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

ESO Operational Transparency Forum

6 July 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

Interconnectors and tools to change the flows on these

BSUoS Fixed Tariff Model Consultation

Contingency Contracts

Things we hope to answer in the coming weeks

Costs

- When will you be able to provide a forecast of costs?
- How much will the contracts cost?
- How will the contracts work in relation to cash-out?

Dispatch

- Will market be made aware of ESO chooses to warm the plant ahead of dispatch?
- How will it be dispatched?
- What does ‘not in the market’ mean?
- When will they be dispatched in relation to the Capacity Market?

Other

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

Upcoming soon:
Demand control test deep dive – 3rd August

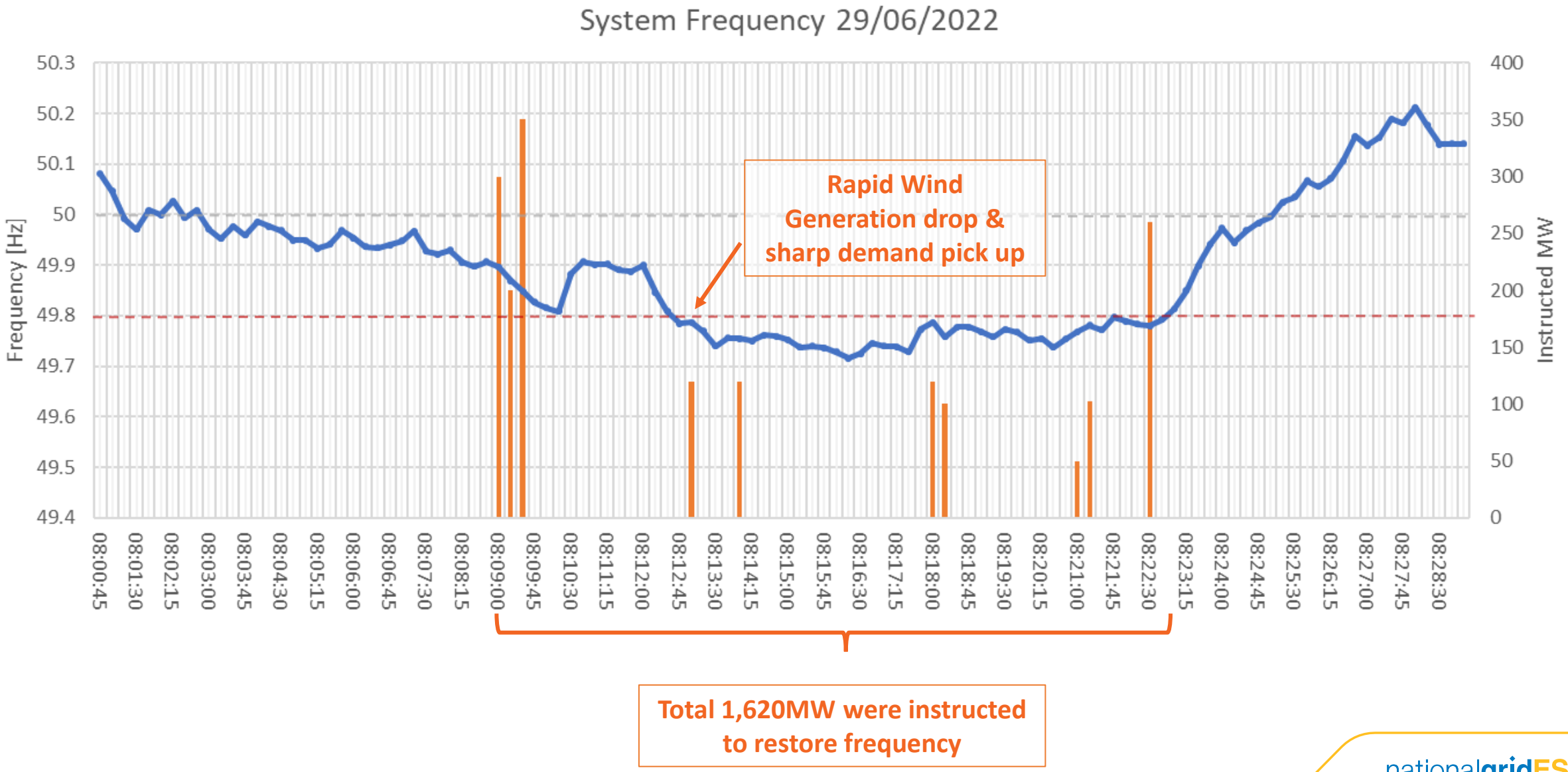
Items we have taken offline and will come back to this forum on in the future
REMIT obligations on ESO

Items that we have planned for a deep dive
Reserve scarcity trial results
Early view of Winter Operability
Inertia monitoring

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

System Events



Questions outstanding from previous weeks

Q: Where can I find data on the volumes for each BMU providing the CMP B6 intertrip service?

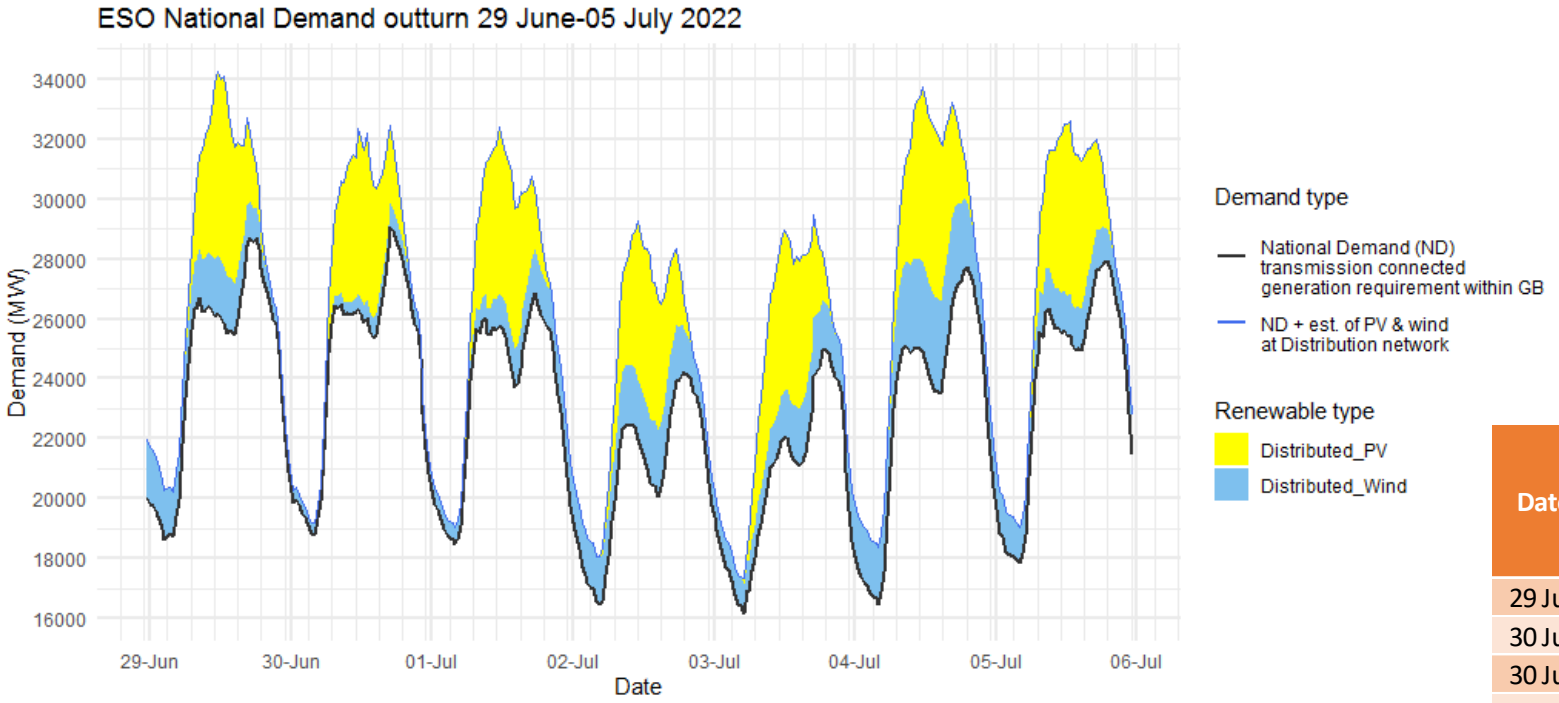
A: All information regarding the Constraint Management Pathfinder B6 is accessible here: https://www.nationalgrideso.com/future-energy/projects/pathfinders/constraint-management/noa-constraint-management-pathfinder-phase-1

