ESO Operational Transparency Forum

2nd September 2020

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Introduction

Please ask any questions via the Q&A section in Webex and we will pick them all up at the end of the session and answer those now which we can. We may have to take away some questions and provide feedback from our expert colleagues in these areas.

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

Reminder:

Dynamic Containment (DC) Consultation – all documentation and service terms are available on our website and the consultation is open:

https://www.nationalgrideso.com/industry-information/balancing-services/frequency-response-services/dynamic-containment

Key topics for this week:

Questions from last week

Business continuity

Demand review and outlook

Transparency updates on Calon Energy and LOLP

Reserve from BM Storage

Dynamic Containment

OFGEM Summer Review

Questions from last week

Q: When will you be adding FR instructions to the data portal?

A: No confirmed date to share yet

Q: Isn't LIBRA an ENTSO-E platform rather than an EU one? Don't we remain in ENTSO-E, which has 35 countries - more than the EU?

A: This is the EU's negotiating position, which we will need to build into our assumptions regarding TERRE

Q: Is there an update on the Fast Reserve Reform

A: Update this week

Q: A very high LOLP has been published for tomorrow (96%), what are ESO planning to do to ensure there are no disconnections?

A: Update this week

Q: Reserve from Storage trial#3:

A: Update this week

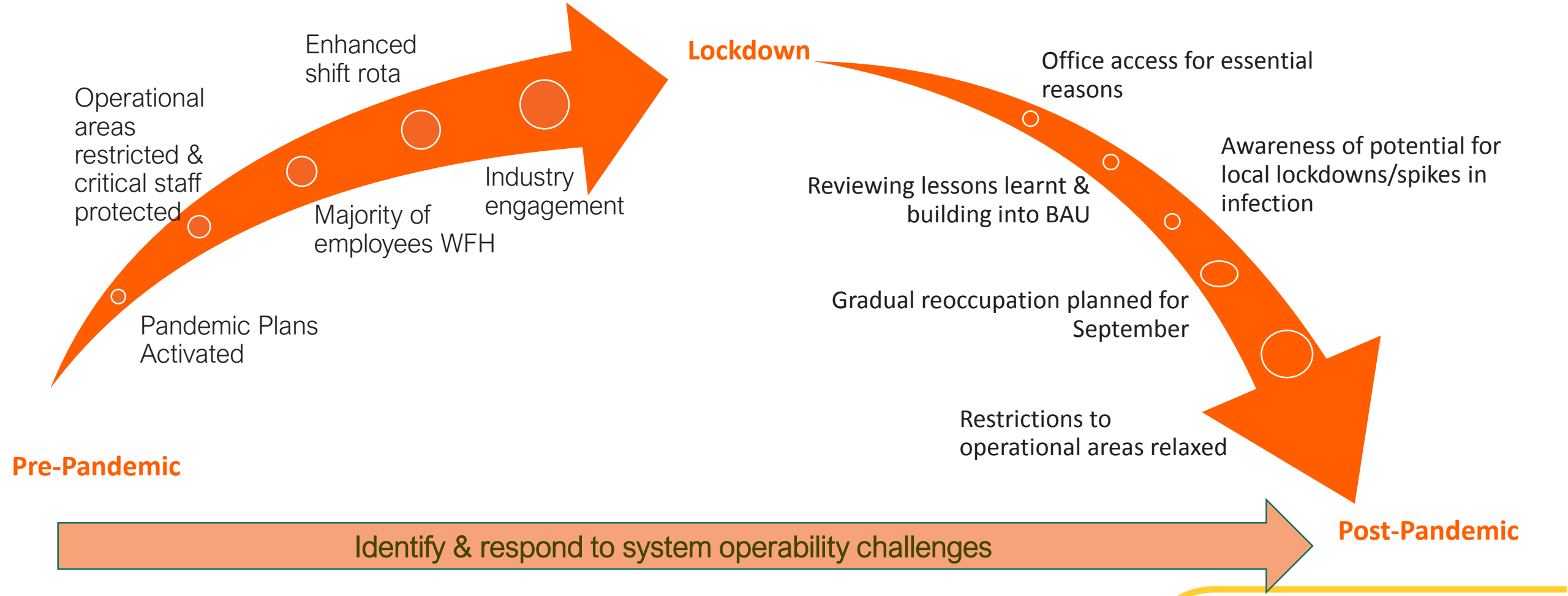
Q: Looking at the Wind Forecast outturn for yesterday. Did we get a large Cutout affect as Francis strengthened in the afternoon? 3GW? leave this out if you are tight for time.

