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

ESO Operational Transparency Forum

29 June 2022

nationalgridESO

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:
https://data.nationalgrideso.com/plans-reports-analysis/covid-19-preparedness-materials

Regular Topics

Questions from last week
Demand review
Costs for last week
Constraints

Focus Areas

Transparency Roadmap

OTF Stakeholder Workshop

Winter Operability 2022-23

We will be giving an early view of winter in July and publishing the Winter Outlook in early Autumn.

We will be unable to answer further questions on this at today's forum

Dynamic Parameters

What we will do

- Review dynamic data daily to test against market rules
- Investigate instances of non-compliance or market manipulation
- Report instances of suspicious behaviour to Ofgem accordingly
- Provide a route for you to highlight any specific concerns to us: MarketReporting@nationalgrideso.com

What we will not do

- Comment on specific instances of market behaviour or individual units in this forum
- Provide information about what instances we have reported to Ofgem
- Provide information in response to any concern raised to us

Contingency Contracts

What we can share now

As per BEIS' request, the ESO has recently entered into a bilateral agreement with EDF, for West Burton A to provide additional coal powered generation this winter if required.

Will the generation be available to the market?

This generation will not be available to the open market and will be dispatched at the request of the ESO.

What period does the contract cover?

The contracts cover winter 2022/23. We anticipate the generation to be available from late autumn to March 2023.

How much will the contracts cost?

We are still in talks with other generators so are unable to provide a forecast of costs at this stage.

How will the contract costs be paid for? When will this happen?

The cost of the contracts will be recovered in BSUoS. We anticipate this will be across October 2022 – March 2023 (inclusive).

Why aren't you able to be fully transparent about these contracts today?

We have developed this service rapidly in response to BEIS' request. There are two key drivers for getting these contracts in place now, ahead of winter; to allow generators to undertake maintenance and source coal.

Contingency Contracts

Things we hope to answer in the coming weeks

What will be the REMIT status of the unit when it is not running/ running?

How will we tell you that we intend to use it?

What data will the unit be submitting and how will this data be made public?

What costs will flow into cash-out?

How are you considering the units in other analysis?

We will be unable to answer further questions on this at today's forum.

Future deep dive/ response topics

Items we have taken offline and will come back to this forum on in the future
REMIT obligations on ESO

Items that we have planned for a deep dive
Demand control tests
Reserve scarcity trial results
Early view of Winter Operability

Items that we have identified for regular slot consideration
How we are performing under RIIO-2 report (monthly)
Please note the RIIO-2 report for May was published on 27 June at the link above.

Feedback welcomed on our identified topics for inclusion

OTF Stakeholder workshop

Monday 27 June

~15 attendees from 10 companies joined by a number of ESO colleagues

We gathered many ideas and options for developing this forum.

Next steps

We will share the content created with this forum: targeting next week

We will develop a plan for trialling and delivering developments and share this with this forum

Further ideas generation sessions

Regular feedback

Although this was a great session to generate a lot of ideas, we do also appreciate any feedback on a more regular basis. There is a poll on sli.do and we use comments in here to make small developments week to week; this feedback has driven much of the content and developments thus far. So please do use this to pass on any regular feedback.

New OTF documents published

We have published two new documents on the OTF page in our data portal:
- Q&A document
- Deep-dive list of the topics presented in previous OTF

The documents are available on the following location (with slides and event recordings):
https://data.nationalgrideso.com/plans-reports-analysis/covid-19-preparedness-materials

We thank you for your patience while we have worked on this.

The objective in the future is to update this document regularly.

Questions outstanding from previous weeks

Q: Changes in interconnector generation “PNs” or Physical Notifications reflect through into INDGEN (Indicated Generation) on a zonal and national basis every quarter to and quarter past the hour. Does the same also happen to interconnector demand “PNs” to INDDEM (Indicated Demand) on a zonal and national basis. Might be BMRA data flows but data comes from ESO! Thanks C

A: The Indicated Generation (INDGEN) forecast for each period is the sum of all the Physical Notifications submitted for BM Units which are forecast to be exporting energy, presented as a single average MW level for the Settlement Period. This figure is derived by the System Operator for submission to the BMRS but is not formally defined in the Grid Code. The same happens in the case of Indicated Demand (INDDEM) forecast data with a difference that it is the sum of all the Physical Notifications submitted for BM Units which are forecast to be importing energy.

The INDGEN and INDDEM Forecasts data are normally received based on the following timing schedule on a daily basis and cover the corresponding coverage windows as follows:

Timing (when issued by NETSO)	Coverage (hrs)
By 0200hrs	Data for 0200D to 0500D+1
By 1000hrs	Data for 1000D to 0500D+1
By 1600hrs	Data for 0500D+1 to 0500D+2
By 1630hrs	Data for 1630D to 0500D+1
By 2200hrs	Data for 2200D to 0500D+2

Q: On 10th of June 2022, in SPs 32 and 33, winds plants such as AKGLW-3 were reversed at expensive prices up to £99,999?

A: We are still looking into this. It does not appear to be as simple as bids being reversed at high prices.

Questions outstanding from previous weeks

Q: Why do you continue to over procure dynamic containment against your forecast? You averaged a 30% over procurement for the past week and a 24% over procurement for the past month. What's changing between forecast publication and the auction submission?

A: We've identified areas for improvement in the forecasting models which we will release soon. The complexity associated with the nature of the Loss of Mains risks and variable system conditions means there will always be a larger variance in the error compared to the case where there are no Loss of Mains risks and we procure much closer to real-time (as opposed to day-ahead).

Questions outstanding we are still working on

Q: Where can I find data on the volumes for each BMU providing the Constraints Management Pathfinder (CMP) B6 intertrip service?

Q: In the REMIT answer NGESO say "requirements are about making sure that no parties have a competitive advantage by having access to information not freely available to all market participants." So you need to publish it as you trade and you have information we don't have! What have I missed?

We reached out directly for further clarification on this point and to make sure we've understood the concerns raised here and in responses to this question. We will come back to the OTF with ESOs position at a future forum.

Demand forecasting consultation

Monday 27 June

~14 attendees from 7 companies joined by a number of ESO colleagues

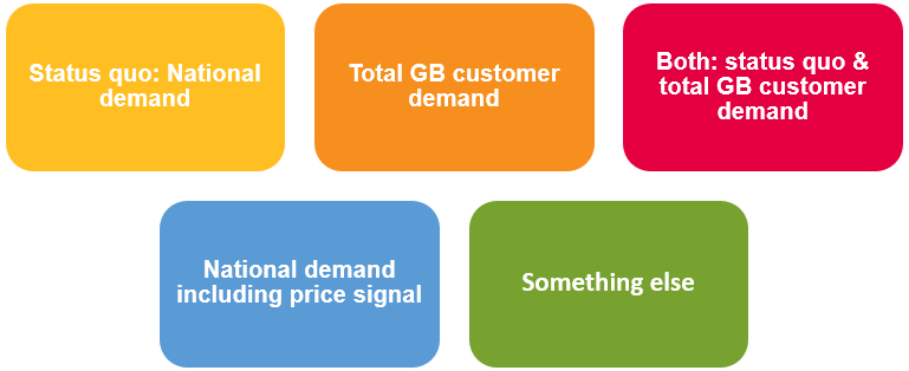
We discussed a wide range of topics in relation to ESO's demand forecasting.

