

ESO Operational
Transparency Forum
27 April 2022

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

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
Business continuity
Demand review
Costs for last week
Constraints

Focus Areas

BSUoS Reform Update

Signposts to:
5 Point Plan for constraint management
Strategic review of Balancing Capability

Future forum topics

While we want to remain flexible to provide insight on operational challenges when they happen, we appreciate you want to know when we will cover topics.

We have the following deep dives planned:

Managing constraints in real-time – inertia/ RoCoF

Questions outstanding from previous weeks

Q: on 8th Apr: Non-BM Ancillary Service Dispatch Platform instructions offer price on NG website (£324.9) was different from BMRS website (£349.9). what was the reason for discrepancy?

A: The price published in the Data Portal for dispatch instruction is the indicative price taken from the unit availability window utilisation price at the time of dispatch. BMRS cost information is published per settlement period. An instruction may run in multiple settlement periods which can lead to small discrepancies in data such as this.

Q: Thanks Dan on voltage management case study- i guess the point is that the sizes of power flow change and forecast position uncertainty are probably the tip of a larger iceberg as we transition to NZ- are you considering more automated arrangements/ more dynamic support resources going forward?

A: The Reactive Reform – Market Design project has made recommendations for how we may procure reactive services in the future. These have been broadly split into pre and post fault services which includes dynamic reactive support. Weblink to project recommendations: [Reactive Reform – Market Design | National Grid ESO](#)

Q: Given your answer on slide 17 includes on boundary and voltage constraint costs, it would be helpful to ensure this is expressly stated in labels / titles of forecast to avoid and misinterpretation going forward - are you able to update future publications?

A: Thank you, we will clarify on the data portal which costs are and are not included in the forecast.

Q: Reserve requirements are currently published for cardinal points in the SOP. It would be better to publish this for settlement periods or hours, as there isn't much clarity on the timing of cardinal points throughout the year.

Thanks for the suggestion. As we make our System Operating plans for cardinal points, this dataset is only able to be provided in this way. However, we will look at creating a dataset to convert cardinal point timings into settlement periods so that you are able to have clarity on the timing of cardinal points as these vary through the year.

Questions outstanding from previous weeks

Outstanding questions we are still working on

Q: on 8th Apr 2022: The ndf (national demand forecast) was unusual - sudden drop in demand forecast for period 15 and then sudden rise in demand forecast for period 21 - was there any specific rational/reason for that forecast – referring to the within day 6 hour ahead forecast

Q: So it sounds like the LCM will result in costs to bid back generation but you still haven't addressed why you don't bid pumped storage to pump, often at lower cost than e.g. bidding back wind?

Q: A continental European constraint can be "outsourced" to GB system & lead to GB constraint. This must something happening frequently across the many continental boundaries- how consistent is this with GB cost treatment?

STOR Auction Update

Since Saturday (23 April) we have been experiencing issues with the STOR Auction platform. Providers are still able to submit their bids however the assessment algorithm has failed to run and as a consequence we have been running the assessment process manually.

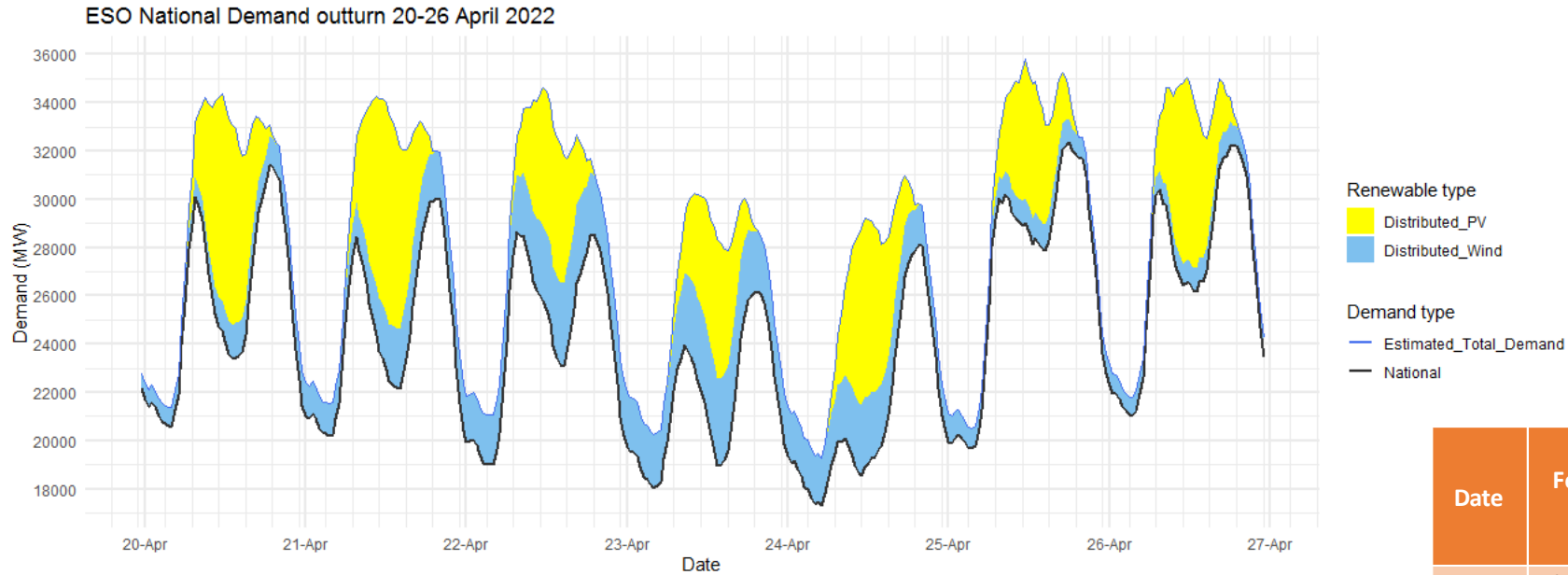
Ofgem are aware and we continue to keep them updated.

Providers will not receive the automated contract award email but an email confirming that the process has been run manually and that the results are on the data portal.

Our IS colleagues are working on the issue as a priority although we don't have confirmation of when it will be fixed.

Providers are asked to continue to submit bids through the Salesforce Auction Platform.