In particular, the pathfinder size of the BMUs can be seen in the results table, which can be accessed here: https://www.nationalgrideso.com/document/247836/download We don't publish how often they are armed at the moment, but this is something we are working on.

Q: You stated back in May that the CM trigger notice Algorithm would be improved via a fix in MODIS to stop false notices being issued like earlier this year. Has this been done and when?

A: This is now in the final stage of testing and we anticipate the fix will be implemented in the next few weeks. We will bring an update to this forum when we have more information to share.

Demand | Last week demand out-turn



		FORECAST (Wed 29 Jun)			OUTTURN		
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
29 Jun	Afternoon Min	24.5	1.9	5.2	25.4	1.7	4.6
30 Jun	Overnight Min	19.1	0.4	0.0	18.8	0.4	0.0
30 Jun	Afternoon Min	25.2	1.1	4.6	25.3	0.7	4.4
01 Jul	Overnight Min	18.9	0.8	0.0	18.5	0.6	0.0
01 Jul	Afternoon Min	23.1	1.5	5.2	23.7	1.3	4.7
02 Jul	Overnight Min	17.0	1.3	0.4	16.5	1.5	0.1
02 Jul	Afternoon Min	19.3	1.9	4.9	20.1	2.2	4.4
03 Jul	Overnight Min	15.9	1.2	0.4	16.1	1.0	0.2
03 Jul	Afternoon Min	18.9	1.7	6.0	21.1	1.9	4.9
04 Jul	Overnight Min	17.2	1.1	0.0	16.5	1.9	0.0
04 Jul	Afternoon Min	23.6	1.6	6.4	23.5	3.1	5.2
05 Jul	Overnight Min	18.2	1.2	0.0	17.9	1.2	0.0
05 Jul	Afternoon Min	24.4	1.5	6.0	24.9	1.4	4.9

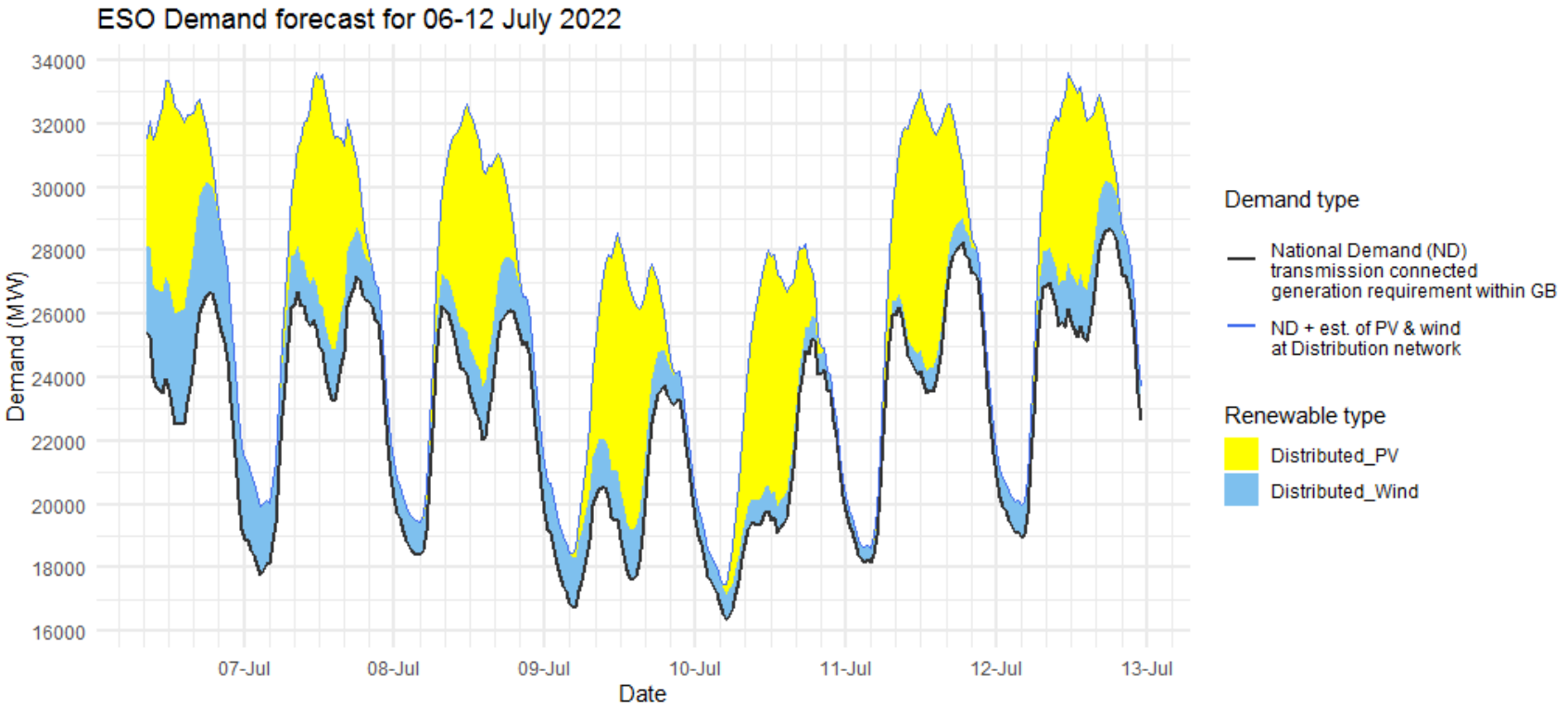
The black line (National Demand ND) is the measure of portion of total GB customer demand that is supplied by the transmission network.

