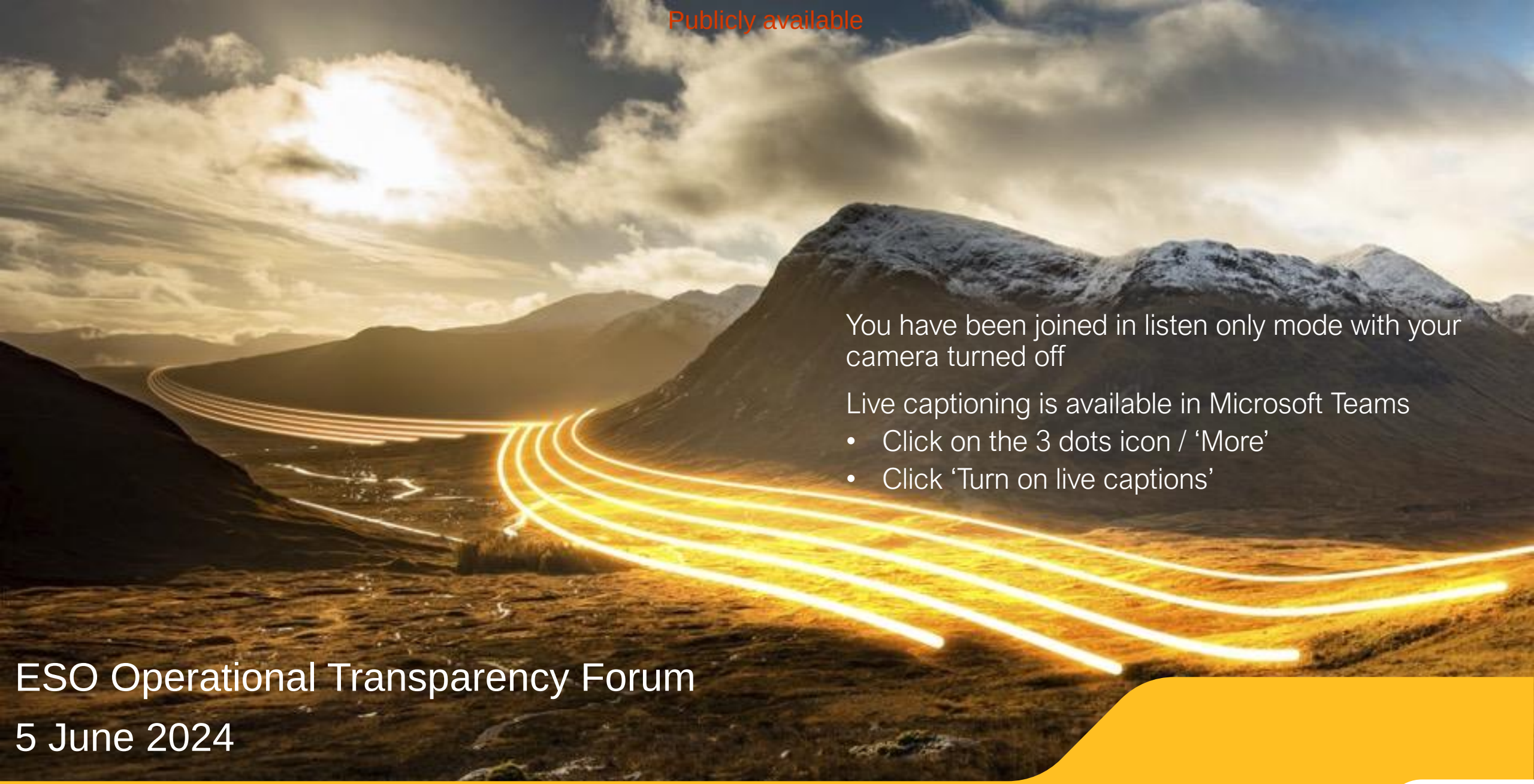


You have been joined in listen only mode with your camera turned off

Live captioning is available in Microsoft Teams

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

ESO Operational Transparency Forum

5 June 2024

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 ESO) and we will not comment on these challenges. This type of concern can be reported to the Market Monitoring team at: marketreporting@nationalgrideso.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@nationalgrideso.com

Stay up to date on our webpage: https://www.nationalgrideso.com/OTF (OTF Q&A is published with slidepacks)

Future deep dive / focus topics

Today

Guidance on PN accuracy

Operational Metering Standards Review

Future

Using batteries to manage constraints – 12th June

Pathfinders – 10th July

Fault Ride Through – July

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

Call for Input on ESOs Flexibility Markets Strategy

We are calling for your input to help shape, inform and develop:

- **The ESO's proposed Flexibility Markets Strategy:** The proposal covers what we think the outcomes for a Flexibility Markets Strategy should be and the six workstream summaries required to achieve these outcomes.

- **The ESO's Routes to Market Review:** One of the workstreams will be identifying barriers and pain points for flexibility providers and our Routes to Market Review summarises the work to date.

Please support us by:

- **Watching the introductory video**
- **Reading the call for input for the proposed strategy**
- **Reading the Routes to Market review here**

Joining us for a Q&A session on Wednesday 5th June 2024 to answer some of your initial questions - please register here.

For more information, please email us at flexibilitystrategy@nationalgrideso.com with your questions or visit our webpage

A report on sub-synchronous oscillations has been published!

- Following our previous OTF presentations on sub-synchronous oscillations, we have now published a report on this topic.
- The report shares our learnings from recent events, our plan to tackle sub-synchronous oscillations and the progress we made against this plan.
- The report is available through this link: https://www.nationalgrideso.com/document/318951/download

Response Reform Consultation Webinar

- Attend our Response Reform Consultation Webinar on **11 June** at **2pm** to discuss the key changes proposed in the June 2024 consultation, including:
  - 24/7 data from Non-BMU
  - Availability and State of Energy management
  - Removal of maximum ramp rate limit
  - Penalties regime

- We'll also discuss Mandatory Frequency Response (MFR) which is outside the consultation in 2024, and will allow time for Q&A.

- Register through the **Event Registration Link**:

Early View of Winter and Winter Review & Consultation

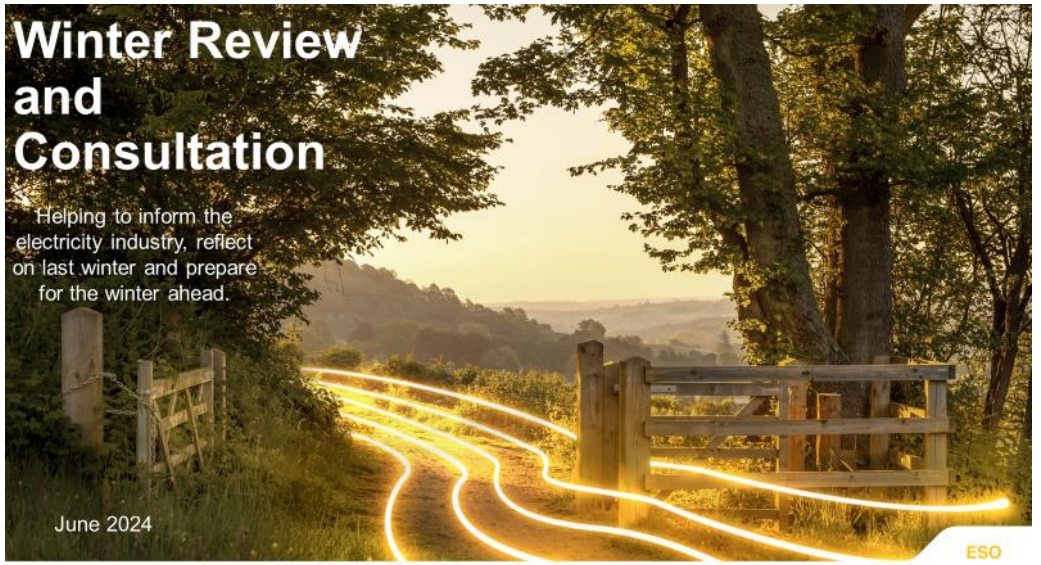
Both reports will be published tomorrow 06/06/2024

Early View of Winter

- This report sets out the ESO's initial assessment of the electricity security of supply outlook for winter 2024/25.
- Our full assessment will be set out in the Winter Outlook, which will be published in early October

Winter Review and Consultation

- This document reviews the analysis from the 2023/24 Winter Outlook Report, including how the prevailing weather conditions, demand levels, generator availability and interconnector flows which determine the operational surplus compared to our forecasts.
- The consultation section of this report focuses on the Winter Review for 2023/24 and the upcoming Winter Outlook Report for 2024/25.
- This year's consultation closes on Friday 5th July 2024.



Business Plan 2 (BP2) mid-scheme event

Join our virtual Q&A event for an opportunity to ask questions on our activities and progress over the first year of BP2 (Apr-23 to Mar-24).

Monday 10 June

(1.30pm – 3.30pm)

Event Registration Link

During the event, there will be a live Q&A where we will answer questions on our three assessed roles and the additional activity we've undertaken in preparation for becoming the National Energy System Operator (NESO).

Future Event Summary

Event	Date & Time		Link
Flexibility Markets Strategy – Q&A session	5th June 2024	14:00-15:30	Sign up here
Business Plan 2 (BP2) mid-scheme event	10th June 2024	13:30-15:30	Sign up here
Response Reform Consultation Webinar	11th June 2024	14:00-15:00	Sign up here
Balancing Programme – **London**	27th June 2024	9:30-17:30	Sign up here

Guidance on FPN Accuracy

05/06/2024

ESO

The Bigger Picture

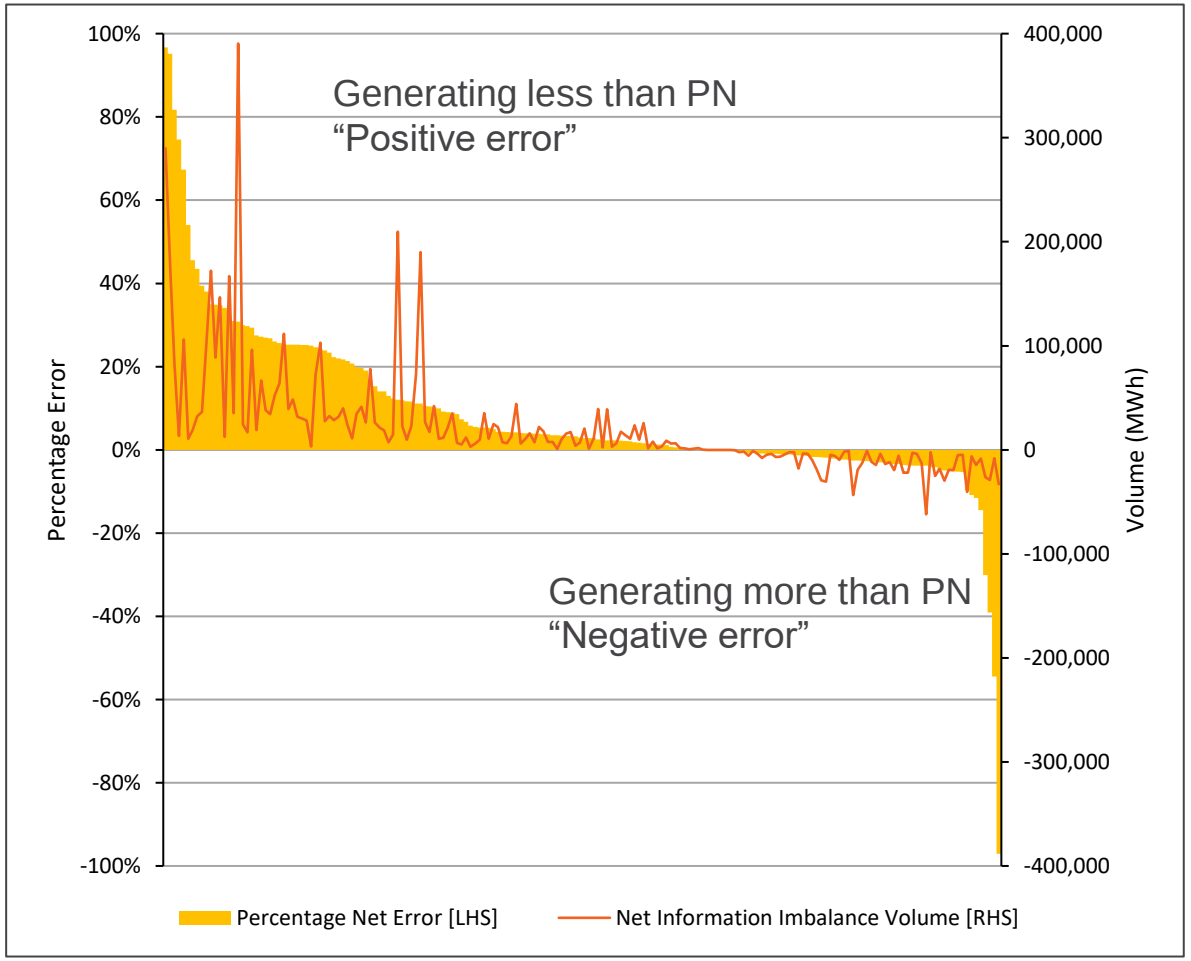
In addition to the cost impact of the below inaccuracies, all result in additional difficulty to operational management of the system.

Data Inaccuracy	Cost Impact of issue	Context	Context
Final Physical notifications are consistently above or below generator output**.**	High	The direct cost impact is significant but there are also indirect costs associated with this data issue.	Lack of trust in PN's being submitted means that the ENCC use forecast figures for margin assessments, increasing risk on the system as these units become commercially sensitive (e.g. negative pricing). If generators don't follow their PN, this can cause a frequency risk on the system when units return to their normal output from a bid or offer instruction.
Poor **operational metering** leading to uncertainty in actual outputs**.**	Medium	Poor metering leads to less optimal decision making, additional curtailment actions are taken or circuits are overloaded. Either can cause costs.	Lack of situational awareness and use of manual over-rides has potential to cause significant operational issues.
Units accepting Bids and Offers **(BOAs) but then not responding in line with the instruction**, often being late to deliver the volume of energy instructed**.**	Medium	Units in merit order may be skipped and units might be held for longer periods of time to manage the uncertainty of their response to an instruction.	As frequency regulation is paramount to system security, in times of system volatility conventional power sources are deemed to be more reliable over non-synchronised sources such as wind . Conventional power stations are therefore scheduled in place of wind. Furthermore, when instructing wind their return after being bid down must be staggered as the volume of energy is uncertain.
Dynamic parameters, such as ramp rates, MELs Stable Export Limit and Minimum Zero Times are not reflective of technical capabilities or unit operations, with profiles consistently submitted that violate these parameters**.**	Low	Additional response required. If a unit is instructed to 0MW, the control room lose access to the unit and may have to use more expensive generation.	This can cause frequency deviations when large units ramp too quickly but can also lead to actions being taken to pre-emptively manage a power swing that will not be delivered. If generators generate less than their SEL, then the control room can only instruct the unit to reduce output to 0MW, which limits the flexibility that the control room have.

Behaviour Analysis Summary

Wind BMUs tend to have the worst accuracy of FPNs and are generally skewed to be overstated.

FUEL TYPE	2021	2022	2023
CCGT	2.18%	2.21%	2.44%
NUCLEAR	4.10%	2.84%	2.70%
WIND	**26.43%**	**24.83%**	**23.89%**



Current Code Requirements

General Requirements - Grid Code (BC1.4.2 a)

Physical Notifications (which must comply with the limits on maximum rates of change listed in **BC1** Appendix 1) must, subject to the following operating limits, represent the **User's** best estimate of expected input or output of **Active Power**, except where a **BM Unit** is affected by a Stage 2 or higher **Network Gas Supply Emergency** load shedding event. **Physical Notifications** shall be prepared in accordance with **Good Industry Practice**. **Physical Notifications** for any **BM Unit**, and any **Generating Units**, should normally be consistent with the **Dynamic Parameters** and **Export and Import Limits** and must not reflect any **BM Unit** or any **Generating Units**, proposing to operate outside the limits of its **Demand Capacity** and (and in the case of **BM Units**) **Generation Capacity** and, in the case of a **BM Unit** comprising a **Generating Unit** (as defined in the Glossary and Definitions and not limited by BC1.2) and/or **Power Generating Module** and/or **CCGT Module** and/or **Power Park Module**, its **Registered Capacity**.

Good Industry Practice: *The exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances*.

Specific Requirements – Grid Code BC2.5.1

Accuracy Of Physical Notifications

As described in BC1.4.2(a), **Physical Notifications** must represent the **BM Participant's** best estimate of expected input or output of **Active Power**, except where a **BM Unit** is affected by a Stage 2 or higher **Network Gas Supply Emergency** load shedding event. **Physical Notifications** shall be prepared in accordance with **Good Industry Practice**.

In the case where a **BM Unit** is affected by a **Network Gas Supply Emergency** load shedding event, once Stage 2 or higher has been declared, then their **Physical Notifications** shall represent the **User's** best estimate of the contracted power position of the affected **BM Unit** at the time of the event, taking into account any mitigating actions to reduce the difference between the contracted power position and the volume to be shed.