Demand | Last week demand out-turn



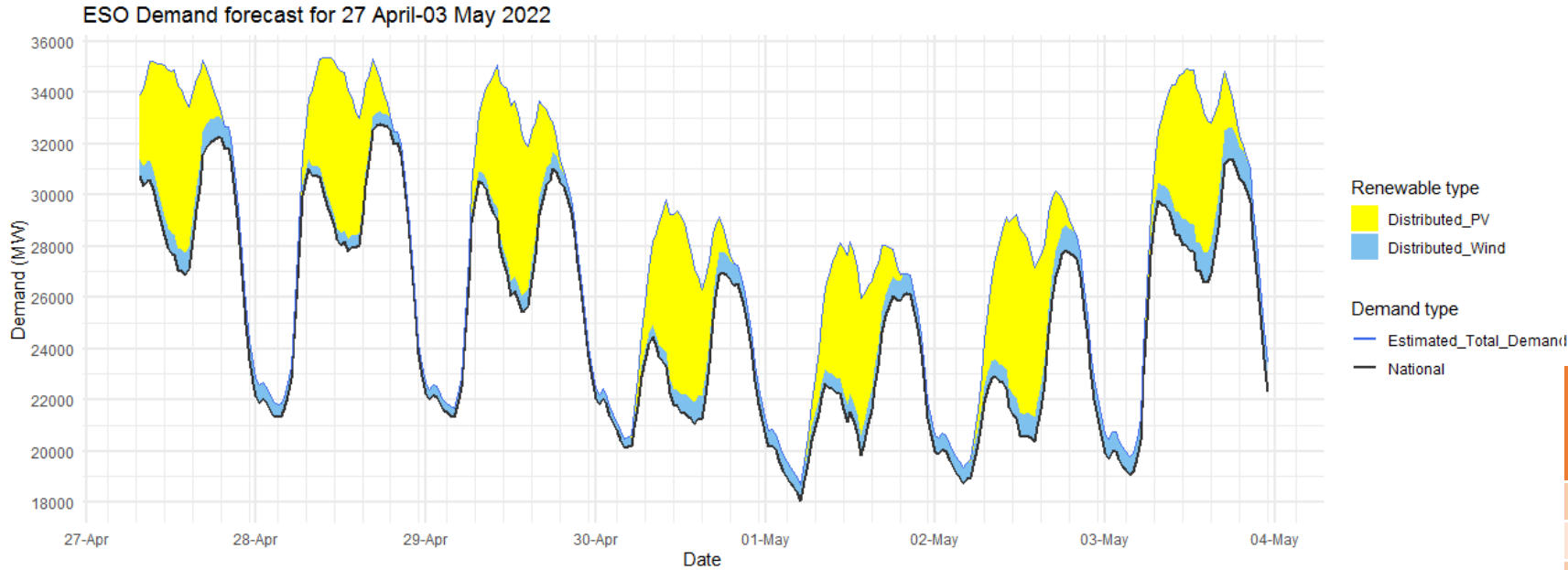
The black line (National Demand) is the measure of portion of total GB customer demand that is supplied by the transmission network.

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 20 Apr)			OUTTURN		
		National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
20 Apr	Afternoon Min	25.0	1.4	7.6	23.4	1.4	8.3
21 Apr	Overnight Min	20.7	1.4	0.0	20.2	1.3	0.0
21 Apr	Afternoon Min	24.5	2.7	5.5	22.2	2.5	7.5
22 Apr	Overnight Min	19.2	2.3	0.0	19.0	2.1	0.0
22 Apr	Afternoon Min	24.5	3.7	4.0	23.1	3.4	5.2
23 Apr	Overnight Min	17.6	2.6	0.0	18.0	2.2	0.0
23 Apr	Afternoon Min	19.2	3.7	5.8	19.0	3.6	5.6
24 Apr	Overnight Min	16.7	2.4	0.0	17.3	2.0	0.0
24 Apr	Afternoon Min	20.5	2.9	5.6	19.3	2.7	7.1
25 Apr	Overnight Min	18.6	1.6	0.0	19.7	0.9	0.0
25 Apr	Afternoon Min	28.0	1.7	4.8	27.9	1.1	4.1
26 Apr	Overnight Min	20.5	0.8	0.0	21.0	0.8	0.0
26 Apr	Afternoon Min	27.9	0.9	5.0	26.2	0.9	6.5

Demand | Week Ahead



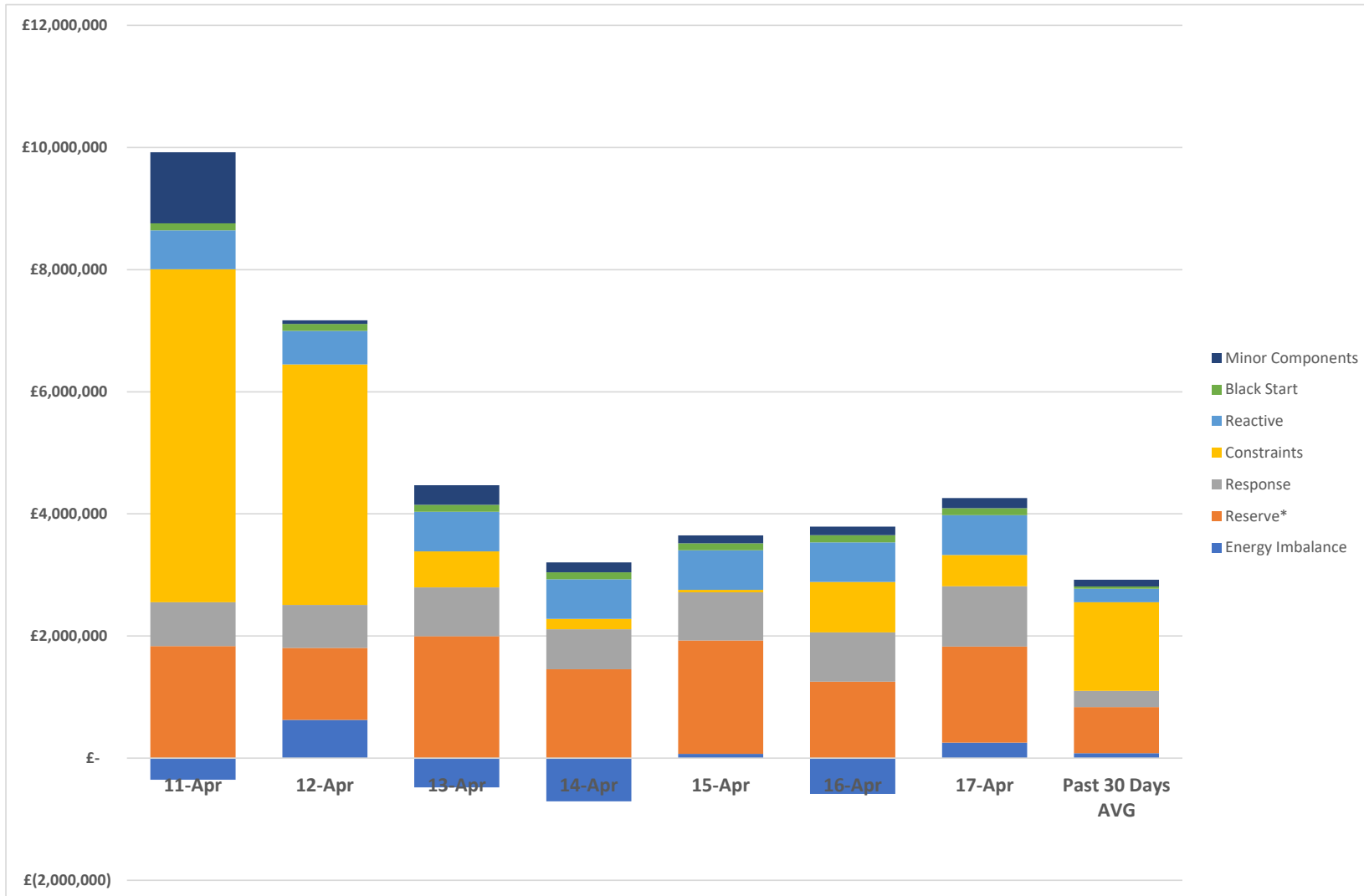
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Forecast of the embedded solar & wind generation for the next 14 days can be found on the [ESO Data Portal](#) in the following data set: [Embedded Solar and Wind Forecast](#)