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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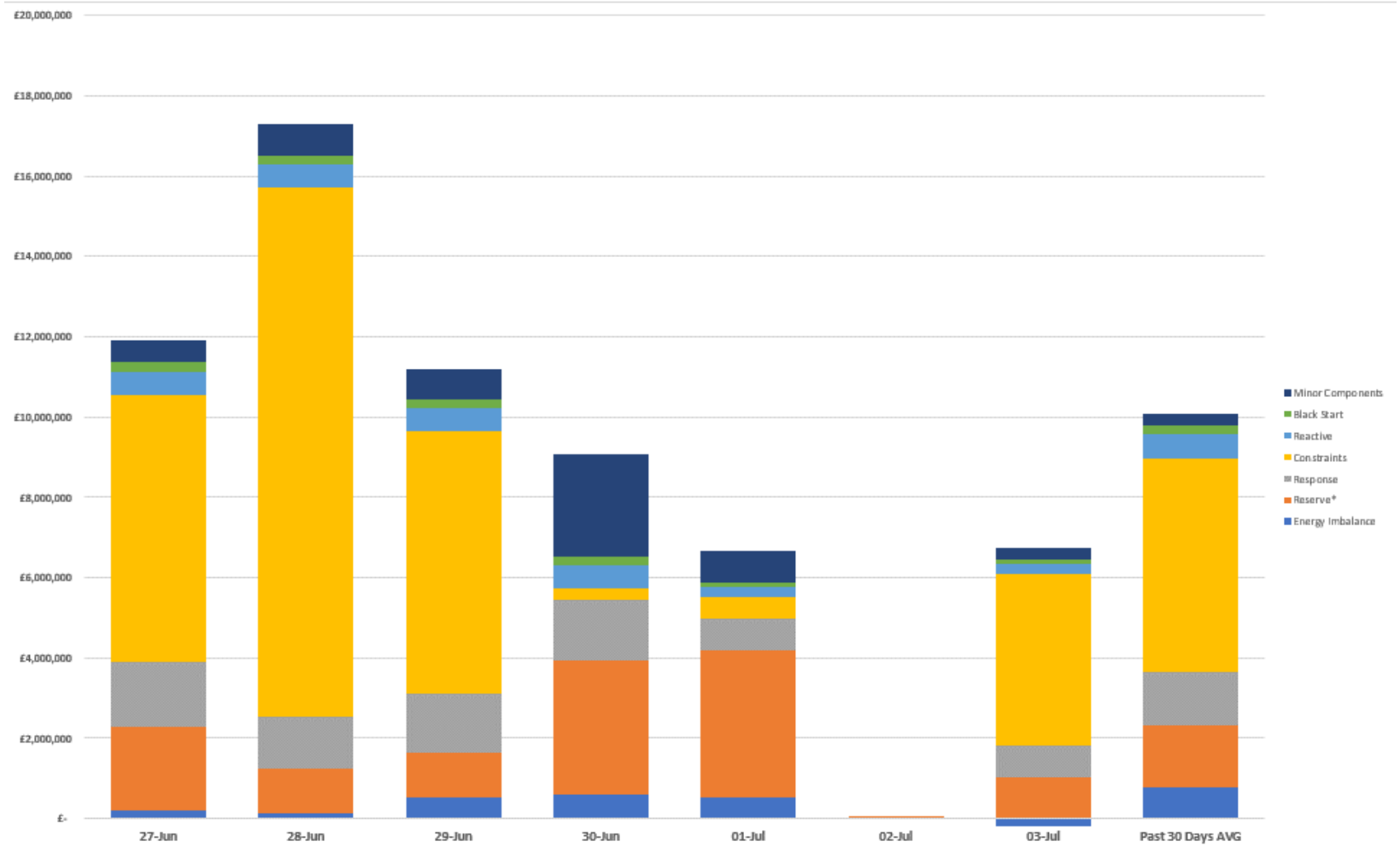
		FORECAST (Wed 06 Jul)		
Date	Forecasting Point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
06 Jul	Afternoon Min	22.5	3.5	6.4
07 Jul	Overnight Min	17.8	2.2	0.0
07 Jul	Afternoon Min	23.3	1.6	6.7
08 Jul	Overnight Min	18.4	1.0	0.0
08 Jul	Afternoon Min	22.0	1.7	6.9
09 Jul	Overnight Min	16.7	1.6	0.3
09 Jul	Afternoon Min	17.6	1.6	7.3
10 Jul	Overnight Min	16.3	0.8	0.3
10 Jul	Afternoon Min	19.1	0.8	7.3
11 Jul	Overnight Min	18.2	0.4	0.0
11 Jul	Afternoon Min	23.5	0.7	8.1
12 Jul	Overnight Min	19.0	1.0	0.0
12 Jul	Afternoon Min	25.1	1.6	5.3

ESO Actions | Category costs breakdown for the last week



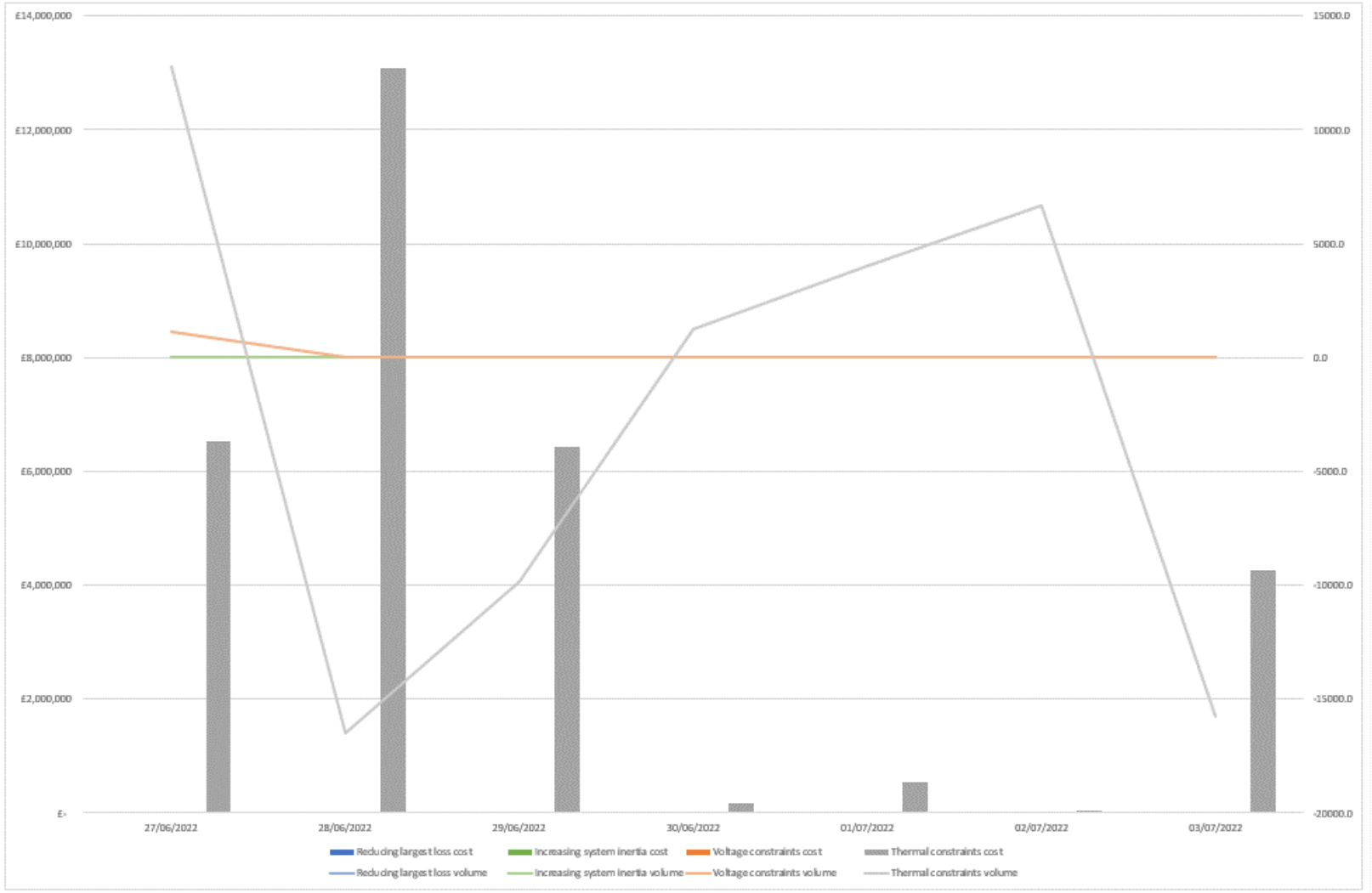
Date	Total (£m)
27/06/2022	11.9
28/06/2022	17.3
29/06/2022	11.2
30/06/2022	9.1
01/07/2022	6.7
02/07/2022	-
03/07/2022	6.6
Weekly Total	62.7