Each **BM Participant** must, applying **Good Industry Practice**, ensure that each of its **BM**

Except where variations from the **Physical Notification** arise from matters referred to at (a), (b) or (c) above, in respect only of **BM Units** (or **Generating Units**) powered by an **Intermittent Power Source**, where there is a change in the level of the **Intermittent Power Source** from that forecast and used to derive the **Physical Notification**, variations from the **Physical Notification** prevailing at **Gate Closure** may, subject to remaining within the **Registered Capacity**, occur providing that the **Physical Notification** prevailing at **Gate Closure** was prepared in accordance with **Good Industry Practice**.

Current Code Requirements

General Requirements - Grid Code (BC1.4.2 a)

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Glossary and Definitions and not limited by BC1.
and/or **CCGT Module** and/or **Power Park Module**

Good Industry Practice: *The exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances.*

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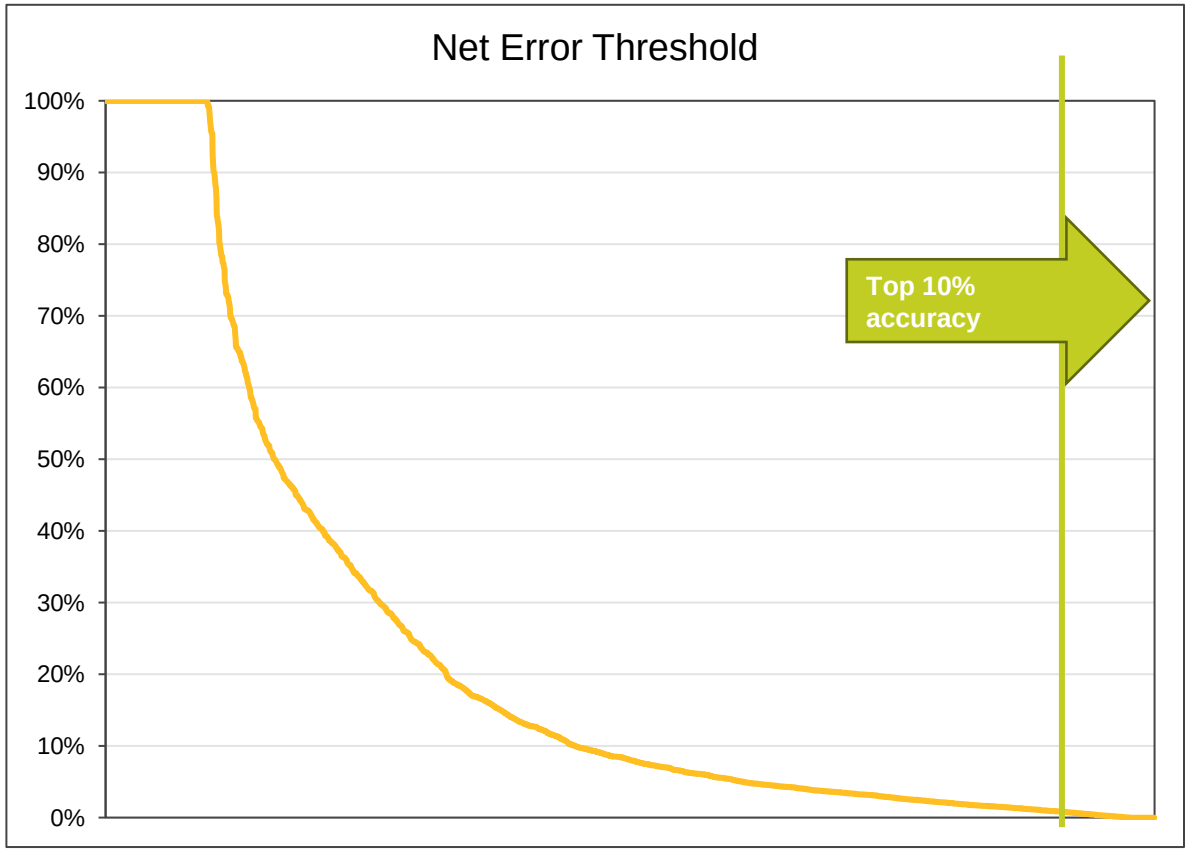
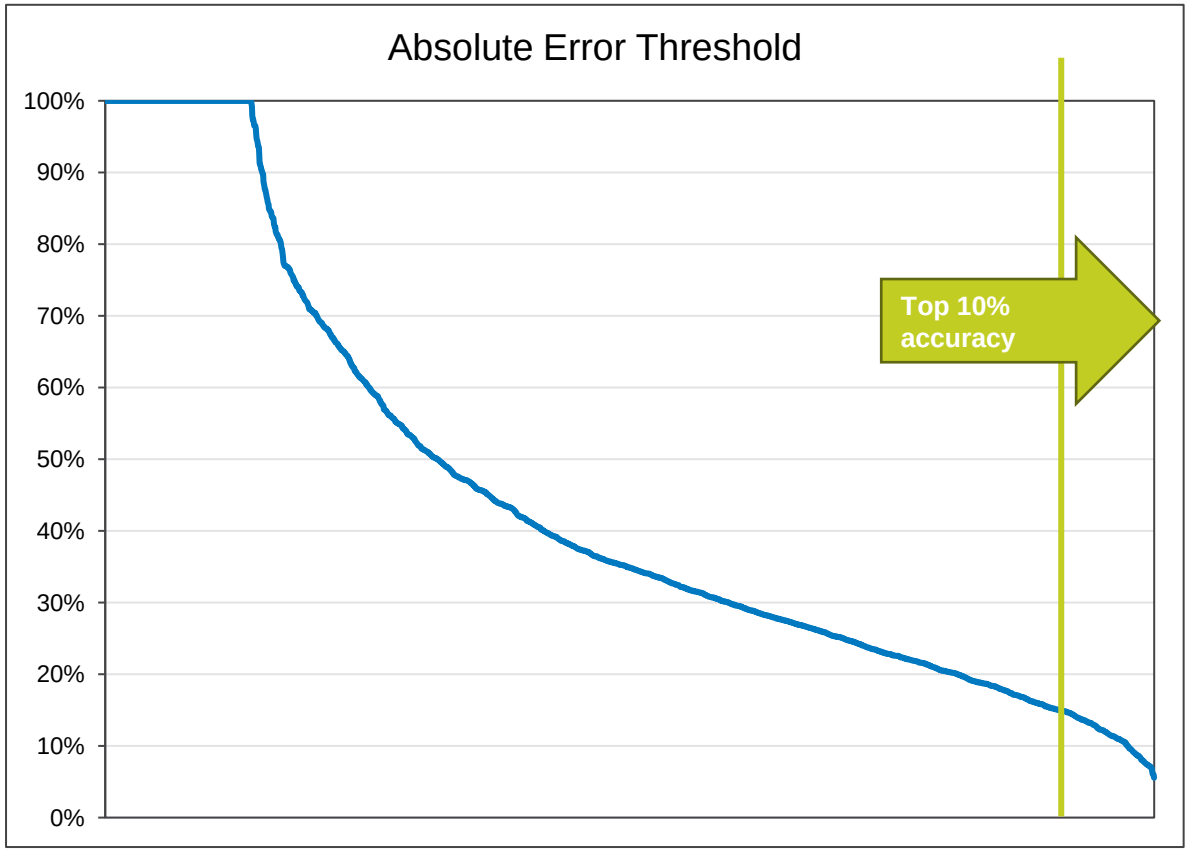
The Aim: Our aim with this piece of work is to provide guidance on what a good level of accuracy looks like, and to better understand how 'Good Industry Practice' may be interpreted.

Assessing PN Accuracy

What level of performance do we see in the top 10% of wind BMUs?





Proposing a Threshold

The following parameters have been considered in developing a PN Accuracy threshold.

Performance of the Top %	Net % Threshold	Absolute % Threshold
25%	2.81%	22.68%
20%	2.11%	20.47%
10%	**0.94%**	**15.37%**

1. What would be most beneficial for the control room?
2. What would the units be capable of achieving?
3. Can it be measured and monitored?
4. Does it demonstrate Good Industry Practice: The exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances.
5. Would most generators be able to fit within this level of accuracy?
6. Should other generators follow-suit?

Proposed Process

Key Dates	
ESO Open Letter Publication:	29/05/2024
Draft Guidance Note Publication:	05/06/2024
Consultation Closes:	26/06/2024
Intended Date for Final Guidance Note Publication:	Early July 2024

Monitoring Period

July: Initial Education Workshop on Good vs Bad Information Accuracy

Monitoring of Behaviour in Conjunction with Ofgem

3-months in: Notice to BMUs that are not meeting the standard

Continued Monitoring and Workshops

6-months in: Identification to Ofgem that standard has not been met

Slido code #OTF

Continuing the conversation

Email us with your views on the Guidance Note at: MarketReporting@nationalgrideso.com and one of our team members will get in touch.

The Draft Guidance Note will be published today (5th June 2024) on the Balancing Costs webpage: Balancing costs | ESO (nationalgrideso.com)

Key Dates are outlined below:

ESO Open Letter Publication: 29/05/2024
Draft Guidance Note Publication: 05/06/2024
Consultation Closes: 26/06/2024
Intended Date for Final Guidance Note Publication: Early July 2024

Operational Metering Standards Review

05/06/2024

ESO

Slido code #OTF

Independent Review of Operational Metering Standards

Why are we conducting a review?

- Operational metering is used in the Balancing Mechanism and Ancillary Services markets to provide visibility of asset output in real-time to the ESO control room
- The operational metering standards influence the quality, rate and time lag for which data should be submitted by the market participant to the ESO.
- Historically, for larger single or small-multi-site units, these standards have not presented significant barriers to entry for market participants.
- However, as we see an increase in smaller-scale flexible assets, the current standards act as a barrier to ESO markets.

Latest updates

- Power Responsive stakeholder group set up
- ESO have appointed DNV to conduct an independent review of the operational metering standards
- DNV held a kick-off session on 20/05/2024 with Power Responsive Stakeholders

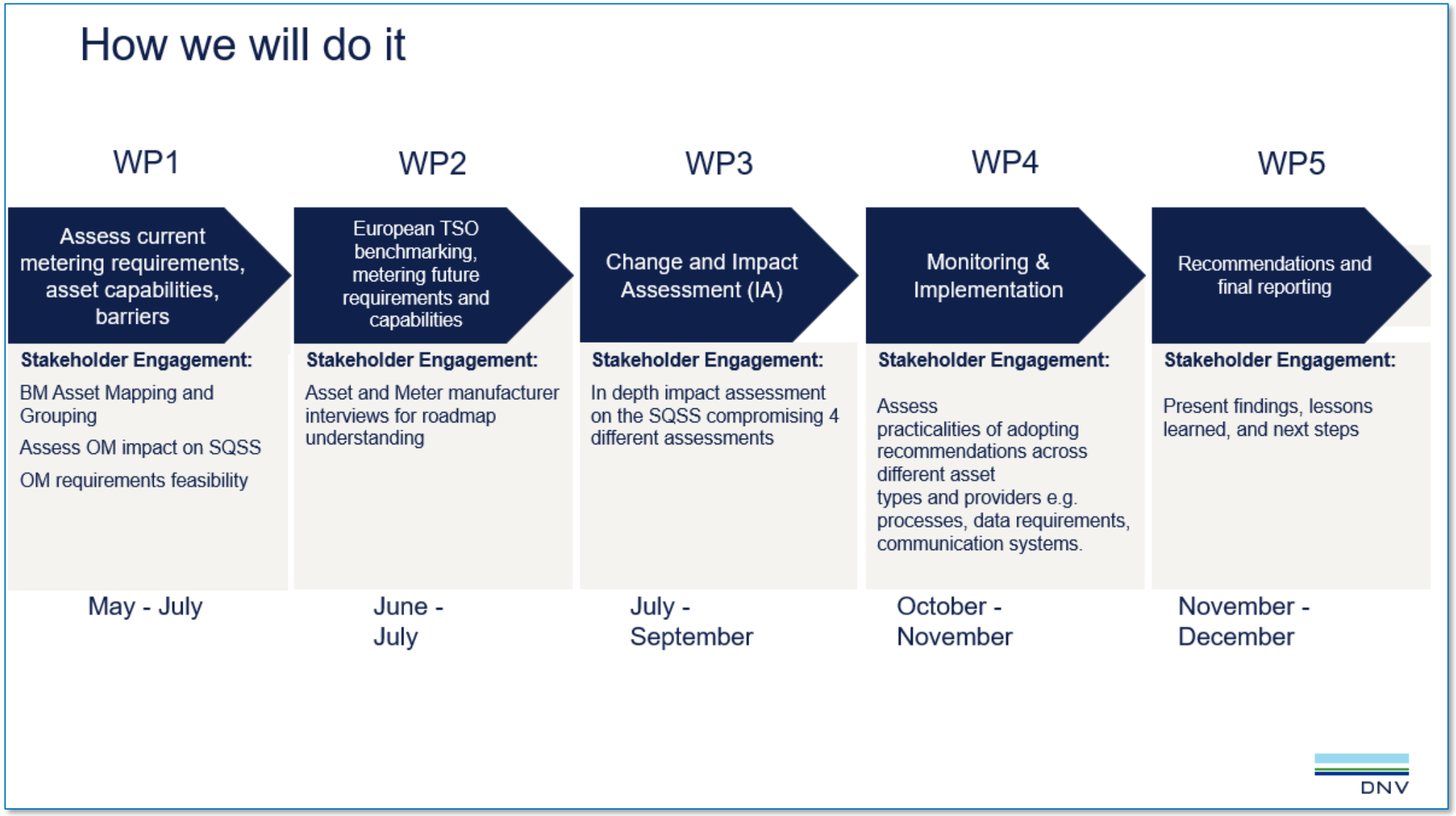
DNV: Project Goals

Project Goals

1. Assess the feasibility of the current metering standard using a clear and transparent methodology
2. Recommend optimised operational metering standards for the Balancing Mechanism which:
   - allow NG ESO to continue meeting the SQSS with the current and forecasted energy mix
   - consider how providers with a diverse range of assets could meet the standards
   - consider learnings from regulations and processes used in Europe
3. Assess the practicalities of adopting the newly proposed standards
4. Engage with ESO and external stakeholders to support the findings

DNV

DNV: Approach



Next Steps

- DNV will be reaching out to providers to conduct interviews
- Regular engagement via power responsive stakeholders

If you have a further interest in the review, or wish to be involved, please do reach out to the team on: power.responsive@nationalgrideso.com

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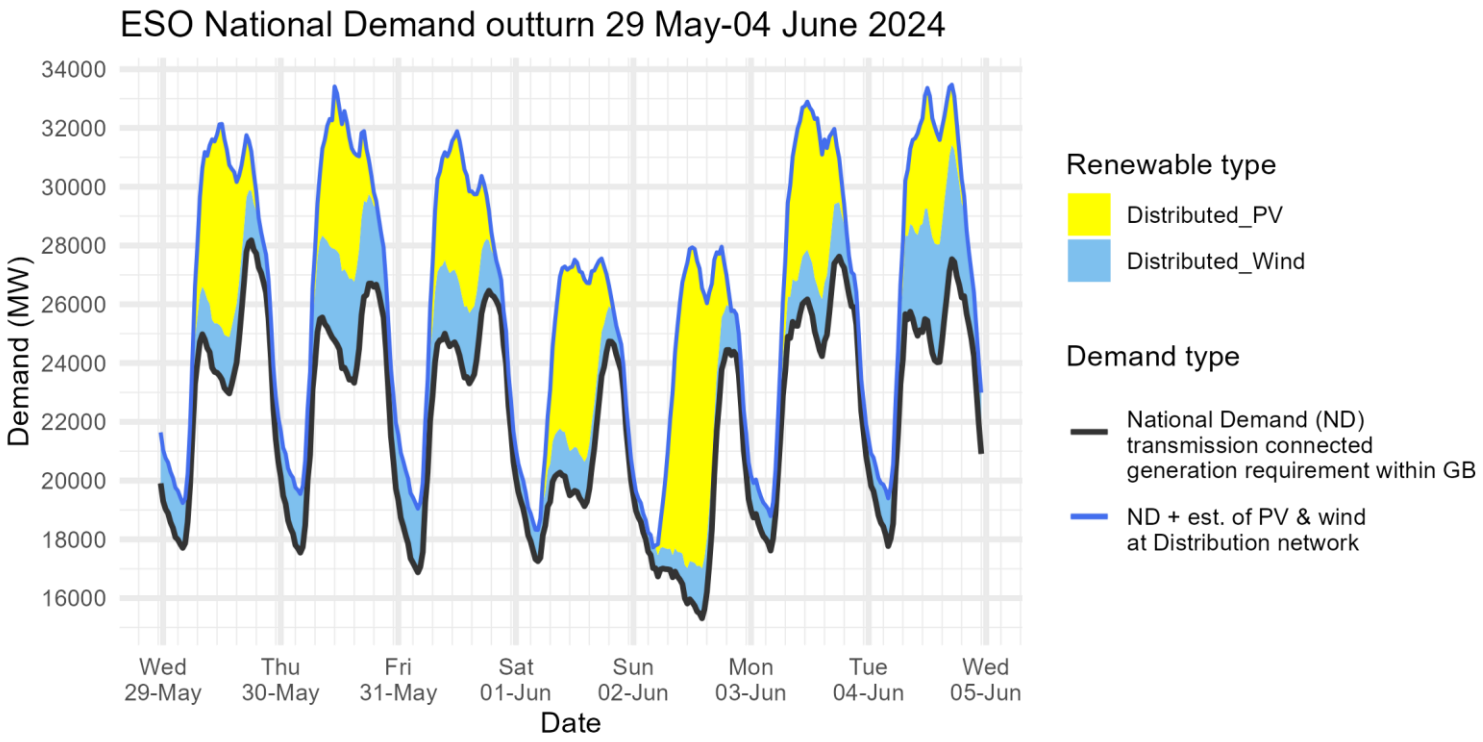
Demand | Last week demand out-turn