We clarified what various demand definitions entail, provided deep dive into what parameters we are allowed to include in the forecast of national & transmission system demand, forecasting metric (metric 1B) which we have in place with the regulator, and asked the participants **what would be the best forecast product(s)** and what data would be needed to ensure we could provide each proposed forecast quantity.

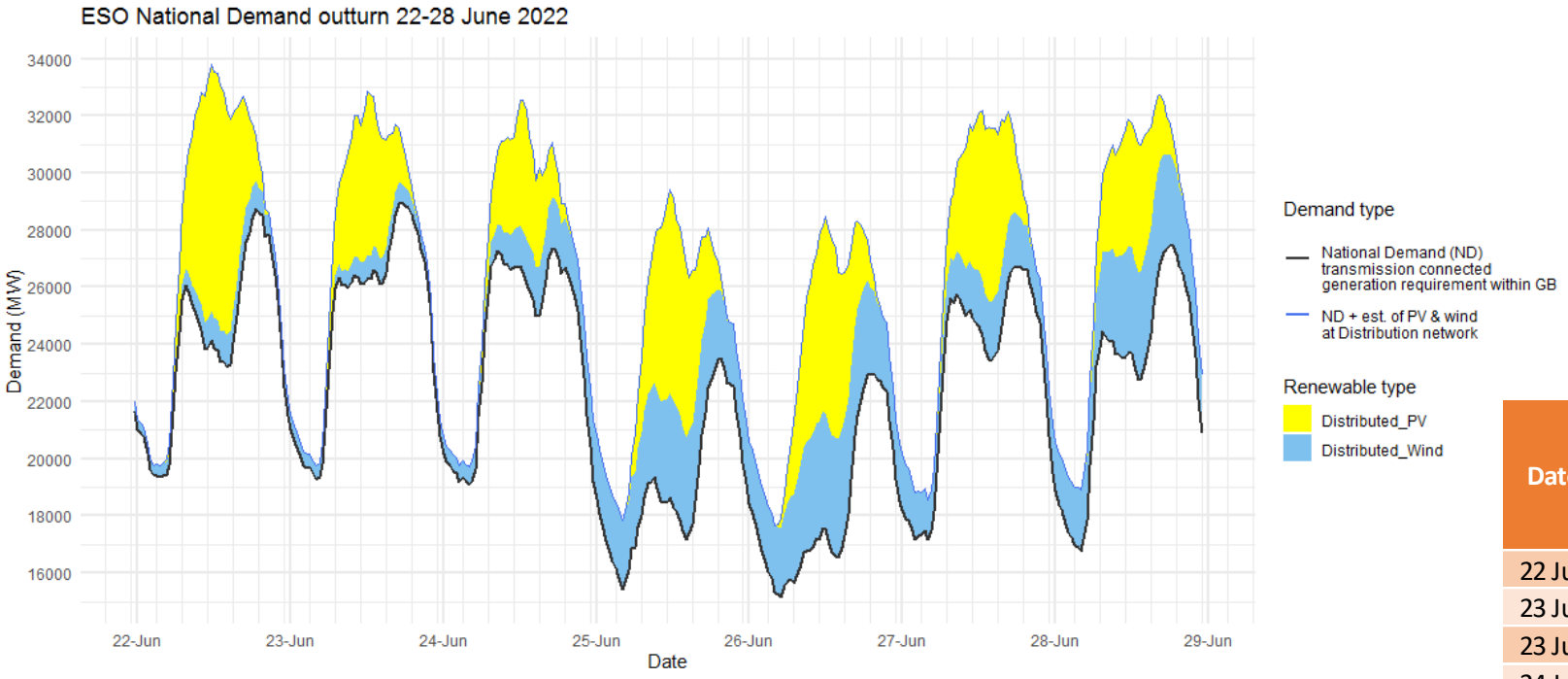
Next steps

We will summarise the discussions and share with the participants of the consultation and OTF forum.

Share the consultation summary and proposal with Ofgem



Demand | Last week demand out-turn



		FORECAST (Wed 22 Jun)			OUTTURN		
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
22 Jun	Afternoon Min	23.0	1.2	8.2	23.2	1.1	7.9
23 Jun	Overnight Min	18.8	0.5	0.0	19.3	0.5	0.0
23 Jun	Afternoon Min	25.4	1.0	5.6	26.1	0.9	4.3
24 Jun	Overnight Min	18.7	1.0	0.0	19.1	0.6	0.0
24 Jun	Afternoon Min	22.9	2.4	5.2	25.0	1.7	3.1
25 Jun	Overnight Min	17.3	1.1	0.1	15.4	2.4	0.0
25 Jun	Afternoon Min	19.7	1.5	4.8	17.2	3.6	6.0
26 Jun	Overnight Min	16.1	0.8	0.5	15.2	2.4	0.3
26 Jun	Afternoon Min	18.8	1.7	5.9	16.5	4.2	5.8
27 Jun	Overnight Min	17.1	1.2	0.0	17.2	1.4	0.0
27 Jun	Afternoon Min	24.1	2.1	5.6	23.4	2.1	6.1
28 Jun	Overnight Min	17.7	1.5	0.0	16.7	2.2	0.0
28 Jun	Afternoon Min	23.3	2.6	5.8	22.7	3.8	4.5

