



ESO Operational
Transparency Forum
5th January 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) 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

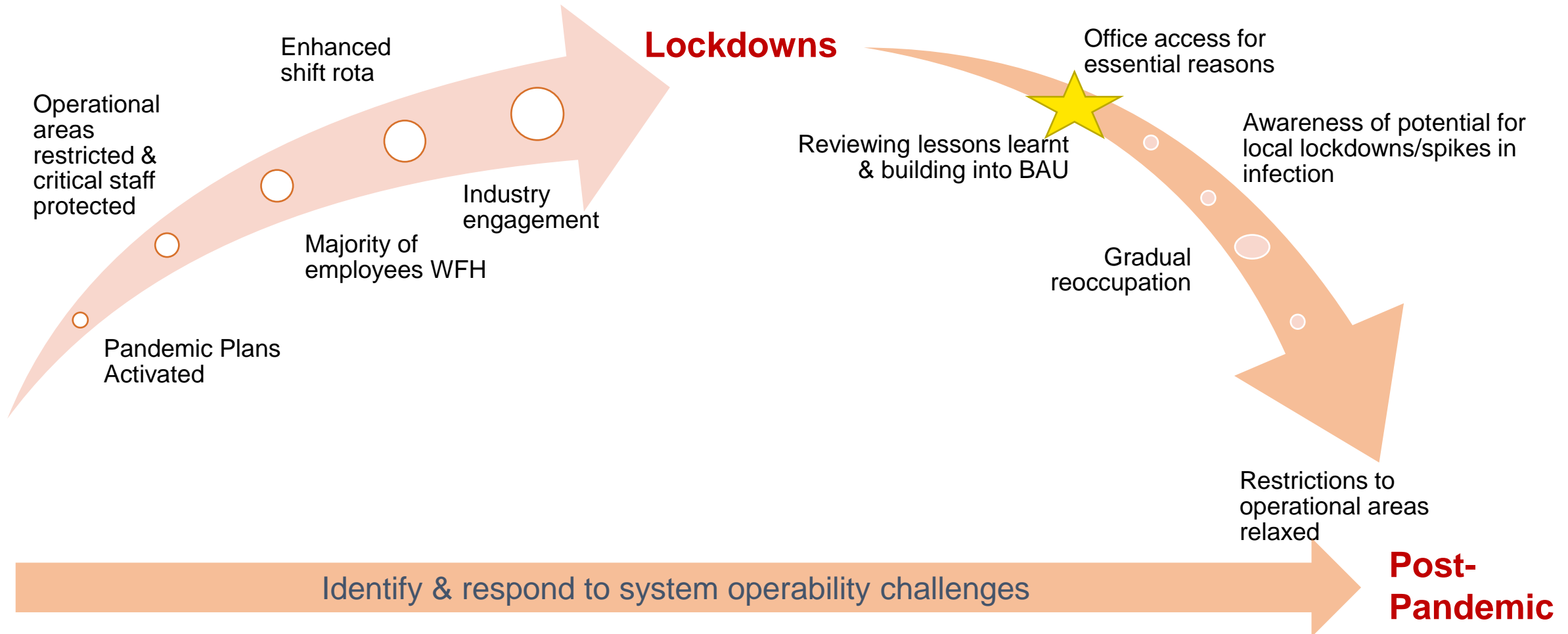
These slides, event recordings and further information about the webinars can be found at the following location:
<https://data.nationalgrideso.com/plans-reports-analysis/covid-19-preparedness-materials>

Regular Topics

- Questions from last week
- Business continuity
- Demand review
- Costs for last week
- Outlook
- Constraints

Focus Areas

Protecting critical staff to maintain critical operations



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:

January:

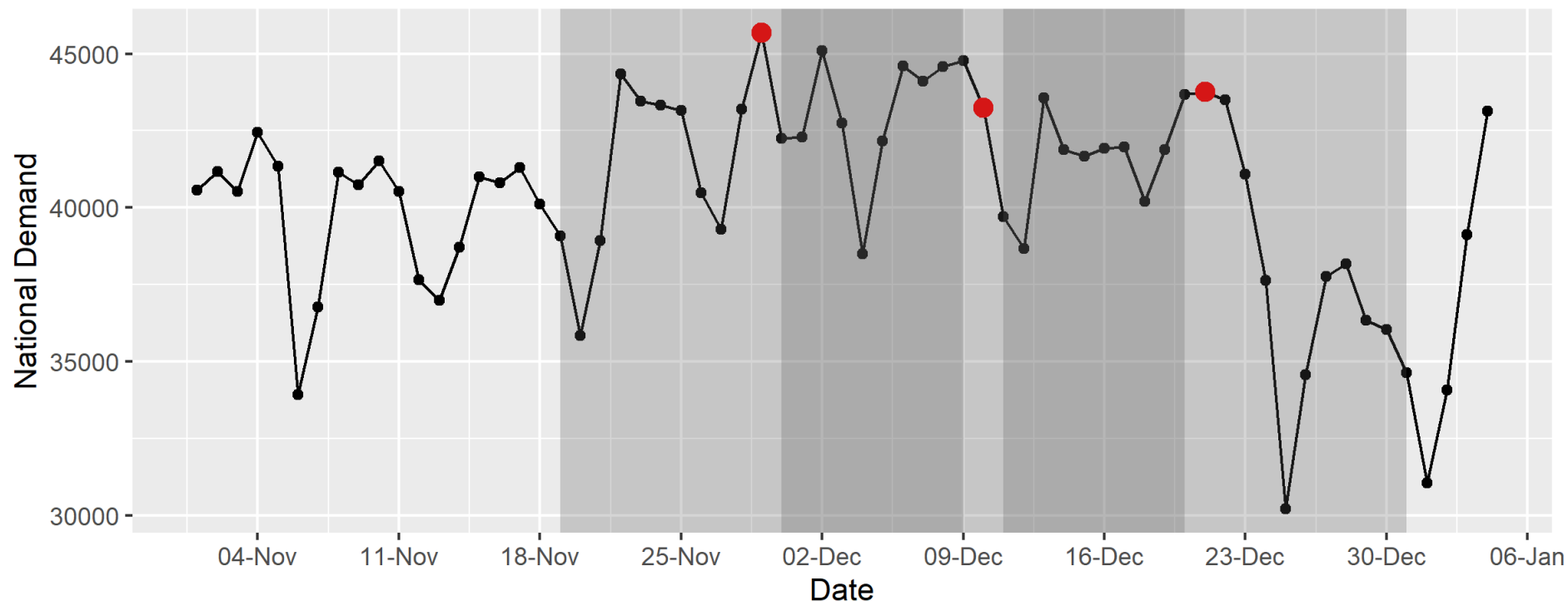
12th Jan: Forecasting methodology (high level overview)
SO – SO Trading