Date	Forecasting Point	FORECAST (Wed 29 May) National Demand (GW)	FORECAST (Wed 29 May) Dist. wind (GW)	FORECAST (Wed 29 May) Dist. PV (GW)	OUTTURN National Demand (GW)	OUTTURN Dist. wind (GW)	OUTTURN Dist. PV (GW)
29 May 2024	Afternoon Min	23.4	2.1	5.8	23.0	1.9	5.9
30 May 2024	Overnight Min	17.3	1.9	0.1	17.5	2.0	0.0
30 May 2024	Afternoon Min	22.8	3.2	5.5	23.3	3.4	4.4
31 May 2024	Overnight Min	17.4	1.8	0.0	16.9	2.2	0.0
31 May 2024	Afternoon Min	21.5	2.3	6.0	23.3	2.4	4.1
01 Jun 2024	Overnight Min	17.1	1.0	0.4	17.3	1.0	0.0
01 Jun 2024	Afternoon Min	17.9	1.5	6.6	19.1	1.5	6.2
02 Jun 2024	Overnight Min	16.1	0.8	0.6	16.7	0.7	0.4
02 Jun 2024	Afternoon Min	16.4	1.5	8.8	15.3	1.7	9.5
03 Jun 2024	Overnight Min	16.8	1.4	0.0	17.6	1.2	0.0
03 Jun 2024	Afternoon Min	21.7	2.0	7.2	24.2	1.9	4.9
04 Jun 2024	Overnight Min	17.7	1.4	0.0	17.8	1.6	0.0
04 Jun 2024	Afternoon Min	21.8	2.2	7.0	24.0	4.0	3.8

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

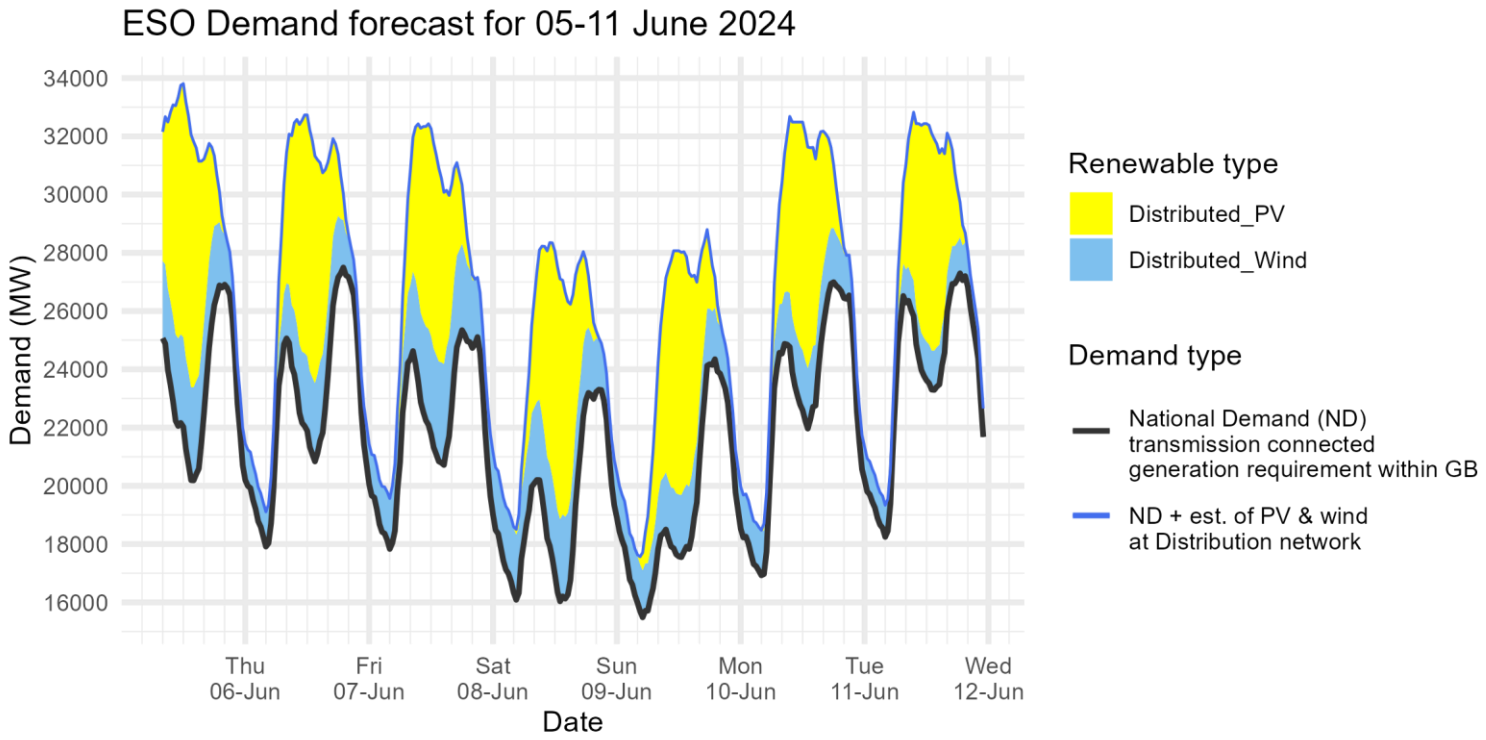
ND values do not include export on interconnectors or pumping or station load

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

Slido code #OTF

Demand | Week Ahead



		FORECAST (Wed 05 Jun)		
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
05 Jun 2024	Afternoon Min	20.2	3.2	8.4
06 Jun 2024	Overnight Min	17.9	1.2	0.0
06 Jun 2024	Afternoon Min	20.8	2.7	7.8
07 Jun 2024	Overnight Min	17.8	1.7	0.0
07 Jun 2024	Afternoon Min	20.7	3.5	5.9
08 Jun 2024	Overnight Min	16.1	2.2	0.2
08 Jun 2024	Afternoon Min	16.0	2.8	8.3
09 Jun 2024	Overnight Min	15.5	1.6	0.6
09 Jun 2024	Afternoon Min	17.6	2.1	8.3
10 Jun 2024	Overnight Min	16.9	1.5	0.0
10 Jun 2024	Afternoon Min	22.0	2.1	7.6
11 Jun 2024	Overnight Min	18.2	1.1	0.0
11 Jun 2024	Afternoon Min	23.3	1.3	7.3

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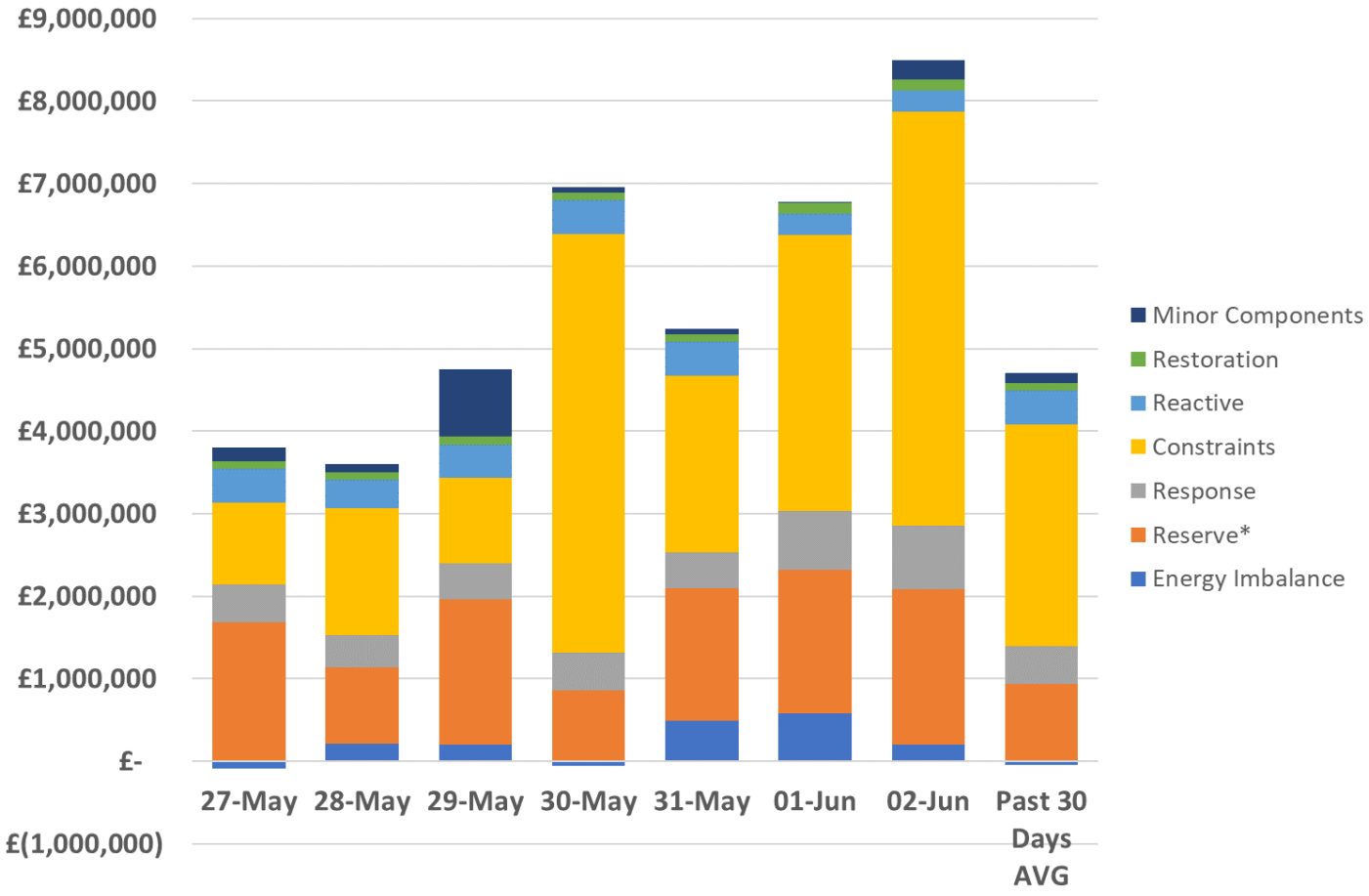
Slido code #OTF

ESO Actions | Category costs breakdown for the last week



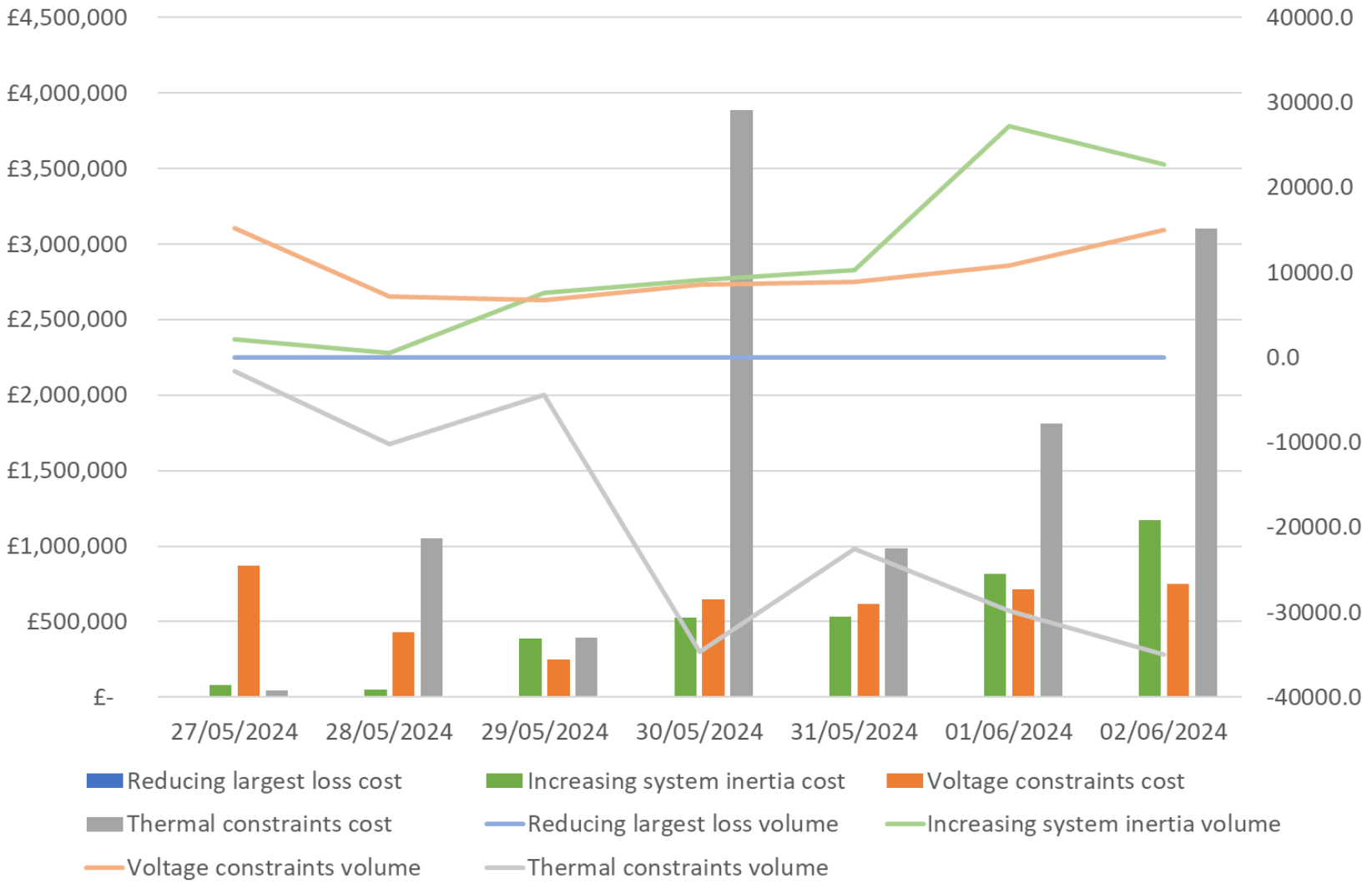
Date	Total (£m)
27/05/2024	3.7
28/05/2024	3.6
29/05/2024	4.8
30/05/2024	6.9
31/05/2024	5.2
01/06/2024	6.8
02/06/2024	8.5
Weekly Total	39.5
Previous Week	27.8

Constraints and Reserve 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.