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



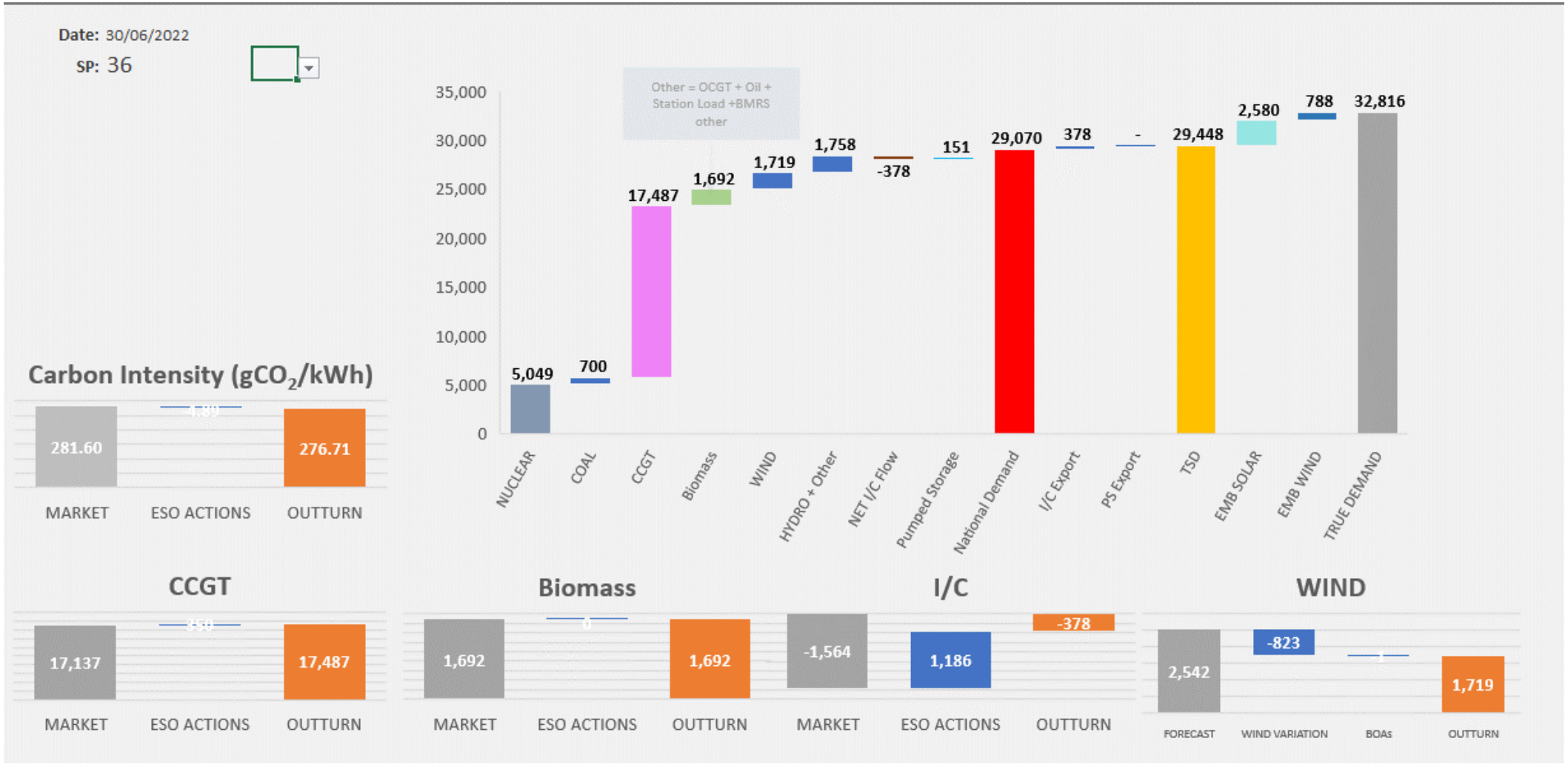
Thermal – network congestion
Actions required to manage Thermal Constraints throughout the week