19th Jan: BSUoS Forecasting

February:

Balancing Services Adjustment Data (BSAD) Overview

Demand | Indicative Peak National Demand

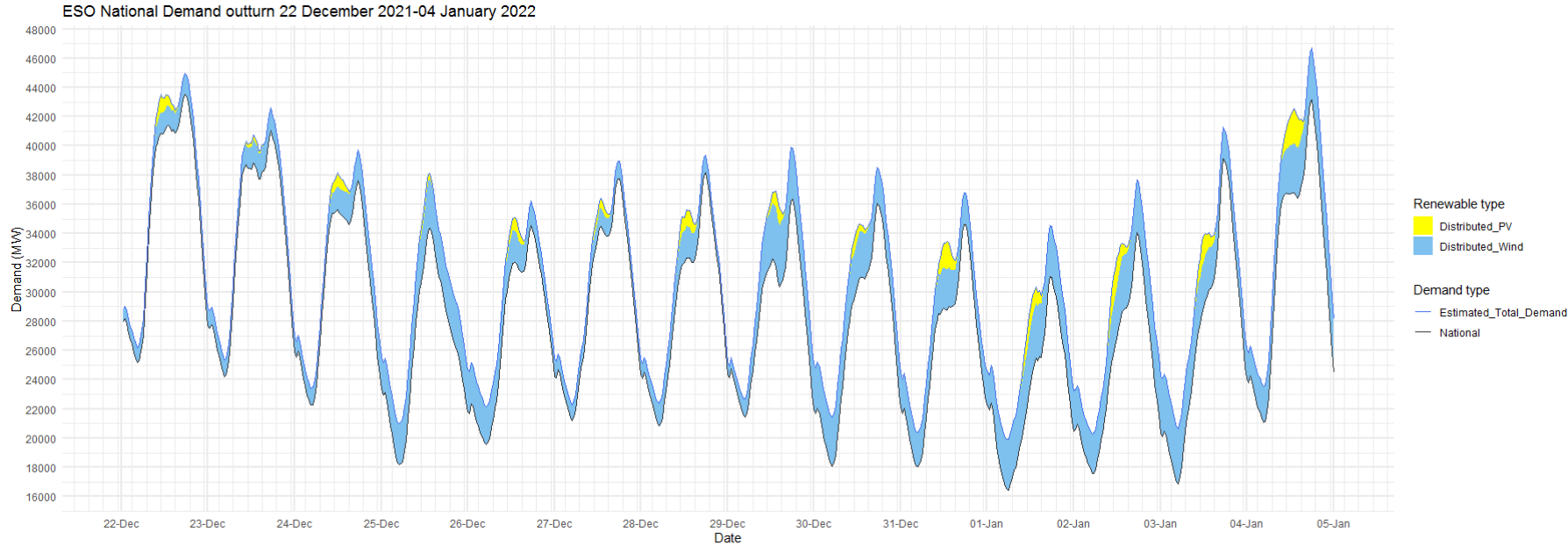


ESO operational metering			
Date	Time (HH ending)	National Demand (MW)	Estimated triad avoidance (HH corresponding with the time of the peak) (MW)
29/11/2021	1730	45679	0
21/12/2021	1730	43769	900
10/12/2021	1730	43250	0

National Demand does not include station load.

Indicative triad demand on Elexon's BMRS [website](#) quotes "GB Demand" which is based on the Transmission System Demand definition (it adds 500MW of station load onto the National Demand). It shows time as half hour beginning.

