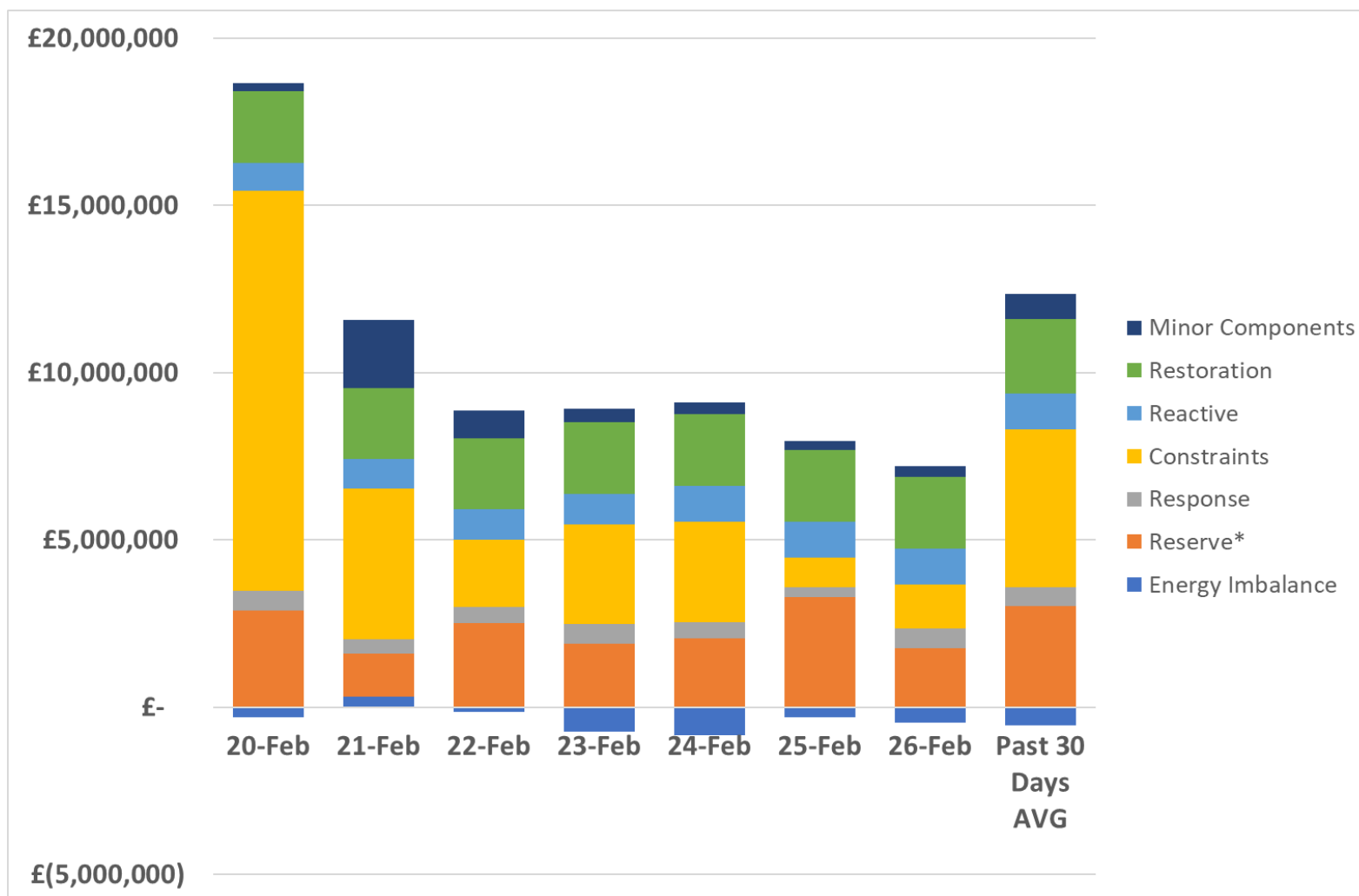
*Interconnector flow in line with the Winter Outlook Report Base Case but will ultimately flow to market price

Margins do not include NGENSO enhanced or emergency actions (Outlined here: [download \(nationalgrideso.com\)](https://nationalgrideso.com))

Adequate when Indicative Surplus \geq 1000 MW

ESO Actions | Category costs breakdown for the last week

Date	Total (£m)
20/02/2023	18.3
21/02/2023	11.6
22/02/2023	8.7
23/02/2023	8.2
24/02/2023	8.3
25/02/2023	7.7
26/02/2023	6.7
Weekly Total	69.5
Previous Week	71.4