		FORECAST (Wed 27 Apr)		
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
27 Apr	Afternoon Min	26.9	0.9	5.9
28 Apr	Overnight Min	21.3	0.5	0.0
28 Apr	Afternoon Min	27.8	0.5	5.8
29 Apr	Overnight Min	21.3	0.4	0.0
29 Apr	Afternoon Min	25.4	0.6	6.3
30 Apr	Overnight Min	20.1	0.4	0.0
30 Apr	Afternoon Min	21.1	0.8	5.2
01 May	Overnight Min	18.0	0.6	0.0
01 May	Afternoon Min	19.8	0.8	5.4
02 May	Overnight Min	18.7	0.6	0.0
02 May	Afternoon Min	20.4	0.9	5.9
03 May	Overnight Min	19.0	0.7	0.0
03 May	Afternoon Min	26.6	1.2	5.5

ESO Actions | Category costs breakdown for week 11-17 April

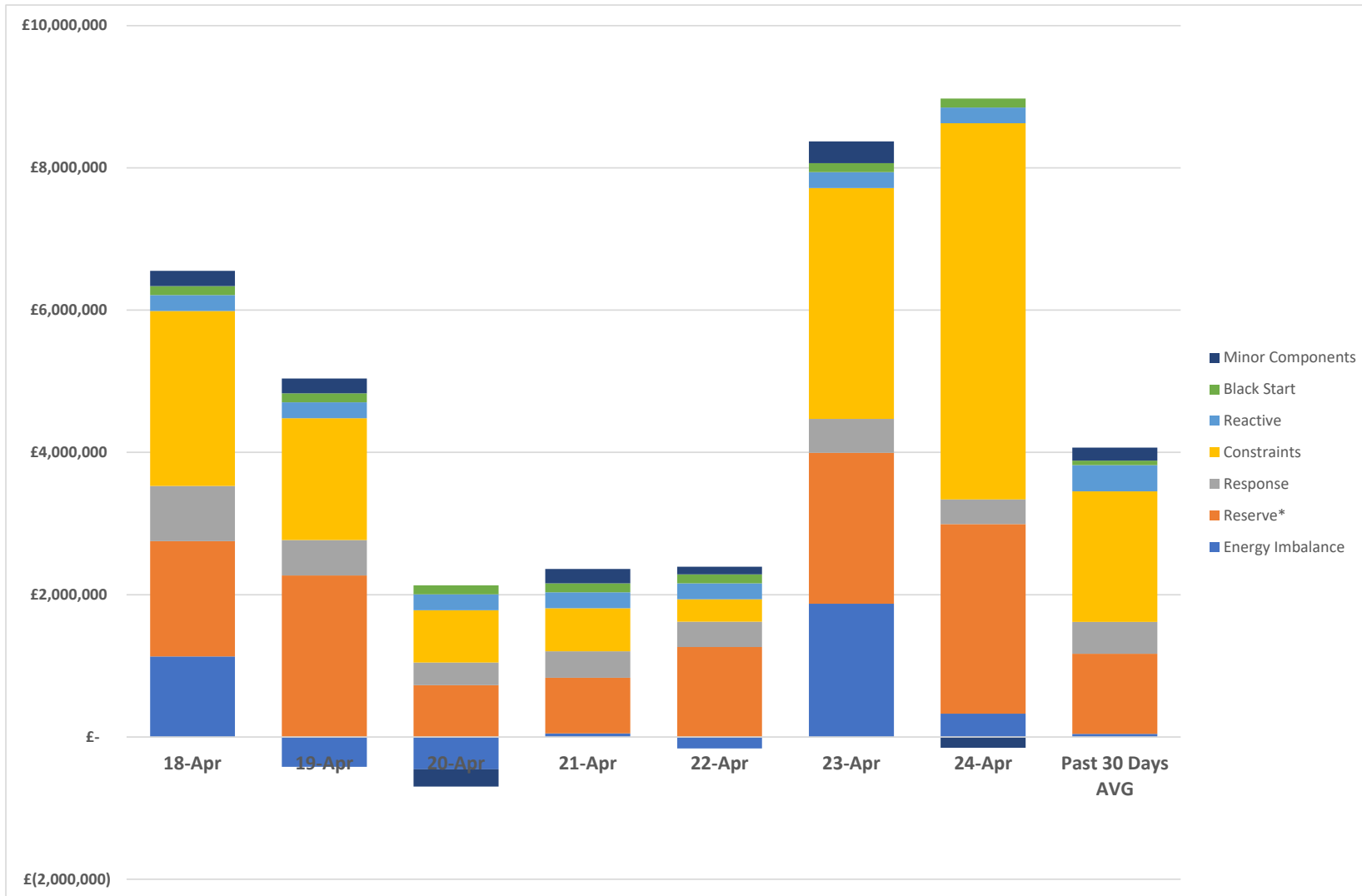


Day	Total (£m)
11/04/2022	9.6
12/04/2022	7.2
13/04/2022	4.0
14/04/2022	2.5
15/04/2022	3.6
16/04/2022	3.2
17/04/2022	4.3
Weekly Total	34.3