Demand | Festive season demand out-turn

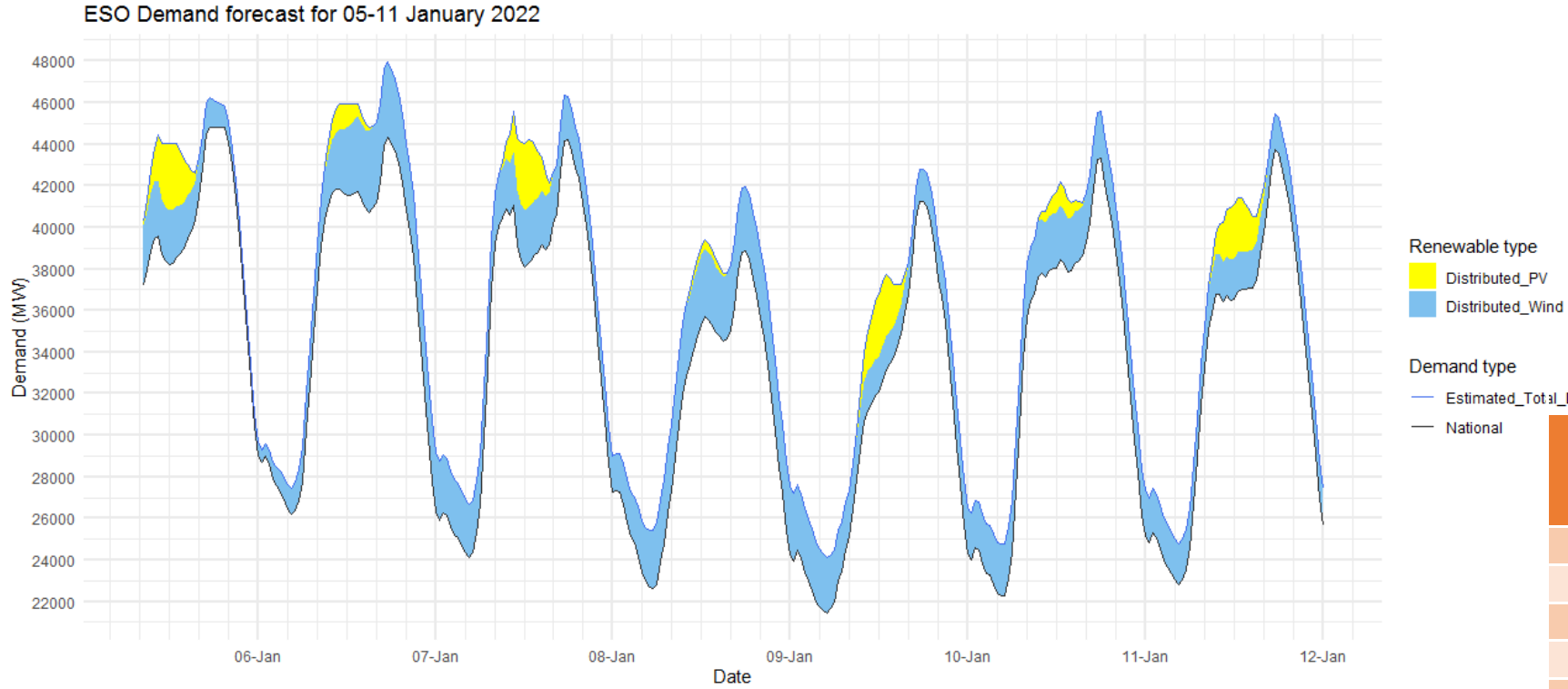


Date	Forecasting Point	OUTTURN			
		National Demand (GW)	Triad Avoidance est. (GW)	N. Demand adjusted for TA (GW)	Dist. wind (GW)
22 Dec 2021	Evening Peak	43.5	0.6	44.1	1.4
23 Dec 2021	Overnight Min	24.2	n/a	n/a	1.1
23 Dec 2021	Evening Peak	41.1	0.0	41.1	1.6
24 Dec 2021	Overnight Min	22.3	n/a	n/a	1.2
24 Dec 2021	Evening Peak	37.6	0.0	37.6	2.1
25 Dec 2021	Overnight Min	18.2	n/a	n/a	2.8
25 Dec 2021	Evening Peak	30.2	0.0	30.2	3.1
26 Dec 2021	Overnight Min	19.6	n/a	n/a	2.6
26 Dec 2021	Evening Peak	34.6	0.0	34.6	1.7
27 Dec 2021	Overnight Min	21.2	n/a	n/a	1.1
27 Dec 2021	Evening Peak	37.8	0.0	37.8	1.2
28 Dec 2021	Overnight Min	20.9	n/a	n/a	1.5
28 Dec 2021	Evening Peak	38.2	0.0	38.2	1.2
29 Dec 2021	Overnight Min	21.4	n/a	n/a	1.3
29 Dec 2021	Evening Peak	36.3	0.0	36.3	3.5
30 Dec 2021	Overnight Min	18.1	n/a	n/a	3.4
30 Dec 2021	Evening Peak	36.0	0.0	36.0	2.5
31 Dec 2021	Overnight Min	18.1	n/a	n/a	2.3
31 Dec 2021	Evening Peak	34.6	0.0	34.6	2.2
01 Jan 2022	Overnight Min	16.5	n/a	n/a	3.5
01 Jan 2022	Evening Peak	31.1	0.0	31.1	3.5
02 Jan 2022	Overnight Min	17.6	n/a	n/a	2.7
02 Jan 2022	Evening Peak	34.1	0.0	34.1	3.6
03 Jan 2022	Overnight Min	16.9	n/a	n/a	3.8
03 Jan 2022	Evening Peak	39.1	0.0	39.1	2.2
04 Jan 2022	Overnight Min	21.1	n/a	n/a	2.4
04 Jan 2022	Evening Peak	43.1	0.0	43.1	3.5

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.