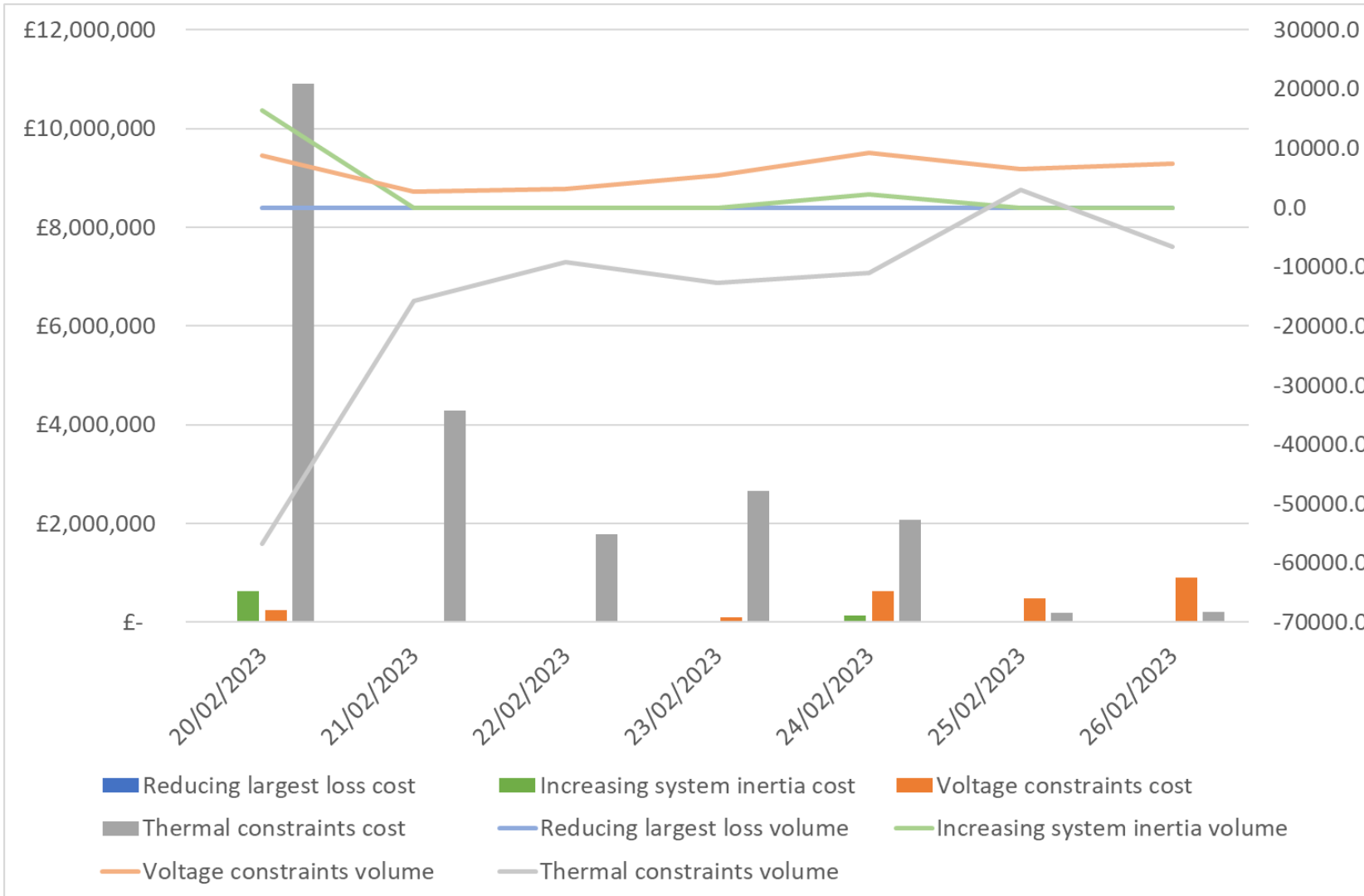


Reserve and Constraints costs were the key cost component throughout the week.

Please note that all the categories are presented and explained in the MBSS.

Data issue: Please note that due to a data issue on a few days over the last few months, the Minor Components line in Non-Constraint Costs is capturing some costs on those days which should be attributed to different categories. It has been identified that a significant portion of these costs should be allocated to the Operating Reserve Category. Although the categorisation of costs is not correct, we are confident that the total costs are correct in all months. We continue to investigate and will advise when we have a resolution.