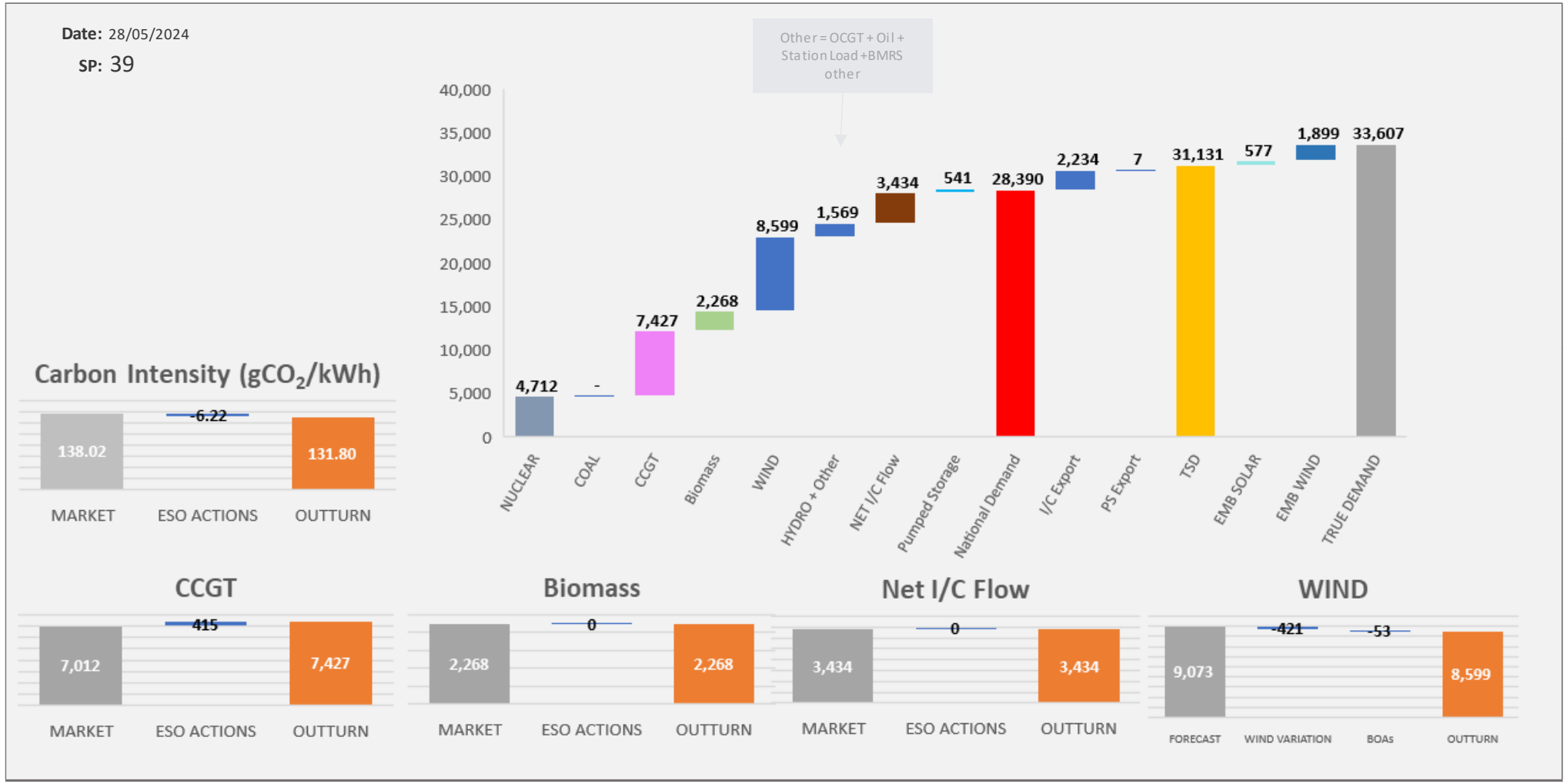
Voltage
Intervention was required to manage voltage levels throughout the week.

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

Increasing inertia
Intervention was required to manage System Inertia throughout the week

Slido code #OTF

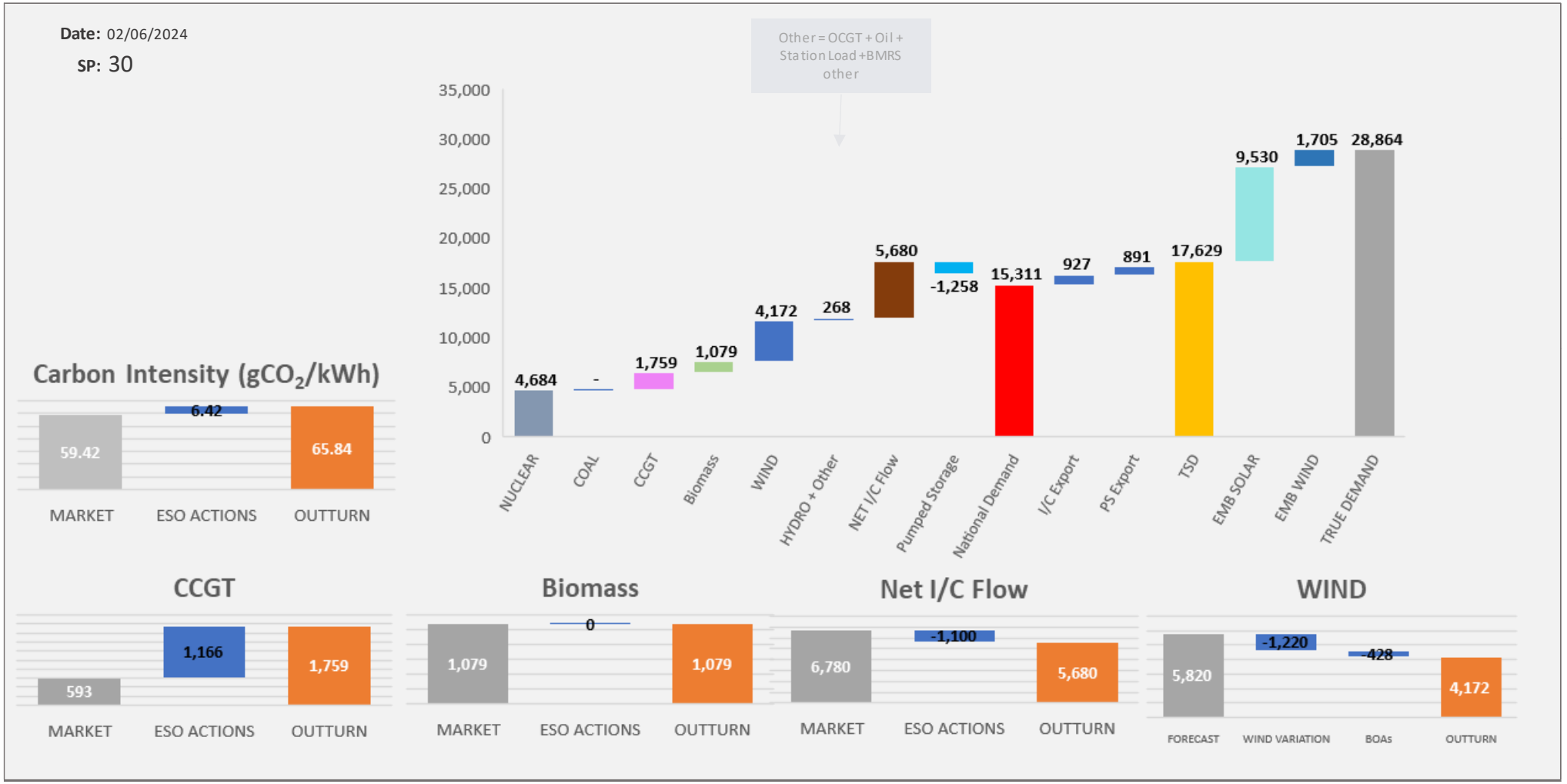
ESO Actions | Tuesday 28 May – Peak Demand – SP spend ~£50k



Carbon Intensity data on data portal: https://www.nationalgrideso.com/data-portal/carbon-intensity-balancing-actions#:~:text=The%20carbon%20intensity%20of%20balancing,profile%20with%20balancing%20actions%20applied.

Slido code #OTF

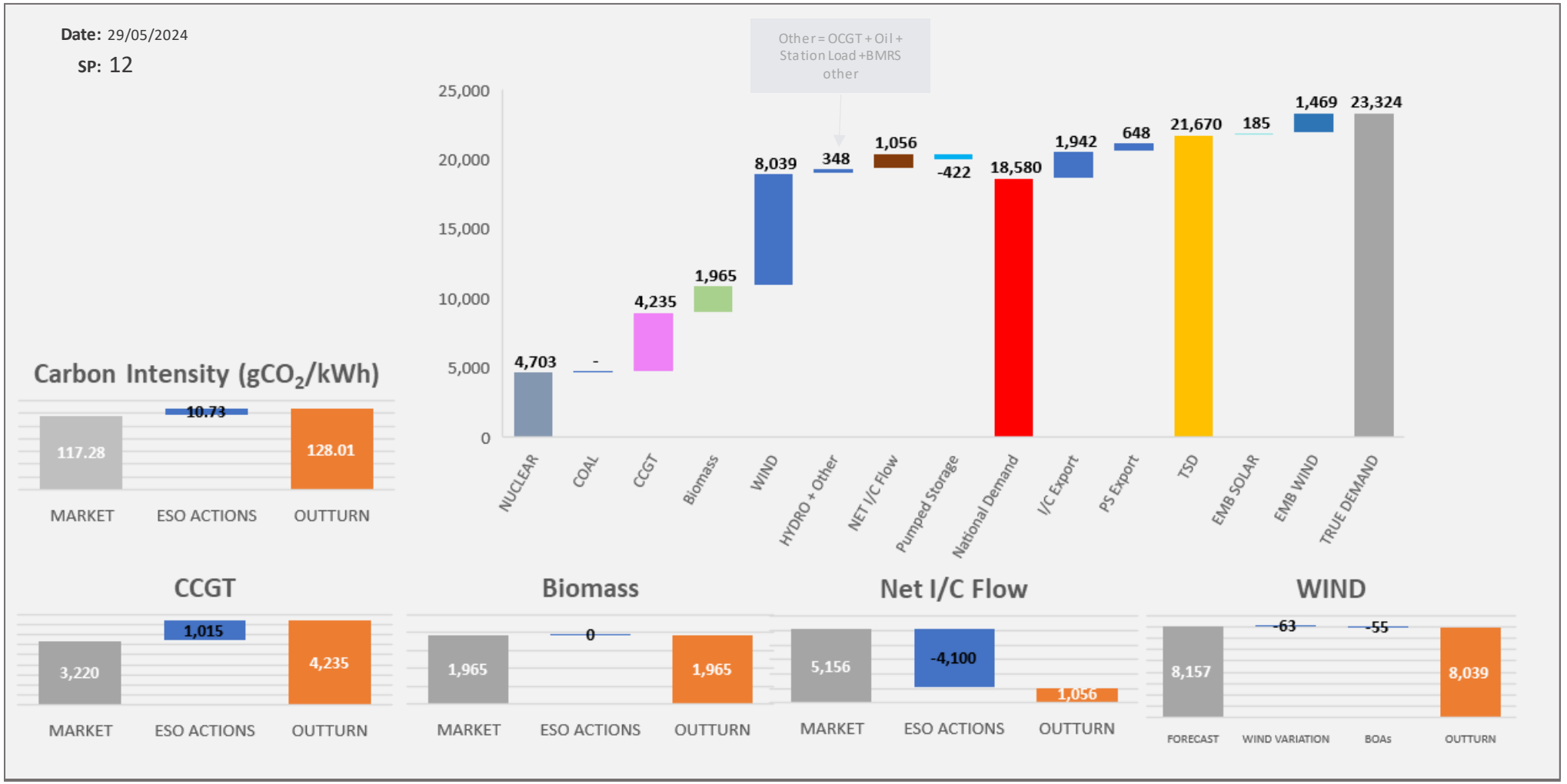
ESO Actions | Sunday 2 June – Minimum Demand – SP Spend ~£116k



Carbon Intensity data on data portal: https://www.nationalgrideso.com/data-portal/carbon-intensity-balancing-actions#:~:text=The%20carbon%20intensity%20of%20balancing,profile%20with%20balancing%20actions%20applied.

Slido code #OTF

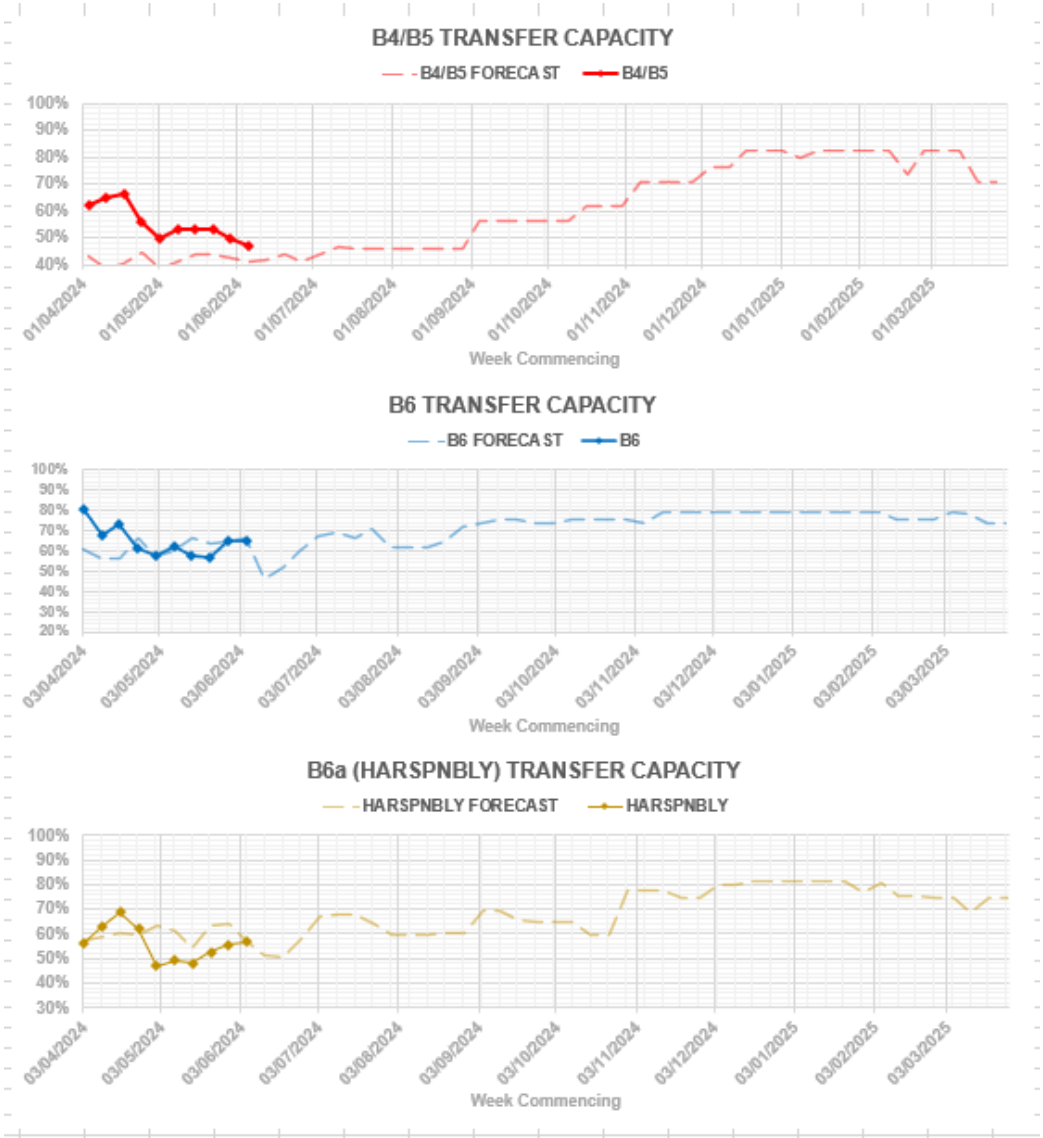
ESO Actions | Wednesday 29 May – Highest SP Spend ~£222k



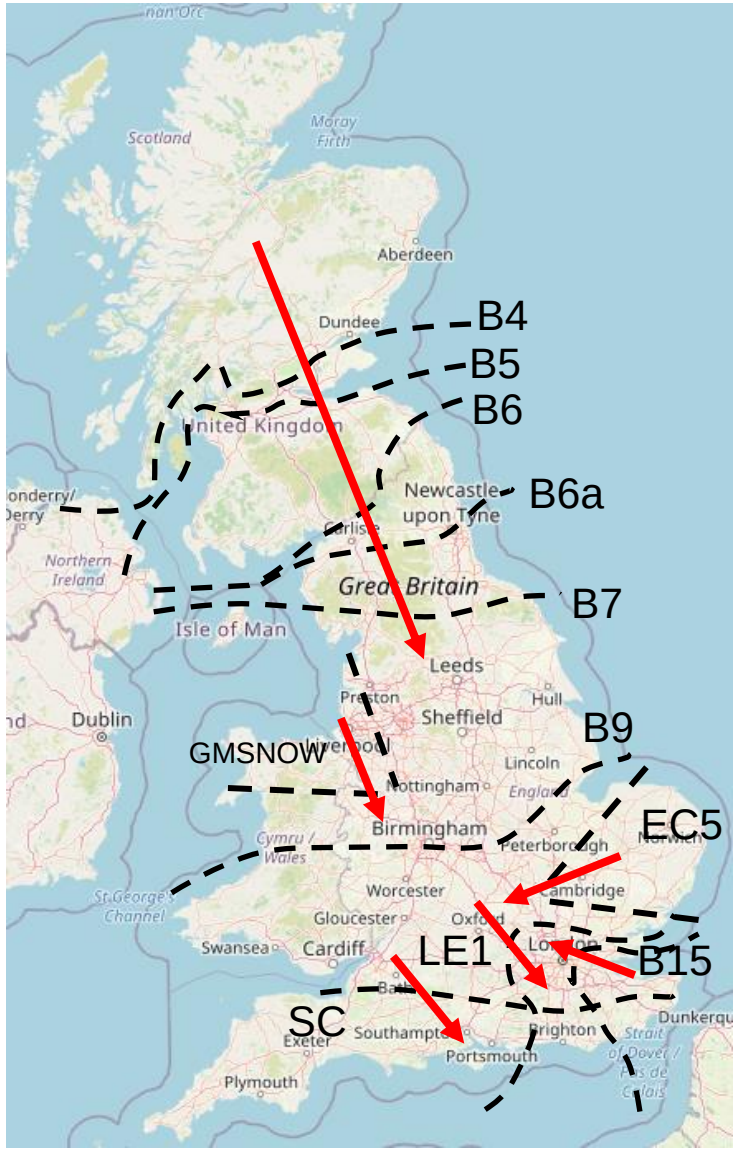
Carbon Intensity data on data portal: https://www.nationalgrideso.com/data-portal/carbon-intensity-balancing-actions#:~:text=The%20carbon%20intensity%20of%20balancing,profile%20with%20balancing%20actions%20applied.