A: Update this week

Q: Does the Calon plant mothballing impact margins this winter

A: Update this week

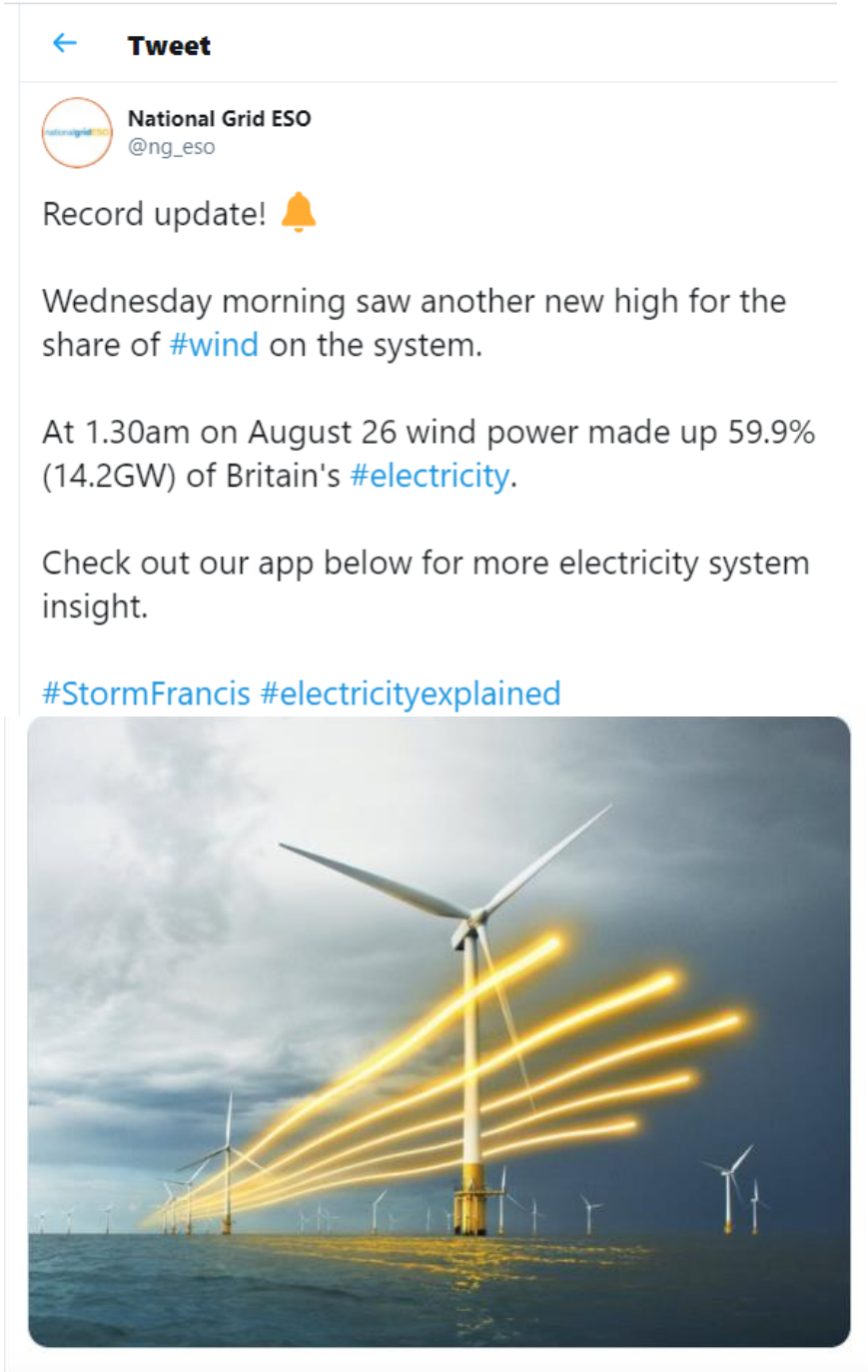
Protecting Critical Staff to maintain Critical Operations



New Record

Storm Francis gales brought the highest ever share of wind power on the electricity system