Key driver of costs was constraints category

Past 30 Days Average is displayed in the chart

ESO Actions | Category costs breakdown for the last week

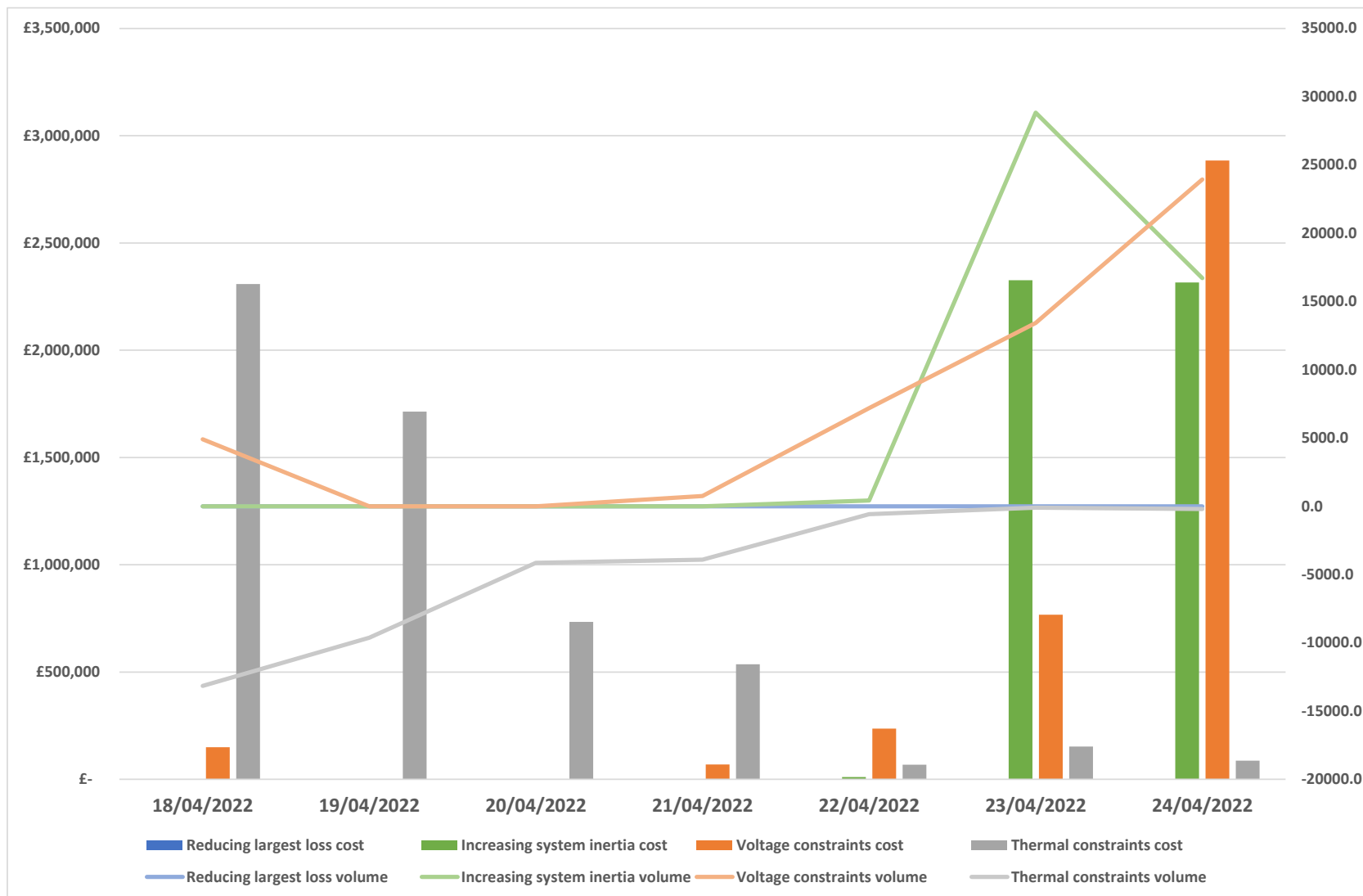


Date	Total (£m)
18/04/2022	6.6
19/04/2022	4.6
20/04/2022	1.4
21/04/2022	2.4
22/04/2022	2.2
23/04/2022	8.4
24/04/2022	8.8
Weekly Total	34.4

Key driver of costs was constraints category

Past 30 Days Average is displayed in the chart

ESO Actions | Constraint Cost Breakdown



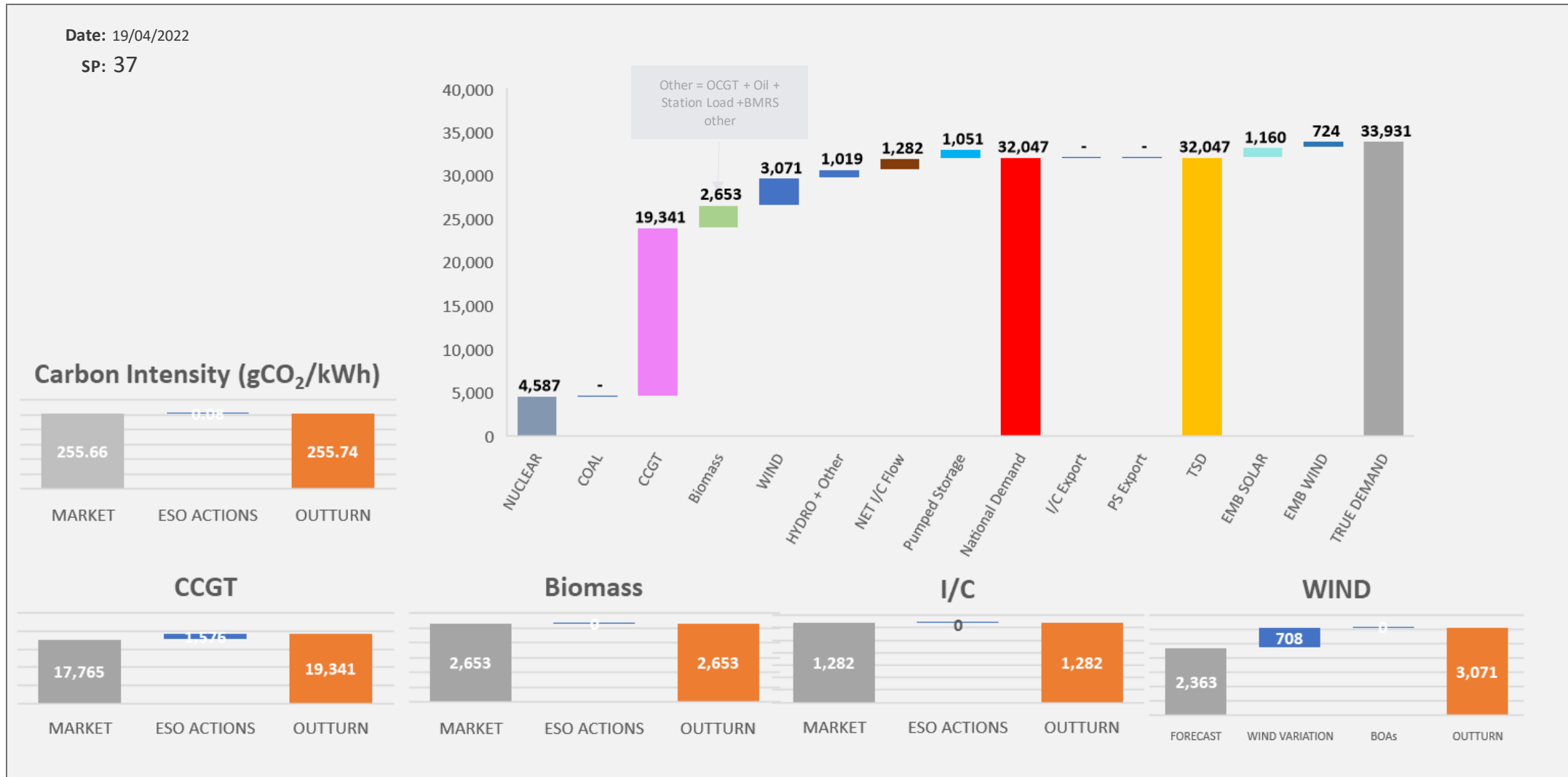
Thermal – network congestion
 Actions required to manage Thermal Constraints on each day