Slido code #OTF

Transparency | Network Congestion



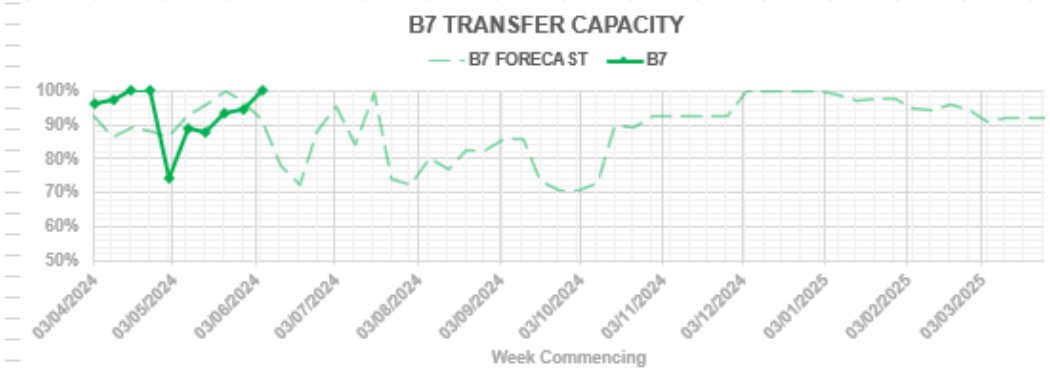
Boundary	Max. Capacity (MW)	Current Capacity (%)
B4/B5 (SSE-SP)	3400	47%
B6 (SCOTEX)	6800	65%
HARSPNBLY	8000	57%
B7 (SSHARN)	8325	100%
GMSNOW	4700	30%
EC5	5000	66%
LE1 (SEIMP)	8500	69%
B15 (ESTEX)	7500	65%
SC	7300	63%

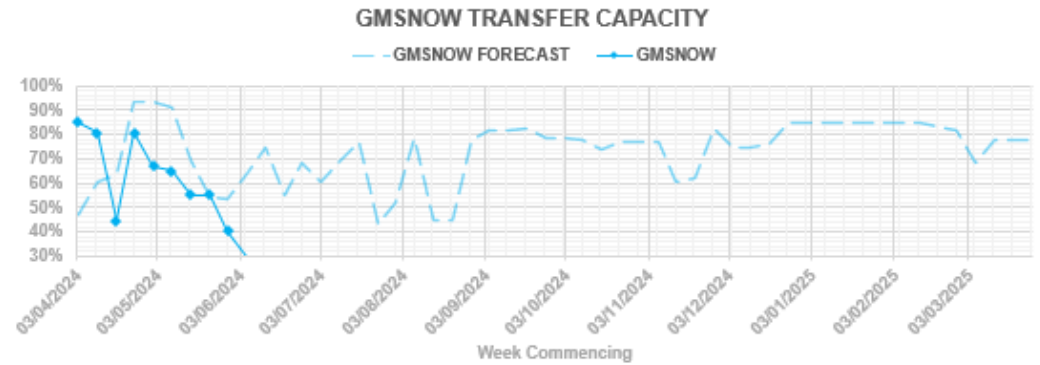


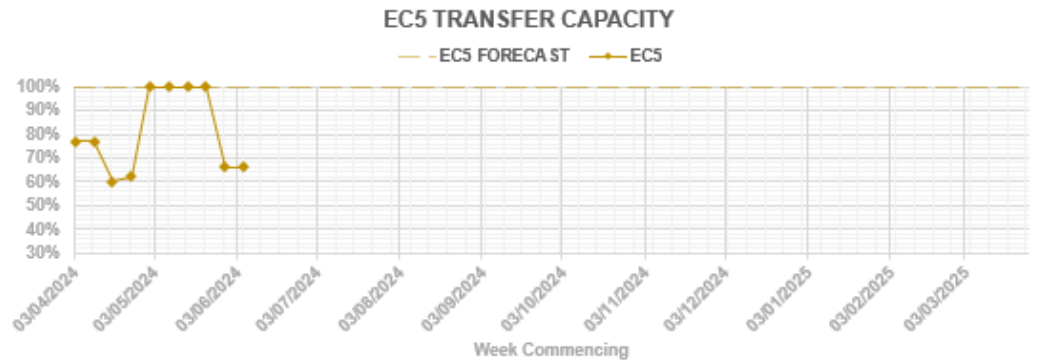
Day ahead flows and limits, and the 24-month constraint limit forecast are published on the ESO Data Portal:
Constraints Management

Slido code #OTF

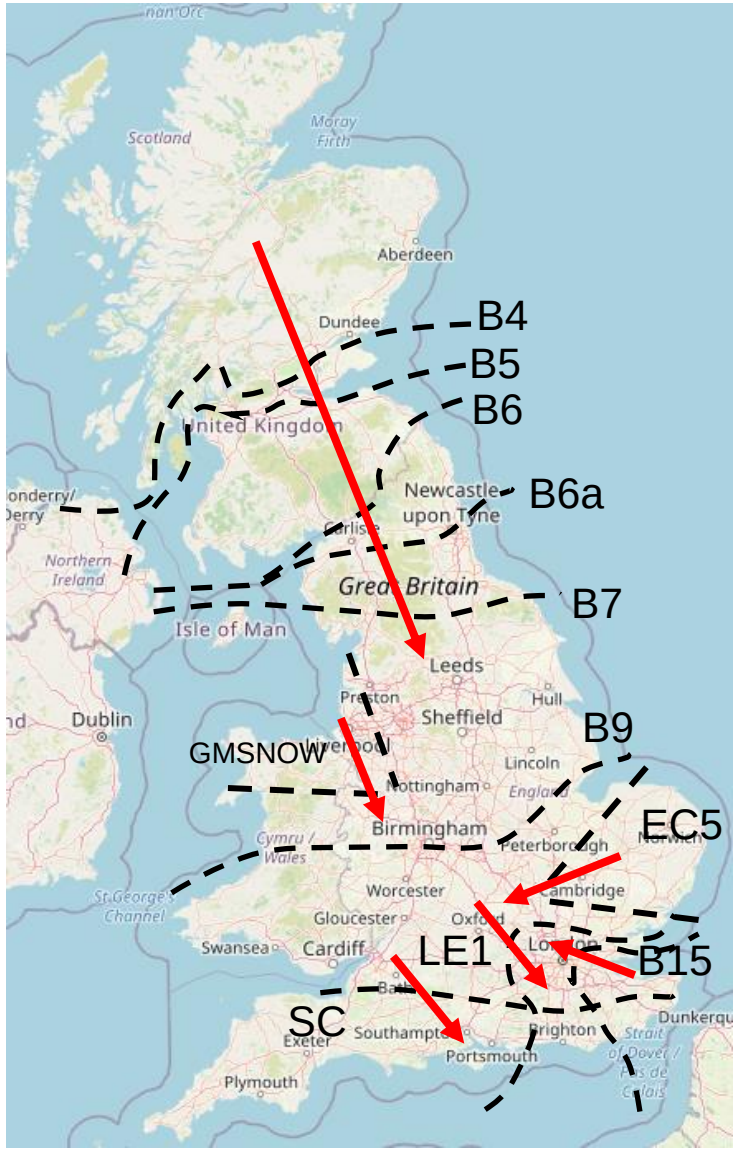
Transparency | Network Congestion







Boundary	Max. Capacity (MW)	Current Capacity (%)
B4/B5 (SSE-SP)	3400	47%
B6 (SCOTEX)	6800	65%
HARSPNBLY	8000	57%
B7 (SSHARN)	8325	100%
GMSNOW	4700	30%
EC5	5000	66%
LE1 (SEIMP)	8500	69%
B15 (ESTEX)	7500	65%
SC	7300	63%



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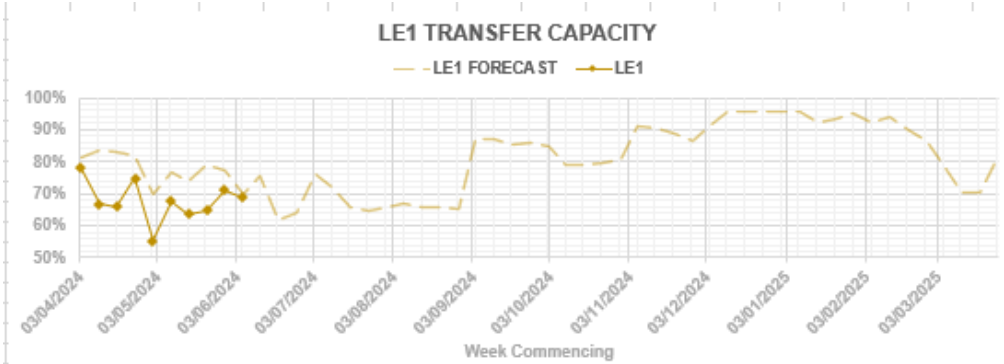
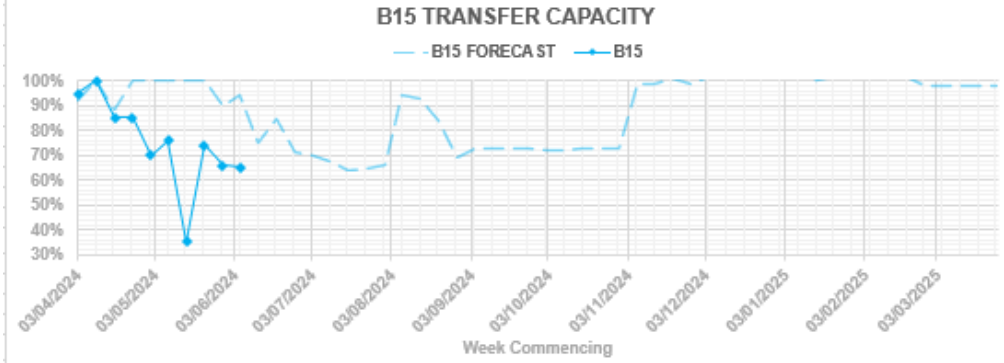
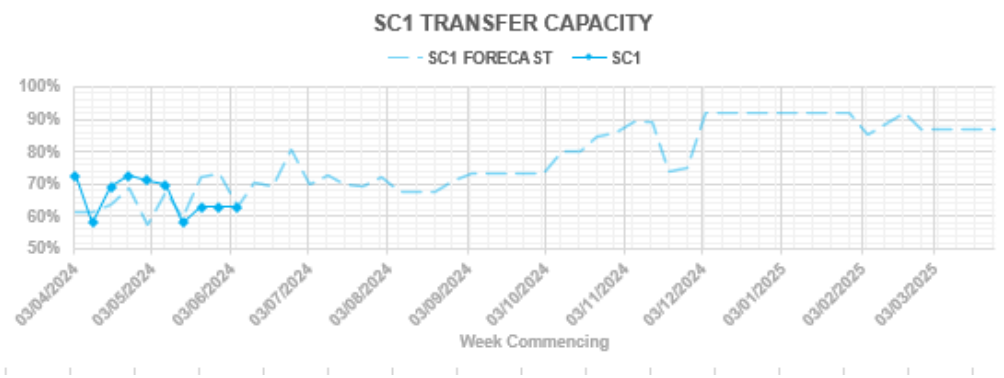
Transparency | Network Congestion







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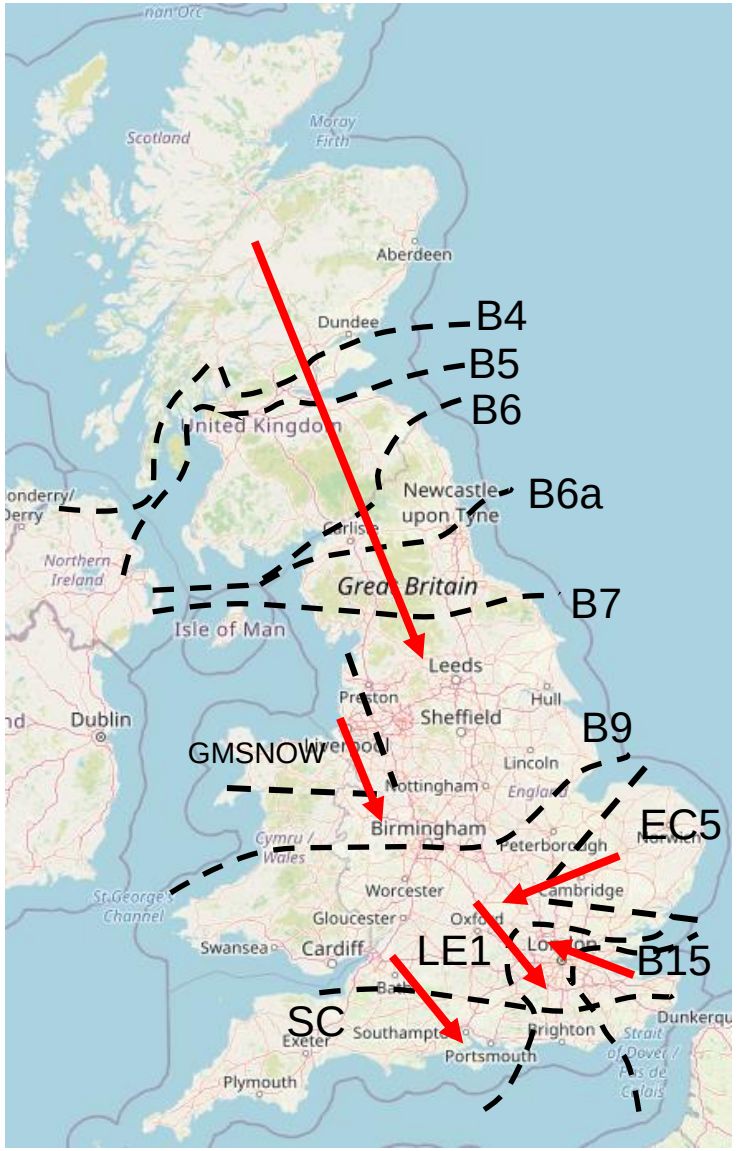

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Constraints Management

Previously asked questions

Q: B15 limit seems to have dropped a lot today. Is there any update to what the slides said?

A: Previously the constraint limit was based on plant restrictions. A new (lower) limit was required due to removal of plant from service. Outage and return to service despatch processes are business as usual and we plan outages to maximise constraint limits to minimise consumer costs.

Q: If you're having to bid off interconnectors frequently and at very high prices (-£500/MWh) due to running out of cheaper options to curtail like wind is there a need to reintroduce ODFM (optional Downward Flex Mech) or similar to manage low demand summer periods?

A: Recent instances of high-priced interconnector actions have been system flagged rather than energy flagged. This means that often alternative market structures such as ODFM would not be able to meet the specific requirement.

Q: Regarding non compliance would you like to emphasise the importance of fault ride through and highlight this recent Ofgem decisions. https://www.ofgem.gov.uk/sites/default/files/2024-05/GyMEE0623_Final%20Direction.pdf

A: We won't be able to comment on Ofgem's decision, however we plan to provide an update on fault ride through at a future OTF.

Previously asked questions

Q: To stop assets from tendering more than they can possibly deliver in BR you could limit the amount batteries are allowed to tender so that they can feasibly always be deliverable (like for D*) once batteries can only procure less BR they will have to be competitive in the BM to make as good a return?

A: Thank you, please feed this into the call for input – we want to consider options that can be implemented both with and without a contractual change as this may trigger an Article 18 consultation and approval period of approximately four months.

Outstanding questions

Q: Would it be possible to give an explanation other than 'OBP despatches most economically' as to why batteries appear to be despatched in the BM completely outwith price order on ocassion - as dynamics seem to be very similar and none of the BOA's are 'system' flagged there must be some other reason? e.g. E_Chapb-1 bid at £43 / £33 while other batteries available at £50+ not touched and E_Arbrb-1 offered at £105 while cheaper batteries available ,again, not touched. (P24 on 7th May) I know you don't comment on individual assets so am not looking for you to explain the specific examples mentioned, more trying to understand why these sorts of actions are being taken - all to do with ancilliary contracts / OBP not working properly / something else?

A: We have now received clarification on this question and are currently looking into it.