Demand | Week Ahead



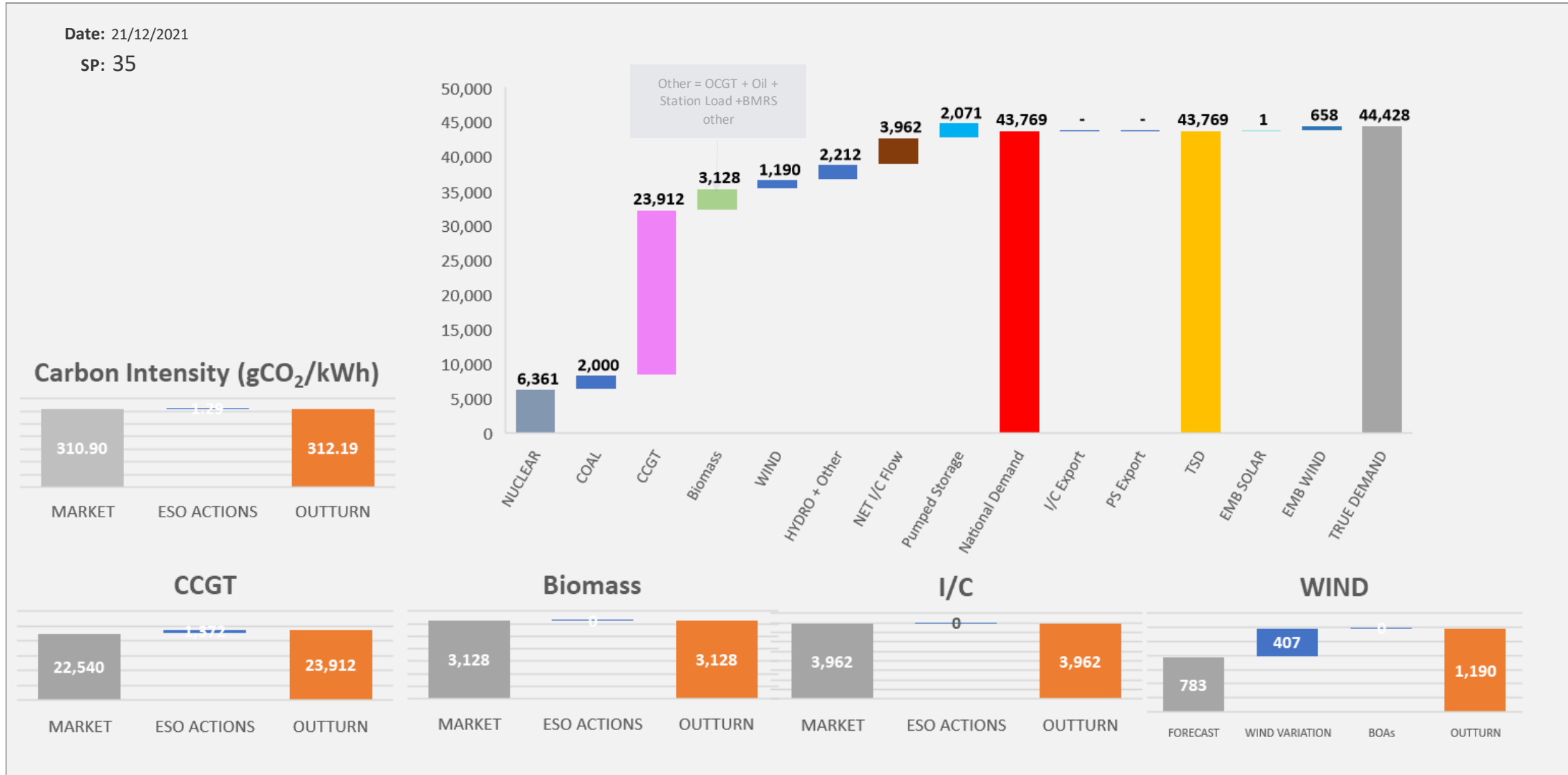
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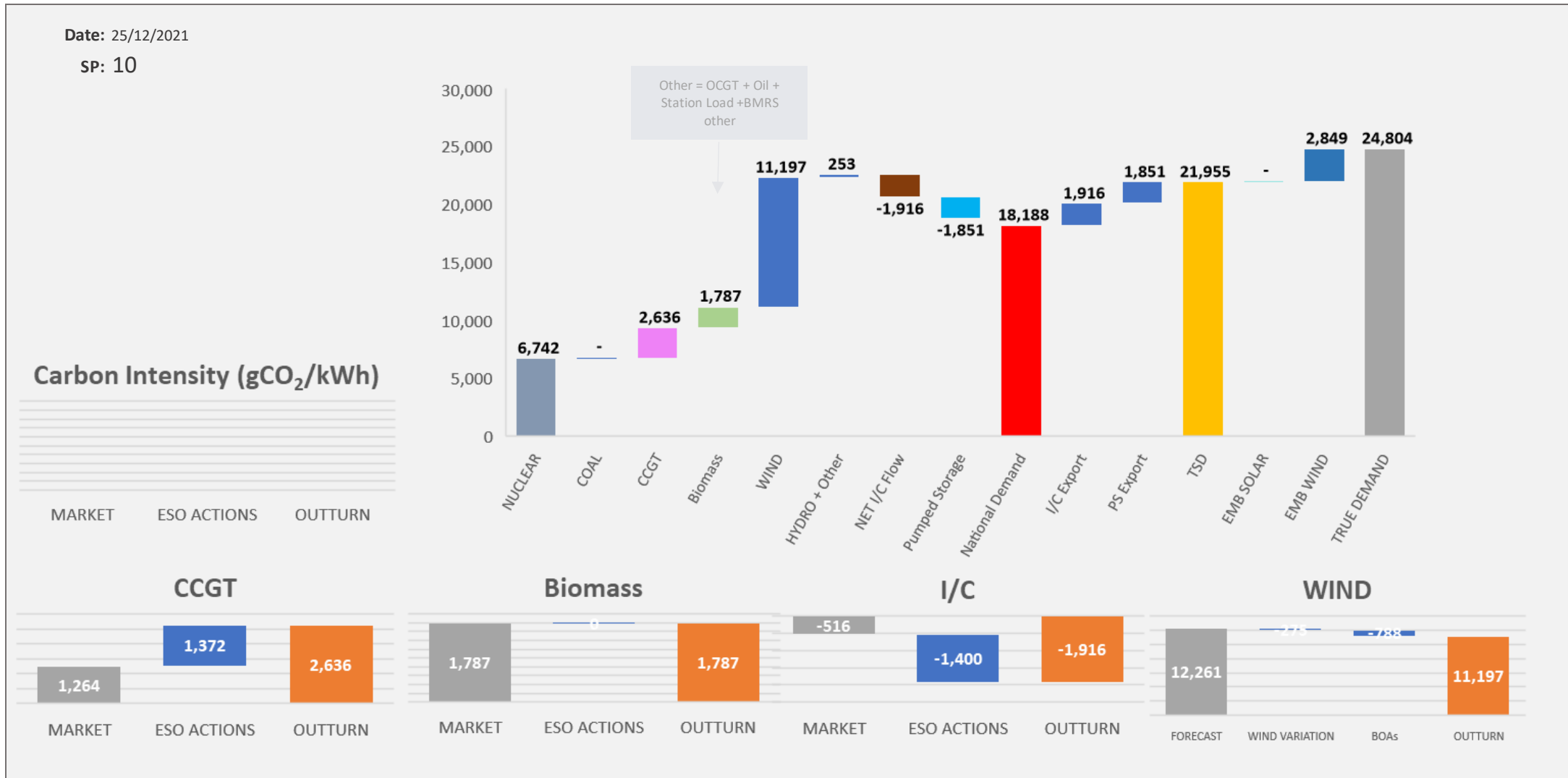
- Renewable type
 - Distributed_PV
 - Distributed_Wind
- Demand type
 - Estimated_Total_Demand
 - National