Voltage
 Actions taken to synchronise generation to meet voltage requirements were required on most days through the week.

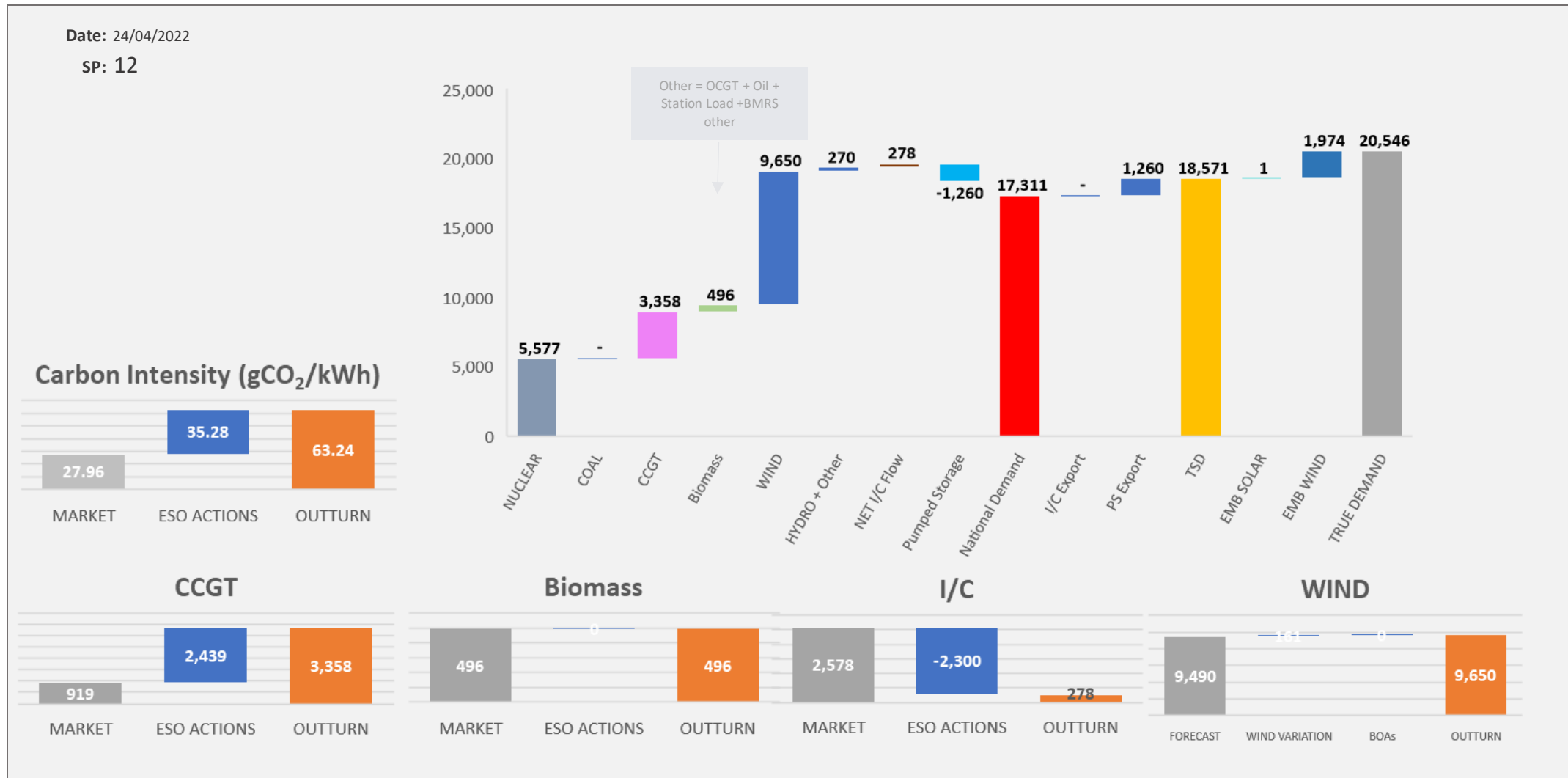
Managing largest loss for RoCoF
 No intervention required to manage largest loss

Increasing inertia
 Intervention required to increase minimum inertia on Saturday and Sunday