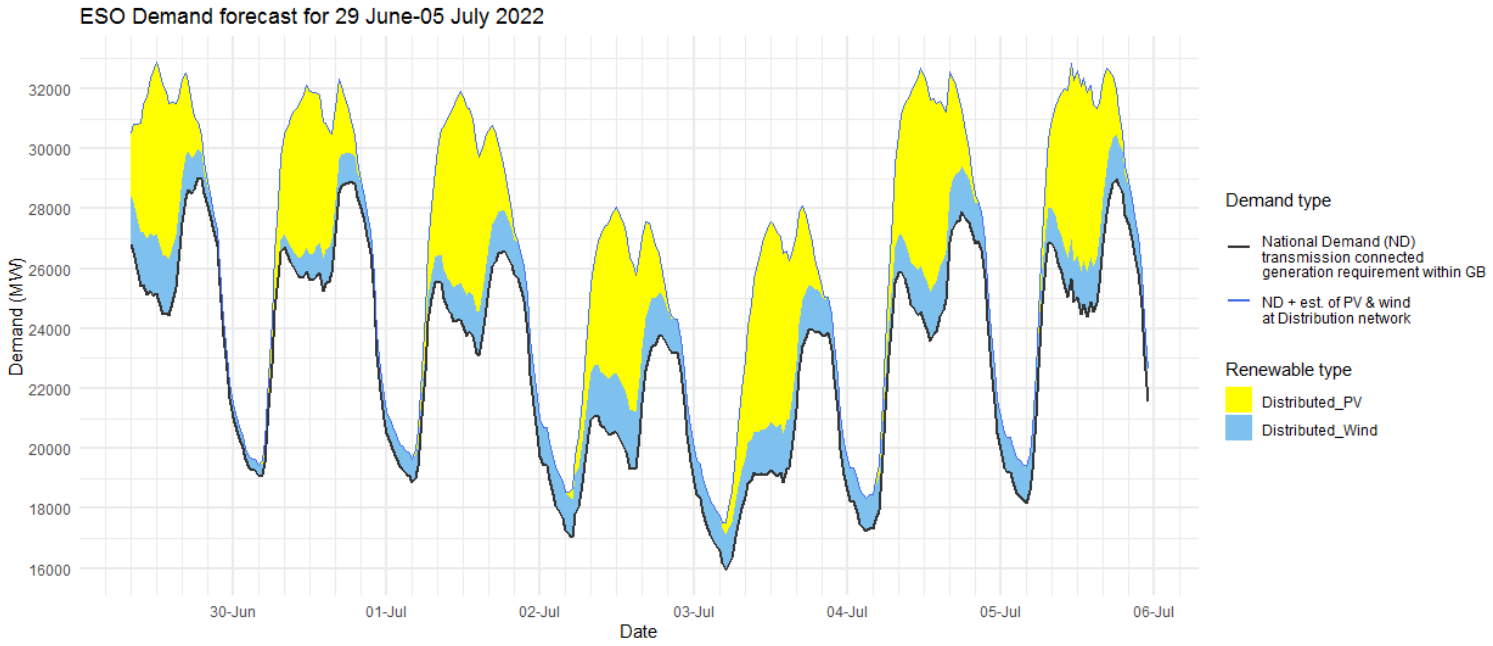
The black line (National Demand ND) is the measure of portion of total GB customer demand that is supplied by the transmission network.

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

Demand | Week Ahead



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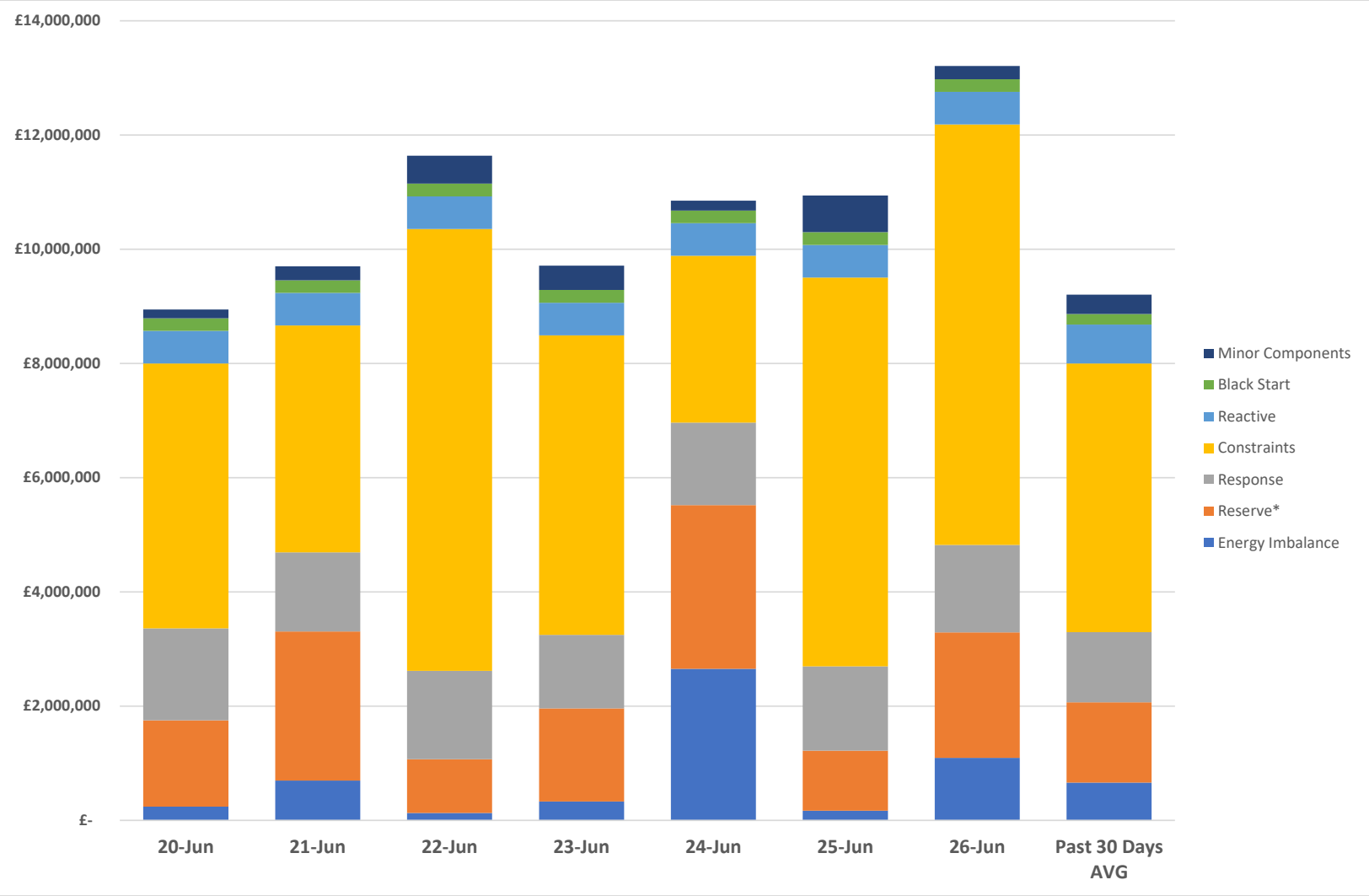
		FORECAST (Wed 29 Jun)		
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
29 Jun	Afternoon Min	24.5	1.9	5.2
30 Jun	Overnight Min	19.1	0.4	0.0
30 Jun	Afternoon Min	25.2	1.1	4.6
01 Jul	Overnight Min	18.9	0.8	0.0
01 Jul	Afternoon Min	23.1	1.5	5.2
02 Jul	Overnight Min	17.0	1.3	0.4
02 Jul	Afternoon Min	19.3	1.9	4.9
03 Jul	Overnight Min	15.9	1.2	0.4
03 Jul	Afternoon Min	18.9	1.7	6.0
04 Jul	Overnight Min	17.2	1.1	0.0
04 Jul	Afternoon Min	23.6	1.6	6.4
05 Jul	Overnight Min	18.2	1.2	0.0
05 Jul	Afternoon Min	24.4	1.5	6.0

