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ESO Operational Transparency Forum
09 August 2023

Purpose and scope of the ESO 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 ESO 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
ESO operational approach & challenges
ESO 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 ESO Control Room actions & decision making
Activities & operations of particular market participants
ESO policy & strategic decision making
Formal consultations e.g.: Code Changes, Business Planning, Market development

Managing questions at the ESO Operational Transparency Forum

- OTF participants can ask questions in the following ways:
 - Live via Sli.do code #OTF
 - In advance (before 12:00 on Monday) at <https://forms.office.com/r/k0AEfKnai3>
 - At any time to box.NC.Customer@nationalgrideso.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 | ESO \(nationalgrideso.com\)](#)
- **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 ESO 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

Introduction | Sli.do code #OTF

To ask questions live and provide us with post event feedback go to Sli.do and join 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 given on the next slide.
- **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.
- **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.

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

Future deep dive / focus topics

Future

Scottish Oscillations – following conclusion of current investigative work. Date to be confirmed.

Constraints – September

If you have suggestions for future deep dives or focus topics please send them to us at:
.box.NC.customer@nationalgrideso.com and we will consider including them in a future forum

Events this week

3 August 2023

12:04 – Elexon issued a circular about the **Delay in publishing MELS data on BMRS** due to the significantly higher volume of Maximum Export Limit (MEL) files being submitted to the Balancing Mechanism and sent through to BMRS. The ESO is working with Elexon to understand the reasons for this increase and how to manage the volumes of data.

16:47 – ESO issued an **Emergency Instruction** to Tongland PS to manage a local transmission system issue in the Dumfries and Galloway group. No alternative actions were available in the BM. The EI was cancelled following the enactment of ESO longer term trades and a **localised NRAPM** was issued to reflect the situation.

17:17 - ESO issued (via BMRS System Warnings) a notification of **Inadequate Localised Negative Reserve Active Power Margin** (NRAPM) in the following regions: Dumfries and Galloway Group. The bid volume shortfall of 25MW was managed through ESO trading.

Balancing Reserve webinar – 17 August

We are hosting an industry webinar.

The purpose of this webinar is to update industry with our latest position on the service and provide an overview of the consultation process and documentation.

We will also hold a Q&A session at the end of the presentation for any questions that you may have.

Agenda

- Updates on the Balancing Reserve service
- Consultation documentation and process overview
- Timeline
- Q&A
- Next steps & close

Sign up for the
webinar here

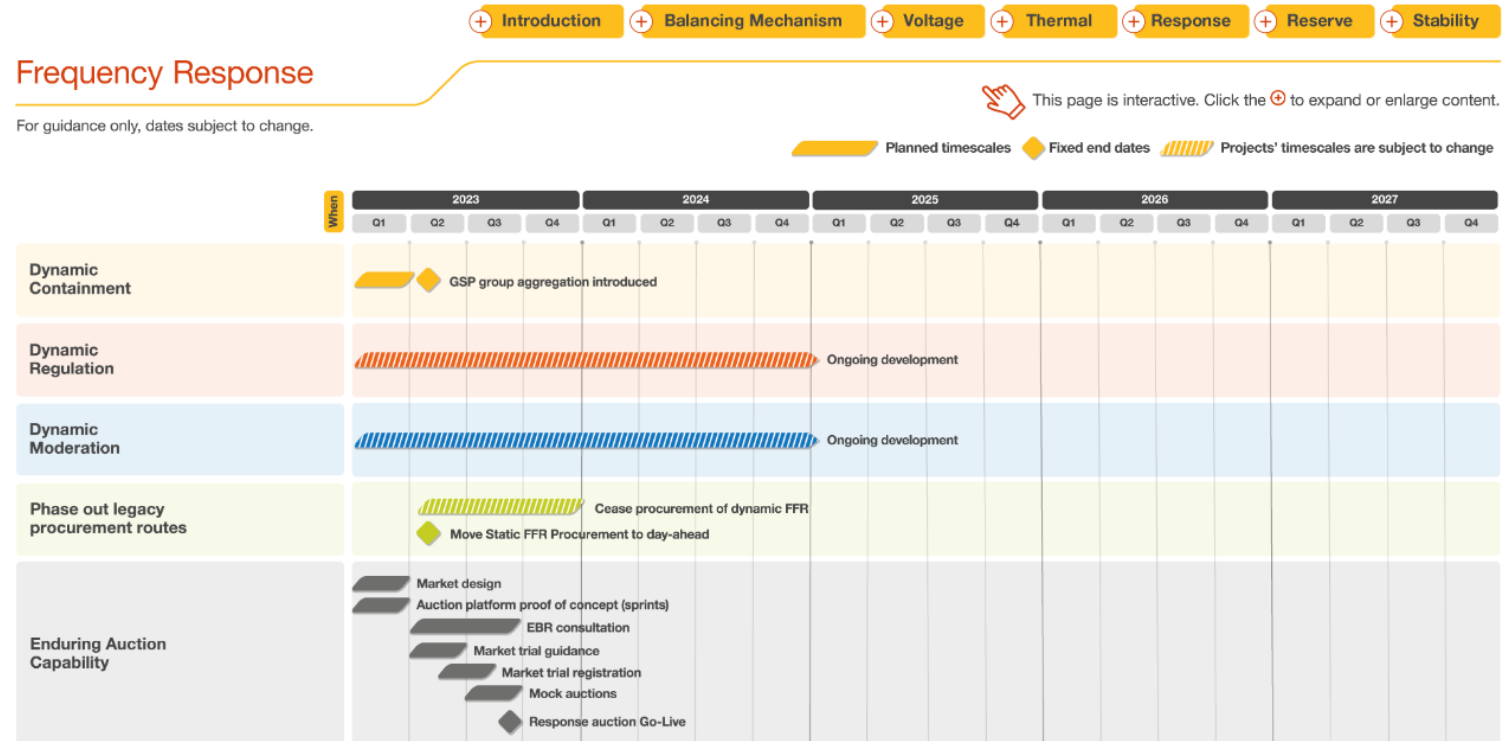
[Microsoft Virtual Events Powered by Teams](#)

Live Markets Roadmap delivery plans now on website

Stakeholder feedback: need more regular updates of Markets Roadmap delivery plans.