		FORECAST (Wed 05 Jan)	
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)
05 Jan 2022	Evening Peak	44.8	1.4
06 Jan 2022	Overnight Min	26.2	1.3
06 Jan 2022	Evening Peak	44.3	3.6
07 Jan 2022	Overnight Min	24.1	2.5
07 Jan 2022	Evening Peak	44.2	2.1
08 Jan 2022	Overnight Min	22.6	2.8
08 Jan 2022	Evening Peak	38.8	3.1
09 Jan 2022	Overnight Min	21.5	2.6
09 Jan 2022	Evening Peak	41.3	1.5
10 Jan 2022	Overnight Min	22.3	2.5
10 Jan 2022	Evening Peak	43.3	2.3
11 Jan 2022	Overnight Min	22.8	2.0
11 Jan 2022	Evening Peak	43.8	1.7

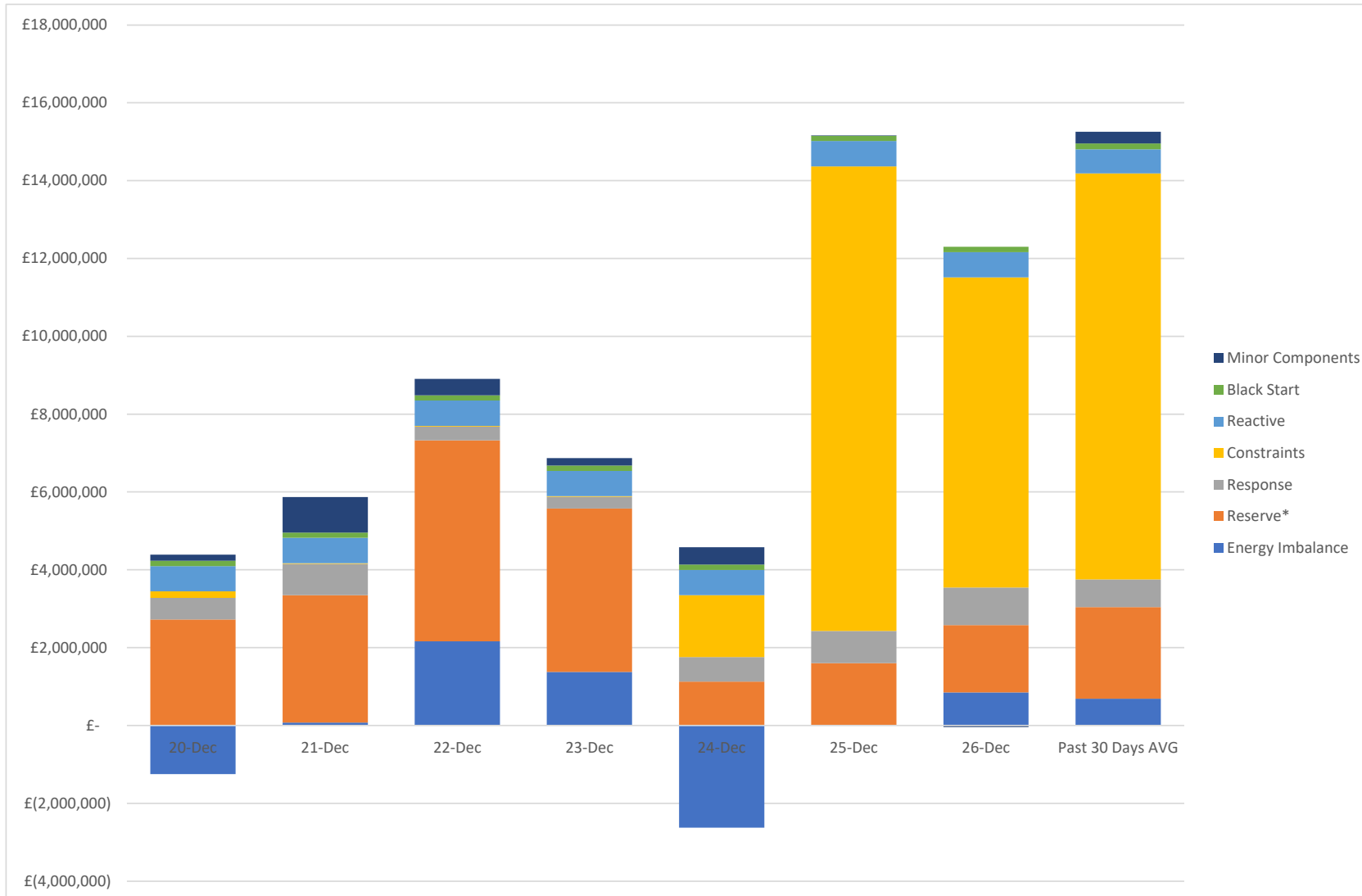
ESO Actions | Tuesday 21 December Peak



ESO Actions | Saturday 25 December Minimum



Transparency | Costs for the last week



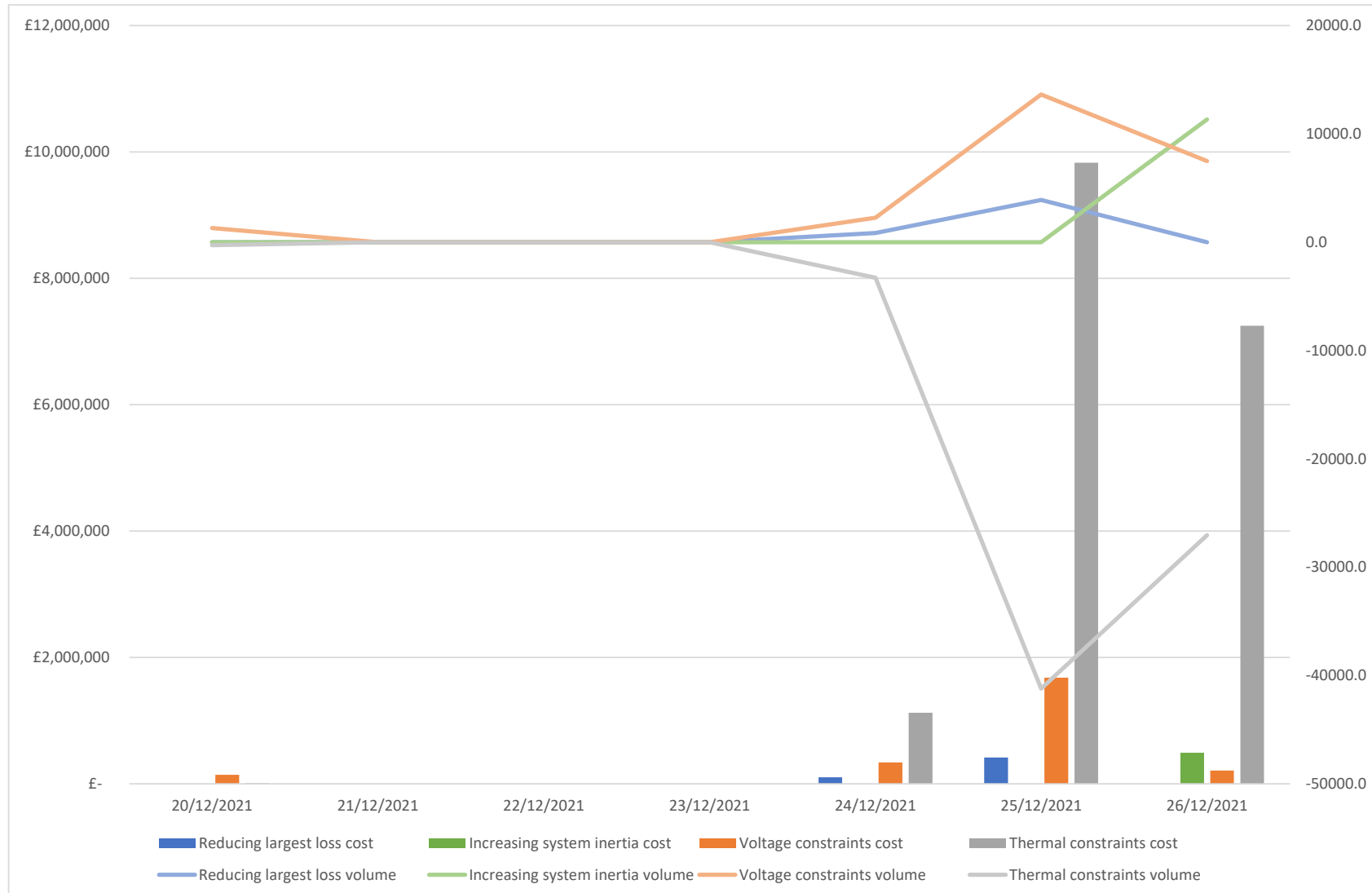
Saturday 25th and Sunday 26th were the most expensive days, with a daily spend of around £14m and £12m respectively.

