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 Advanced questions option (see below) or email us at: 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

7 June - Managing low demand and high solar (overview of Sunday 21\textsuperscript{st} May)
14 June - Winter Markets Review
21 June - Key messages from the Winter Review and Early View of Winter reports (publication date 15 June)

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

We will be hosting an online event on the morning of Friday 2nd June for a deep dive about how we dispatch and "Skip Rates".

Content will be similar to the event held on 5 December 2022, including:

• How the ESO currently dispatches – illustrating the cumulative challenges faced by our control engineers and explaining our approach to managing this

• The future of dispatch – overview of the Open Balancing Platform roadmap highlighting how progress will improve transparency and support the control room to manage the dispatch challenges

• Current ESO Dispatch Transparency methodology – explaining the reasons for accepting bids or offers which appear to be out of merit; or not accepting those which appear to be in merit. Including risk management actions

There will also be opportunity for a Q & A session and all materials, including the event recording will be shared.

Please register here: https://forms.office.com/r/LHpReRqWCp

Registration will close at 17:00 on Wednesday 31 May and the webinar links will be sent out after this
Decision to delay the delivery of the new Reserve reform products, Slow and Quick Reserve – originally planned for October and November 2023.

As a result, we will not be launching our EBR Article 18 consultation to industry as planned at the end of May.

This decision has been taken in light of the significant changes that would have been required in our existing, legacy balancing systems and processes, given the complexity of the new service designs.

In the coming weeks we will be looking to understand the extent to which we review the proposed service designs and IT solutions.

We will then communicate how and when we intend to engage with you in this process via the Future of Balancing Services distribution list.

More information can be found in May’s Future of Balancing Services newsletter and our web pages:

- Quick Reserve
- Slow Reserve
Join us and learn about our highlights and challenges over the BP1 period (Apr-21 to Mar-23).

Monday 12 June (9.30am – 12pm)

This interactive virtual session will be your chance to ask us questions about our delivery and performance over BP1.
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.
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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.
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 on Mon, Tue, Wed & Sat.

**Voltage**
Intervention was required to manage voltage levels throughout through 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 Sun.
ESO Actions | Wednesday 24 May – Peak Demand – SP spend ~£38k

ESO Actions | Saturday 27 May – Minimum Demand – SP Spend ~£293k

Date: 27/05/2023
SP: 29

Carbon Intensity (gCO₂/kWh)

- NUCLEAR: 5,232
- COAL: 58.96
- CCGT: 99.64
- Biomass: 410
- WIND: 4,435
- HYDRO + OGR: 308
- NET VC Flow: 2,608
- Paraded Storage: -149
- National Demand: 14,305
- VC Export: -149
- PC Export: 14,954
- TSD: 9,253
- RAS Solar: 1,640
- EAR Wind: 25,847
- True Demand: 5,672

Other = OCGT + Oil + Station Load + BMRS other

TSD Elements are ON
TSD total lock is OFF
TD total lock is OFF

ESO Actions | Saturday 27 May – Highest SP Spend ~£347k

Date: 27/05/2023
SP: 31

Carbon Intensity (gCO₂/kWh)
- Market: 50.64
- ESO Actions: 69.48
- Outturn: 120.12

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
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

<table>
<thead>
<tr>
<th>Boundary</th>
<th>Max. Capacity (MW)</th>
</tr>
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<tbody>
<tr>
<td>B4/B5</td>
<td>3400</td>
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<tr>
<td>B15</td>
<td>7500</td>
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<tr>
<td>SC</td>
<td>7300</td>
</tr>
</tbody>
</table>
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
Questions from last week

Q: In the answers to Advanced Questions last week you stated that the ESO Registrations team have confirmed that Solar BMUs will be continue to be included in the OTHER category for the time being and that there are less than 10 Solar BMUs at present. Please can you confirm the BMU IDs of the Solar BMUs that are included in the OTHER category at present because neither of the lists of OTHER category BMUs provided on BM Reports and Elexon’s Kinnect Insight solution appear to contain any Solar BMUs.

A: This information is not currently publicly available.

Q: Do you have to be a BMU to offer the Balancing Reserve (BR) service?

A: We are continuing to review the service design, as set out in the recent call for input whilst reviewing the feedback and taking it into consideration. With the proposed service design we do not currently envisage any testing, as all eligible assets would already be active in the Balancing Mechanism.

Q: Can someone send a note re BR before Friday? it is not clear in the slides.

A: This answer was circulated to all OTF participants on Thursday 15th May:

Under the current service design, as consulted through the Article 18 consultation at the end of 2022, all units participating must be in Balancing Mechanism. As we are currently reviewing the service, with a 'Call for Information' (closed 26 May 2023). If you still would like to send us a feedback, please reach out on box.futureofbalancingservices@nationalgrideso.com.
Questions from last week

Q: Hi, apologies if this is covered elsewhere, on 21 December 2022 the ESO answered a question at the OTF on demand reduction over the winter period at that point (estimating there had been approximately 6.5% decrease in demand over Autumn), as we move into summer could the ESO provide a similar review of the whole winter period, did the decrease in demand remain constant throughout winter, how much demand reduction was there in total and has the trend changed at all as we have moved into warmer weather? Thanks

A: We expect this question will be answered in the Winter Review report due to be published on 15th June and presented at the OTF on 21st June. If these do not answer your question sufficiently, please let us know and we will return to the OTF with a specific answer and analysis.

Q: Has there been a delay to the timeline of the Interim EC5 Constraint Management Intertrip Service tender process?

A: There has been a minor delay to the EC5 Constraint Management Intertrip Service ‘interim’ tender, to allow the team time to incorporate the feedback from the Webinar and Consultation. The tender is due to be released imminently on the ESO website and will be announced to the market via the Strategic Network Development Monthly Newsletter.
Questions from last week

Q: Why were so much inertia purchased on the Sunday 21st when there was also lots of Voltage purchased? Sounds like an interesting low demand/ high solar day for a deep dive?

A: We also think this is an excellent topic for a deep dive. There will be a slight delay because of half-term so we are planning to present this on 7 June 2023.

Q: Do you forecast interconnector flows? If you do putting them alongside the forecast of embedded wind and solar would be useful to get an idea of transmission system demand.

A: No, ESO does not currently forecast interconnector flows. ESO is looking at whether this is something that could be done in the future, but no time line is in place.

Q: Are existing spin gen and spin pump services going to be phased out when Quick Reserve is introduced?

A: That is the long term direction we would like to move in time. We will prefer to use market routes more to deal with short term uncertainty to maximise opportunity to take the most economic solution. However, the phasing out of the services will be planned for only once the quick market is stable and has the requisite liquidity that is required to secure the system.
Questions from last week

Q: Why do you say lowest demand is now in the afternoon and not over night when GB demand is still higher during the day?

A: This is not the case most days, but on certain days when there is low demand and high embedded generation (e.g. warm sunny/windy days) the afternoon national demand minimum can be lower than the overnight minimum. This is because embedded generation is seen not as generation, but as a reduction in national demand.

Generally, these days can occur during the spring/summer when demand is lower and there is a lot of embedded solar generation (which occurs during the middle of the day rather than overnight).
Audience Q&A Session

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

Please remember to use the feedback poll in slido 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