Voltage
No extra Actions taken

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

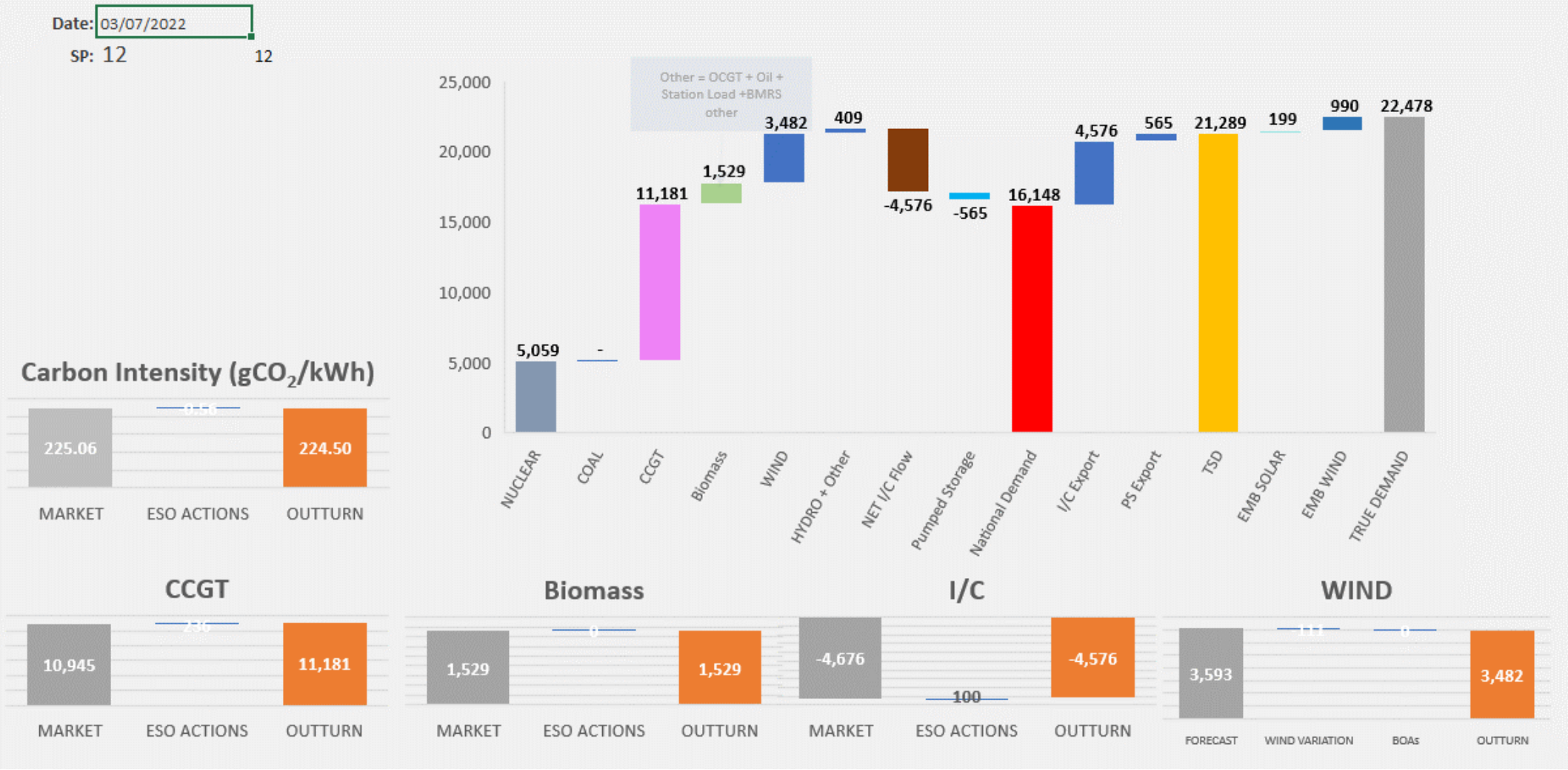
Increasing inertia
No Intervention required to manage Inertia

ESO Actions | Thursday 30 June - Peak



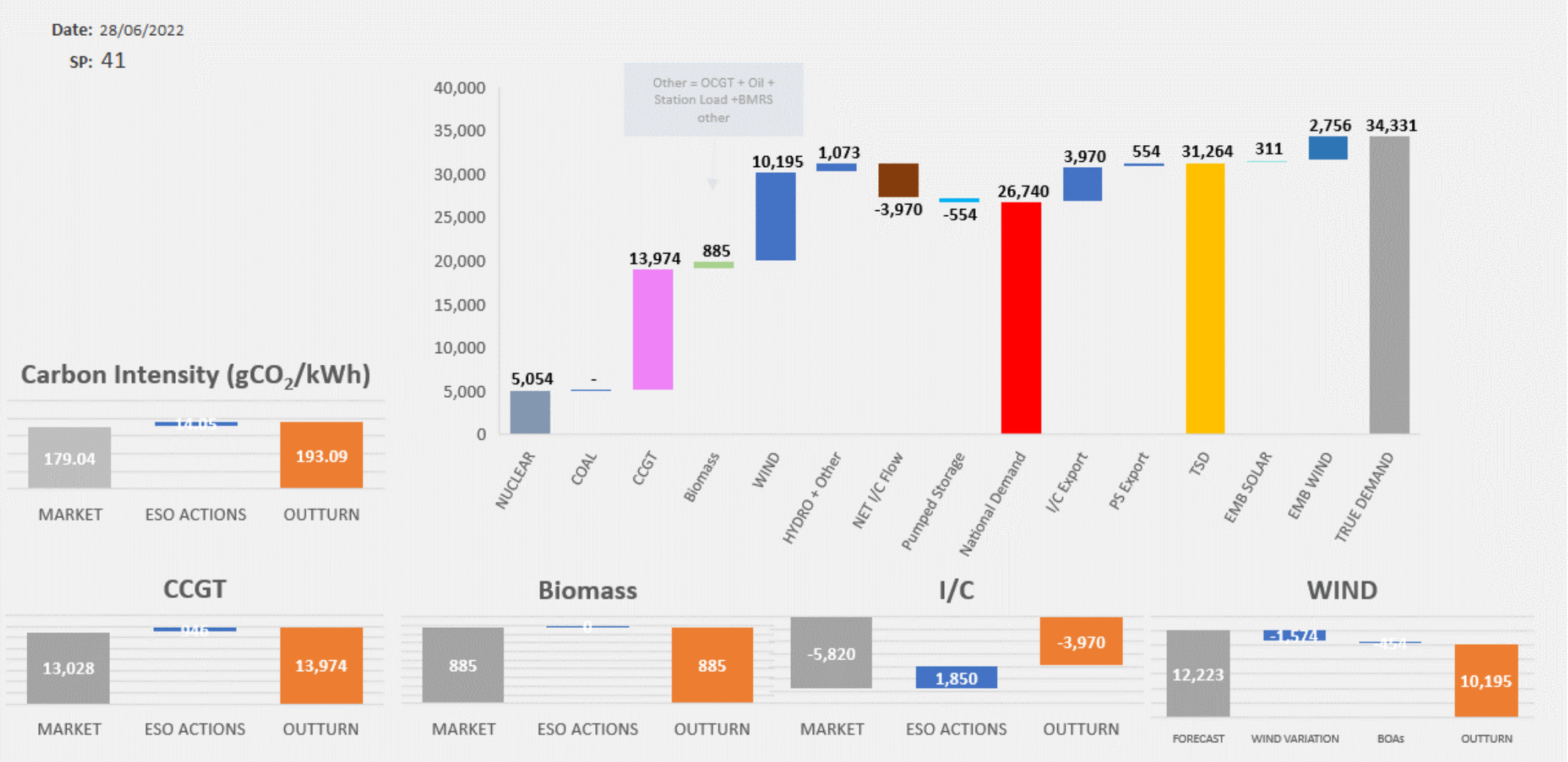
Carbon Intensity data on data portal: https://data.nationalgrideso.com/carbon-intensity1/carbon-intensity-of-balancing-actions