Constraints actions over those two days were needed due to the windy weather that was requiring large volume of BM actions to reduce generation to manage thermal constraints.

Between Monday and Friday, daily costs remained below or around £8m, with reserve the main component of the costs and no or little actions required to manage system constraints

Past 30 Days Average added

Transparency | Constraint cost breakdown



Thermal

Only Friday, Saturday and Sunday actions required to manage thermal constraints as wind level increased. Monday to Thursday no intervention required.

Voltage

Friday, Saturday and Sunday some action taken to synchronise generation to meet voltage requirements

Managing largest loss for RoCoF

Friday and Saturday some intervention required to manage largest loss on interconnectors.

Increasing inertia

Sunday intervention required to increase minimum inertia.

<https://data.nationalgrideso.com/balancing/constraint-breakdown>

Operational margins: week ahead

How to interpret this information

This slide sets out our view of operational margins for the next week. We are providing this information to help market participants identify when tighter periods are more likely to occur such that they can plan to respond accordingly.

The table provides our current view on the operational surplus based on expected levels of generation, wind, imports and peak demand. This is based on information available to National Grid ESO as of 4 January and is subject to change. It represents a view of what the market is currently intending to provide before we take any actions.

The indicative surplus is a measure of how tight we expect margins to be and the likelihood of the ESO needing to use its operational tools.