ESO Actions | Category costs breakdown for the last week



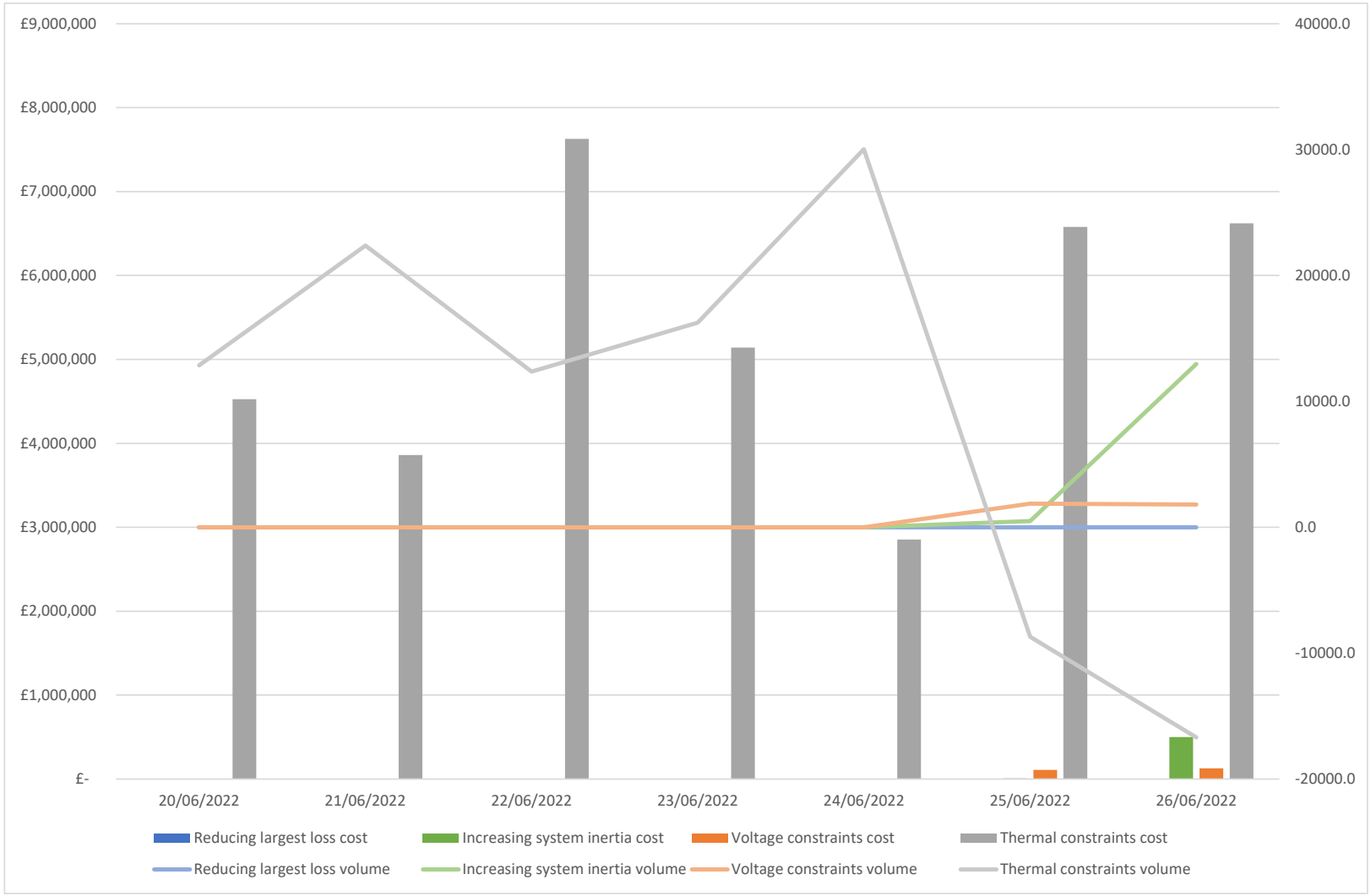
Date	Total (£m)
20/06/2022	8.9
21/06/2022	9.7
22/06/2022	11.6
23/06/2022	9.7
24/06/2022	10.8
25/06/2022	10.9
26/06/2022	13.2
Weekly Total	75.0

Constraint category was the key cost component throughout the week.

*Reserve includes Operating Reserve, STOR, Fast Reserve, Negative Reserve, Other Reserve

Past 30 Days Average is displayed in the chart

ESO Actions | Constraint Cost Breakdown



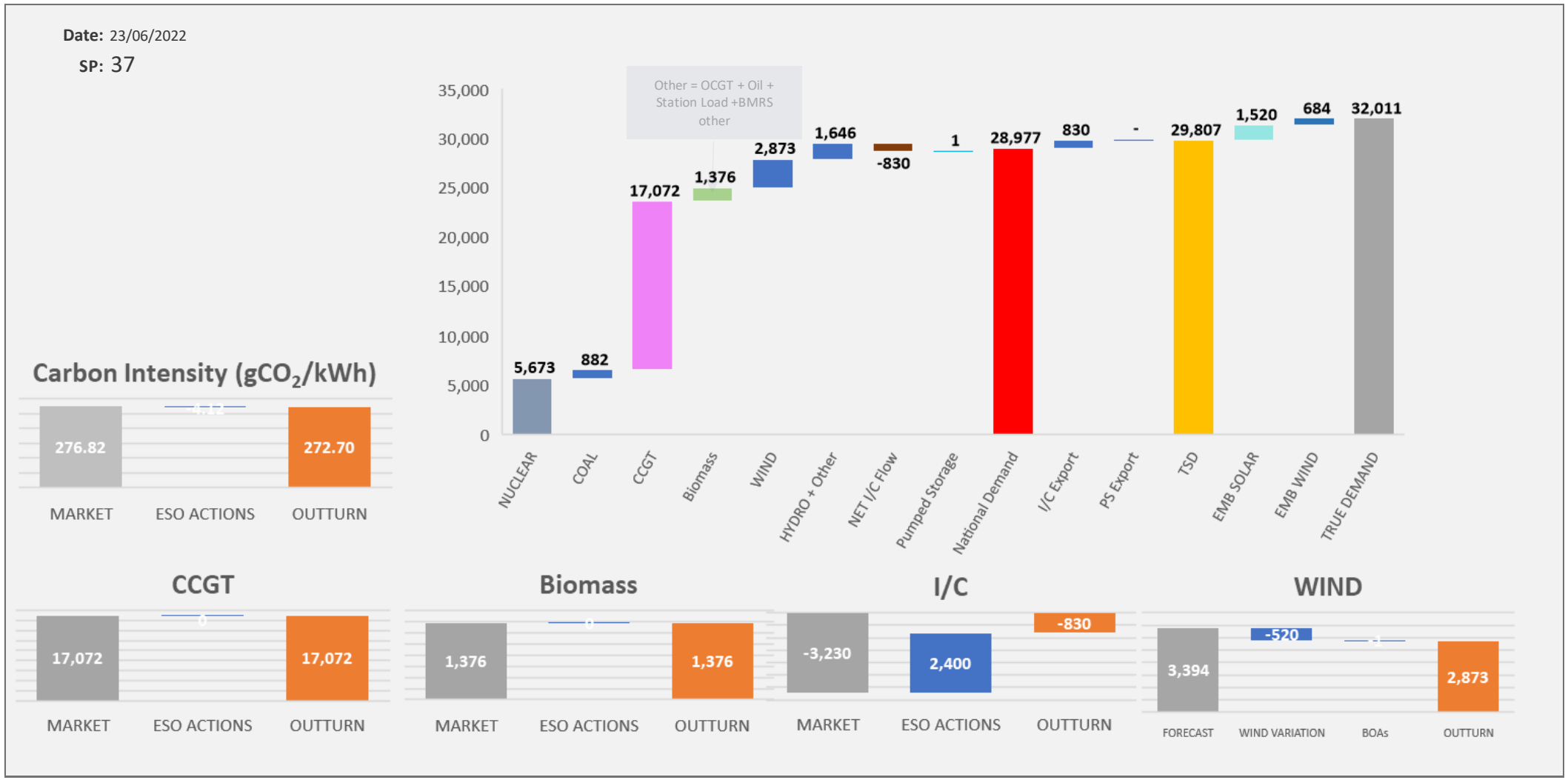
Thermal – network congestion
Actions required to manage Thermal Constraints throughout the week