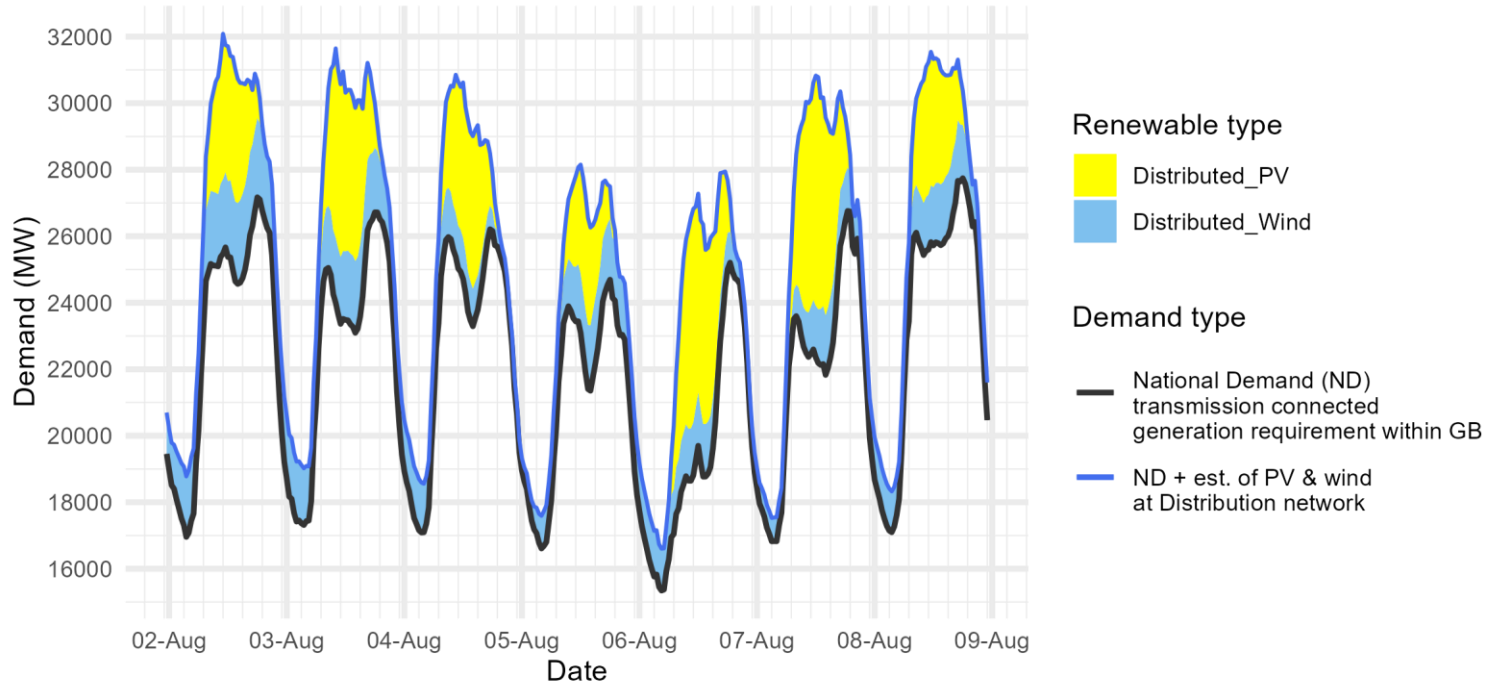
We will now update plans for all Markets areas **every month**.

Visit the [ESO Markets Roadmap webpage](#) to see these live plans.



Demand | Last week demand out-turn

ESO National Demand outturn 02-08 August 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

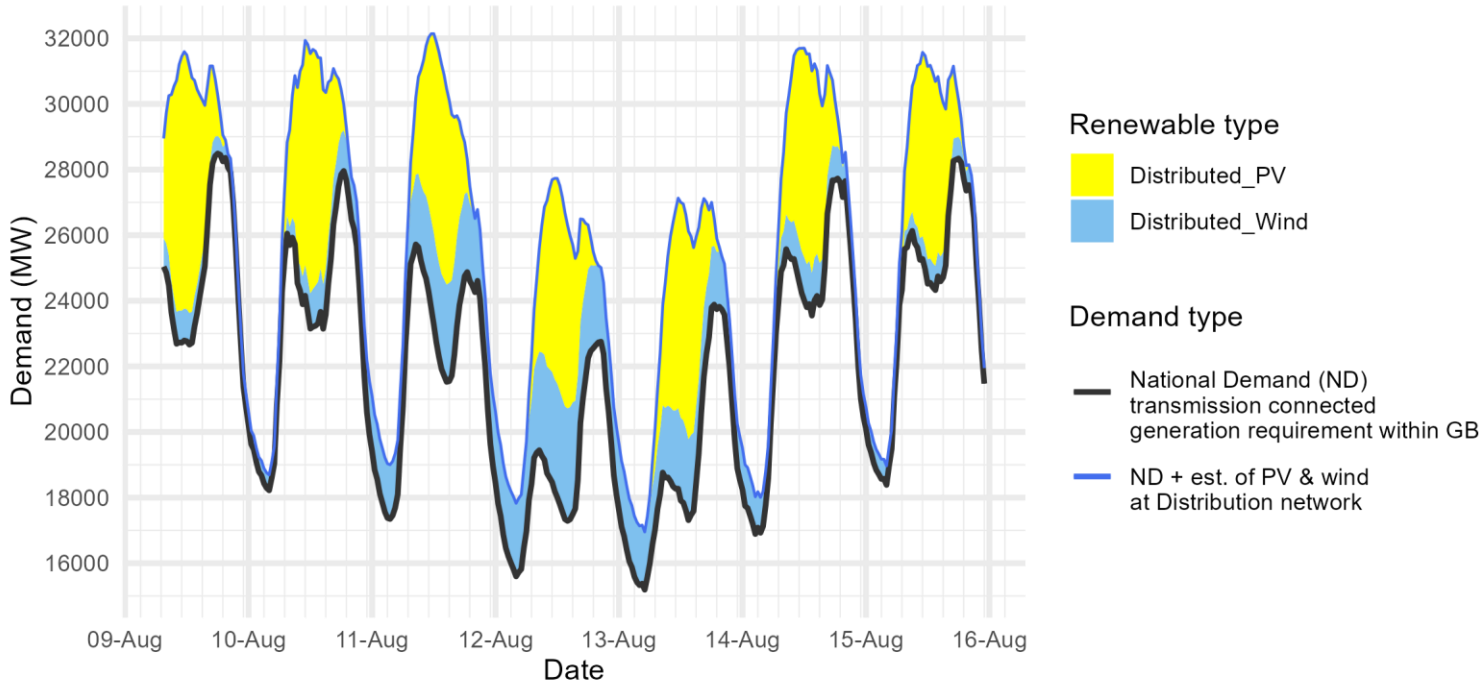
Blue line serves as a proxy for total GB customer demand. It includes demand supplied by the distributed wind and solar sources, but it **does not include** demand supplied by non-weather driven sources at the distributed network for which ESO has no real time data.

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

Date	Forecasting Point	FORECAST (Wed 02 Aug)			OUTTURN		
		National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
02 Aug	Afternoon Min	24.8	2.5	3.5	24.6	2.4	3.7
03 Aug	Overnight Min	16.8	1.8	0.0	17.3	1.7	0.0
03 Aug	Afternoon Min	23.2	2.3	5.9	23.1	2.2	4.6
04 Aug	Overnight Min	17.4	1.5	0.0	17.1	1.5	0.0
04 Aug	Afternoon Min	22.0	1.3	5.9	23.3	1.1	4.6
05 Aug	Overnight Min	16.9	1.0	0.0	16.6	1.0	0.0
05 Aug	Afternoon Min	18.6	3.1	3.6	21.4	2.0	2.9
06 Aug	Overnight Min	14.2	2.5	0.0	15.3	1.3	0.0
06 Aug	Afternoon Min	15.8	2.6	6.6	18.8	1.6	6.0
07 Aug	Overnight Min	16.4	1.4	0.0	16.8	0.7	0.0
07 Aug	Afternoon Min	21.7	2.2	6.2	21.8	1.8	5.9
08 Aug	Overnight Min	17.4	1.3	0.0	17.1	1.2	0.0
08 Aug	Afternoon Min	22.4	2.1	5.2	25.7	1.8	3.4