ESO Actions | Sunday 03 July - Minimum



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

ESO Actions | Tuesday 28 June - Highest SP Spend ~£0.24m



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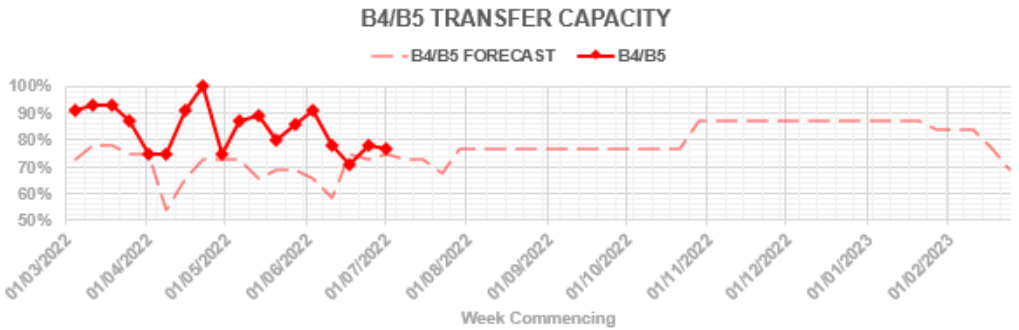
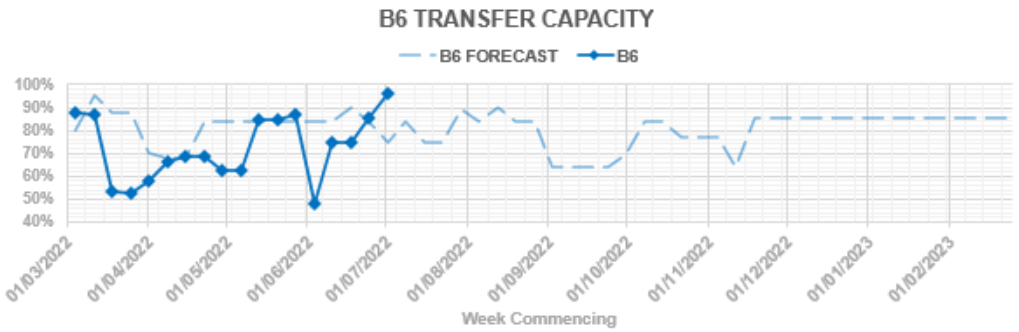
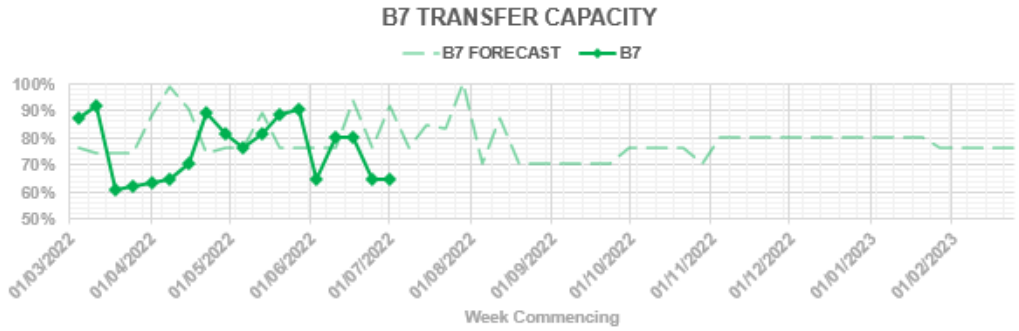
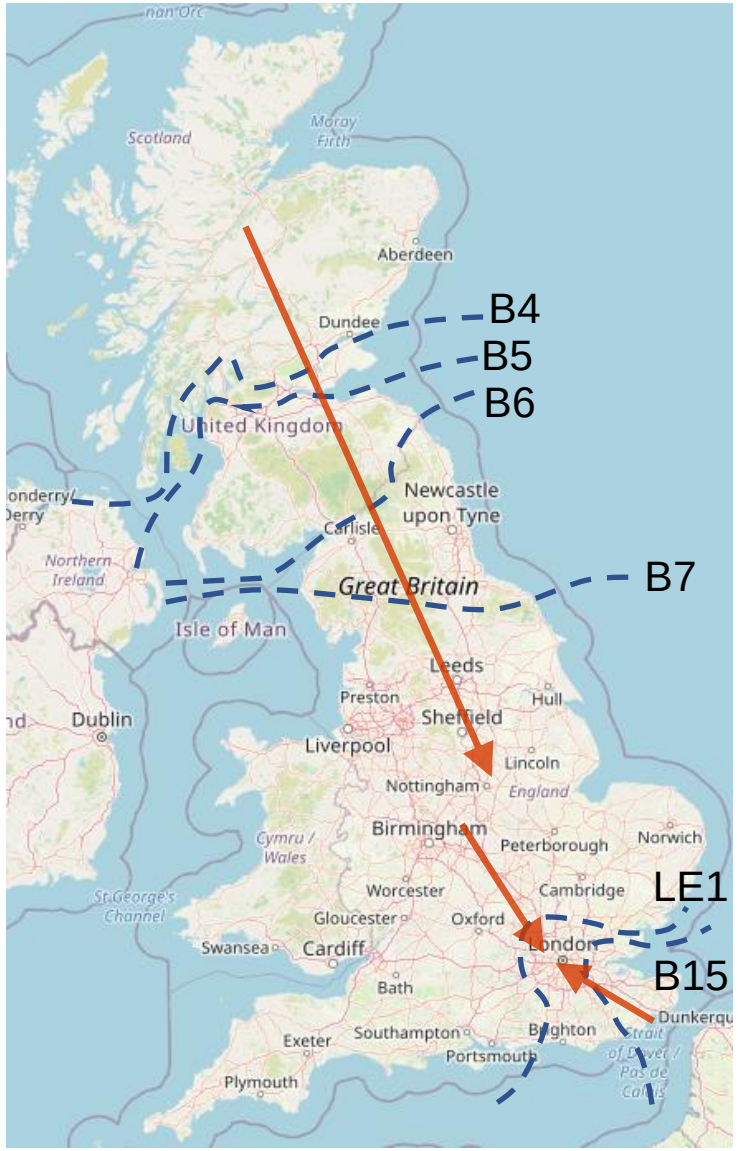
Transparency | Network Congestion