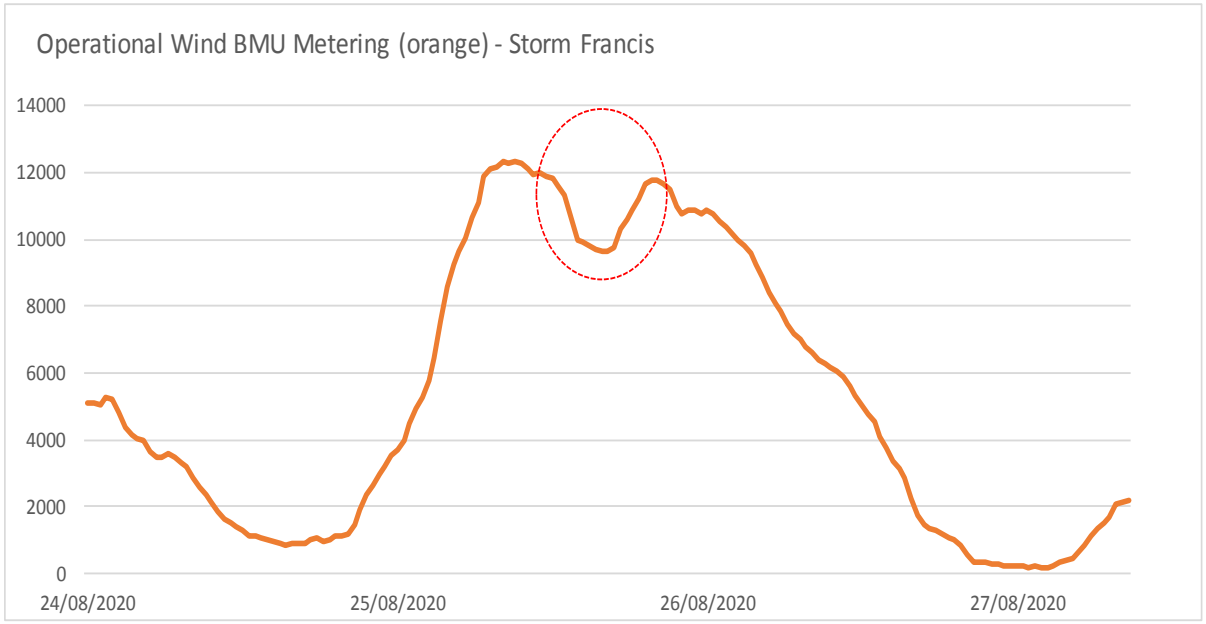
At 1.30am on August 26 wind power made up 59.9% (14.2GW) of Britain's generation mix.