ESO Actions | Constraint Cost Breakdown



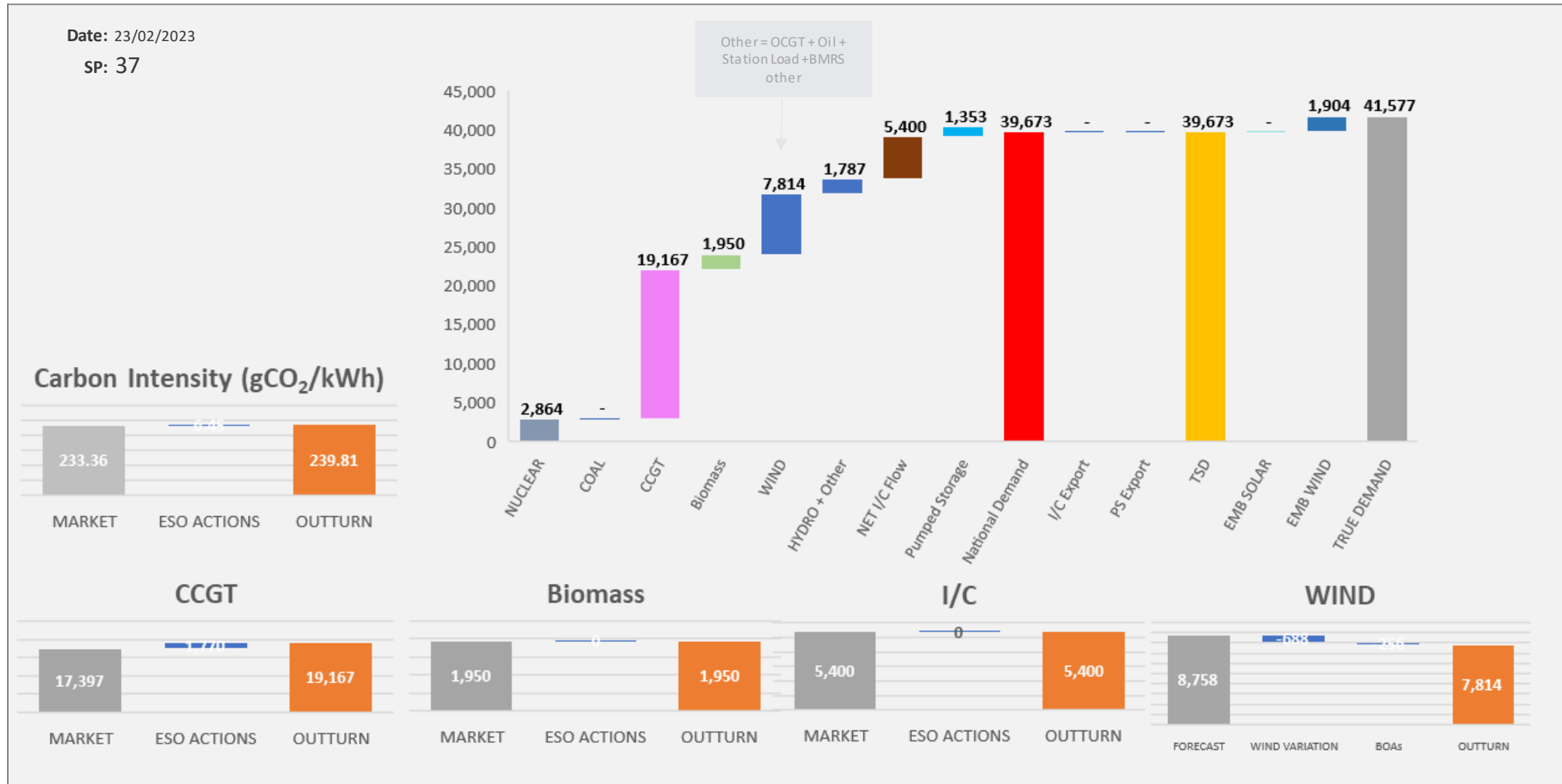
Thermal – network congestion
 Actions required to manage Thermal Constraints throughout the week with highest costs on Monday.

Voltage
 Intervention was required to manage voltage levels on Mon, Thu, Fri, Sat & Sun.

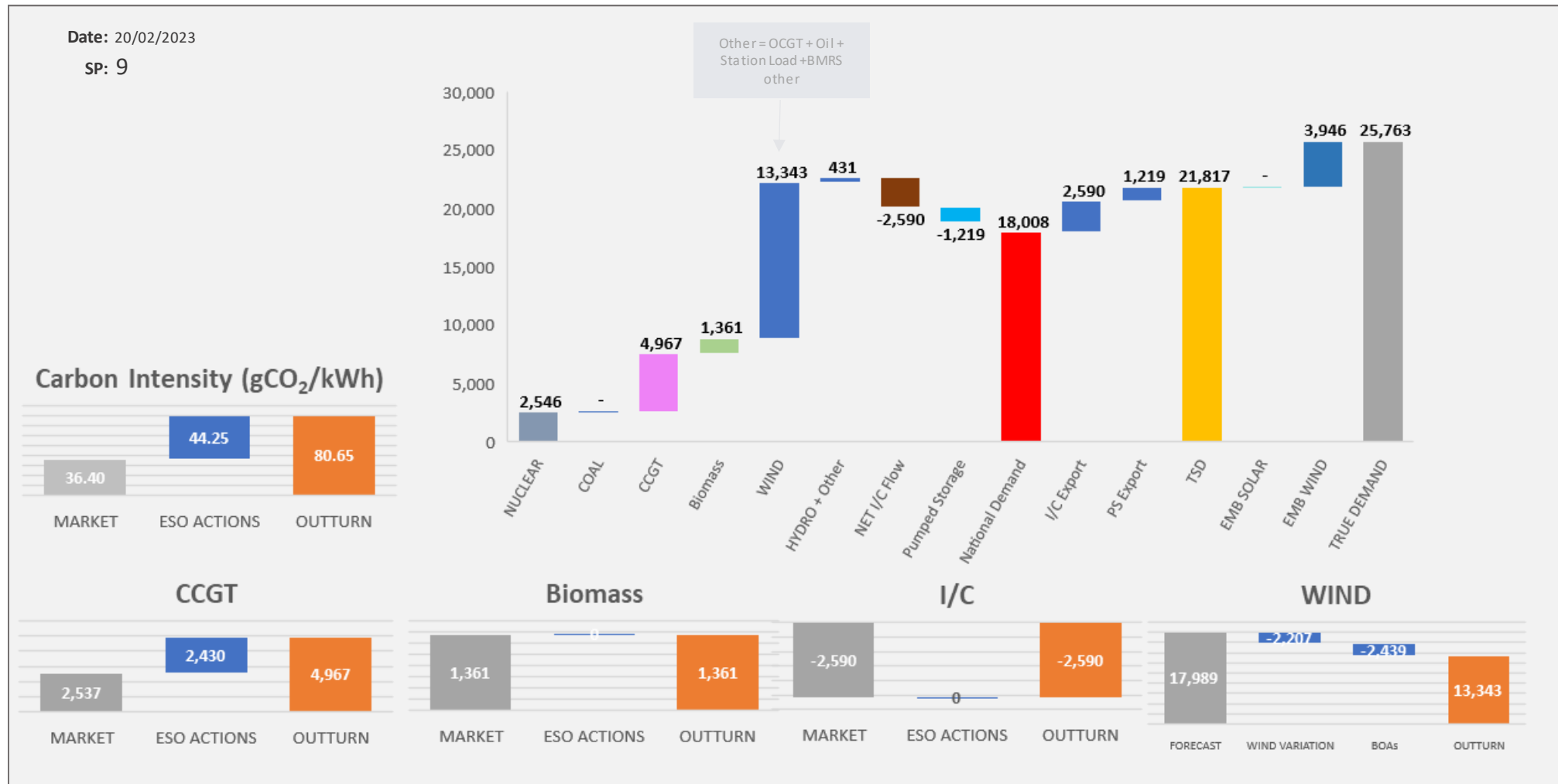
Managing largest loss for RoCoF
 No intervention was required to manage largest loss.