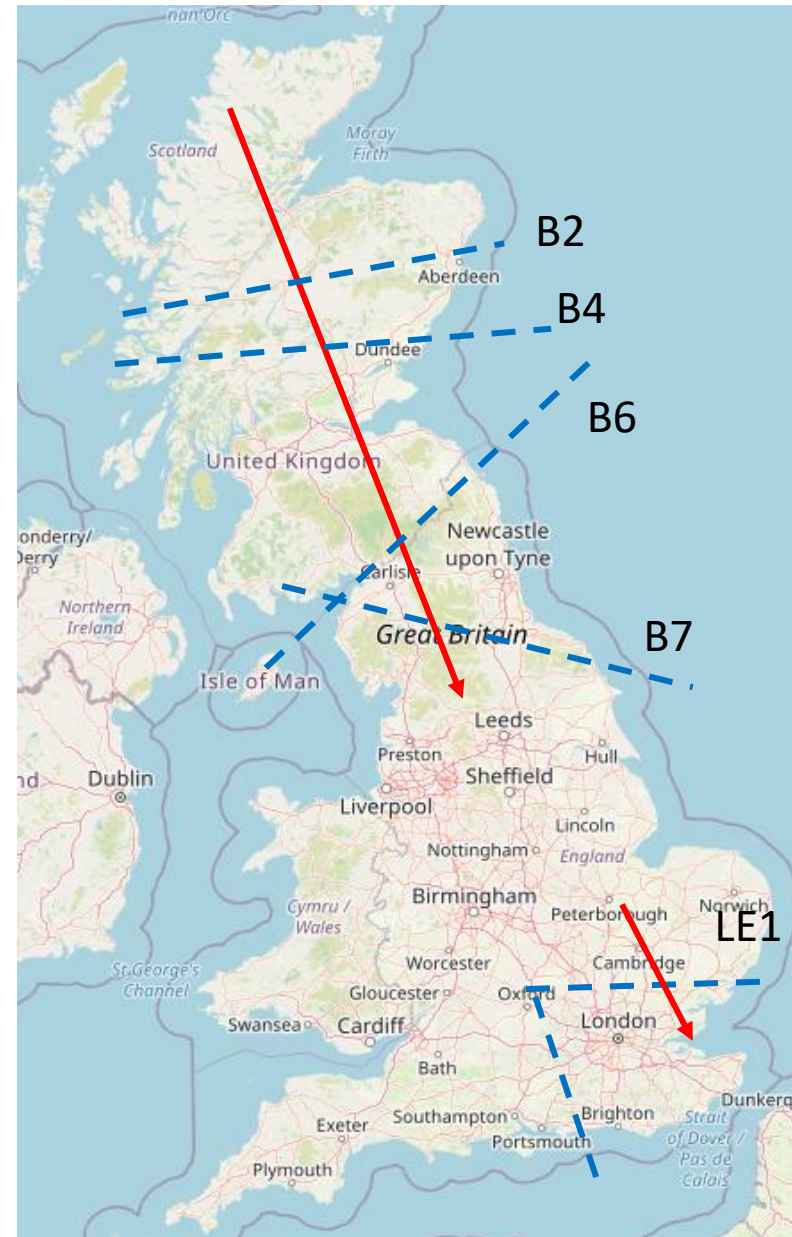
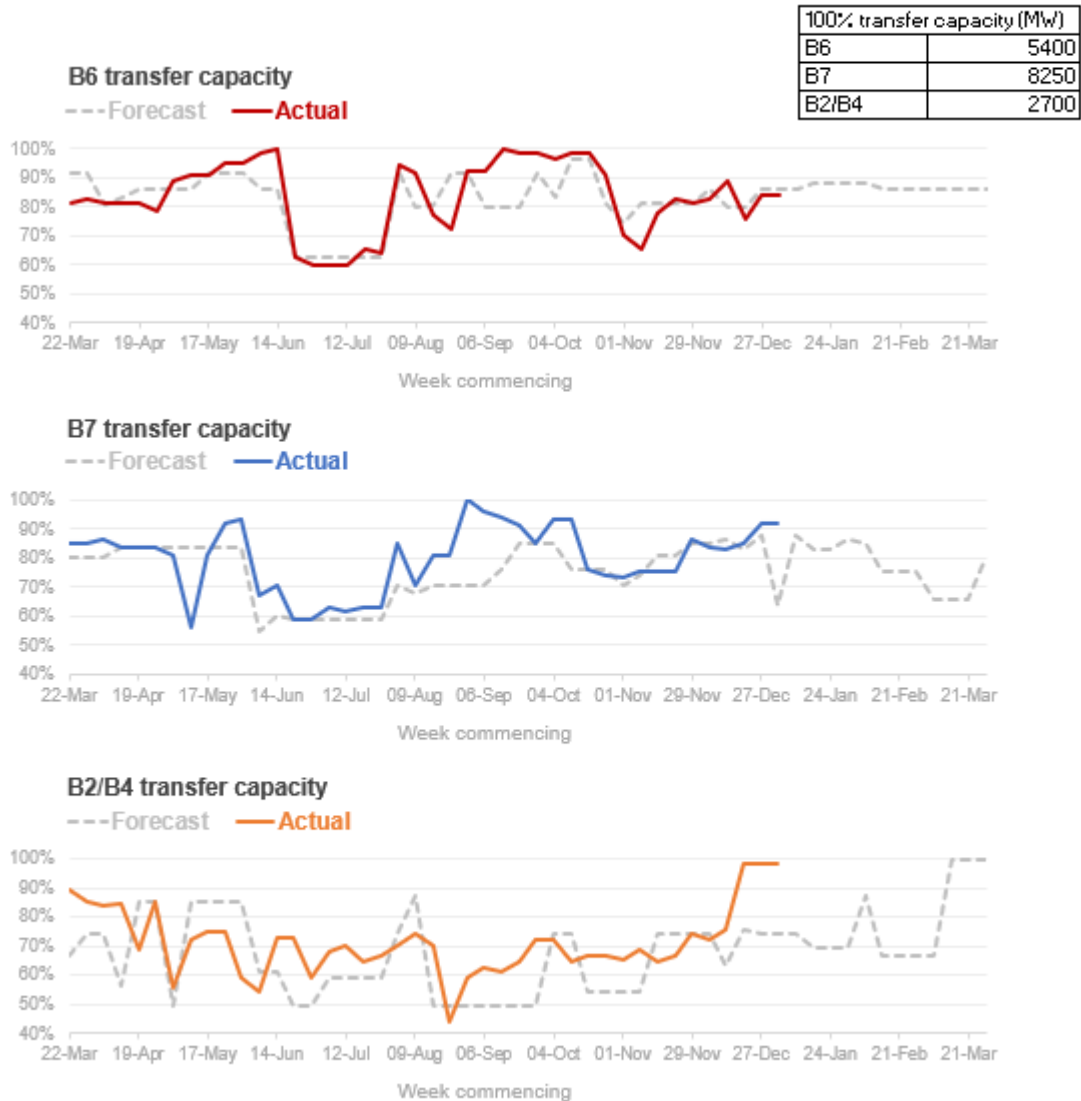
For higher surplus values, margins are expected to be adequate and there is a low likelihood of the ESO needing to use its tools. In such cases, we may even experience exports to Europe on the interconnectors over the peak depending on market prices.

For lower (and potentially negative) surplus values, then this indicates operational margins could be tight and that there is a higher likelihood of the ESO needing to use its tools, such as issuing margins notices. We expect there to be sufficient supply available to respond to these signals to meet demand.

Margins are adequate for the next seven days.

Day	Date	Notified conventional generation (MW)	Wind (MW)	Interconnector availability (MW)	Peak demand (MW)	Indicative surplus (MW)
Thu	06/01/2022	45833	13691	3900	44674	13637
Fri	07/01/2022	45409	8788	3900	43283	10246
Sat	08/01/2022	42874	12291	3900	37813	16427
Sun	09/01/2022	44470	5117	3900	39952	8816
Mon	10/01/2022	46070	10202	3900	42365	12577
Tue	11/01/2022	46070	6692	3900	43304	8213
Wed	12/01/2022	45921	7735	3900	44852	7686

Transparency | Constraint Capacity



Balancing Market Review

Register your interest to participate in the **Balancing Market review**

Terms of reference for the review are available on our webpage:
<https://www.nationalgrideso.com/news/balancing-market-review-terms-reference>

Contact the Market Monitoring team at: MarketReporting@nationalgrideso.com

Q&A

After the webinar, you will receive a link to a survey. We welcome feedback to understand what we are doing well and how we can improve the event ongoing.

Please ask any questions via Slido (code #OTF) and we will try to answer as many as possible now. If we are unable to answer your question today, then we will take it away and answer it at a later webinar.

Please continue to use your normal communication channels with ESO.

If you have any questions after the event, please contact the following email address:
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slido

Audience Q&A Session

 Start presenting to display the audience questions on this slide.

Q&A

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