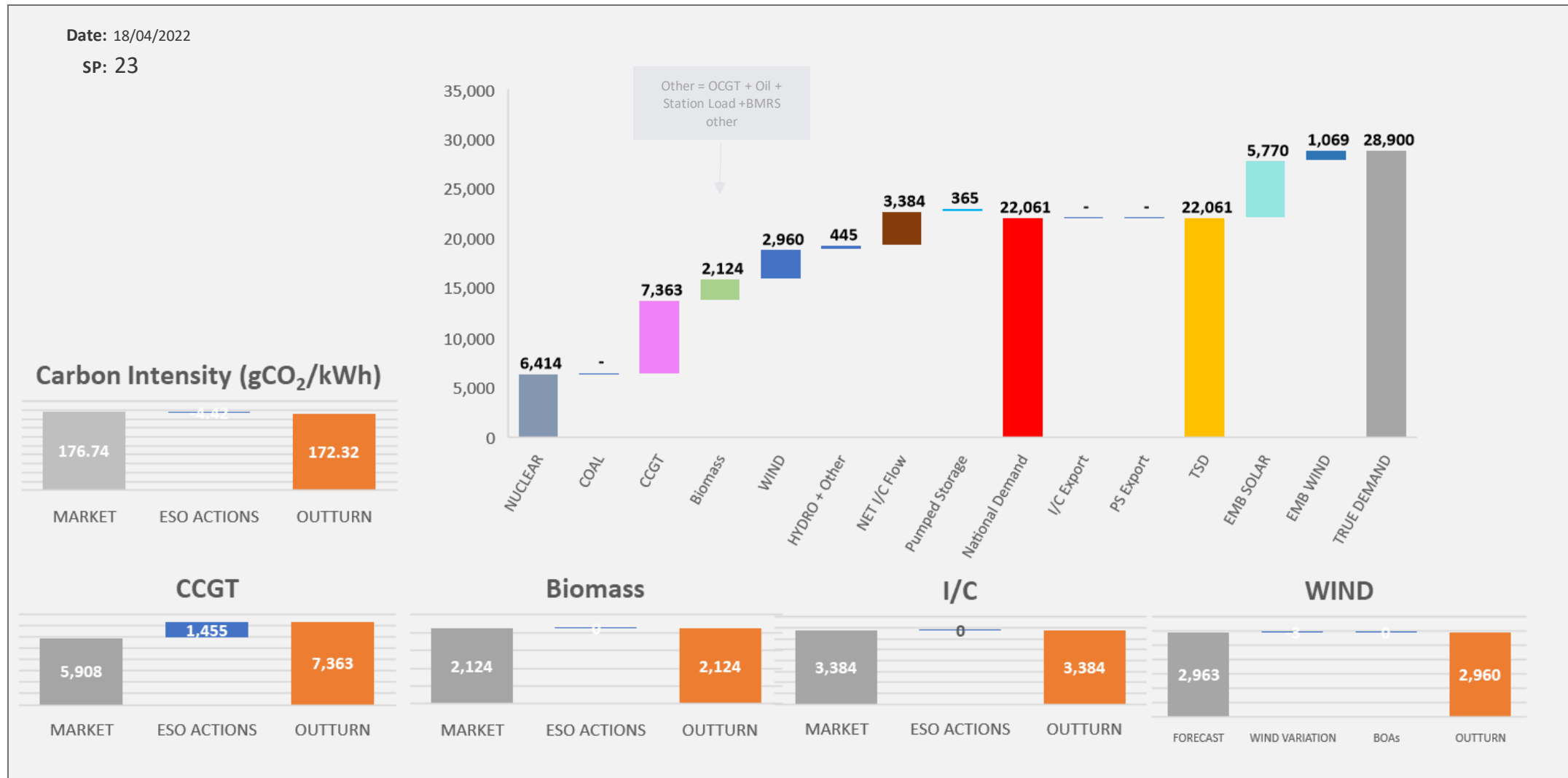
ESO Actions | Tuesday 19 April Peak



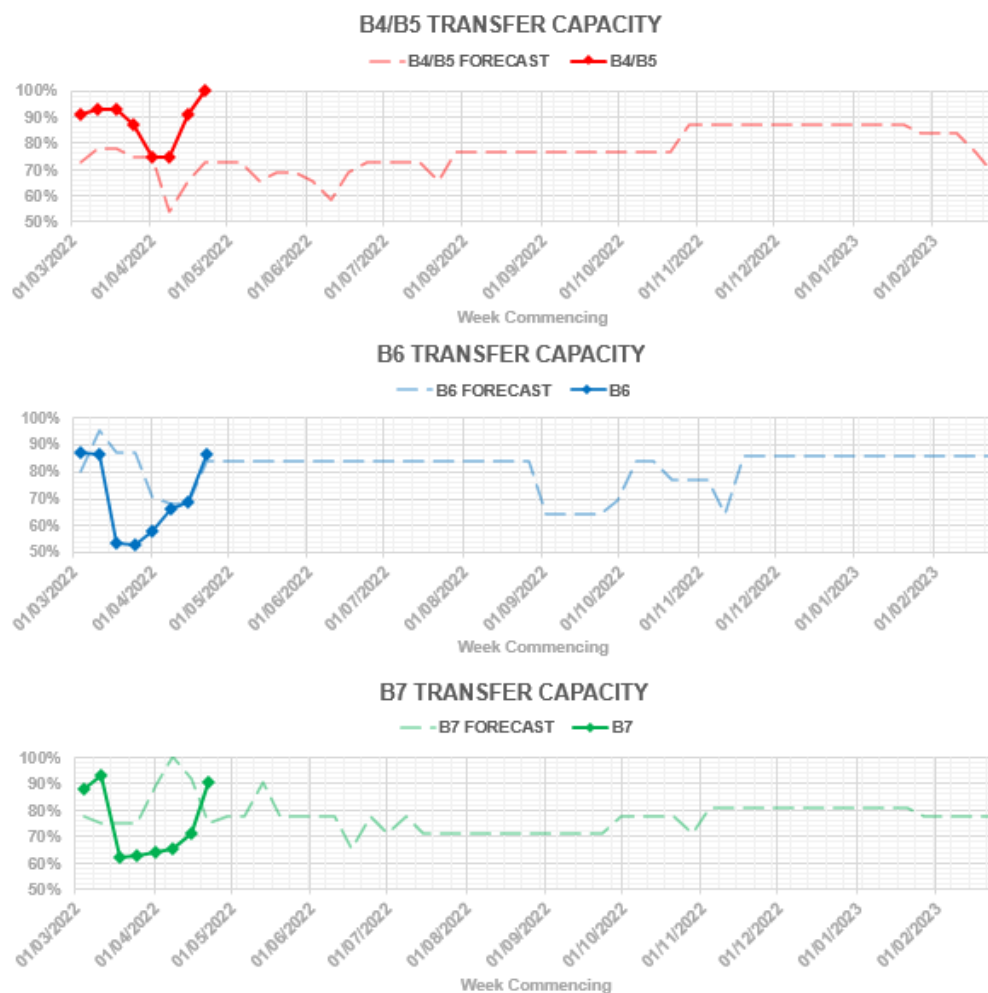
ESO Actions | Saturday 24 April Minimum



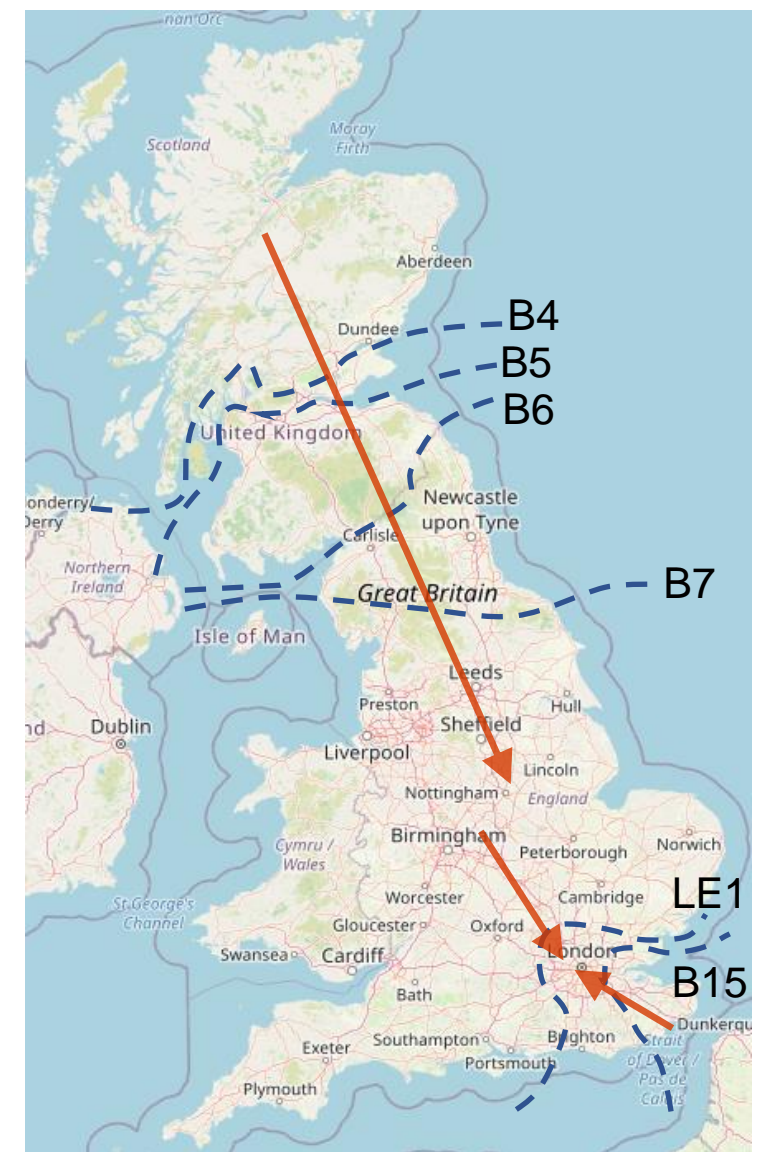