Voltage
Actions taken to synchronise generation to meet voltage requirements were taken on Saturday and Sunday

Managing largest loss for RoCoF
No Intervention required to manage largest loss

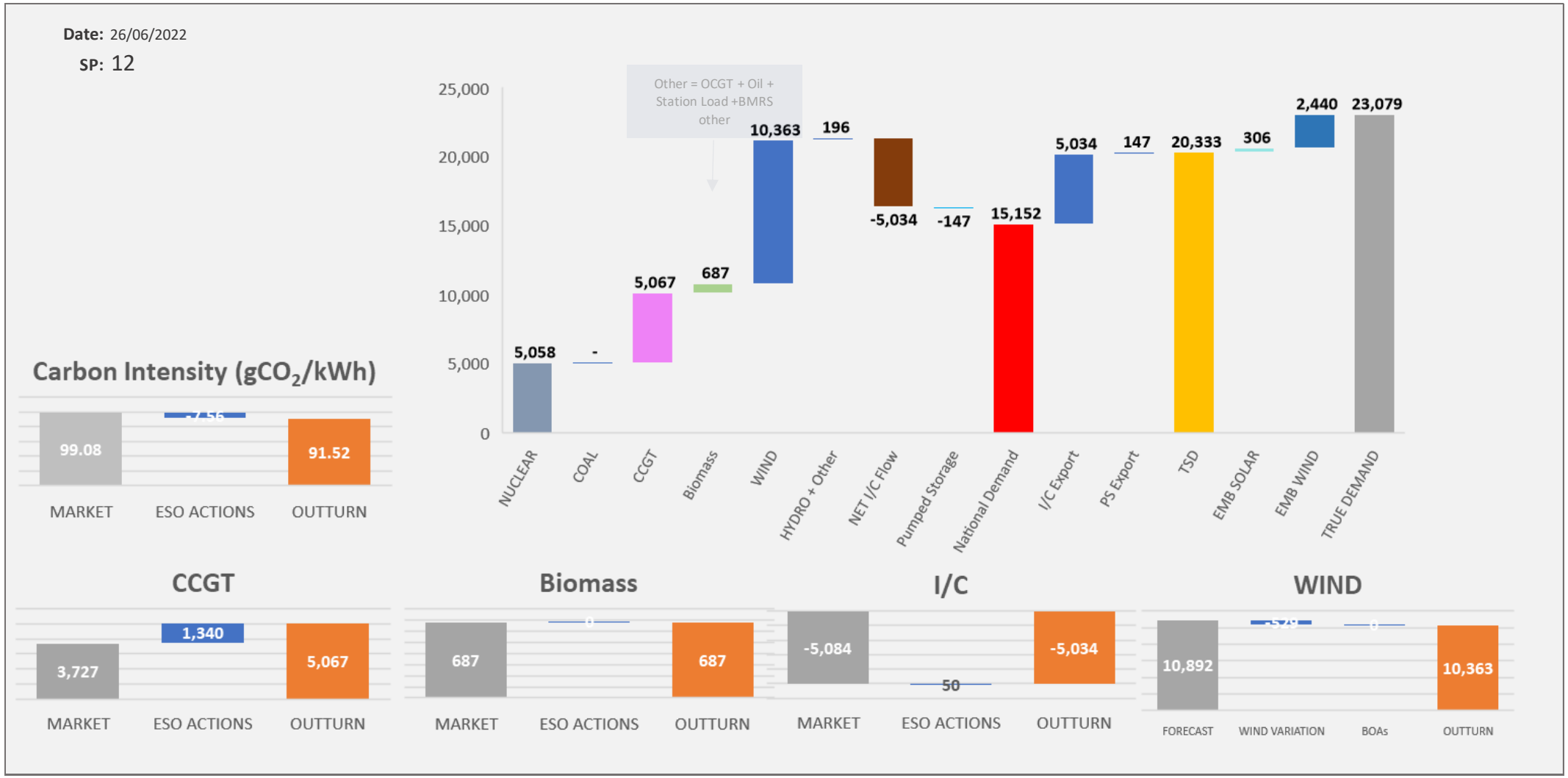
Increasing inertia
Intervention required to increase minimum inertia on Sunday

ESO Actions | Thursday 23 June - Peak



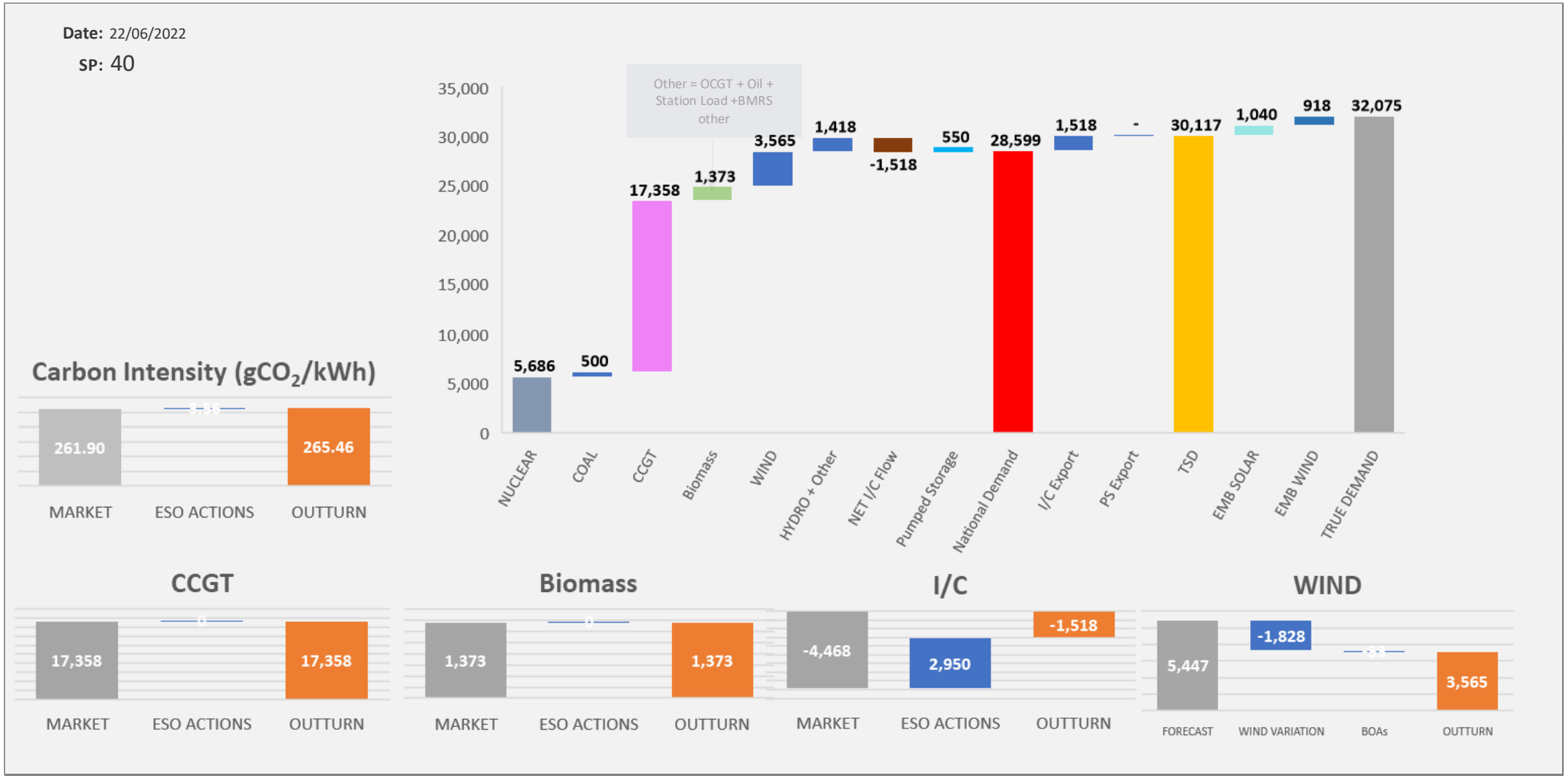
Carbon Intensity data on data portal: https://data.nationalgrideso.com/carbon-intensity1/carbon-intensity-of-balancing-actions