Demand | Week Ahead

ESO Demand forecast for 09-15 August 2023



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

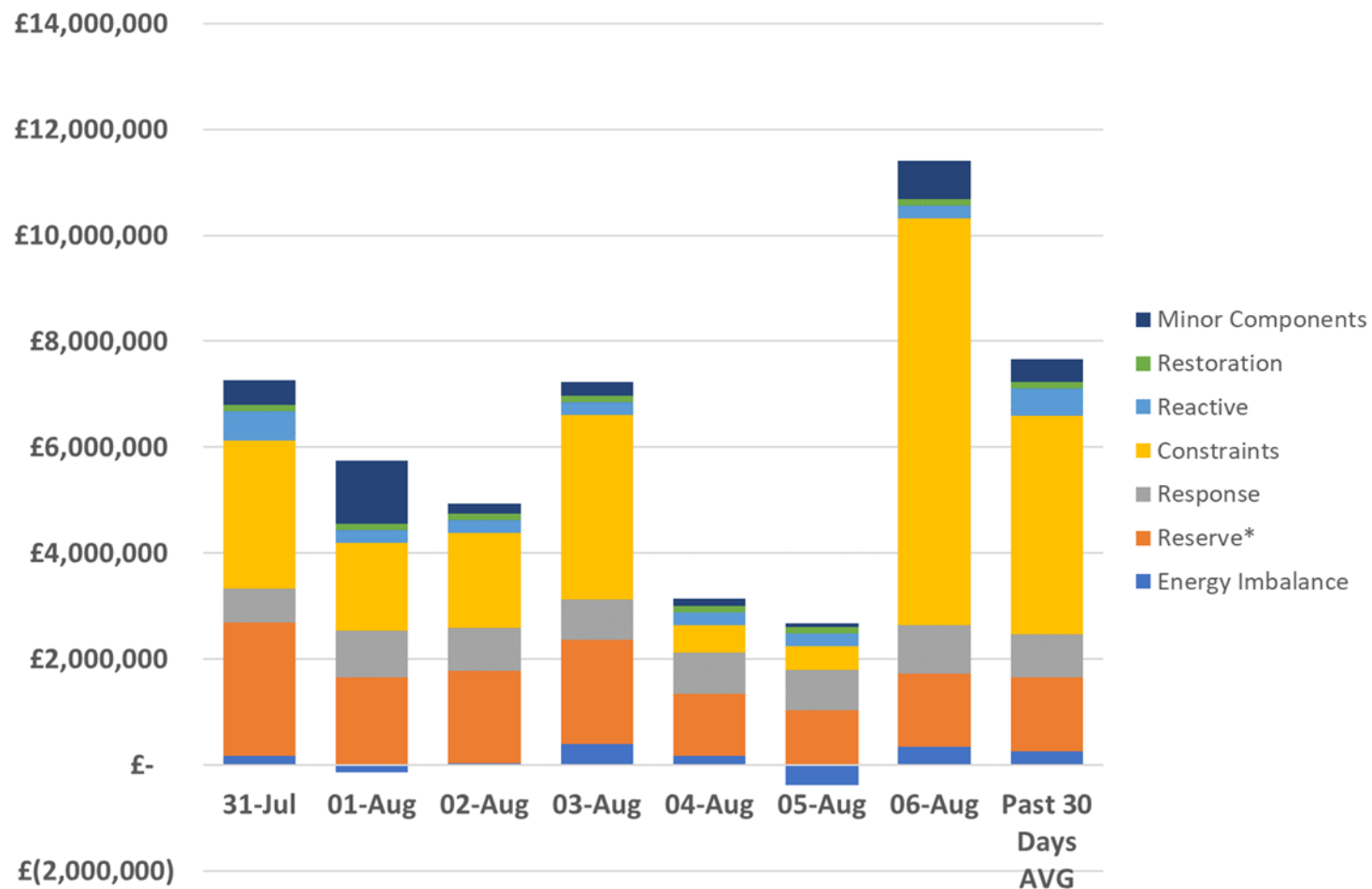
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Blue line serves as a proxy for total GB customer demand. It includes demand supplied by the distributed wind and solar sources, but it **does not include** demand supplied by non-weather driven sources at the distributed network for which ESO has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

Date	Forecasting Point	FORECAST (Wed 09 Aug)		
		National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
09 Aug 2023	Afternoon Min	22.7	1.0	7.5
10 Aug 2023	Overnight Min	18.2	0.5	0.0
10 Aug 2023	Afternoon Min	23.1	1.4	5.9
11 Aug 2023	Overnight Min	17.3	1.7	0.0
11 Aug 2023	Afternoon Min	21.5	3.0	6.0
12 Aug 2023	Overnight Min	15.6	2.2	0.0
12 Aug 2023	Afternoon Min	17.3	3.4	5.6
13 Aug 2023	Overnight Min	15.2	1.8	0.0
13 Aug 2023	Afternoon Min	17.3	2.5	6.3
14 Aug 2023	Overnight Min	16.9	1.1	0.0
14 Aug 2023	Afternoon Min	23.5	1.3	6.2
15 Aug 2023	Overnight Min	18.4	0.6	0.0
15 Aug 2023	Afternoon Min	24.3	0.7	5.6

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

ESO Actions | Category costs breakdown for the last week



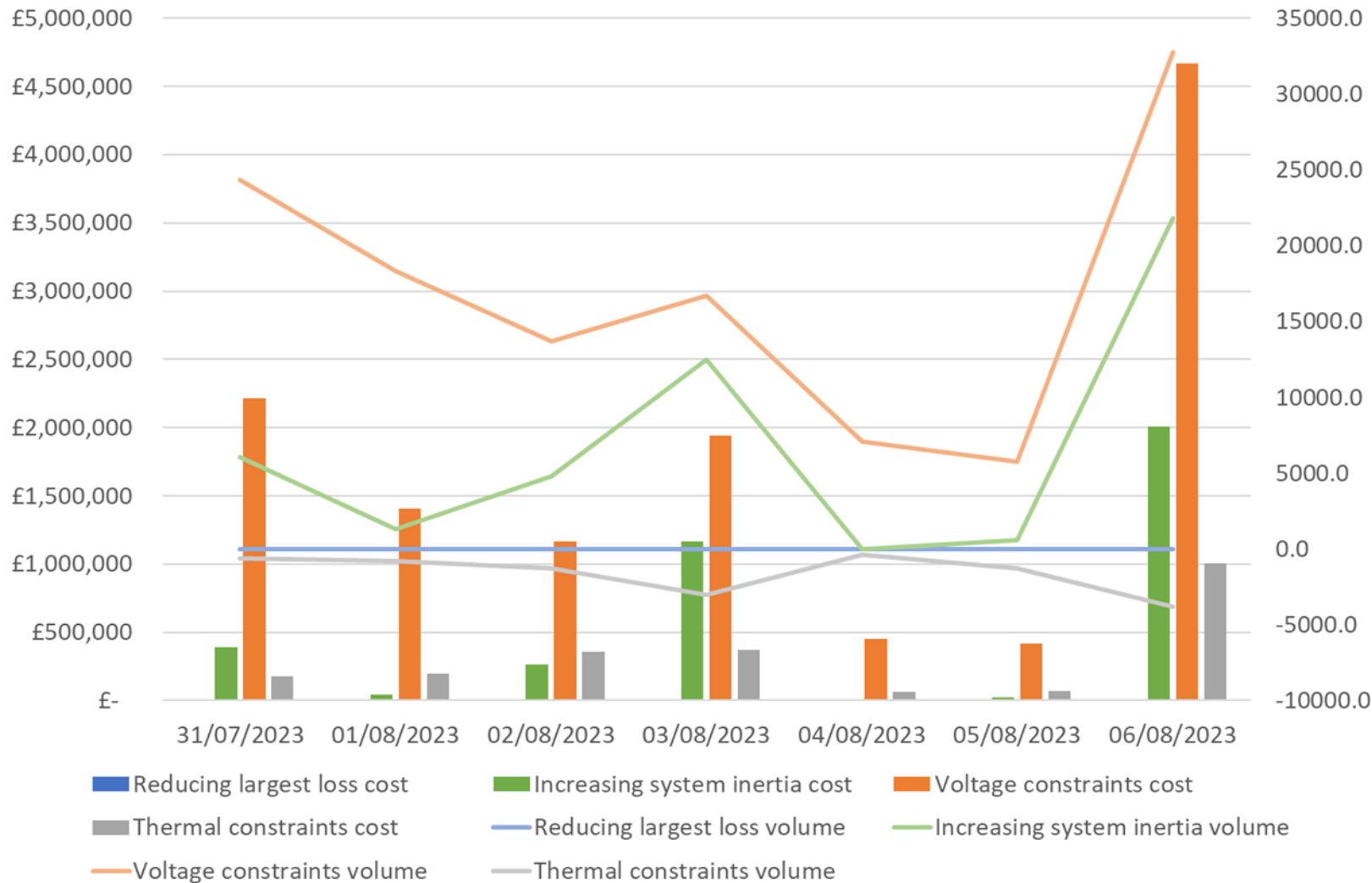
Date	Total (£m)
31/07/2023	7.3
01/08/2023	5.6
02/08/2023	4.9
03/08/2023	7.2
04/08/2023	3.1
05/08/2023	2.3
06/08/2023	11.4
Weekly Total	41.9
Previous Week	43.7