Increasing inertia
 Intervention was required to manage system inertia on Monday and Friday.

ESO Actions | Thursday 23 February – Peak Demand – SP spend ~£156k

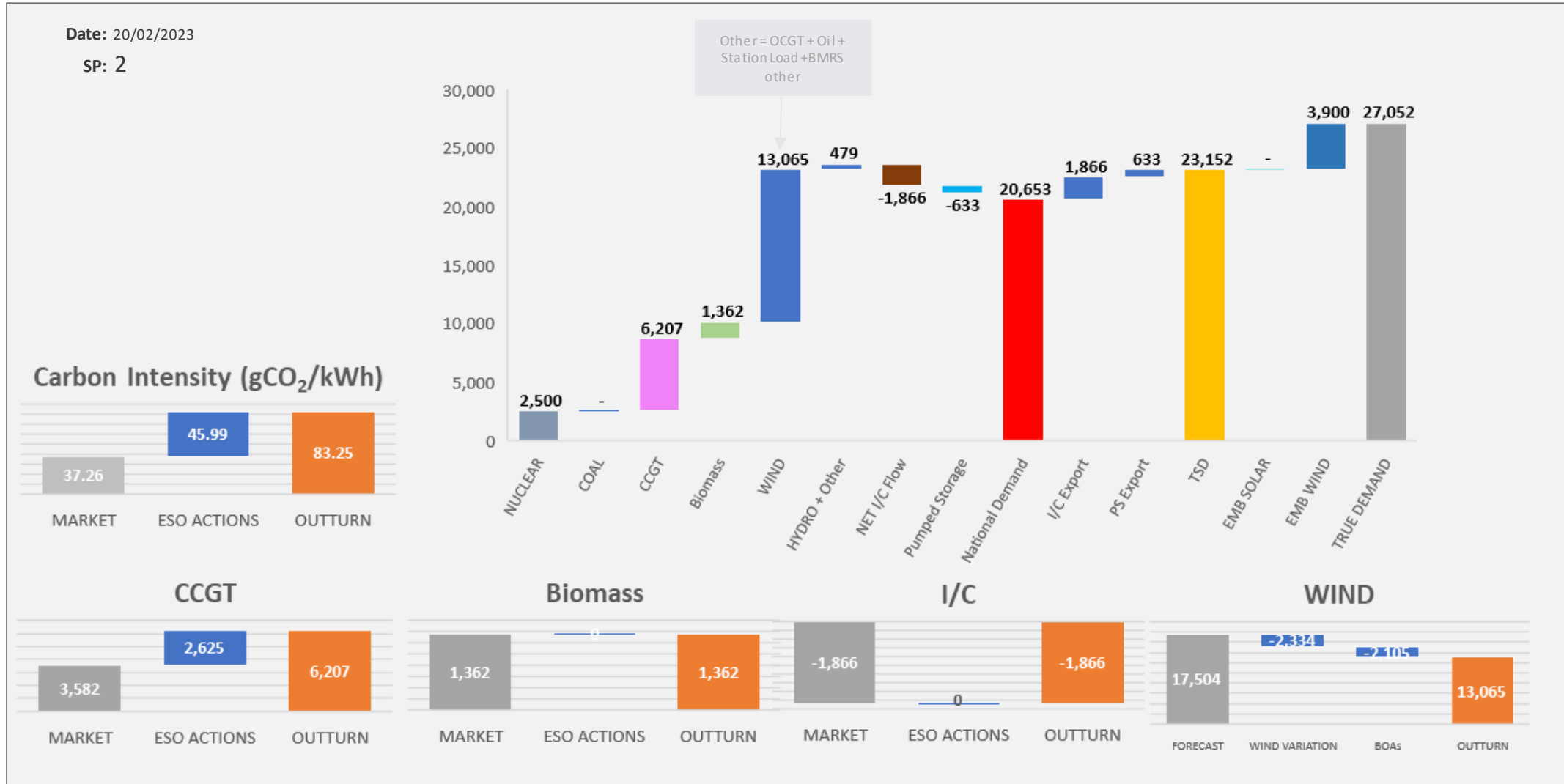


ESO Actions | Monday 20 February – Minimum Demand – SP Spend ~£550k



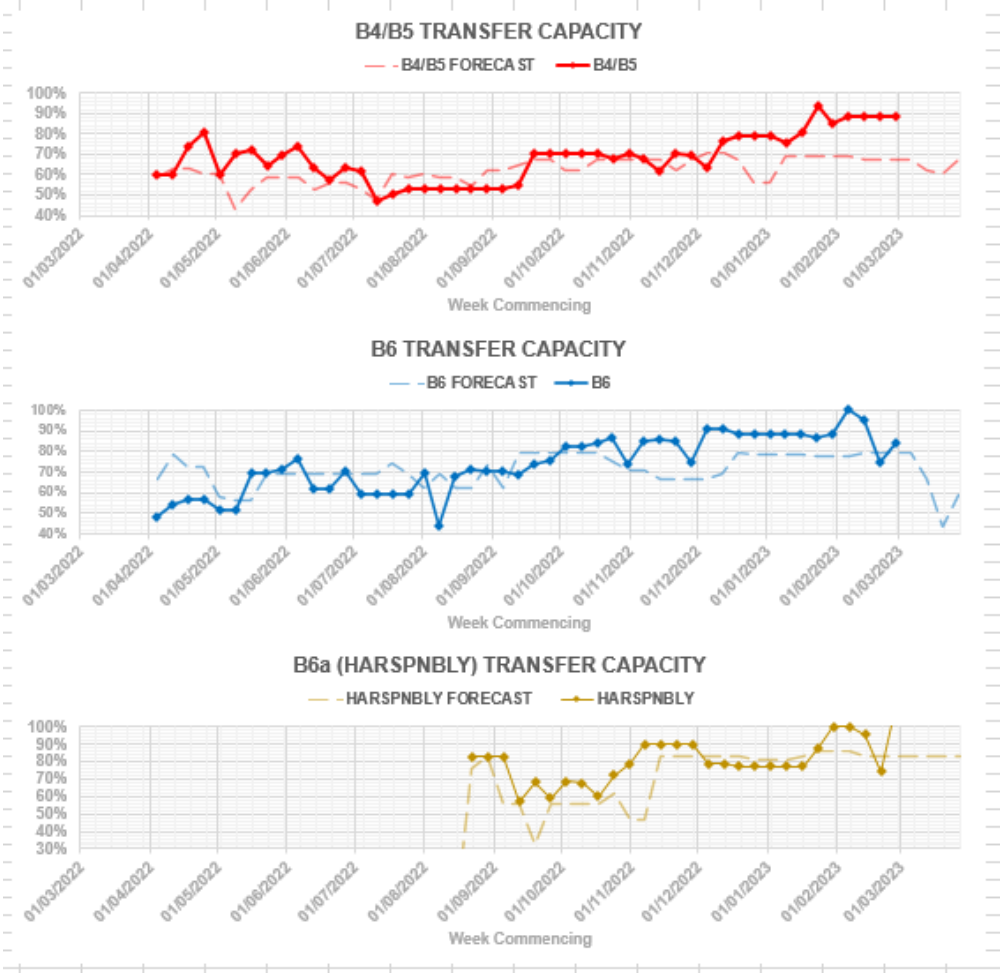