ESO Actions | Sunday 26 June - Minimum



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

ESO Actions | Wednesday 23 June - Highest SP Spend ~£0.5m



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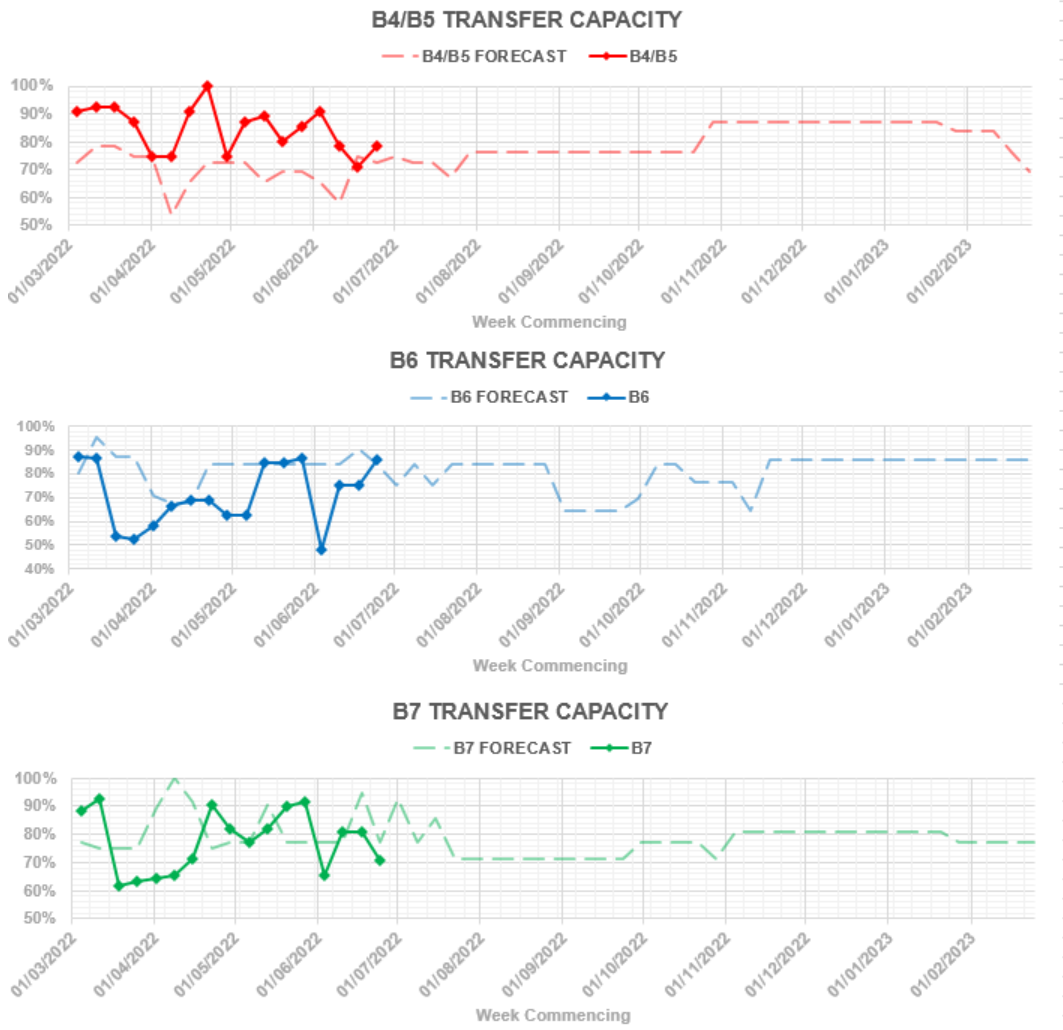
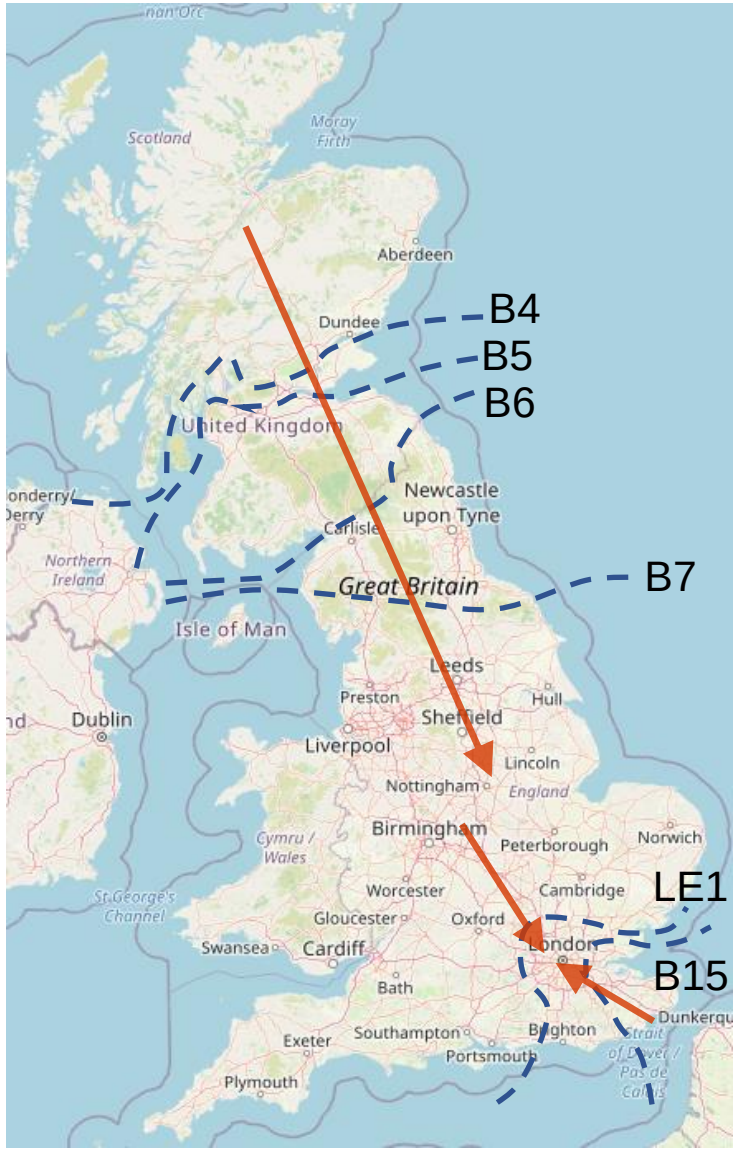
Transparency | Network Congestion