Constraints costs were the key cost component for 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



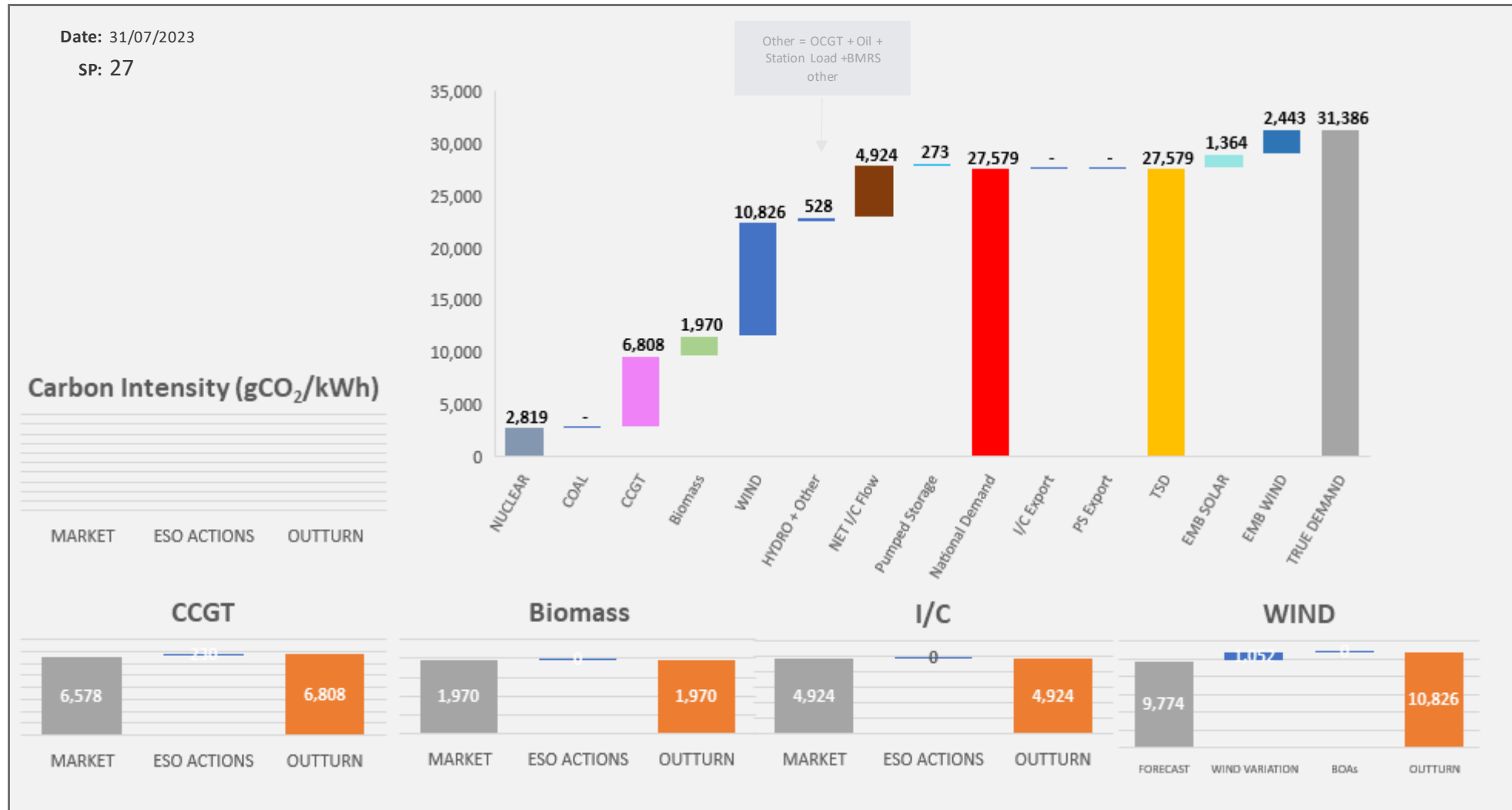
Thermal – network congestion
 Actions were required to manage thermal constraints throughout the week, with the most significant costs on Sunday.

Voltage
 Intervention was required to manage voltage levels throughout the week.