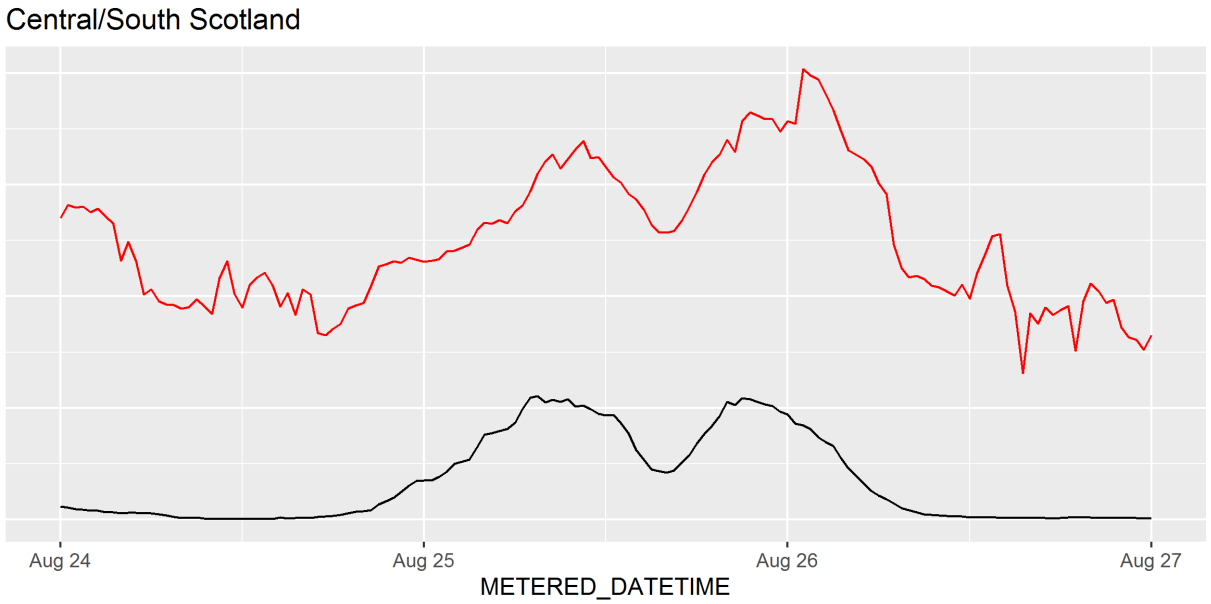
Question from last week

Looking at the Wind Forecast outturn for yesterday *[25/08]*, did we get a large Cutout affect as Storm Francis strengthened in the afternoon? 3GW ?

Metered wind output showed a dip of ~2GW at the peak of the storm. This could have been an indication of wind cut-out



However, we also observed a dip in wind speed in Central/South Scotland at the same time. This correlated with a decrease in wind power output.



ENCC did not report any cut-out effects at the time and the reduction in wind speed in Scotland has led us to conclude that there was no significant cut-out during the storm.

Thank you for your question!