Carbon Intensity data on data portal: <https://data.nationalgrideso.com/carbon-intensity1/carbon-intensity-of-balancing-actions>

ESO Actions | Monday 20 February – Highest SP Spend ~£674k

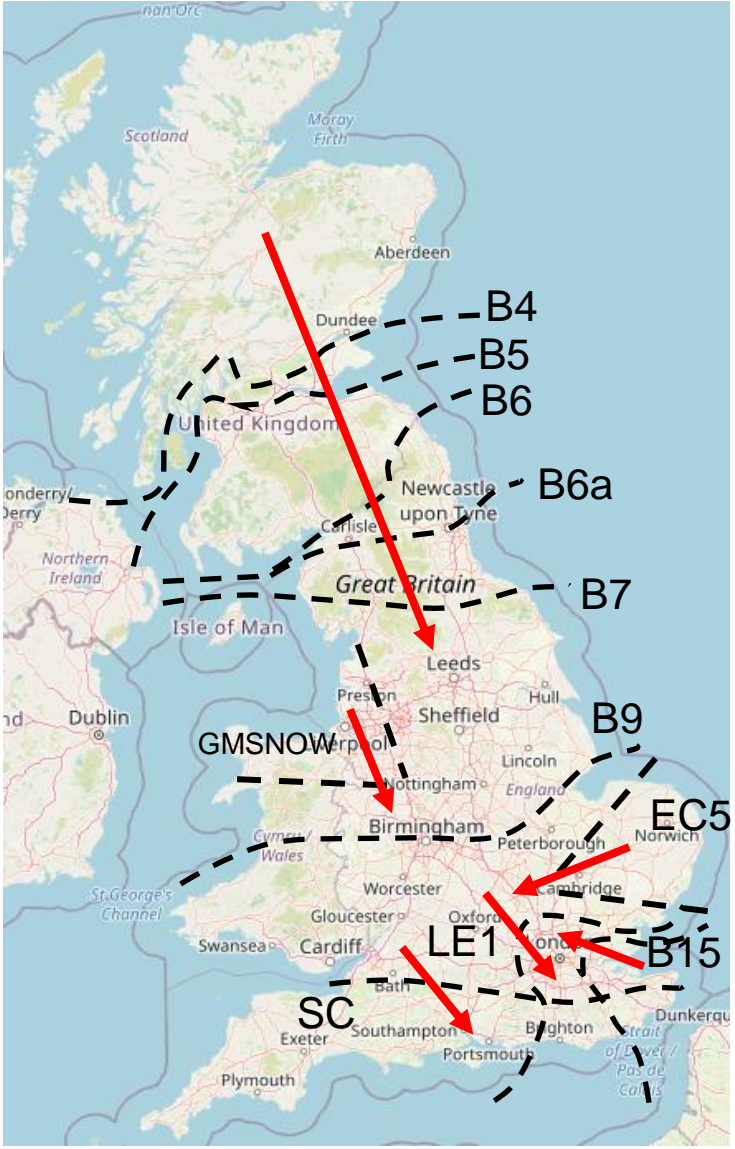


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Transparency | Network Congestion