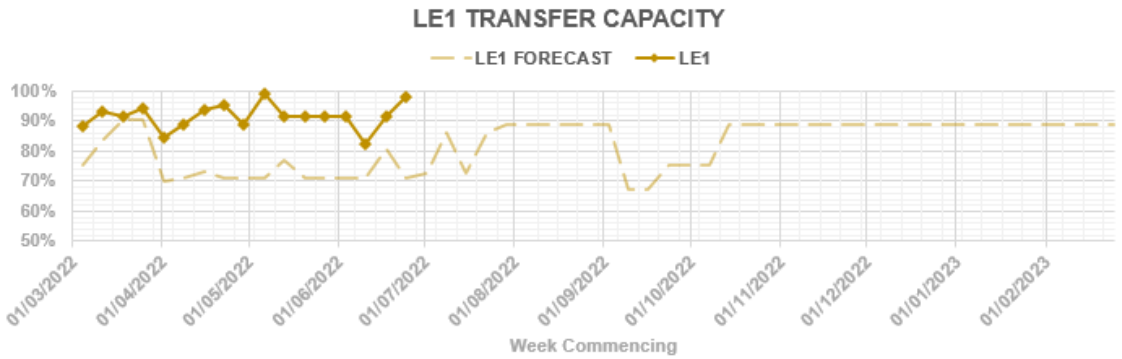


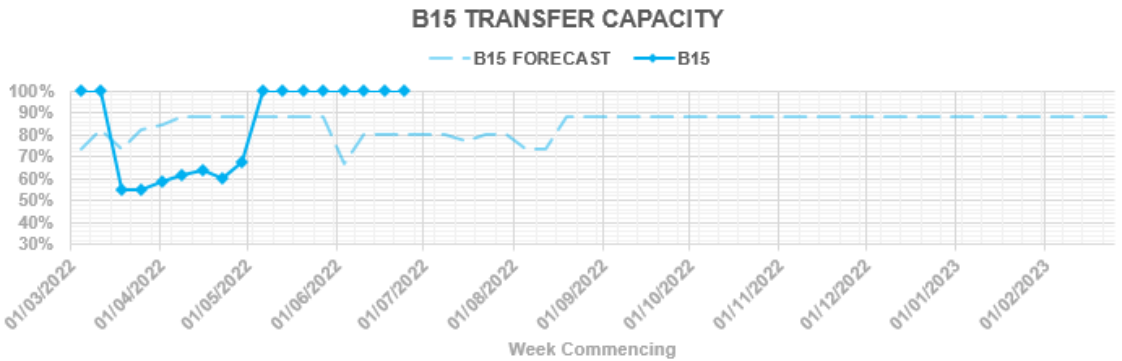
Boundary	Max. Capacity (MW)
B4/B5	2750
B6	5600
B7	8400
LE1	7000
B15	7500



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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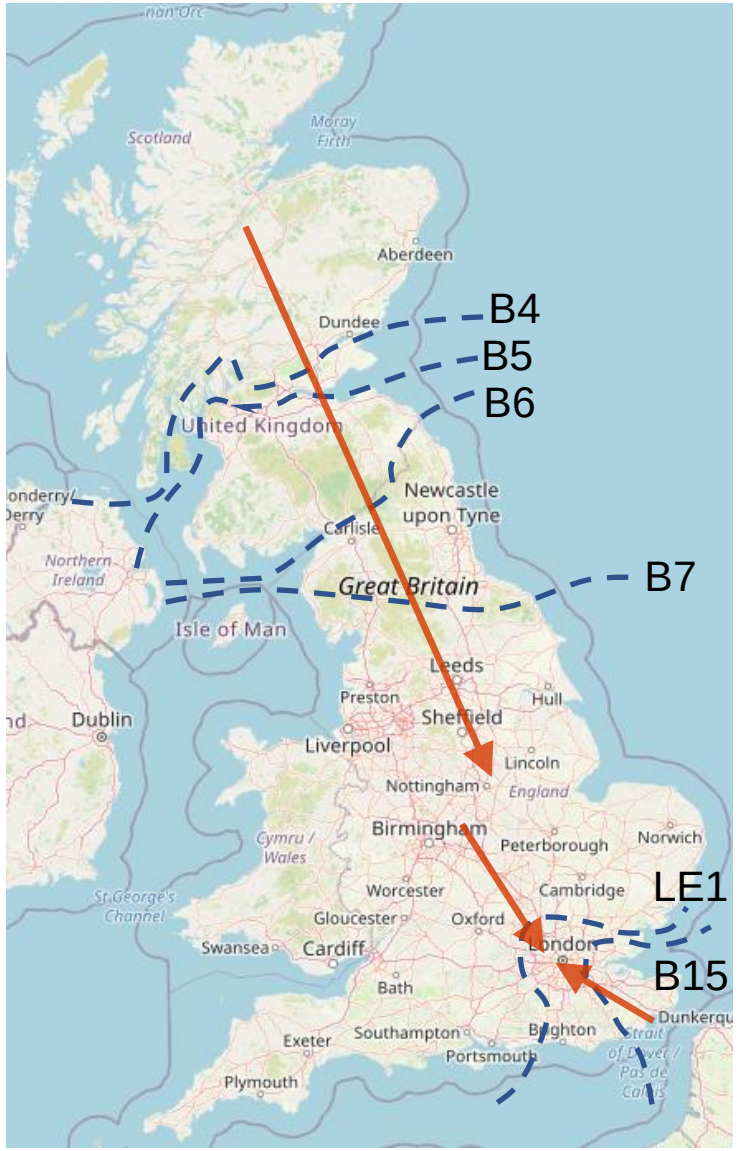