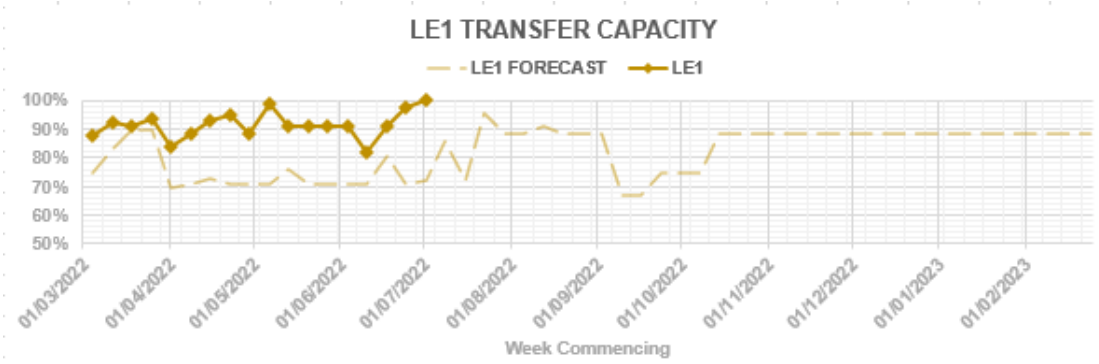


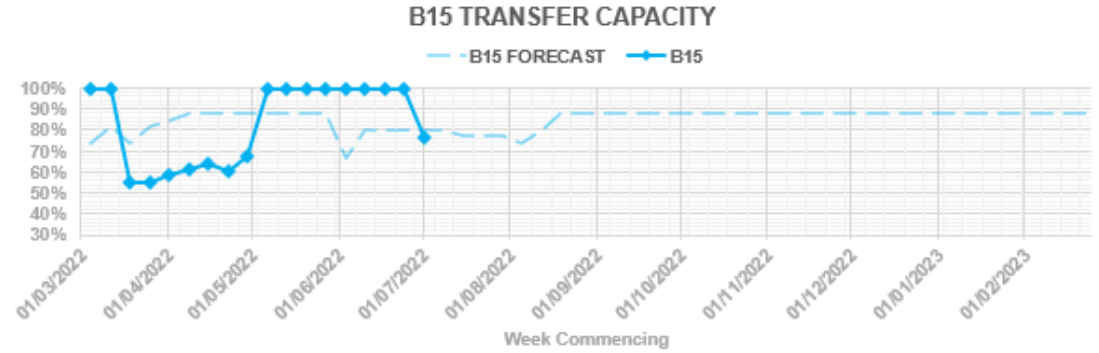
Boundary	Max. Capacity (MW)
B4/B5	2750
B6	5600
B7	8400
LE1	7000
B15	7500



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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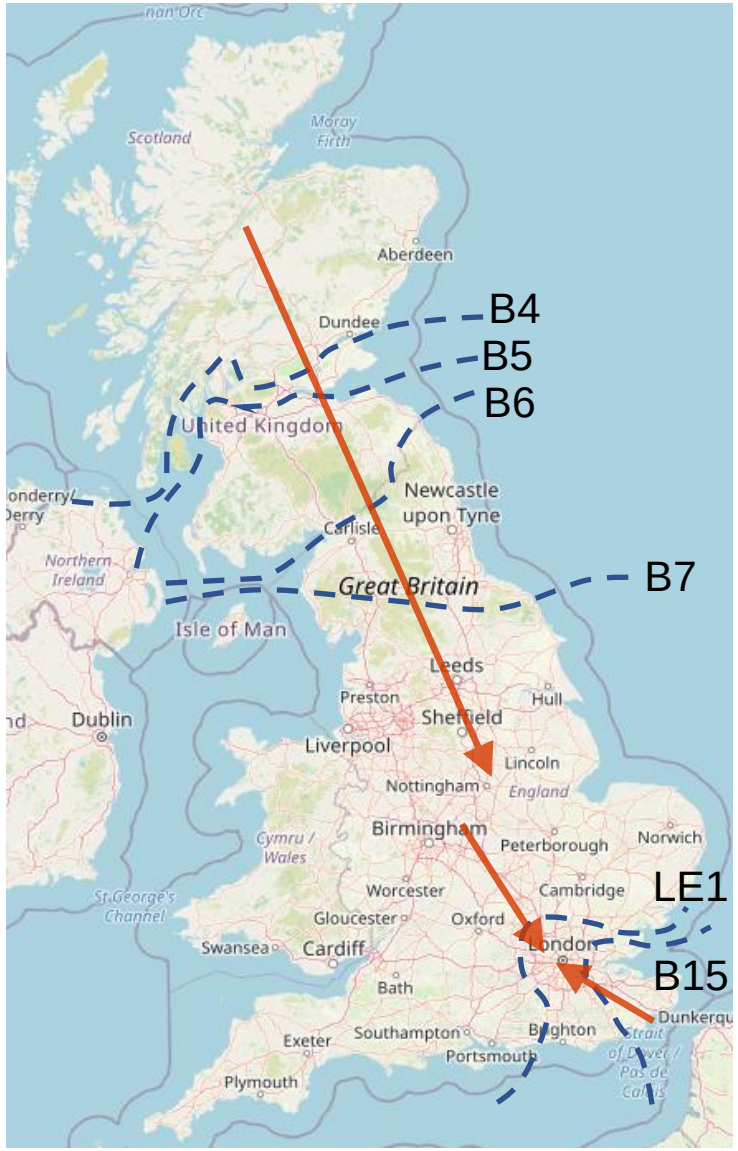

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BSUoS Fixed Tariff Model Consultation

We ran a webinar on the 27th June to seek feedback for the BSUoS fixed tariff model that we have been working on.

- Ahead of the webinar we produced a document to explain the model – Download
- At the webinar we used a slide pack to present the model – Download
- We recorded the webinar for anyone who was unable to attend on the day – View Video
- We produced a Q&A document from the questions that were asked on the day – Download
- We continue to provide updates via our ESO Charging comms – View Here

Huge thanks to everyone that attended on the day or contacted us afterwards with feedback or questions.

We continue to seek feedback on the model as we work towards producing our first draft BSUoS tariff whilst awaiting a decision on CMP361.

Next Steps

Our plan for this engagement is as follows:

1. Issue consultation invitations – *Monday 13th June*
2. Share consultation documentation – *Monday 20th June*
3. Consultation opening session – *Monday 27th June*
   - 1h presenting information in consultation documentation
   - 1h Q+A session, inc. identifying any key topics for follow-up discussion
4. Deliver supporting Webinars / Information – *28th June - 8th July*
   - Reiterating information and covering key questions & answers
   - Focussed sessions or sharing additional information on key topics as requested
   - Gather feedback from sessions, email and other ESO communications channels
5. Update draft tariff methodology & model based on consultation – *12th July-1st August*
   - Communicate updates based on consultation – *Monday 1st August*
6. Second round of consultation for further feedback and updates – *1st-12th August*
   - Communicate consultation summary – *w/c 12th August*
7. Communicate draft tariff, based on updated model and approach – *September*

Call to action!