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Reminder about answering questions at the ESO 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 ESO) and we will not comment on these challenges. This type of concern can be reported to the Market Monitoring team at: marketreporting@nationalgrideso.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.nationalgrideso.com/what-we-do/electricity-national-control-centre/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 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

slido

Audience Q&A is disabled

ⓘ 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

Appendix

Participation in the Operational Transparency Forum

Thank you to everyone who participates in the OTF, whether you join weekly, monthly, on specific occasions or follow up with the webinar recordings and published slides. We hear from participant feedback and our ESO colleagues that all of us value the opportunity to share information, ask questions and share the answers.

One of the reasons this format works so well is the professional courtesy we see demonstrated every week.

However, in recent weeks there have been some Slido questions and comments in the Q&A session directed at specific market participants suggesting their actions are not appropriate. This is concerning because:

- The statements are being made in a public forum without the opportunity to reply
- The negative comments may impact these businesses directly, or indirectly e.g.: through social media, etc.
- The individuals asking questions could not be traced using the details provided in Slido

The OTF is not the place to challenge the actions of individual parties (other than the ESO) and we will not comment on these challenges. This type of concern can be reported to the Market Monitoring team at: marketreporting@nationalgrideso.com

Remember, if you have reasons to remain anonymous to the wider forum, or have concerns your question may not be one to ask in public, you can use the advance questions or email options.

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 Slido 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

NESO Information Request Statement

The Energy Act 2023 and the power to request information.

Section 172 of The Energy Act 2023 provides NESO, as the Independent System Operator and Planner, with the power to require information, from anyone carrying out a relevant activity, to allow it to carry out any of its functions. This power will come into effect once NESO is operational.

In advance of this we are consulting on what the Information Request Statement will contain and what an Information Request issued by NESO may look like.

The Information Request Statement and Notice.

The Statement will be available on our website and will contain sections on why a request has been issued, the process of responding to a request, what happens if a recipient does not provide the information and how we will manage any data provided. A draft template of an Information Request Notice is also shared on our website.

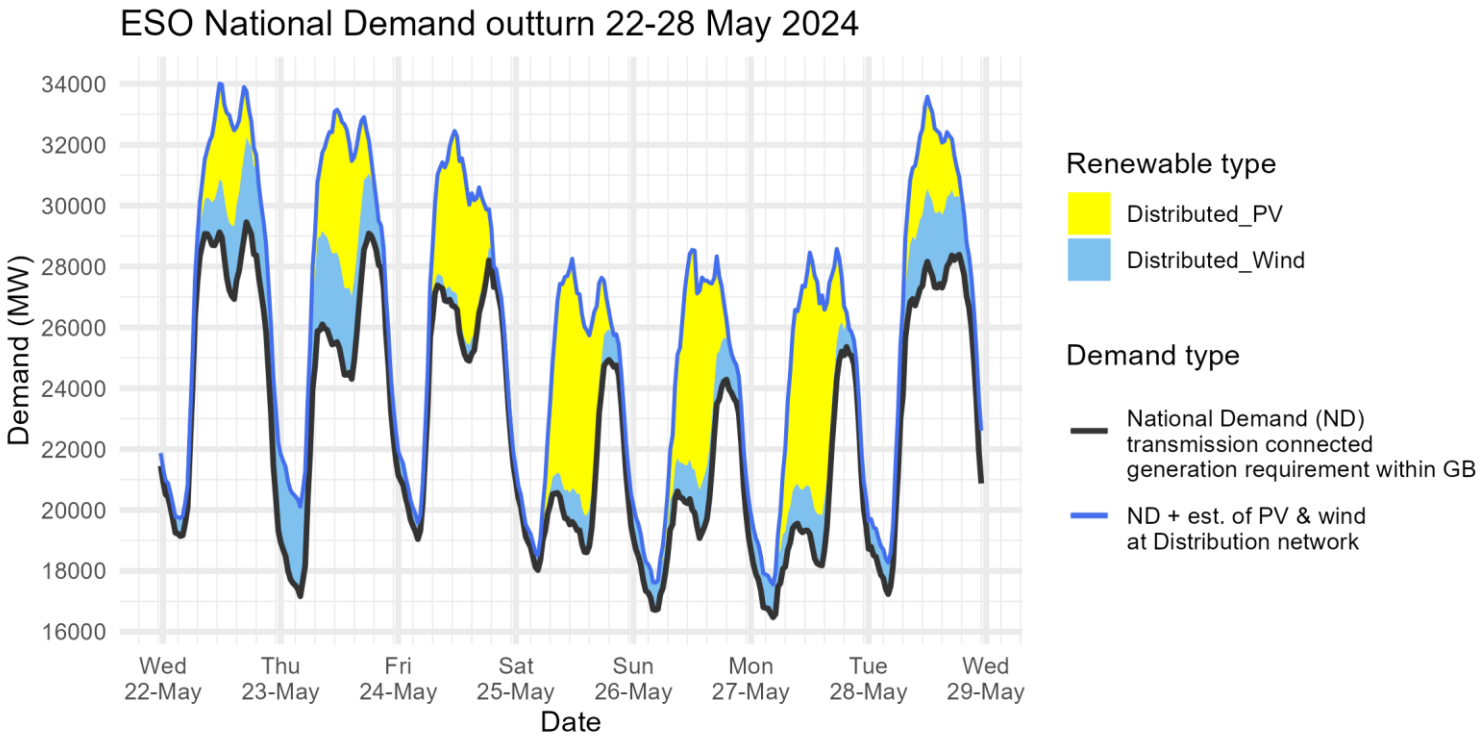
The Consultation

We are running a consultation from **May 3rd to May 31st** which can be found at https://www.nationalgrideso.com/what-we-do/how-we-operate/information-request-statement-consultation and would welcome feedback from across industry to make sure we develop a statement which is clear and accessible.

Following the consultation period Ofgem will determine if the draft Statement is approved or if any changes are necessary.

Slido code #OTF

Demand | Last week demand out-turn



Date	Forecasting Point	FORECAST (Wed 22 May) National Demand (GW)	FORECAST (Wed 22 May) Dist. wind (GW)	FORECAST (Wed 22 May) Dist. PV (GW)	OUTTURN National Demand (GW)	OUTTURN Dist. wind (GW)	OUTTURN Dist. PV (GW)
22 May 2024	Afternoon Min	27.2	2.2	3.0	26.9	2.4	3.1
23 May 2024	Overnight Min	16.5	2.9	0.0	17.2	2.9	0.0
23 May 2024	Afternoon Min	22.5	2.8	6.0	24.3	2.7	4.4
24 May 2024	Overnight Min	18.8	0.9	0.0	19.0	0.5	0.0
24 May 2024	Afternoon Min	23.2	1.0	6.0	24.9	0.5	4.6
25 May 2024	Overnight Min	17.9	0.5	0.1	18.0	0.5	0.0
25 May 2024	Afternoon Min	16.7	1.5	7.9	18.6	1.2	6.1
26 May 2024	Overnight Min	16.1	0.9	0.1	16.7	0.9	0.0
26 May 2024	Afternoon Min	17.9	1.1	6.5	19.1	1.6	6.6
27 May 2024	Overnight Min	16.8	0.5	0.0	16.5	1.0	0.0
27 May 2024	Afternoon Min	18.3	1.0	6.9	18.2	1.7	7.2
28 May 2024	Overnight Min	17.7	0.9	0.0	17.2	1.0	0.0
28 May 2024	Afternoon Min	22.7	1.7	6.9	27.3	2.5	2.7

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

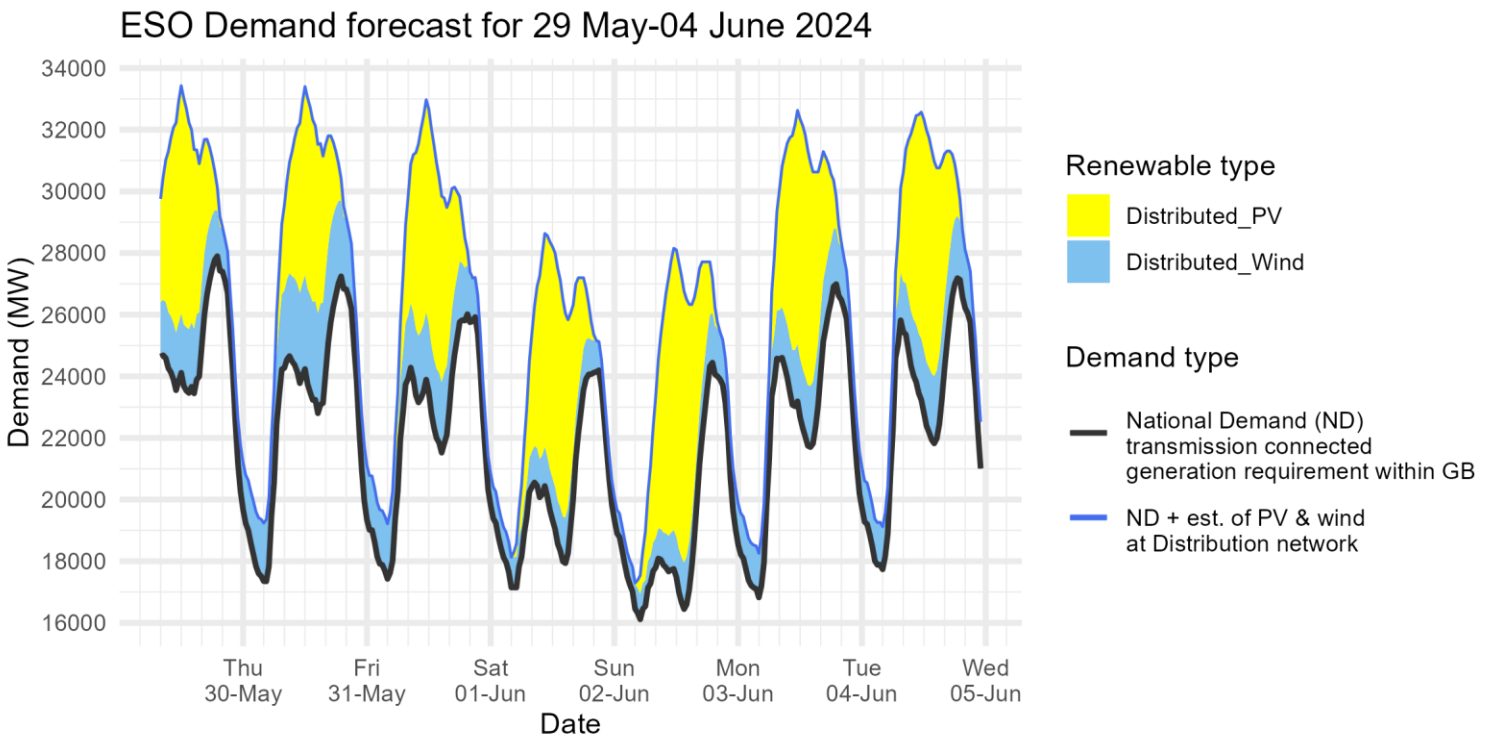
ND values do not include export on interconnectors or pumping or station load

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

Slido code #OTF

Demand | Week Ahead



		FORECAST (Wed 29 May)		
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
29 May 2024	Afternoon Min	23.4	2.1	5.8
30 May 2024	Overnight Min	17.3	1.9	0.1
30 May 2024	Afternoon Min	22.8	3.2	5.5
31 May 2024	Overnight Min	17.4	1.8	0.0
31 May 2024	Afternoon Min	21.5	2.3	6.0
01 Jun 2024	Overnight Min	17.1	1.0	0.4
01 Jun 2024	Afternoon Min	17.9	1.5	6.6
02 Jun 2024	Overnight Min	16.1	0.8	0.6
02 Jun 2024	Afternoon Min	16.4	1.5	8.8
03 Jun 2024	Overnight Min	16.8	1.4	0.0
03 Jun 2024	Afternoon Min	21.7	2.0	7.2
04 Jun 2024	Overnight Min	17.7	1.4	0.0
04 Jun 2024	Afternoon Min	21.8	2.2	7.0

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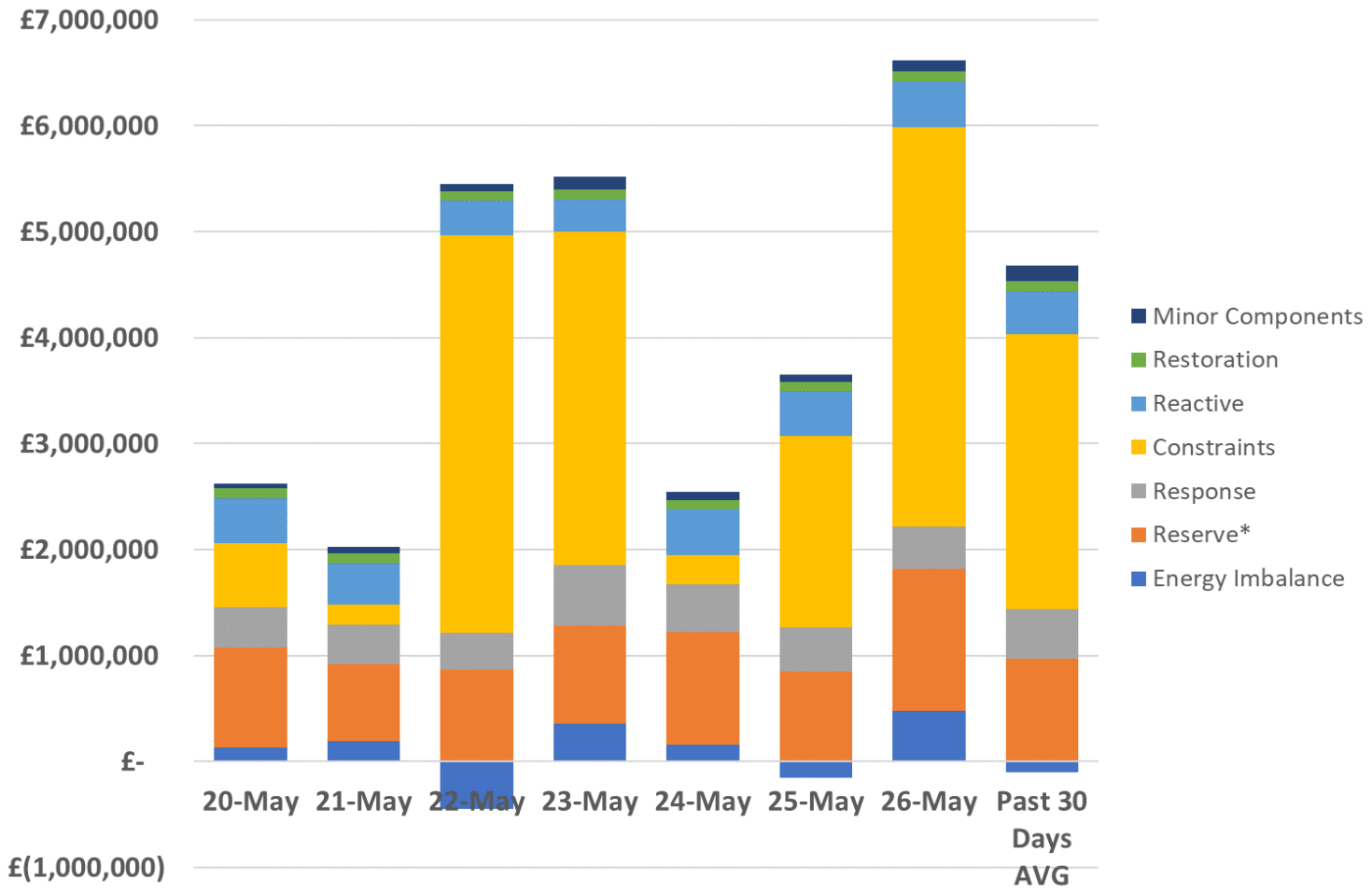
Slido code #OTF

ESO Actions | Category costs breakdown for the last week

Date	Total (£m)
20/05/2024	2.6
21/05/2024	2.0
22/05/2024	5.0
23/05/2024	5.5
24/05/2024	2.5
25/05/2024	3.5
26/05/2024	6.6
Weekly Total	27.8
Previous Week	33.5