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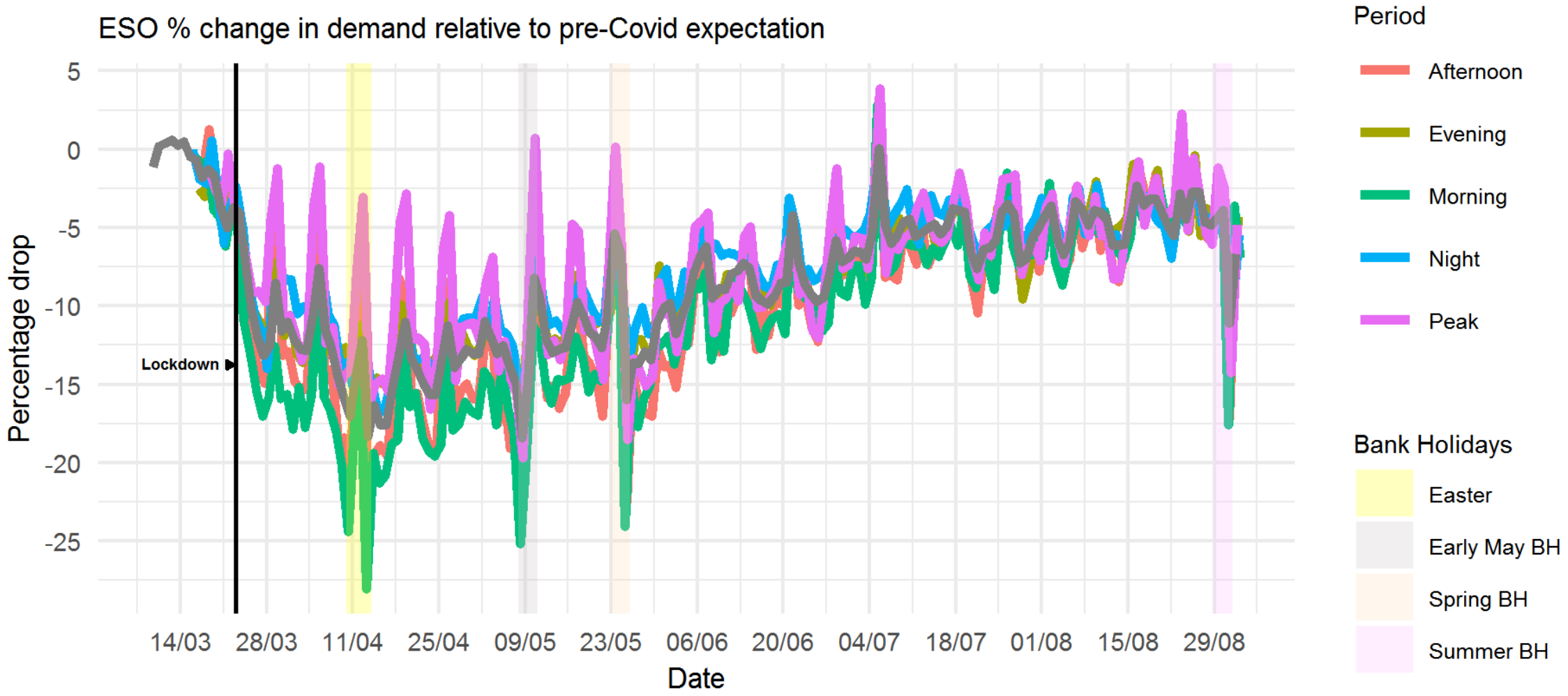
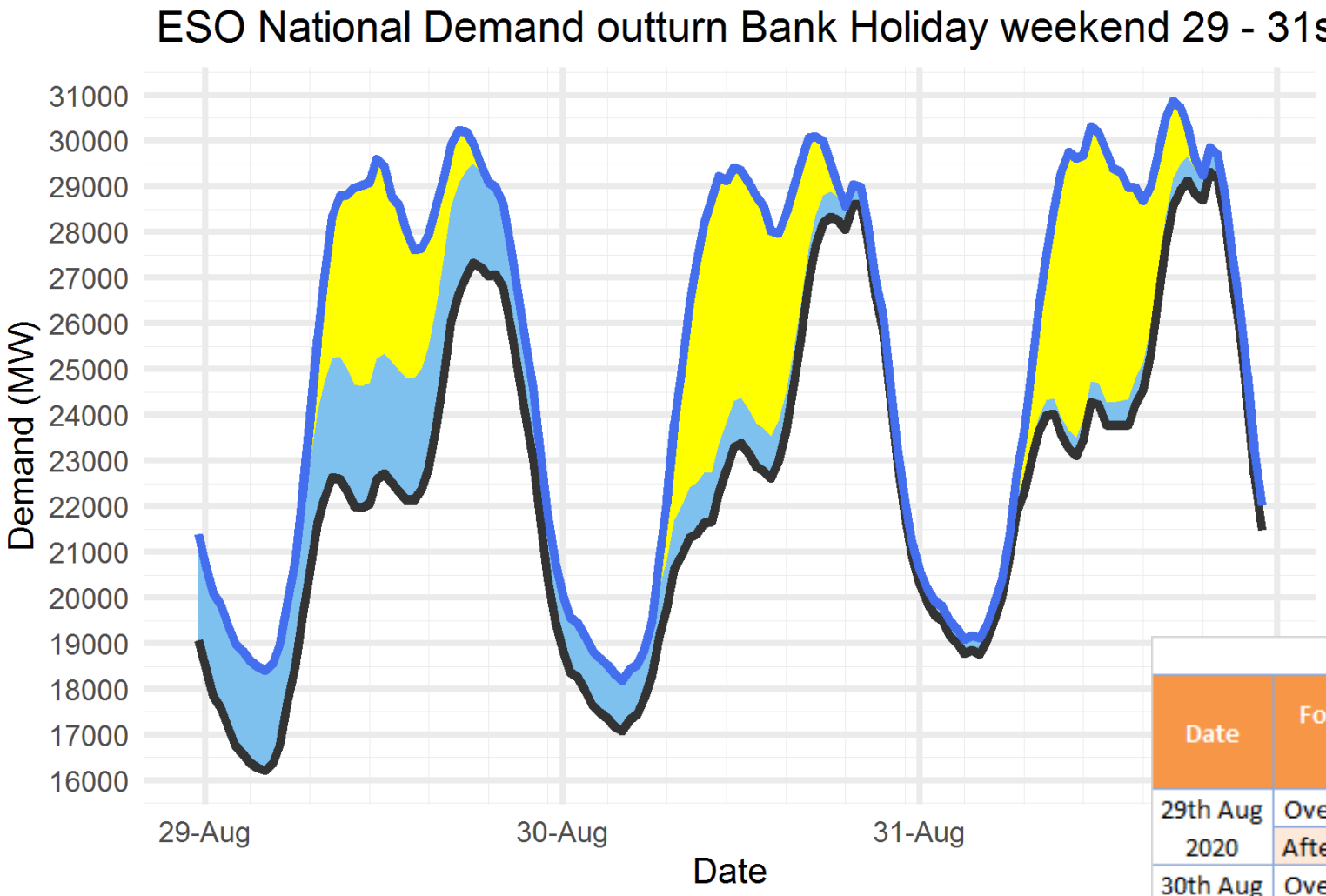
ESO % change in demand relative to pre COVID