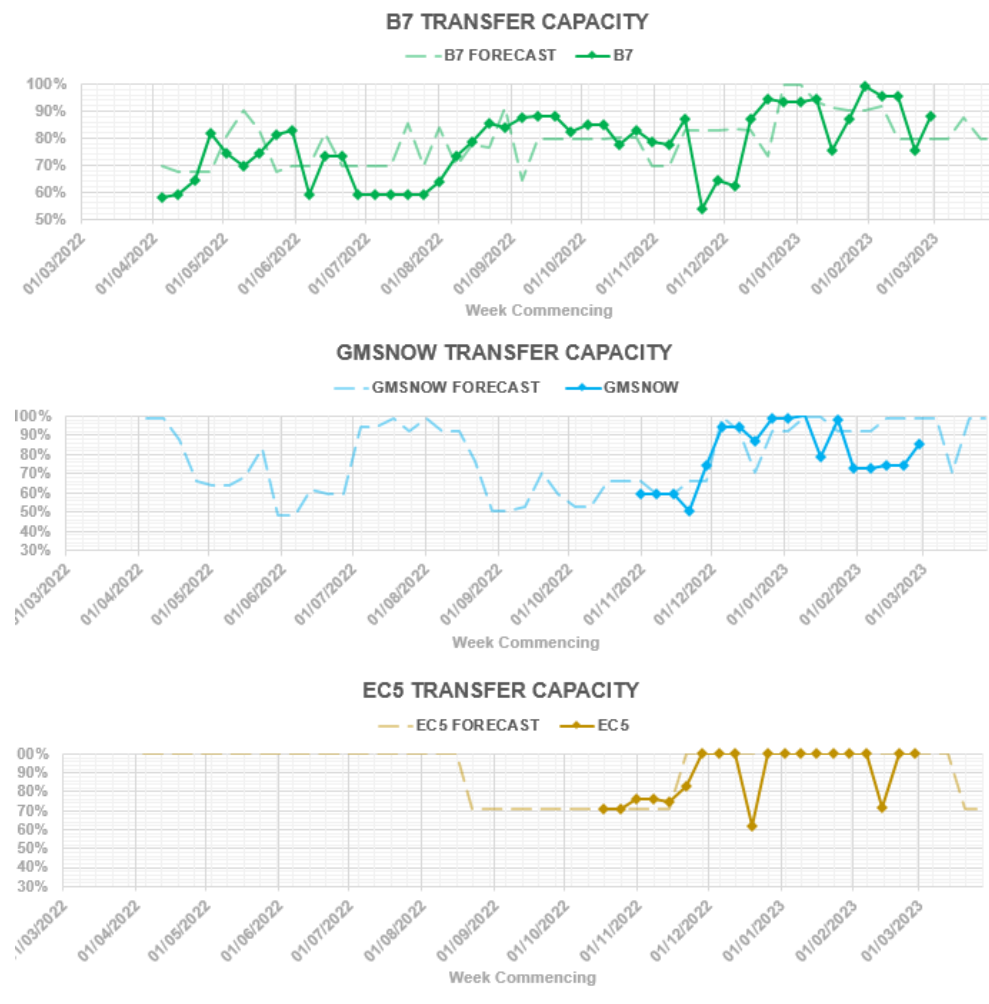


Boundary	Max. Capacity (MW)
B4/B5	3000
B6	5700
B6a	5200
B7	7000
GMSNOW	3400
B9	10500
EC5	5000
LE1	8500
B15	7500
SC	7300