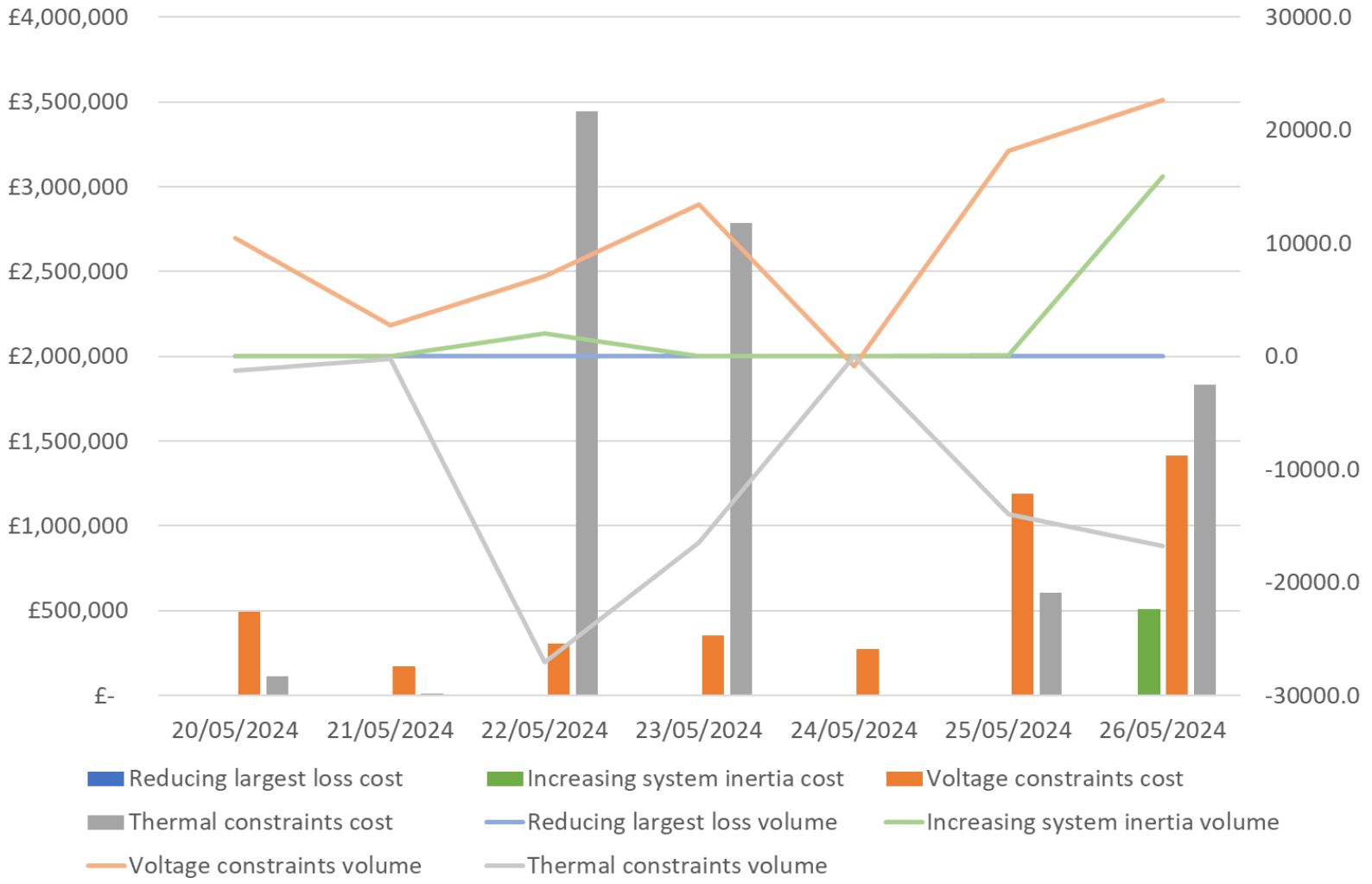


Constraints and Reserve costs were the key cost component for the week.

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 except on Friday.

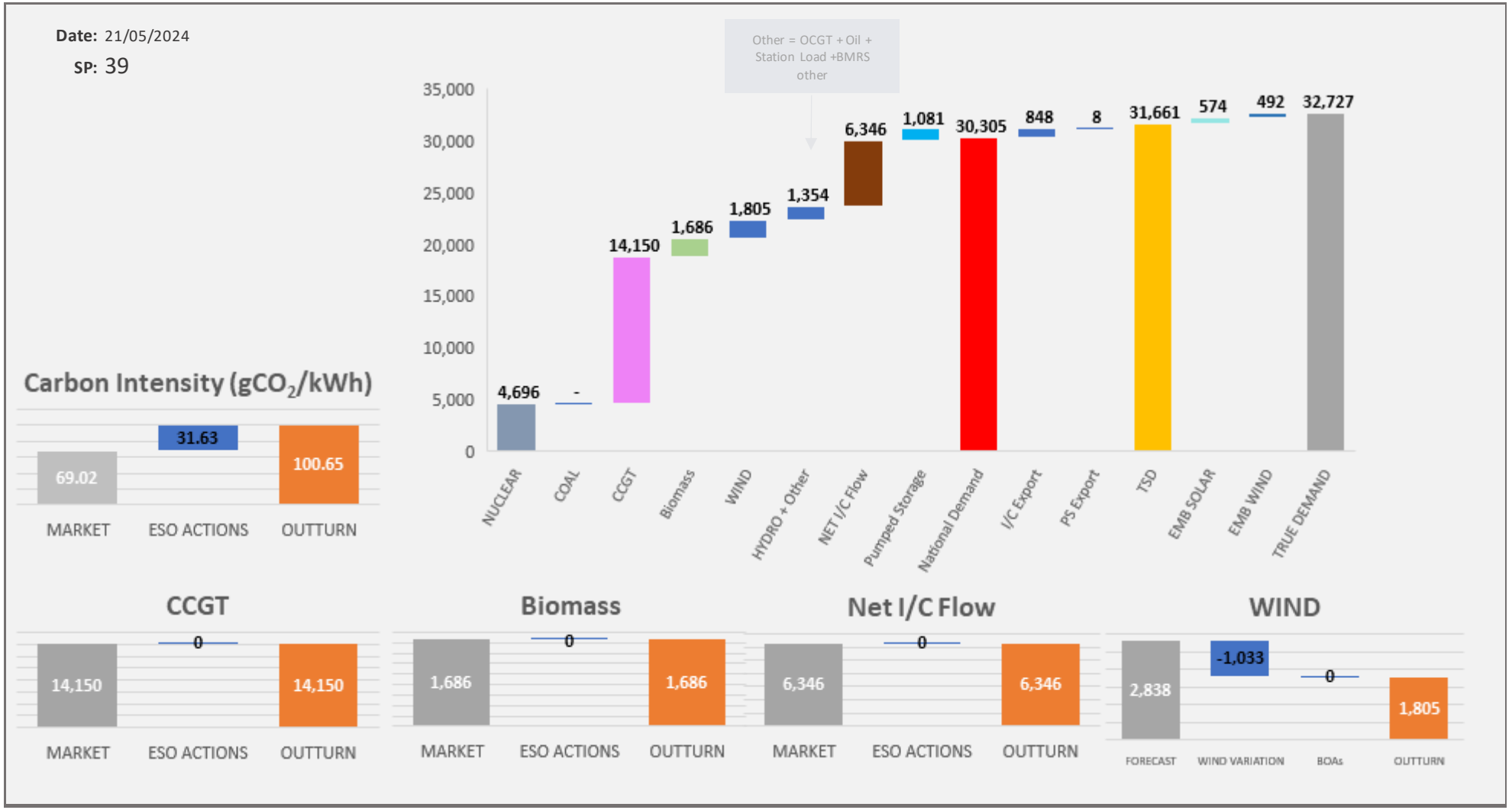
Voltage
Intervention was required to manage voltage levels throughout the week.

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

Increasing inertia
Intervention was required to manage System Inertia on Wednesday, Saturday and Sunday.

Slido code #OTF

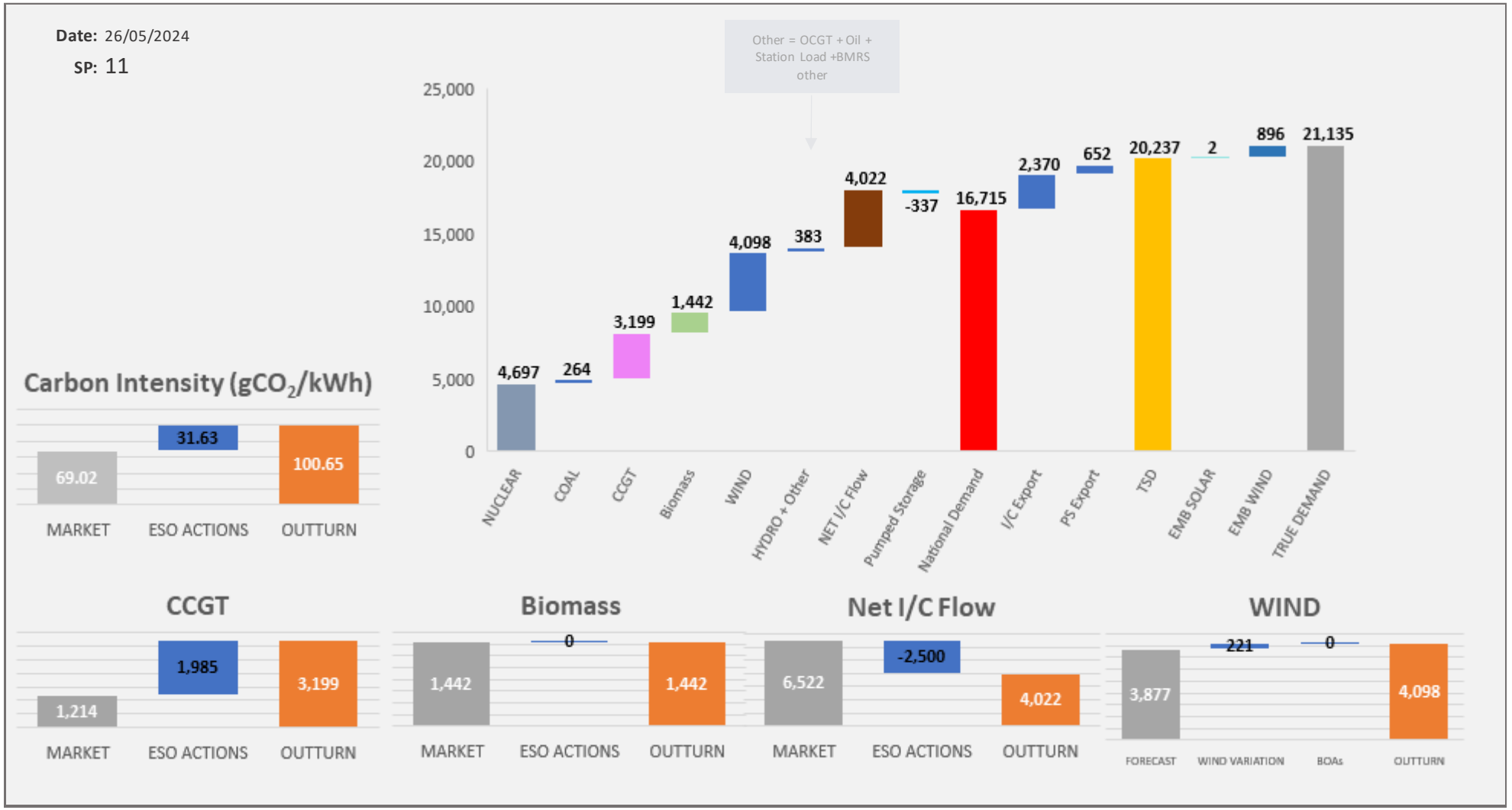
ESO Actions | Tuesday 21 May – Peak Demand – SP spend ~£2k



Carbon Intensity data on data portal: https://www.nationalgrideso.com/data-portal/carbon-intensity-balancing-actions#:~:text=The%20carbon%20intensity%20of%20balancing,profile%20with%20balancing%20actions%20applied.

Slido code #OTF

ESO Actions | Sunday 26 May – Minimum Demand – SP Spend ~£105k



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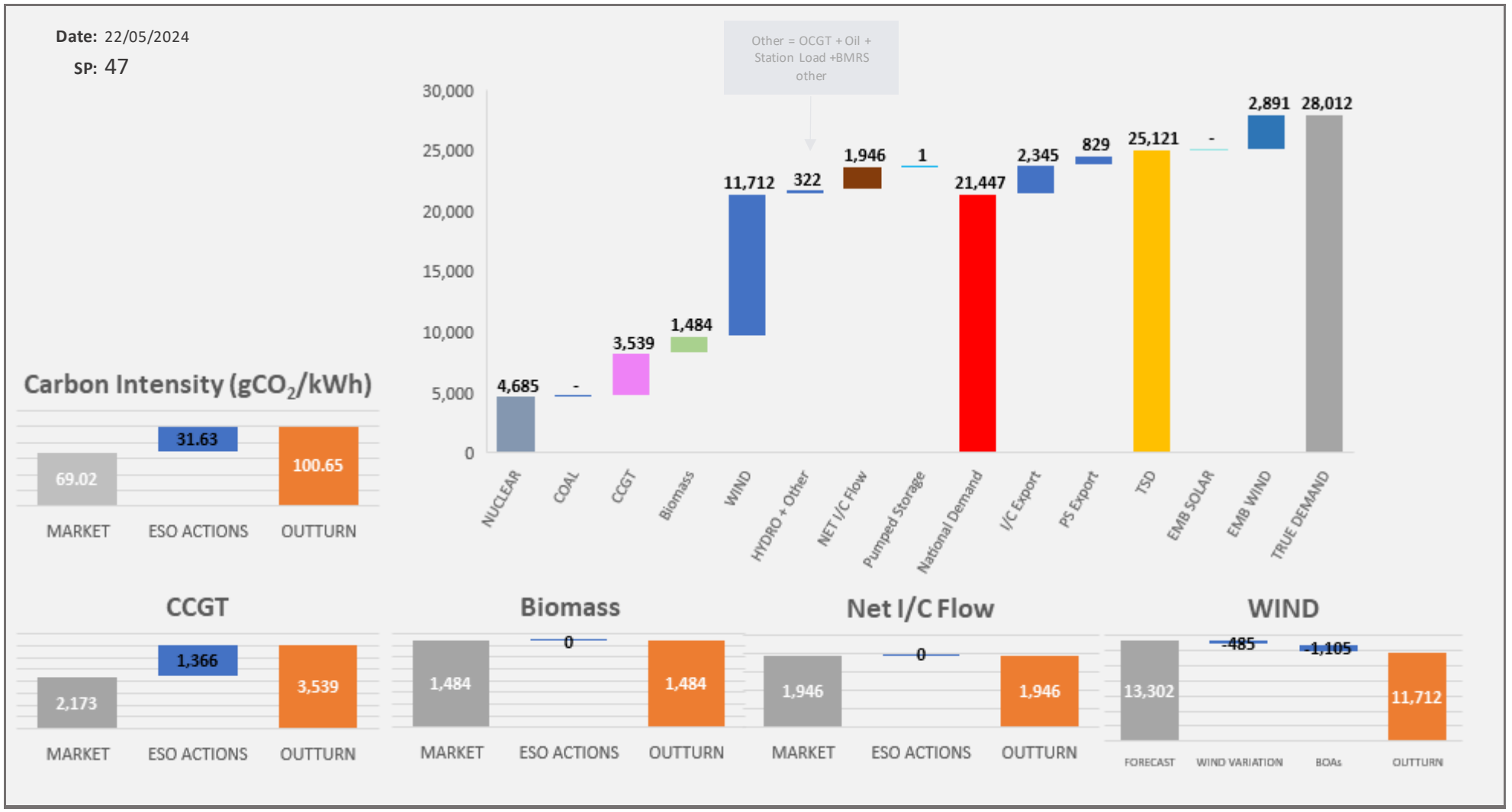
Slido code #OTF

ESO Actions | Wednesday 22 May – Highest SP Spend ~£272k



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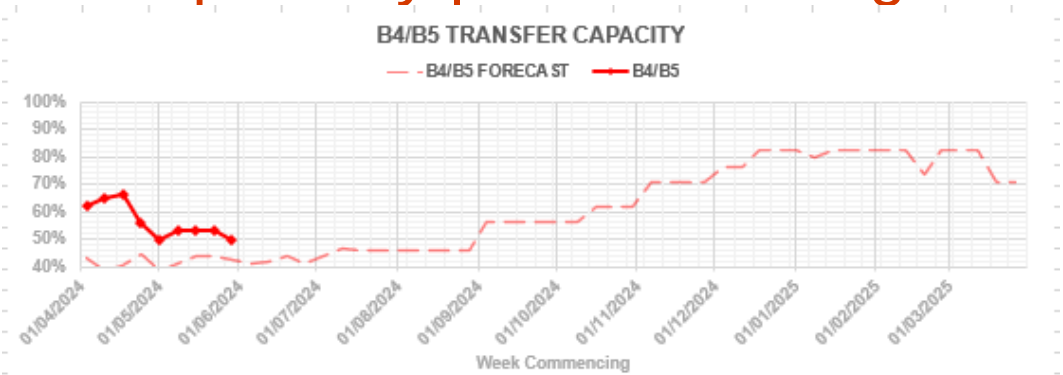
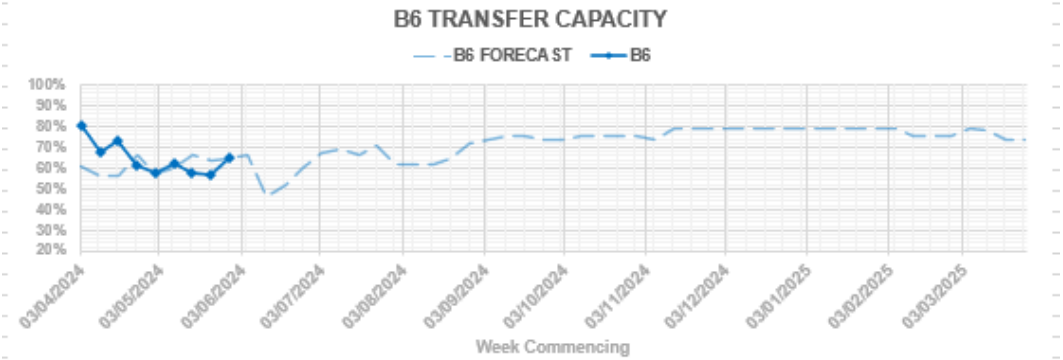
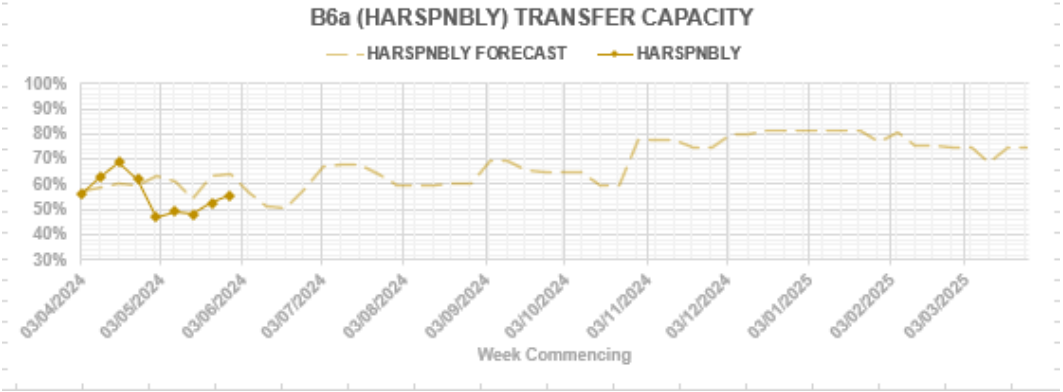
Slido code #OTF