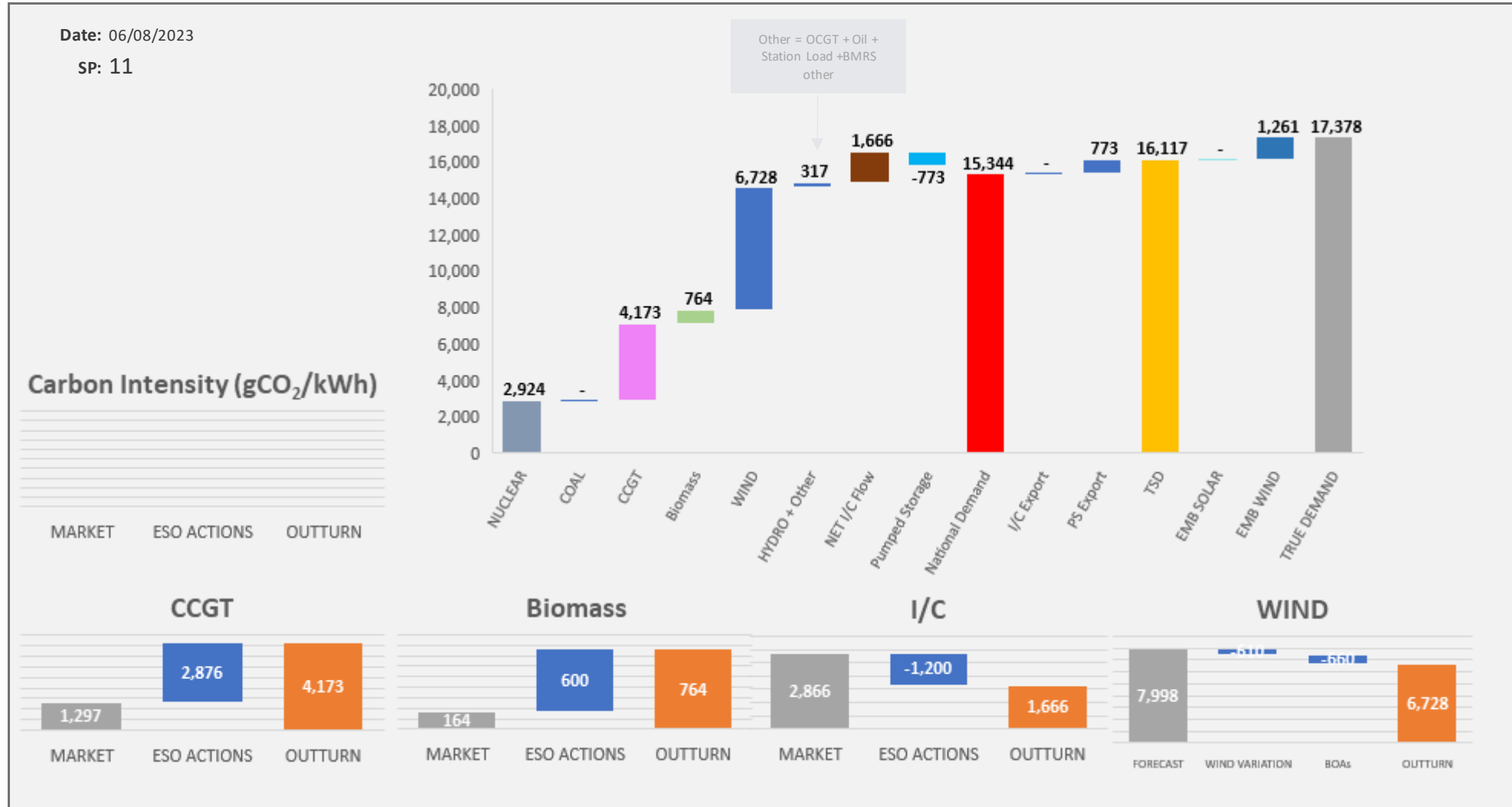
Managing largest loss for RoCoF
 No intervention was required to manage largest loss.

Increasing inertia
 Intervention was required to manage system inertia on Mon, Tue, Wed, Thurs and Sun.

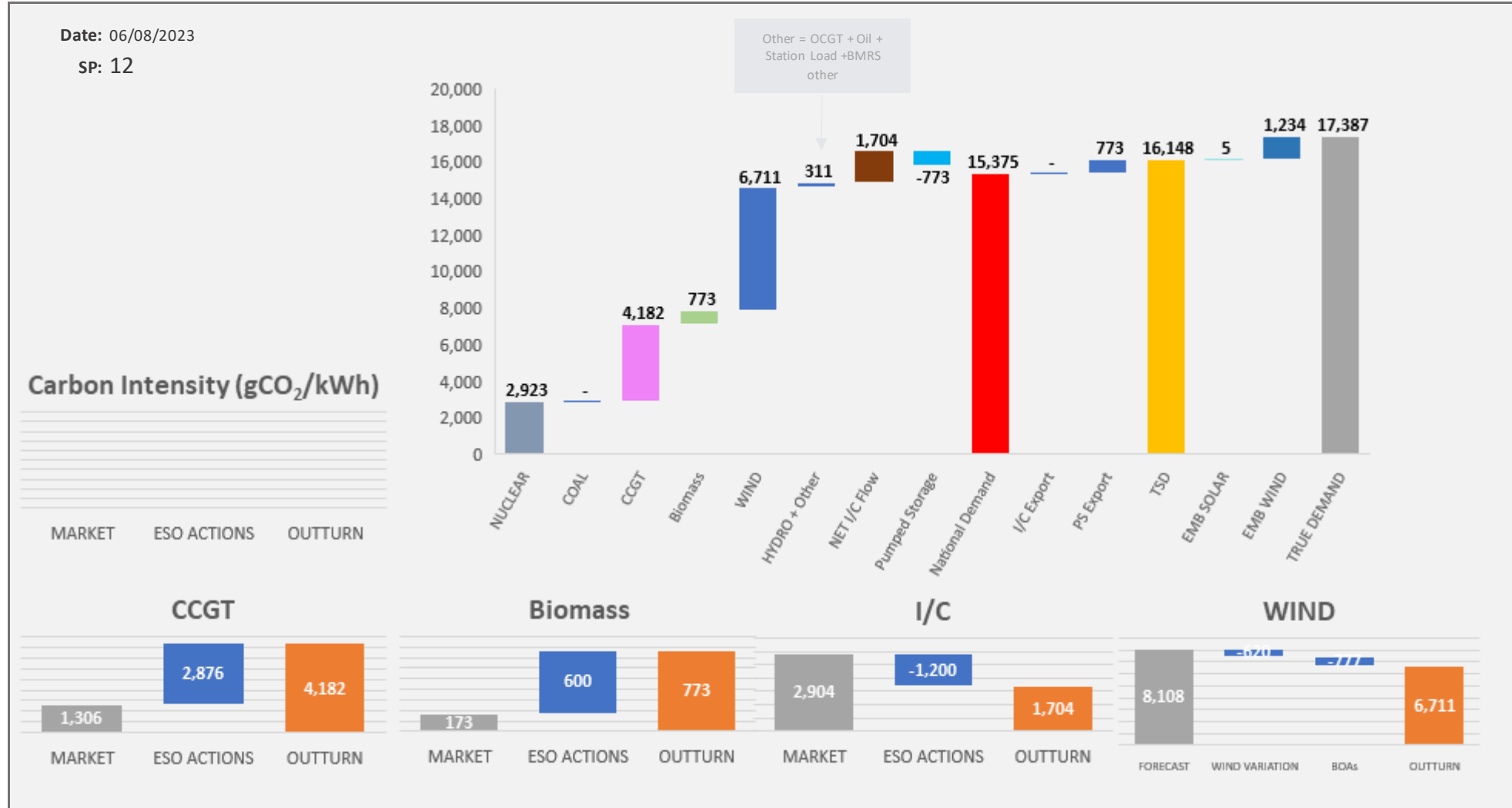
ESO Actions | Monday 31 July – Peak Demand – SP spend ~£28k