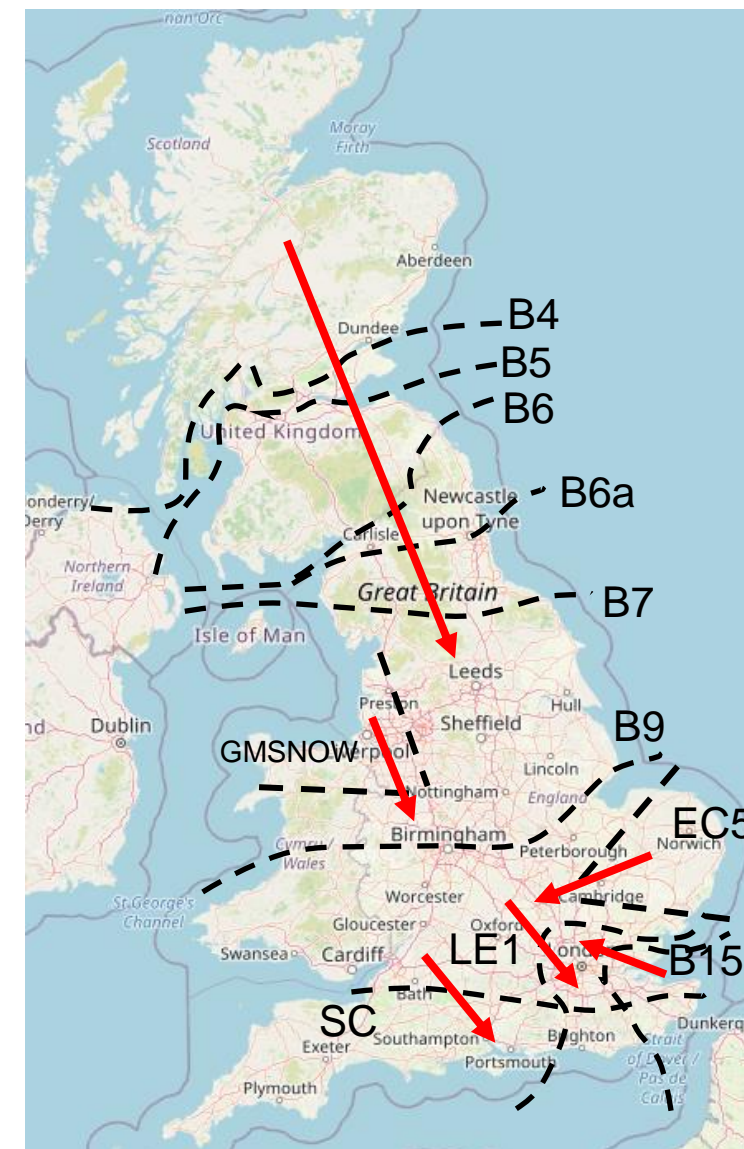


Day ahead flows and limits, and the 24 month constraint limit forecast are published on the ESO Data Portal: <https://data.nationalgrideso.com/data-groups/constraint-management>