ESO Actions | Monday 18 April Highest Spend ~£0.45m



Transparency | Network Congestion



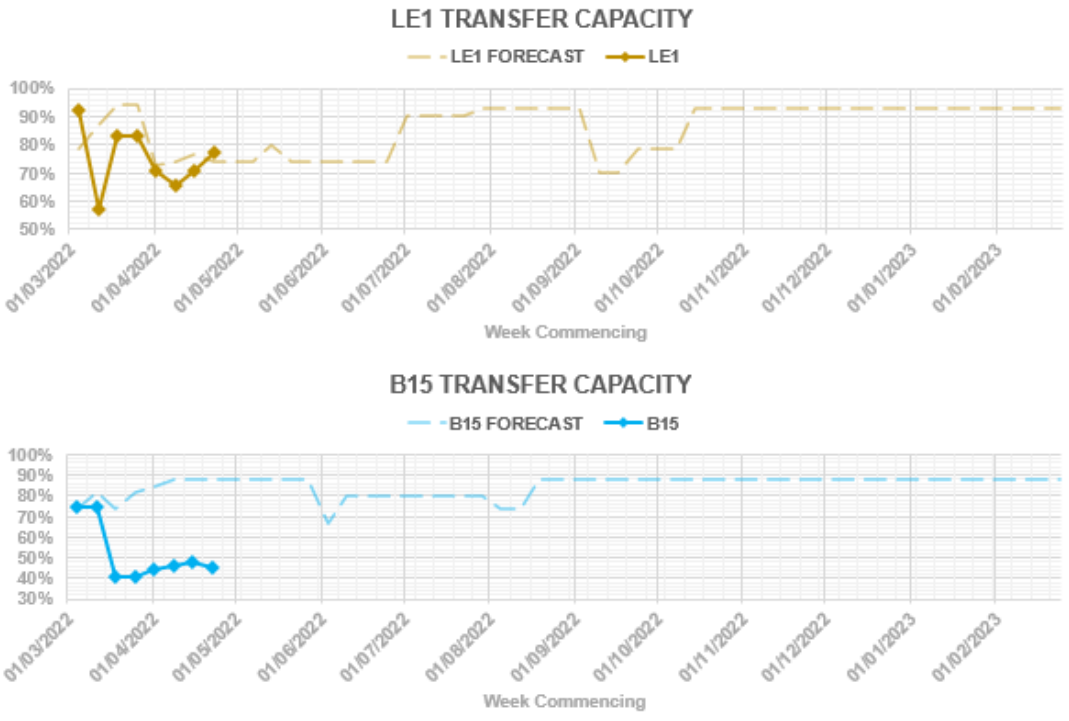
Boundary	Max. Capacity (MW)
B4/B5	2750
B6	5600
B7	8400
LE1	7000
B15	7500