ESO Actions | Sunday 6 August – Minimum Demand – SP Spend ~£410k

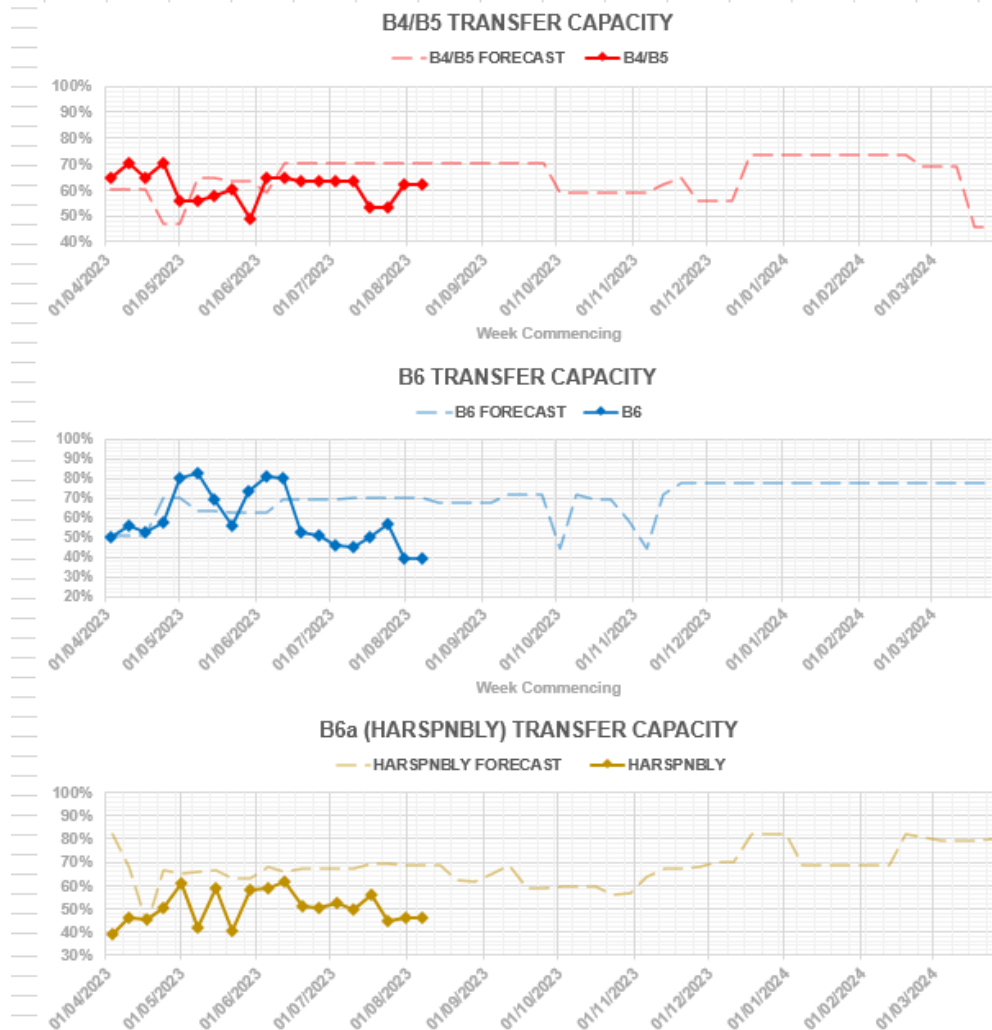


ESO Actions | Sunday 6 August – Highest SP Spend ~£426k

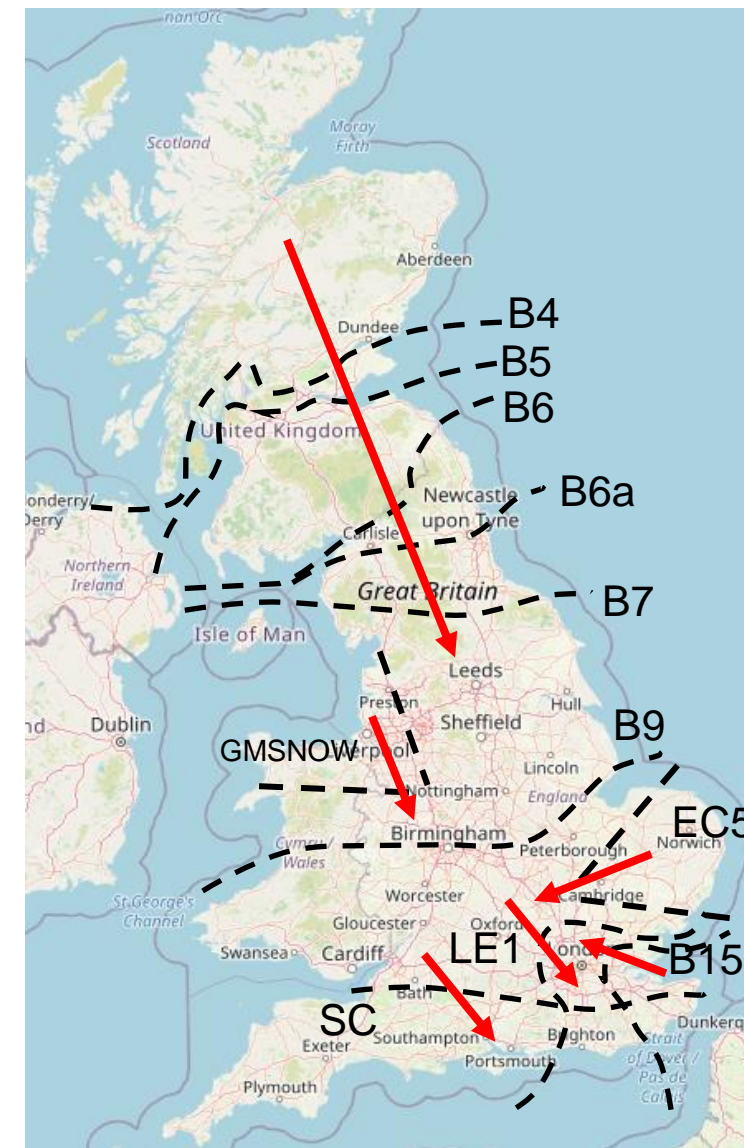


Carbon Intensity data on data portal: <https://data.nationalgrideso.com/carbon-intensity1/carbon-intensity-of-balancing-actions>

Transparency | Network Congestion

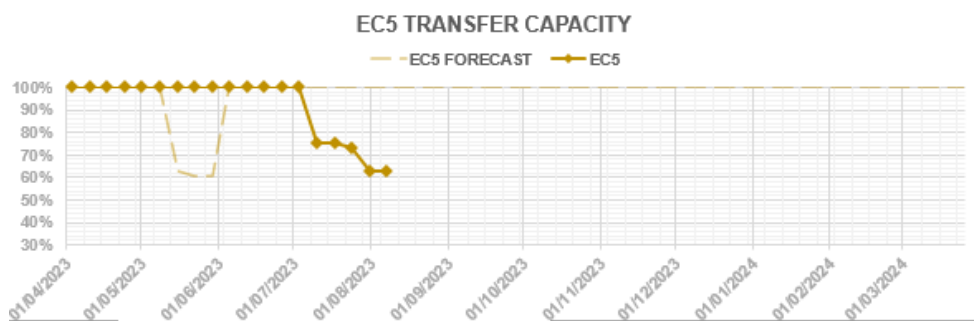
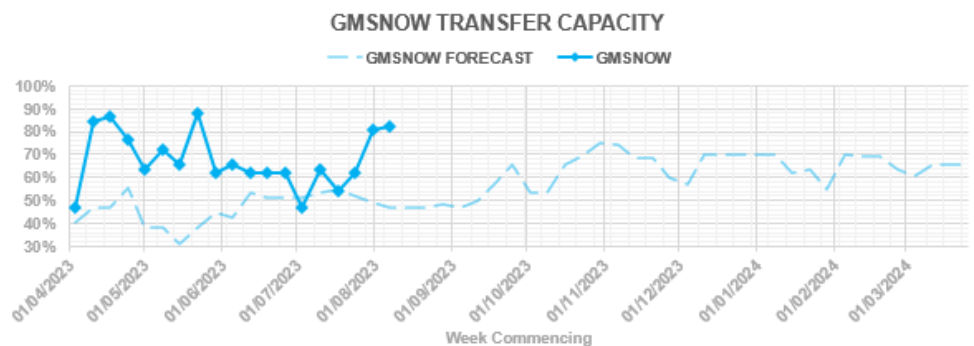
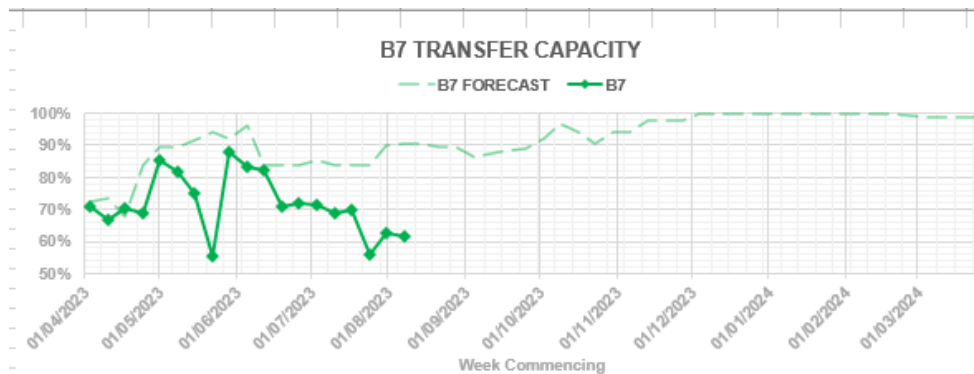