Transparency | Network Congestion – 29/05/24







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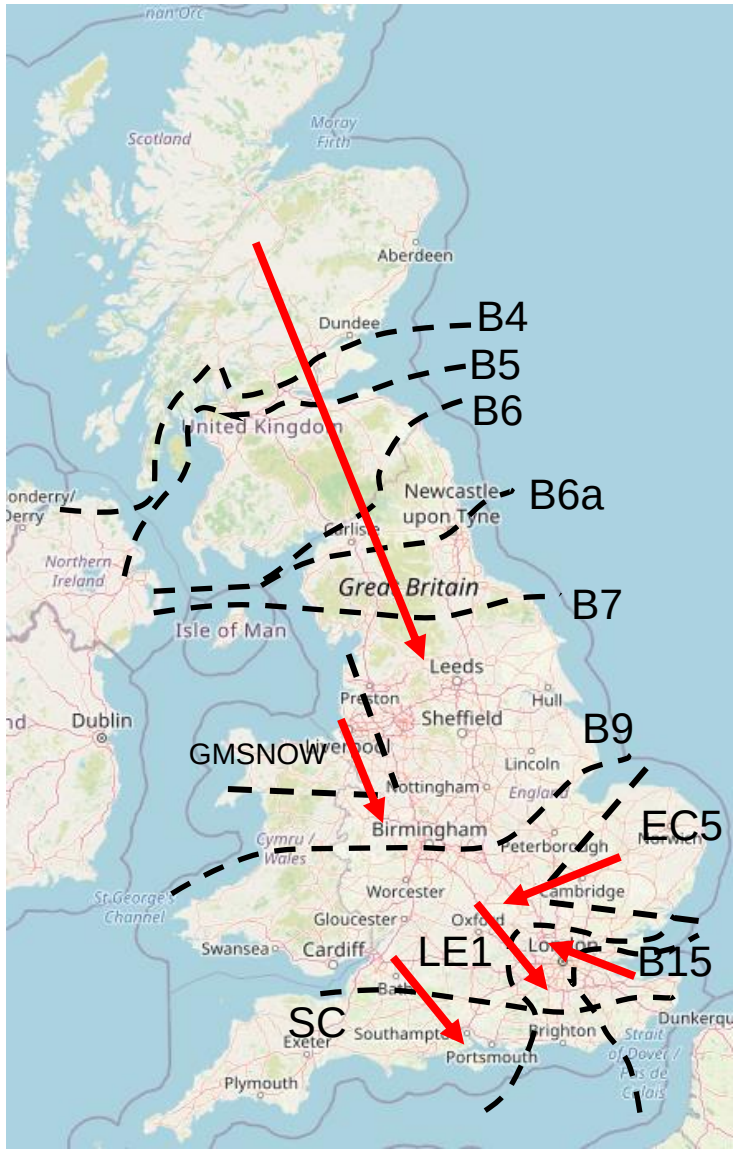

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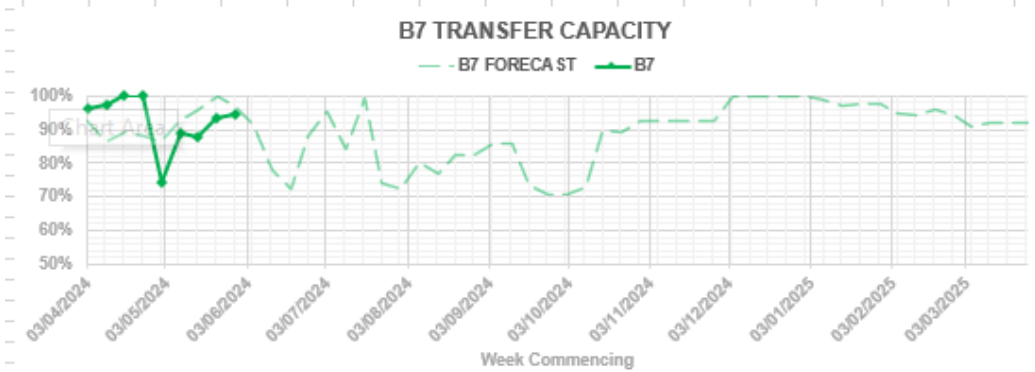
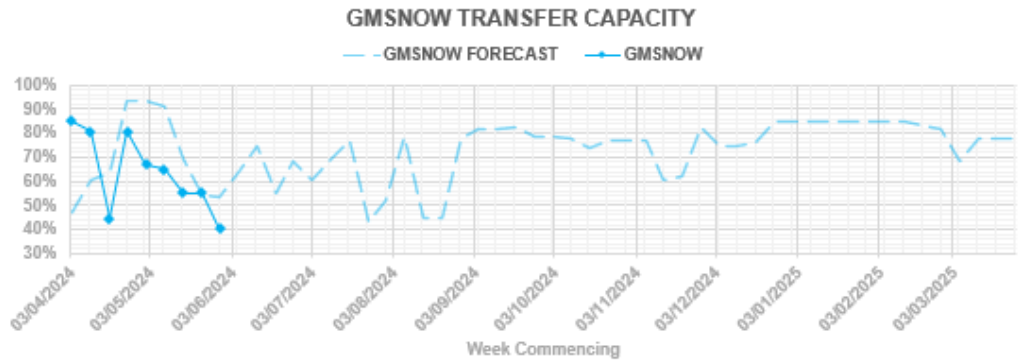
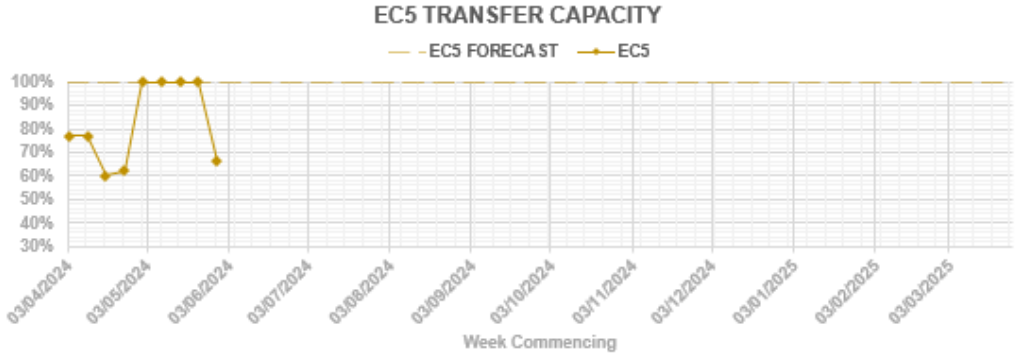
Transparency | Network Congestion – 29/05/24







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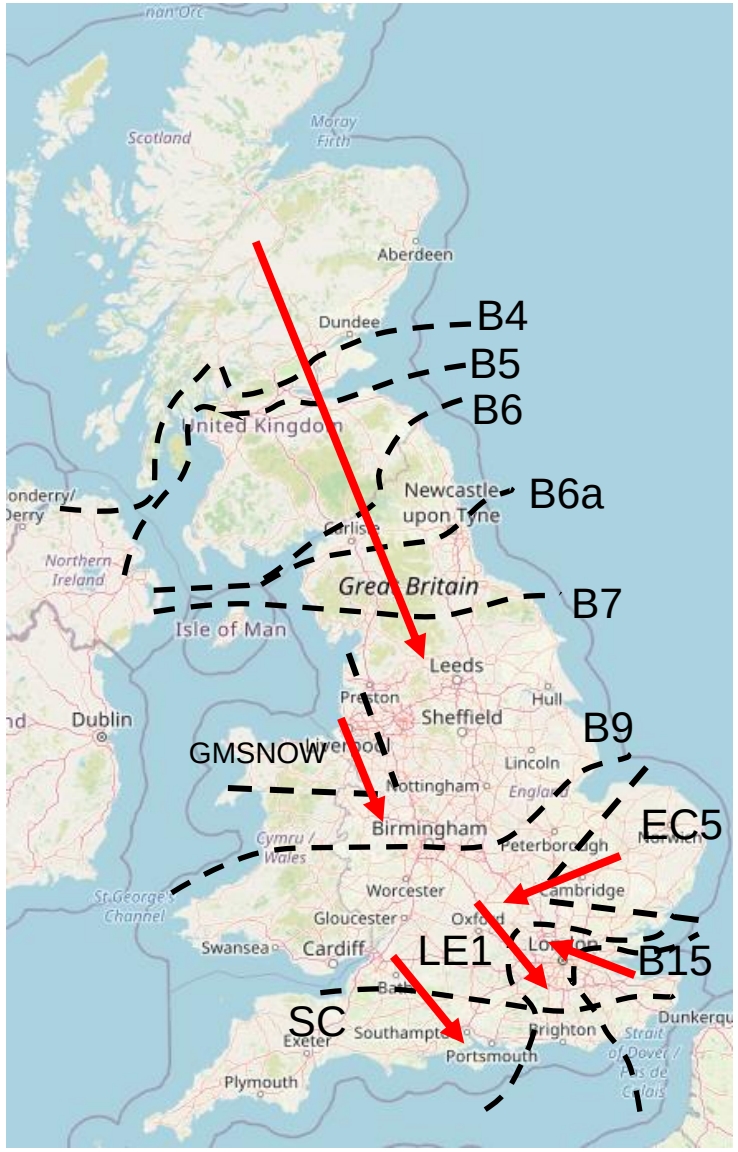

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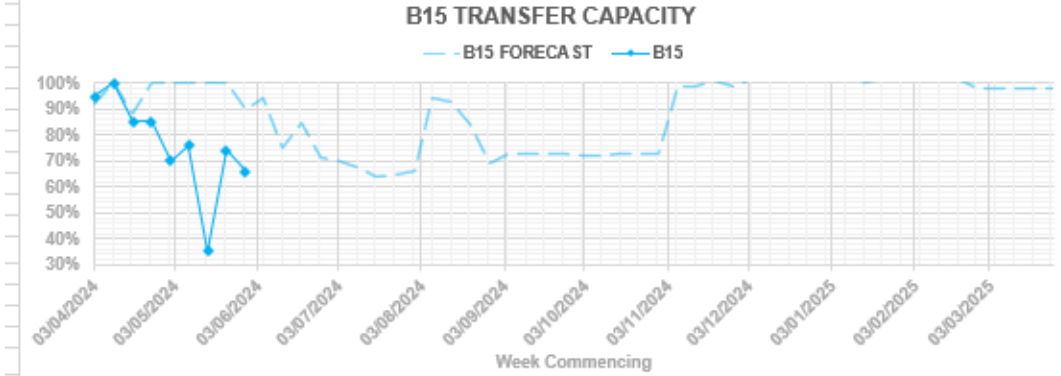
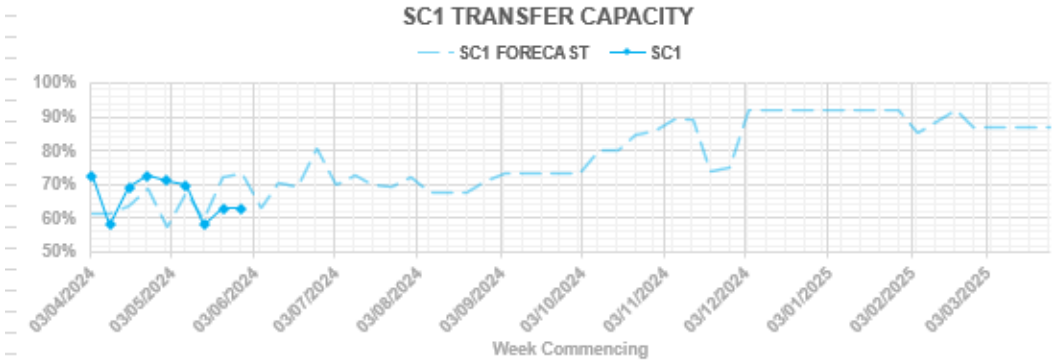
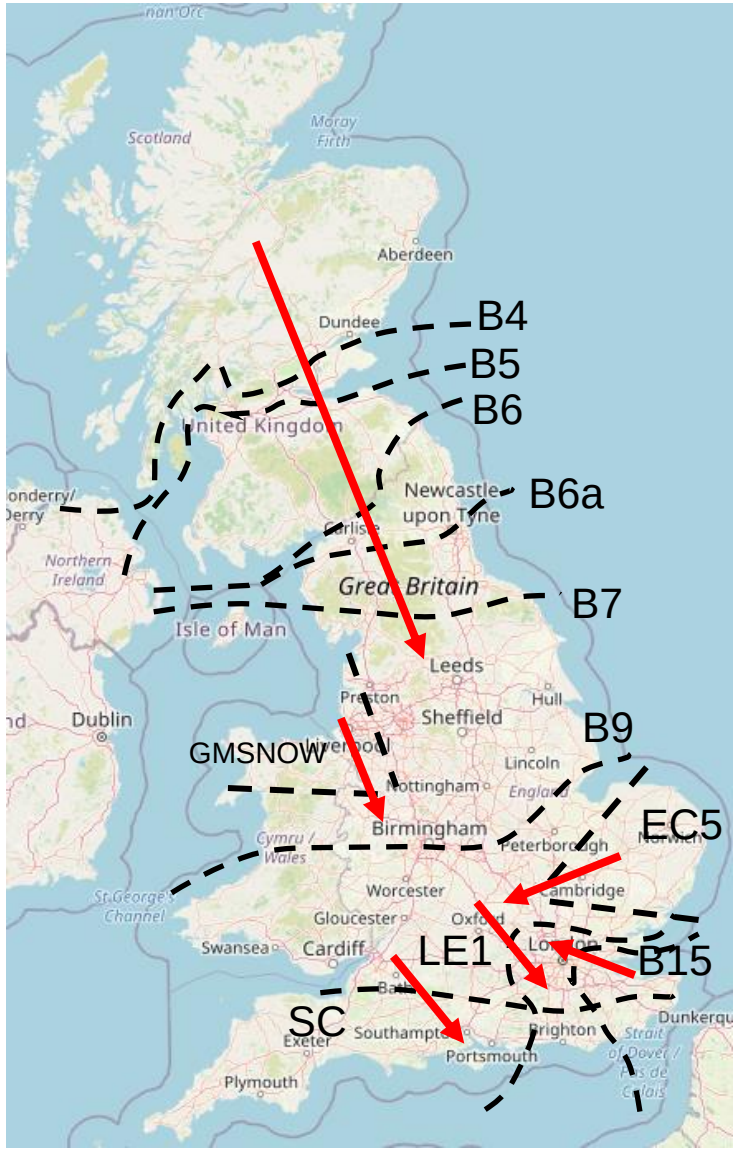
Slido code #OTF

Transparency | Network Congestion – 29/05/24





Boundary	Max. Capacity (MW)	Current Capacity (%)
B4/B5 (SSE-SP)	3400	49%
B6 (SCOTEX)	6800	65%
HARSPNBLY	8000	56%
B7 (SSHARN)	8325	94%
GMSNOW	4700	40%
EC5	5000	66%
LE1 (SEIMP)	8500	71%
B15 (ESTEX)	7500	66%
SC	7300	63%



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