Day ahead flows and limits, and the 24 month constraint limit forecast are published on the ESO Data Portal:
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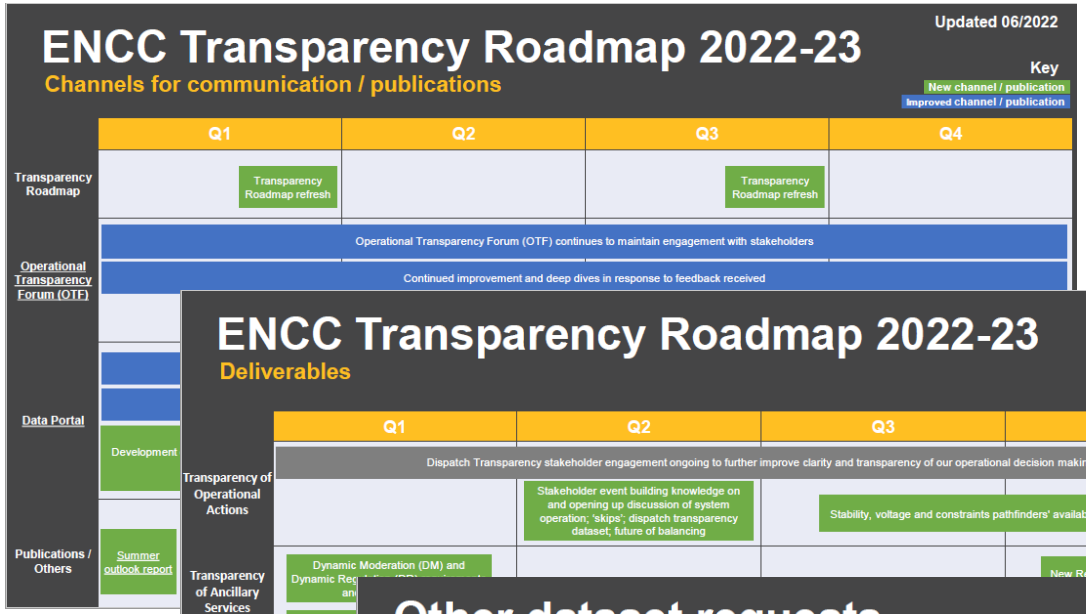
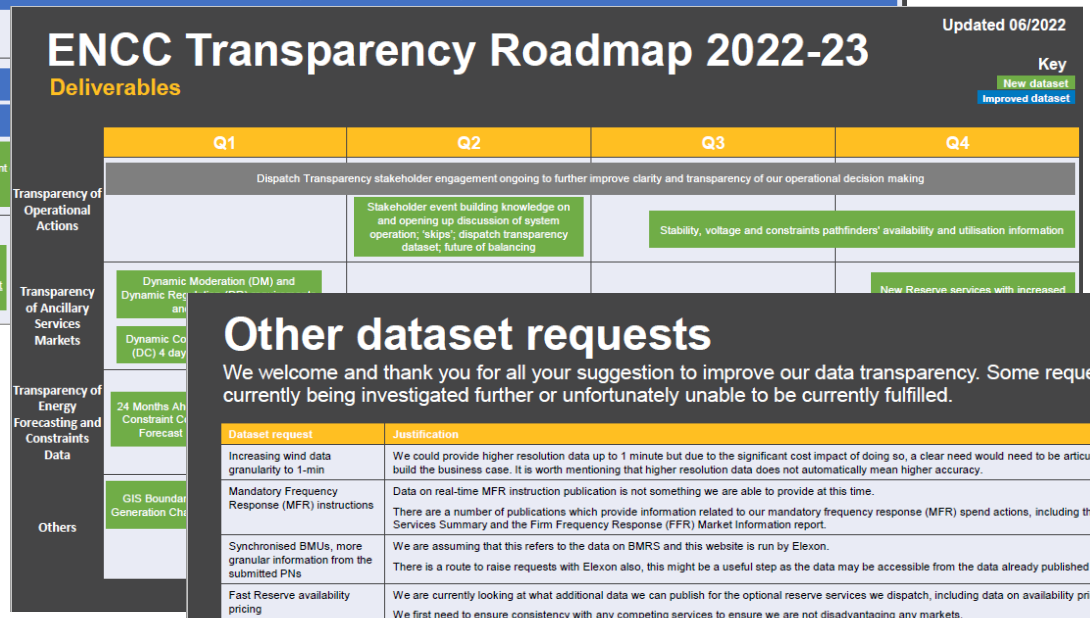
Updated Transparency Roadmap

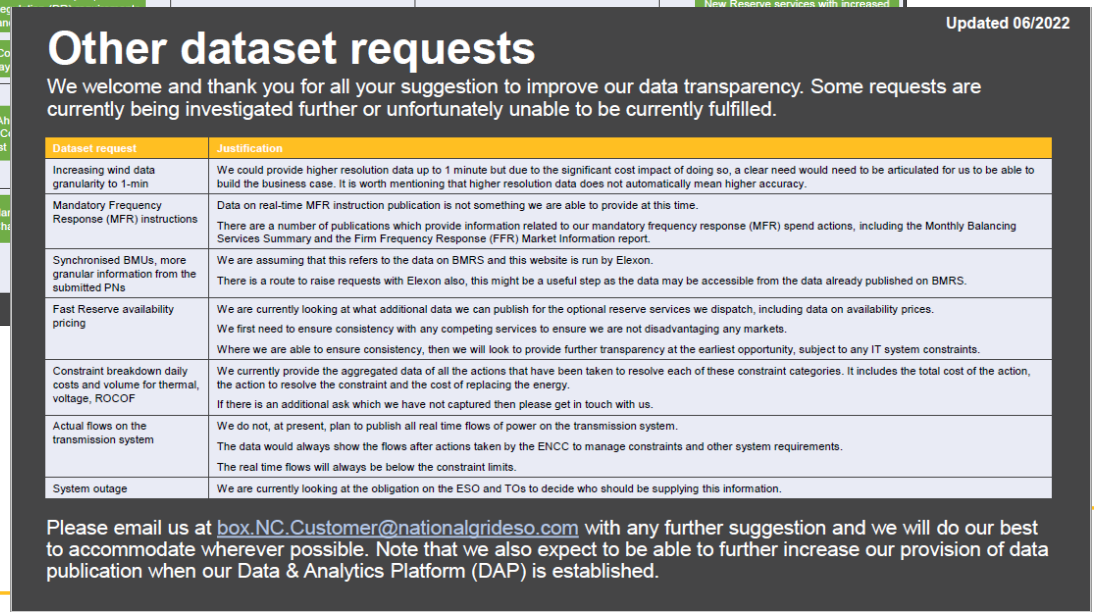
We have updated our ENCC Transparency Roadmap. This roadmap highlights the activities we will be delivering to increase our transparency next year.

- Updated communication channels, including the continuation of OTF and implementation of improvements following the stakeholder event.
- Updated deliverables, including increasing transparency of our operational actions, new dataset related to new AS markets and new constraints data.
- New list of other dataset requests, with an explanation of the current status of those requests.

The document is available here:
https://www.nationalgrideso.com/our-strategy
Please email us with any further suggestion:
box.NC.Customer@nationalgrideso.com







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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

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