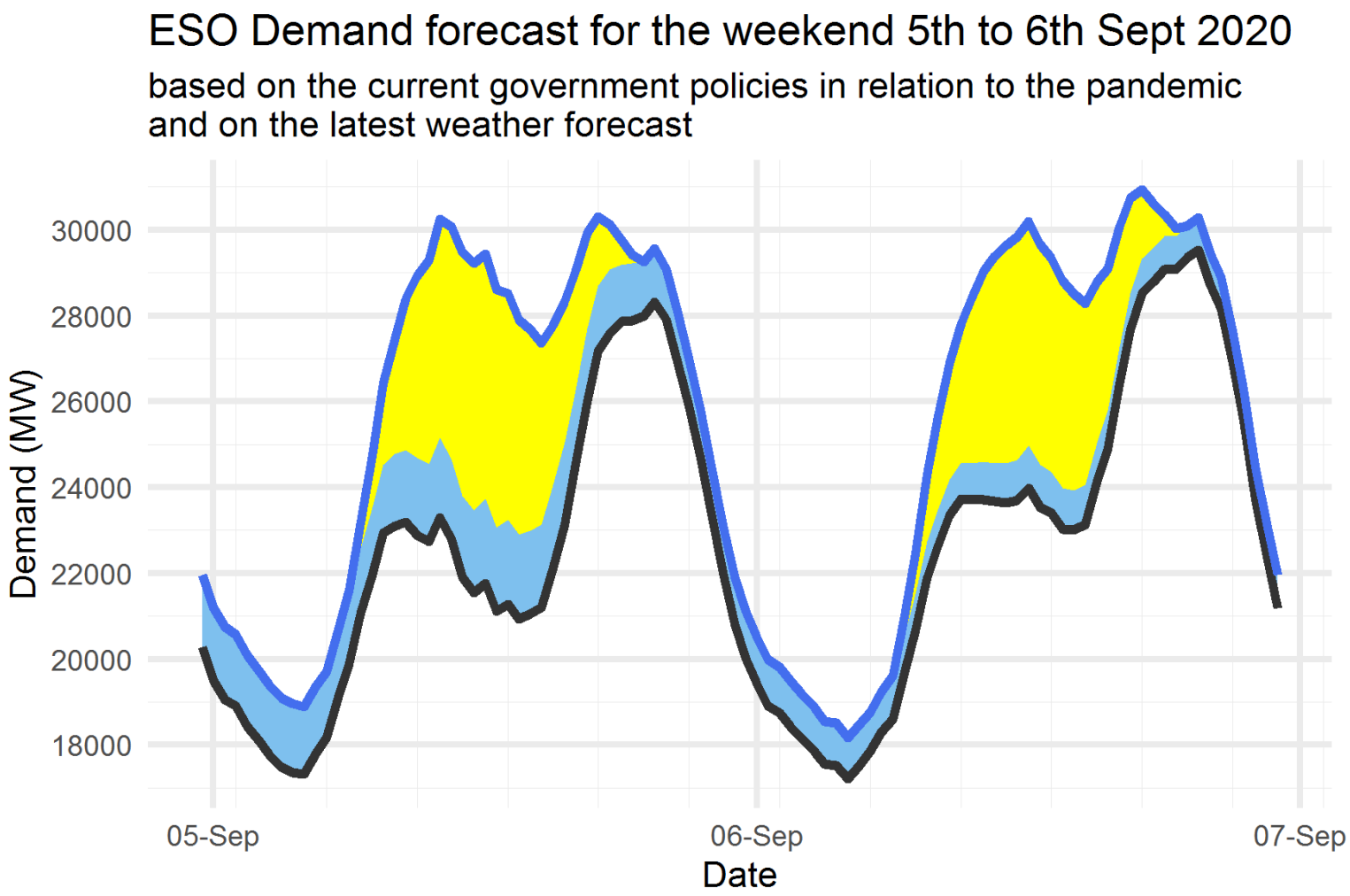
For the previous **last 7 days**, average overall demand drop of ~ 5.3 % (due to BH w/e)