Boundary	Max. Capacity (MW)
B4/B5	3400
B6	6800
B6a	8000
B7	8325
GMSNOW	4700
B9	10600
EC5	5000
LE1	8500
B15	7500
SC	7300

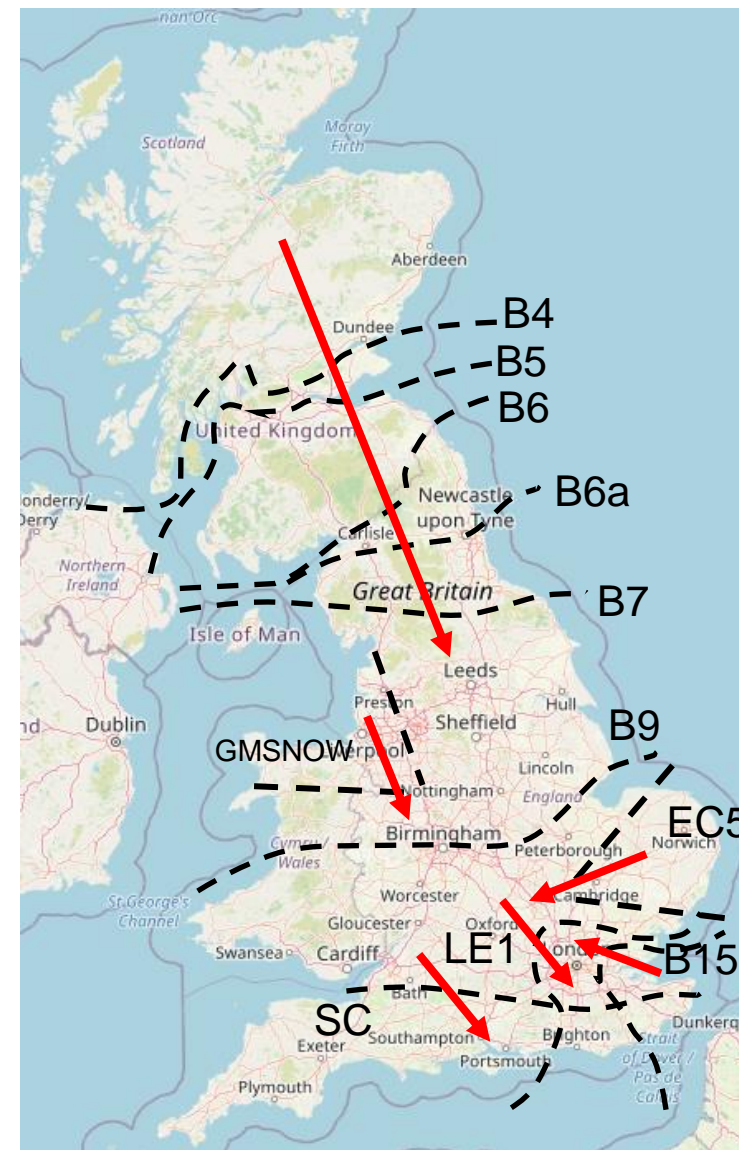


Day ahead flows and limits, and the 24-month constraint limit forecast are published on the ESO Data Portal: <https://data.nationalgrideso.com/data-groups/constraint-management>

Transparency | Network Congestion



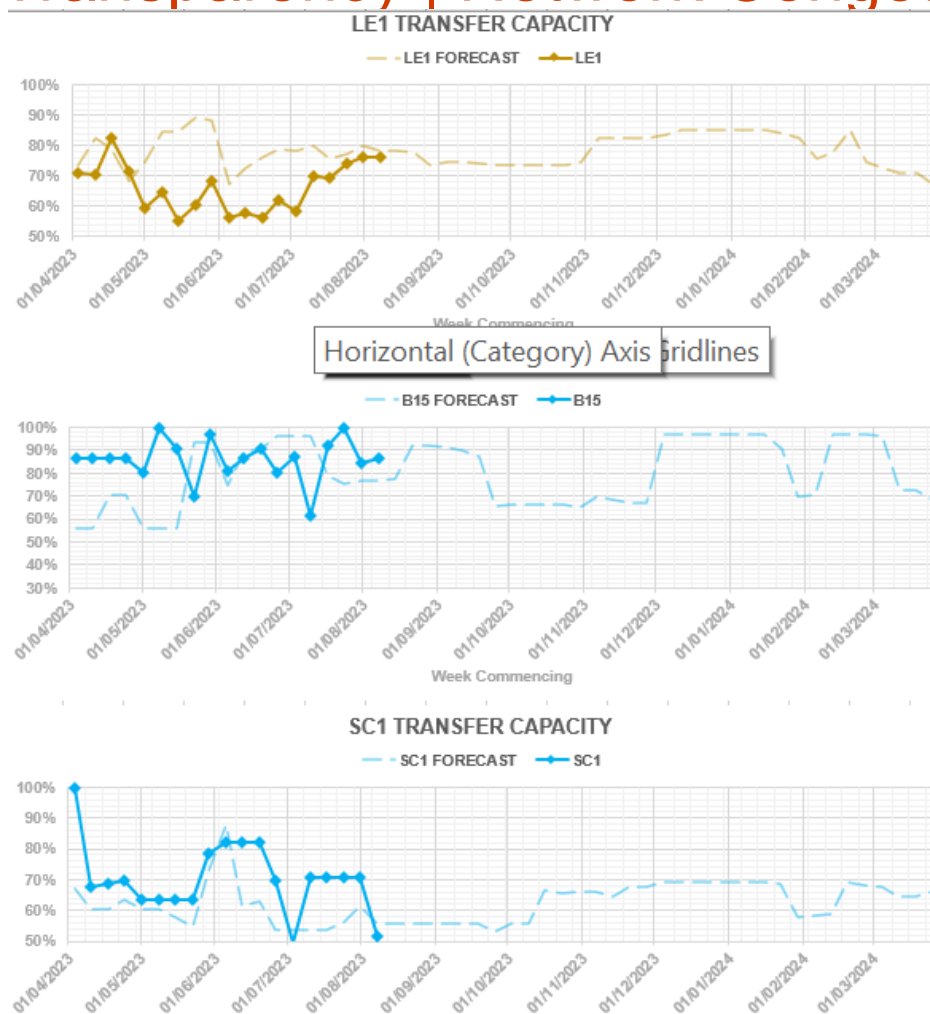
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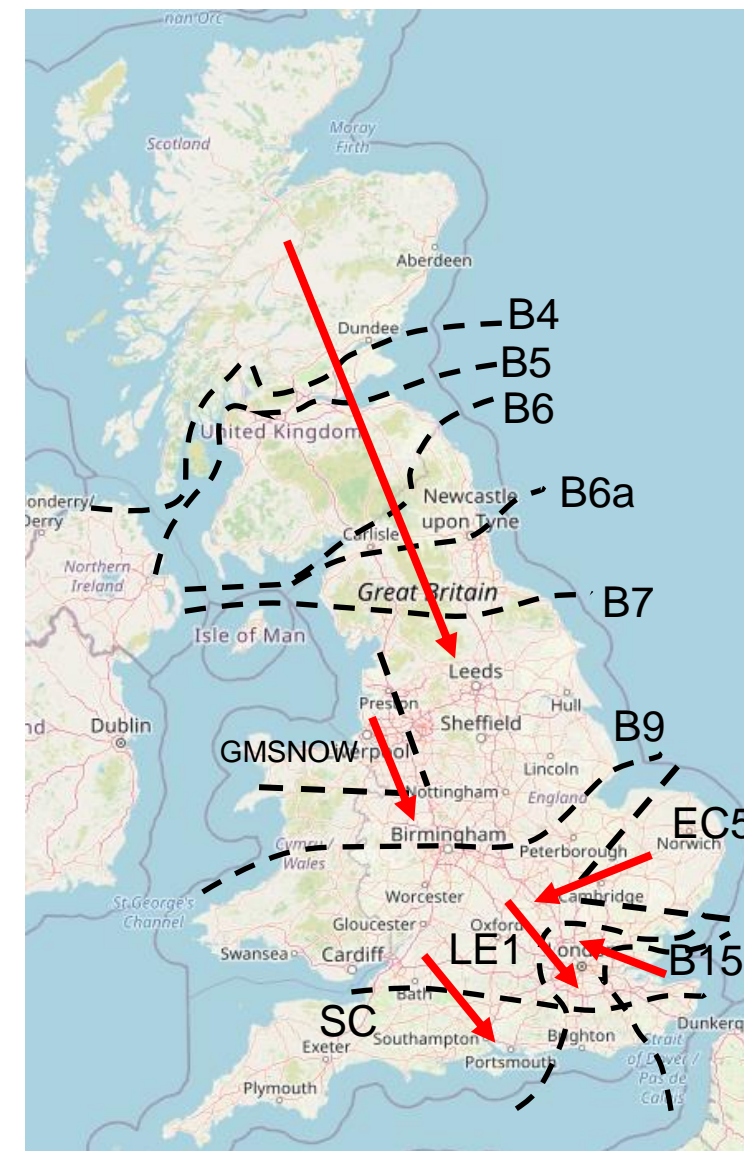
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Transparency | Network Congestion