- *Get in touch with further questions via bsuos.queries@nationalgrideso.com*
- *Highlight topics for follow-up webinars / information shares*
- *Look out for upcoming webinars / additional information via our ESO Charging Updates mailing list – sign up here if you haven't already*

Interconnectors and tools to change the flows on these

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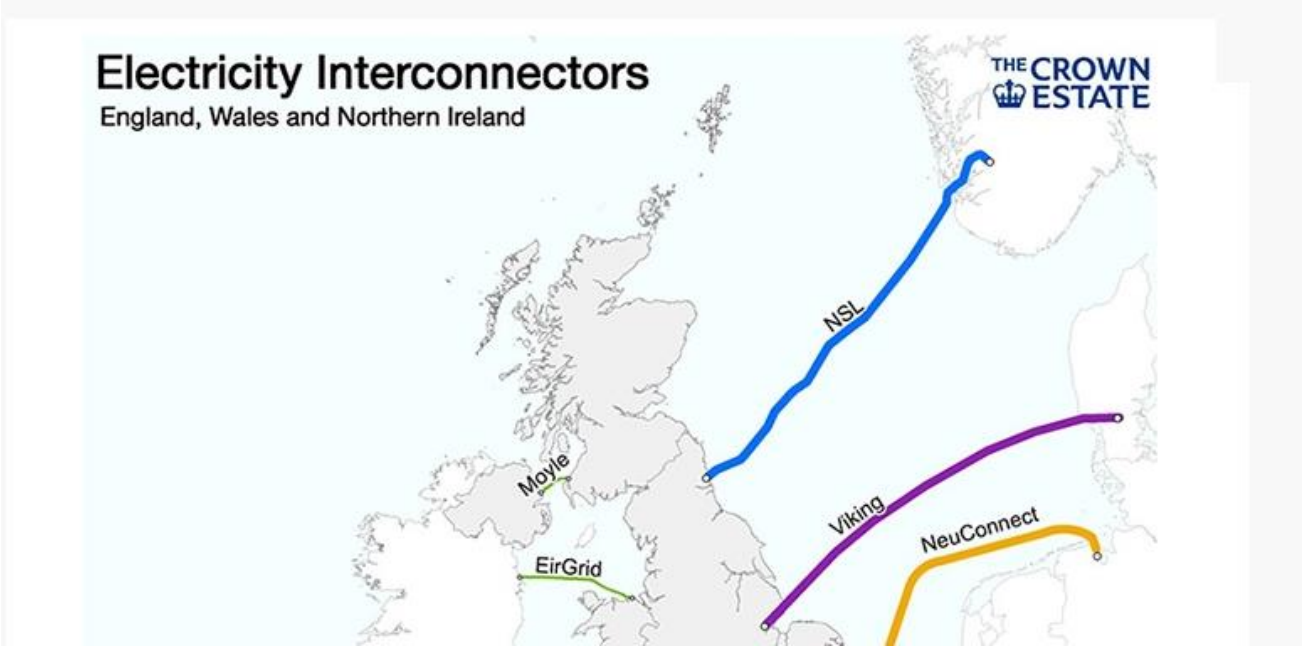
Interconnectors to GB

Interconnectors connect energy markets in the countries that are joined.

GB is connected to France, Belgium, Netherlands, Norway and Ireland

Connected country	Interconnector	Capacity (MW)
France	IFA	2000
	IFA2	1000
	Eleclink	1000
Netherlands	BritNed	1000
Belgium	NEMO	1000
Norway	NSL	1400
Northern Ireland	Moyle	500
Ireland	EWIC	500



Interconnector position

The flow on the interconnectors largely depends on the prices in the two connected markets.

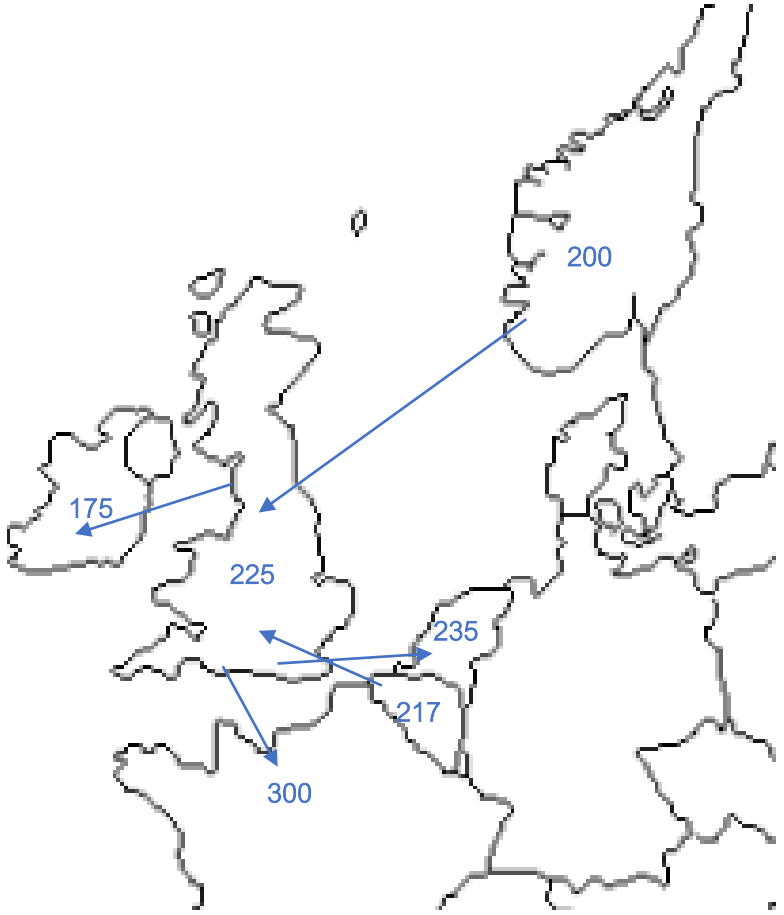
The interconnector will typically flow energy towards the country with the higher price, as traders in the markets will seek to move power to where the prices indicate the power is needed.

Under explicit mechanisms, different interconnectors have different markets where capacity (space) on the interconnectors is sold in different time frames: long term, day ahead and intraday

Once sold this capacity can be nominated against by the trading party.

After the final interconnector gate the flow on the interconnector cannot be changed by the market.

Depending on system conditions TSOs may need to limit the flow on the interconnector this could be done using NTCs or trading (which could be day ahead or intraday).



What is an NTC?

Net Transfer Capacity – a cross-border capacity limit determined by system conditions in order to maintain security by TSOs (National Grid ESO in GB, the Interconnector owner & the connecting side TSO)

It is an integral part of co-ordinated capacity calculation required before capacity is sold

The TSOs will look to find what is the maximum power that can transmitted both into and out of the country on each interconnector in each time period

Where an NTC limit is set at a value less than the full capacity of the Interconnector this will impact of the amount of capacity made available to the market

Where an NTC is set at 950MW export from GB, only 950MW* of capacity (from GB to the other country) can be sold

**assuming no previous nominations have already been made*

NTC methodology

Here is the final document

https://www.nationalgrideso.com/document/203726/download

Trading Eleclink at Day Ahead

ElecLink went live on 25th May with a day ahead (DA) market but no intraday (ID) market so the flow on the interconnector cannot be changed after the DA nominations

Having made changes to our trade publication system, we're now able to trade Eleclink at day ahead.

We are no longer restricting NTC on ElecLink, and making use of day ahead trading instead.

Depending on the system conditions forecast, we may need to change the flow on the interconnectors to ensure that the system can be managed

In general, we prefer to trade Intraday since we have more certainty in our requirements closer to real time, so intraday trades are used where intraday markets are available and day ahead trades where there are no intraday markets.

So in other words: for ElecLink we can only trade at day ahead so will seek DA trades *(where required).* For other Continental Interconnectors that have an explicit intraday market, we will continue to trade at the ID stage *(where required).*

slido

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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