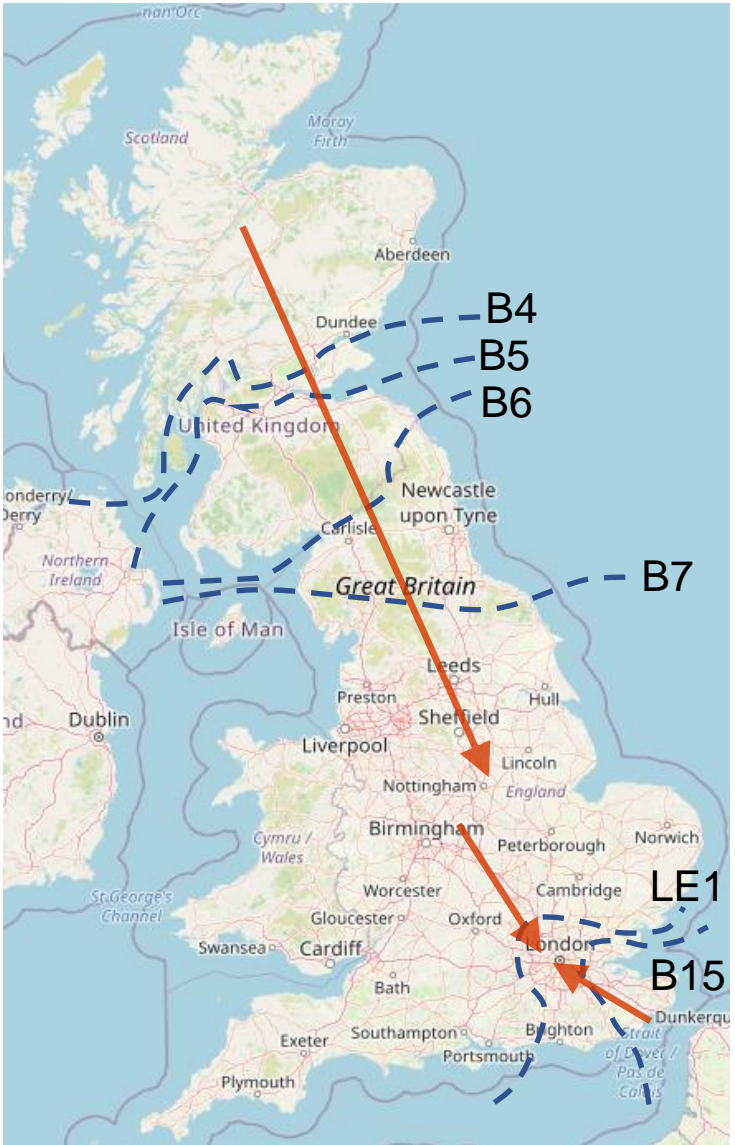
Day ahead flows and limits, and the 24 month constraint limit forecast are published on the ESO Data Portal:

<https://data.nationalgrideso.com/data-groups/constraint-management>

Transparency | Network Congestion



Boundary	Max. Capacity (MW)
B4/B5	2750
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B15	7500



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5 Point Plan Update

In February 2021 the ESO announced a 5 Point Plan to look at ways to mitigate constraint costs.

On the **05 May 12:30 – 13:30** Julian Leslie (Head of Networks) will host an update webinar to run through the progress of the plan.

Eventbrite -

<https://www.eventbrite.co.uk/e/323196899627>

Details will be published in the ESOs Plugged In Newsletter as well.



BSUoS Reform Update

Ofgem have made the decision to approve CUSC modification CMP308 (Removal of BSUoS charges from Generation)

This means that from 1st April 2023, only final demand will pay BSUoS

Ofgem are yet to make a decision on the second half of reform to fix BSUoS (CMP361) - currently their website says a decision will come in June

We are working on updating the BSUoS forecasts to reflect demand only paying from 2023 – the aim is to update our May forecast to reflect this

Strategic Review of Balancing Capability

Sli.do code #OTF

Stepping back to assess our options

Our understanding of the complexity and scale of the transition from existing to future balancing capability has developed greatly since we submitted our first RIIO-2 business plan.

Engaging with the industry

- Want to get industry input to find better ways to meet our strategic objectives and the needs of our customers.
- Work together to create a plan to transform our balancing capabilities and enable Net-zero operability
- Your chance to have an input into how we deliver the future balancing systems

Workshop Thursday 5th May at Wokingham Office 10:00- 16:00

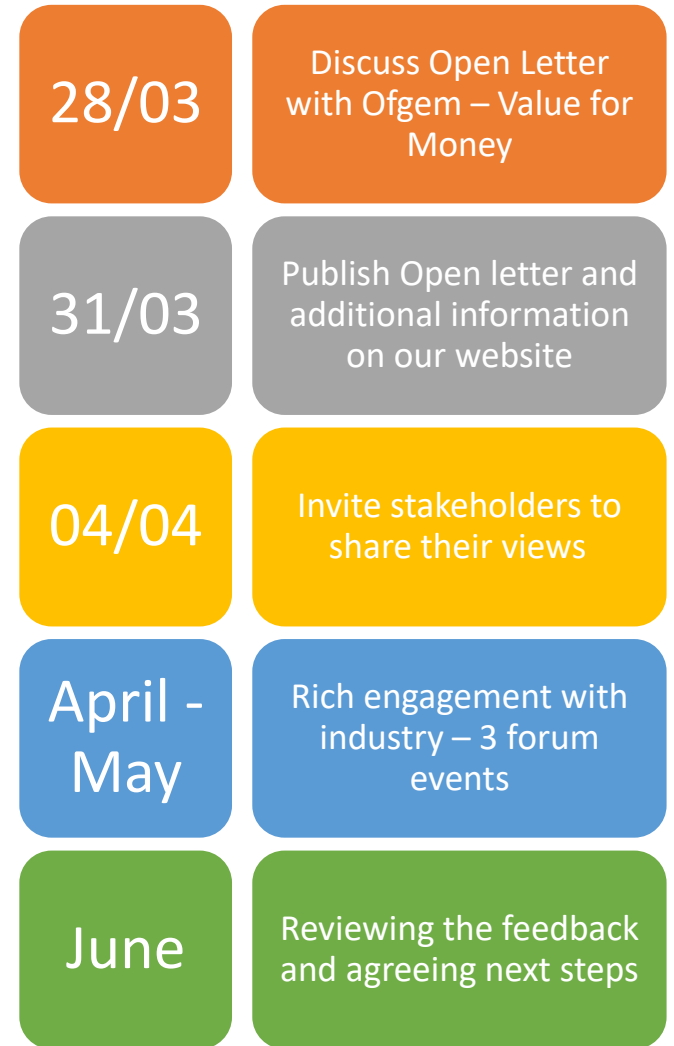
- Already involved?
- Can you help us? Join us. Sign up before noon Friday 29 April

<https://forms.office.com/r/BPvYGFs6as>

More information

Further details are available on our website

<https://www.nationalgrideso.com/industry-information/balancing-services/balancing-programme/strategic-capability-review>



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Audience Q&A Session

 Start presenting to display the audience questions on this slide.

Q&A

Please remember to use the feedback poll after the event. We welcome feedback to understand what we are doing well and how we can improve the event ongoing.

If you have any questions after the event, please contact the following email address: box.NC.Customer@nationalgrideso.com