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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>

Outstanding Questions

Q: For what reason was real-time demand out since last Wednesday only to come back on recently? I am referring to an outage in the real-time data on extranet.

A: ESO host an extranet site that is used to provide external parties and industry with near to real time data obtained from ESOs internal EMS system. Data is extracted from the EMS system, processed by middleware systems, and then published (externally) to the extranet webpage. The middleware system used to transform this information had an unexpected failure – meaning no data could be published externally.

National Grid IT teams have been reviewing the root cause of the failure and have implemented appropriate fixes to mitigate this occurring again. The service was restored Tuesday 01/08/2023 at approximately 18:00. The middleware issues affected a number of external NGG group extranets.

Q: Would it be possible to move the deadline forward for publishing Market Information Report (MIR) updates please? It's very difficult to accommodate these updates if they are published at CoB on the last working day before the FFR order submission deadline.

A: We publish the MIR on day 18 latest and last month was exceptional when we re-issue on the last working day due to last minute change of Fast Frequency Response (FFR) requirement for Sept followed by the decision to delay Dynamic Regulation (DR) cap raising. We will endeavour to publish the report as soon as we can.

Outstanding Questions

Q: Fast Frequency Response (FFR) phase out delayed: Can you ramp up the Dynamic Regulation (DR) requirements faster (e.g. raising them every two weeks), to shorten the transition, while procuring enough FFR to make it safe? The ESO failed to deliver what it promised, so it should burden the extra costs of this delay.

A: As communicated in last MIR the final IT change that raising the volume cap is dependent on to ensure visibility of non-BM units in balancing systems has been delayed. As a result, we need to delay the increased DR procurement. We are currently working to implement this change as soon as possible in order to increase the DR volume. This impacts the FFR procurement where we need to ensure the appropriate level of frequency response is secured. In terms of your suggestion to ramp up DR faster, this is not feasible as the FFR requirement is set for month ahead flat for all days hence the DR cap raise need to follow the same pattern.

Q: Any updates about the EAC mock auction?

A: Mock auctions on the EAC platform are planned for end Sept/beginning Oct. We are planning on releasing a mock auction guidance document before the end August which will detail how providers can register assets and dates of when the auctions will take place.

Q: When would the scenario 3b of the DC stacking document become active?

A: We do not currently have a date for when scenario 3b may become active. Further analysis is required before we make this change. Industry will be provided with sufficient notice before any changes are made.

Outstanding Questions

Q: In the "ESO Actions" slides, is storage included in "hydro + others"? You have mentioned several times that it would be shown separately, do you have plans to add a dedicated column/category?

A: Thank you for the feedback, we do continue to review content. Yes storage is included in the 'Hydro + other' category. The information on the slides is based on early indicative data with some elements estimated. At this point in the process there is insufficient detail in the data to identify specific types of storage.

Advanced questions

Q: The BMRS is regularly delayed publishing MEL data, and the cause continues to be National Grid - please see below for the latest bulletin issued by Elexon on Thursday 3rd August. Please can you explain what is being done about this as it is a regular occurrence and impacts the ability of all market participants to trade in the intraday markets.

"Since approximately 23:00 (BST) on Wednesday 2 August 2023, National Grid ESO has been sending a significantly higher volume of Maximum Export Limit (MEL) files to the Balancing Mechanism Reporting Service (BMRS) resulting in delays publishing the data."

A: Maximum Export Limit (MEL) data is part of the physical data that all BMU are required to submit to the Balancing Mechanism (BM). All submissions accepted by the BM are forwarded to Elexon's BMRS without delay or amendment.

The ESO also uses this data to inform our control room planning and actions. As stated in the slides, the ESO is working with Elexon to understand the reasons for this increase.

Advanced questions

Q: When would we expect the Local Constraints Market (LCM) to go live? Where will be the best place to find information on instructed and delivered volumes?

A: Thanks for reaching out. LCM trials are ongoing, and we've been dispatching small volumes of both demand turn up and generation turn down. The LCM result report can be found on the Piclo Data Portal here: <https://data.piclo.energy/>.

We'll be continuing with trials throughout August and expect to be ready to transition to BAU wherever cost effective in the Autumn. For more information, check the ESO website page: <https://www.nationalgrideso.com/industry-information/balancing-services/local-constraint-market> or contact the team through: box.futureofbalancingservices@nationalgrideso.com

Outstanding questions

Q: Parties continue to be fined for breach of the TCLC. Can ESO please publish live constraint data so parties know when constraints are active? They are trading blind.

TCLC = Transmission Constraint Licence Condition Guidance

Q: It seems to take a long time to get responses for reconciliation where mistakes have been made by the ESO in performance monitoring. Can we get more transparency on expected timescales for response, and how many of these kind of tickets are outstanding, and the rate at which they are resolved.

We asked for clarifications and examples regarding this question and we received the additional information this week. Now, we are working on the answer – thank you.

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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