Transparency | Network Congestion

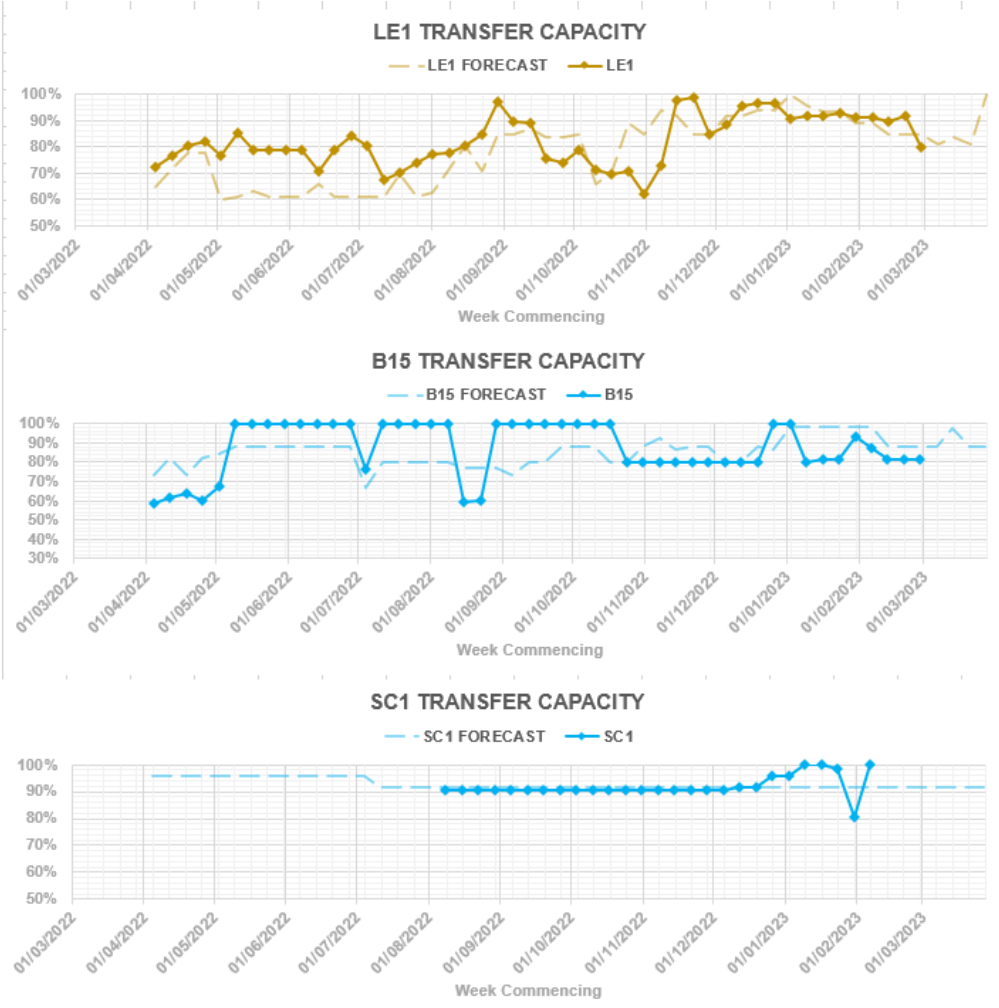


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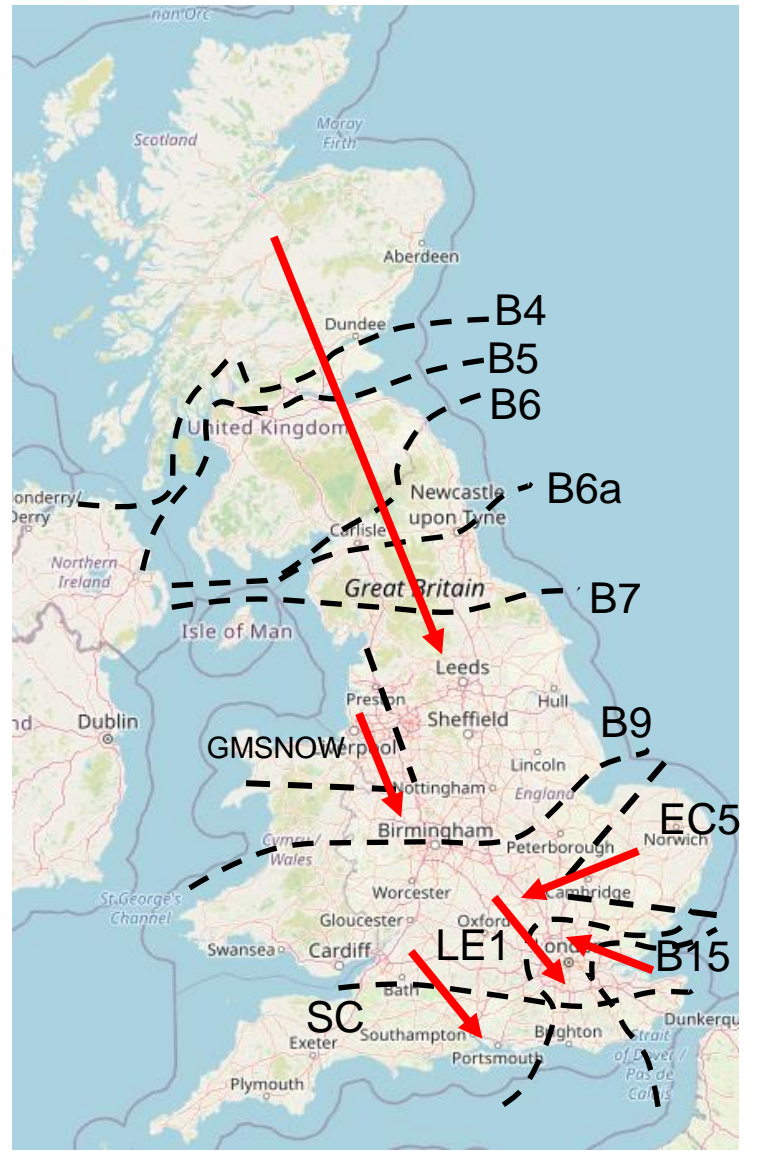


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Transparency | Network Congestion



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Day ahead flows and limits, and the 24 month constraint limit forecast are published on the ESO Data Portal: <https://data.nationalgrideso.com/data-groups/constraint-management>

Previously asked questions

Q: Are there any plans to increase DM procurement as with DR?

Q: Will we have to wait several months after DR procurement is increased further?

A: There are further milestones to be completed prior to lifting the DM cap above the current 100MW threshold, and as yet we do not have a firm timeline to share as to when these milestones will be completed. We provided an update in our last Market Information Report (https://data.nationalgrideso.com/ancillary-services/firm-frequency-response-market-information/r/frequency_response_products_market_information_report_-_march_2023#previous) and will continue to share updates regarding progress via this channel.

Q: Can you give an extra 5 minutes for any extra Questions that might arise in future please, especially if you are ahead of time, like today. It seems a shame/ inefficient to cut the call off early at 30mins when you have it in everyone's diaries and over 100 people on the call.

A: We do monitor questions coming into Slido so that we don't cut people off. Thank you for the suggestion - we will give an extra couple of minutes in today's session if we finish early.

Previously asked questions

Q: How many MW of capacity have so far expressed an interest in either having their connection agreement terminated or in reducing their TEC as part of the TEC amnesty process?

A: There is almost 5000 MW of TEC applied for under TEC Amnesty. Assessments are still taking place with Ofgem and TO's

Q: Following on from the inertia questions can the ESO start providing future inertia forecasts? Given you have bought lots out to 2035 through the 3 Stability PFs and the saving of £14.9bn published it seems you can?

A: We publish our overall future requirements in the Operability Strategy Report, however we don't currently publish granular requirements due to the ever changing nature of the system, and any new products or services that may impact our inertia requirements year on year. When a need arises, we will publish this requirement as part of any procurement exercise we launch. Short-term forecasts are not currently in a format that we can publish however it is something we can look at in the future (probably back end of RIIO-2) as new tools will store data into DAP (Data & Analytics Platform).

<https://www.nationalgrideso.com/news/operability-strategy-report-2023>

Advanced questions

Q: Are the contingency coal units allowed to self-dispatch to burn remaining coal on-site if not called by NG? Will NG cover the cost of any unused coal?

A: The providers will only be dispatched by the ESO to deliver the Winter Contingency Service. At the end of the agreement ESO will seek to sell the coal back into the market and maximise cost recovery.

Q: Will NGESO be holding any further Stability Pathfinders or similar ventures in the near future ?

A: Analysis is underway to understand the ongoing stability and voltage requirements which will inform the need for future procurement. At this stage no decisions have been published to industry yet but we encourage the market to continue to monitor the ESO website and sign up to our ESO newsletters to see the latest updates when they are available. We plan to communicate our next steps regarding stability procurement in our Markets Roadmap which will be published in March 2023.

At the moment we are running a Stability Market Design project which invites industry for views and feedback at various stages. If you haven't already, we recommend you have a look at this webpage <https://www.nationalgrideso.com/future-energy/projects/stability-market-design>

Q: When you do the interconnector deep dive can you explain these. We see to have been told this does not exist as a service due to TERRE. So I am very unclear why I get these every day & why the price never changes

A: This question relates to BALIT & BMRS messages. This has been passed onto the relevant team organising the deep dive into Interconnectors. Thank you for providing this request in advance.

slido

Audience Q&A Session

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

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@nationalgrideso.com