Demand | Last Weekend Outturn



		FORECAST (Wed 26th Aug)			OUTTURN		
Date	Forecasting point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
29th Aug 2020	Overnight Min	**16.5**	1.9	0.0	**16.2**	2.2	0.0
	Afternoon Min	**20.5**	2.3	5.4	**22.1**	2.7	3.2
30th Aug 2020	Overnight Min	**17.3**	0.9	0.0	**17.1**	1.1	0.0
	Afternoon Min	**21.4**	0.8	6.6	**22.6**	0.9	4.5
31st Aug 2020	Overnight Min	**18.2**	0.5	0.0	**18.8**	0.4	0.0
	Afternoon Min	**21.8**	1.4	5.4	**23.8**	0.5	5.1

Demand | 5th & 6th September



		FORECAST (Wed 2nd Sept)		
Date	Forecasting point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
5th Sept 2020	Overnight Min	**17.3**	1.6	0.0
	Afternoon Min	**20.9**	2.0	5.0
6th Sept 2020	Overnight Min	**17.2**	0.9	0.0
	Afternoon Min	**23.0**	0.9	4.6

Transparency | Calon Energy

Calon Energy Group is an Independent Power Producer (IPP) in the UK, with a 2.3 GW Combined Cycle Gas Turbine (CCGT) portfolio operating across three sites:

- Severn Power Station, Newport, South Wales (850 MW);
- Sutton Bridge Power Station, Sutton Bridge, Lincolnshire, England (850 MW);
- Baglan Bay Power Station, Port Talbot, South Wales (582 MW).

24th August - KPMG's Restructuring practice were appointed Joint Administrators of a number of operating companies of the Calon Energy group, including the operating companies for the Severn Power and Sutton Bridge Power stations. The operating company for the Baglan Bay Power Station, is not subject to administration appointments at this time and remains under the control of its directors.

Impacts

The ESO doesn't anticipate the operation of the system to be affected by the closure of Calon Energy's Severn and Sutton Bridge gas-fired power stations.

Transparency | Loss of Load Probability

BMRS reports Loss of Load Probability (LOLP), this value is calculated from industry data the calculation uses initial day ahead forecasts being successively overwritten by more up to date forecasts from later runs at shorter lead times.

Initial LOLP values can be higher than the final values because the data received by National Grid is either incomplete because the initial day ahead interconnector PN positions have not yet been notified, or other PN submissions are not yet reflective of final positions for some generators.

Previous examples of when LOLP has been high were not reflective of any margin concerns in the control room that required any special action e.g. the issue of any system warnings.

It is worth noting that upto 500MW of optional non-BM fast reserve is not currently included in the LOLP calculation. Fast reserve not being used in imbalance pricing is a known defect (BSC Mod 371 refers).

The LOLP value is an indicator of system conditions based on market data.

The ESO will signal through the use of Electricity Margin Notices (ENMs) when the market data is indicating that there is a requirement for more capacity to meet the operational requirements.

For Capacity Market Agreement holders the Capacity Market Notice website and subscription service will issue a Capacity Market Notice in the event of a shortfall as determined by the Capacity Market Rules.

Transparency | Dynamic Containment

Delivery plan

August	September	October
21st - Draft contracts published	Systems and process development (NGESO)	1st – Go-live of DC
EBGL consultation (1 calendar month 21/08 – 21/09)		
Engagement (webinars, Q&A)	Final contract published	
Onboarding process for providers	Onboarding process for providers	

→ **2021**

What to expect over the next few weeks:

- Specific webinars covering DC documentation
- Updates to the Q&A document

Our Plan for the webinars will be shared via Future of Balancing Services email subscription

Any questions? Please contact your account manager or email: box.futureofbalancingservices@nationalgrideso.com

Dynamic Containment engagement

Below is the plan for the webinars next week. Recordings and Q&A will be published on the DC website afterwards.

2 September	3 September	4 September
Procurement rules and process	Onboarding and submission templates	Testing document

Timings for the webinar will be confirmed in the Future of Balancing Services email tomorrow, and published on the DC webpage.

Transparency | CEP - Procurement of Firm STOR

No further procurement of firm STOR in 2020. We will continue to operate with existing firm contracts and the optional STOR service.

Focus continues on making the existing STOR product compliant with the requirements of CEP ready for April 2021.

We expect to share initial proposals this month and follow up with a webinar later in September to talk through these proposals and seek feedback from market.

Engagement and input from market is critical to being ready for April 2021 and we are keen to involve providers with the development of the final requirements in readiness for April 2021.

Transparency | CEP - Procurement of Firm Fast Reserve

We have taken the decision not to make the existing Fast Reserve product compliant with CEP

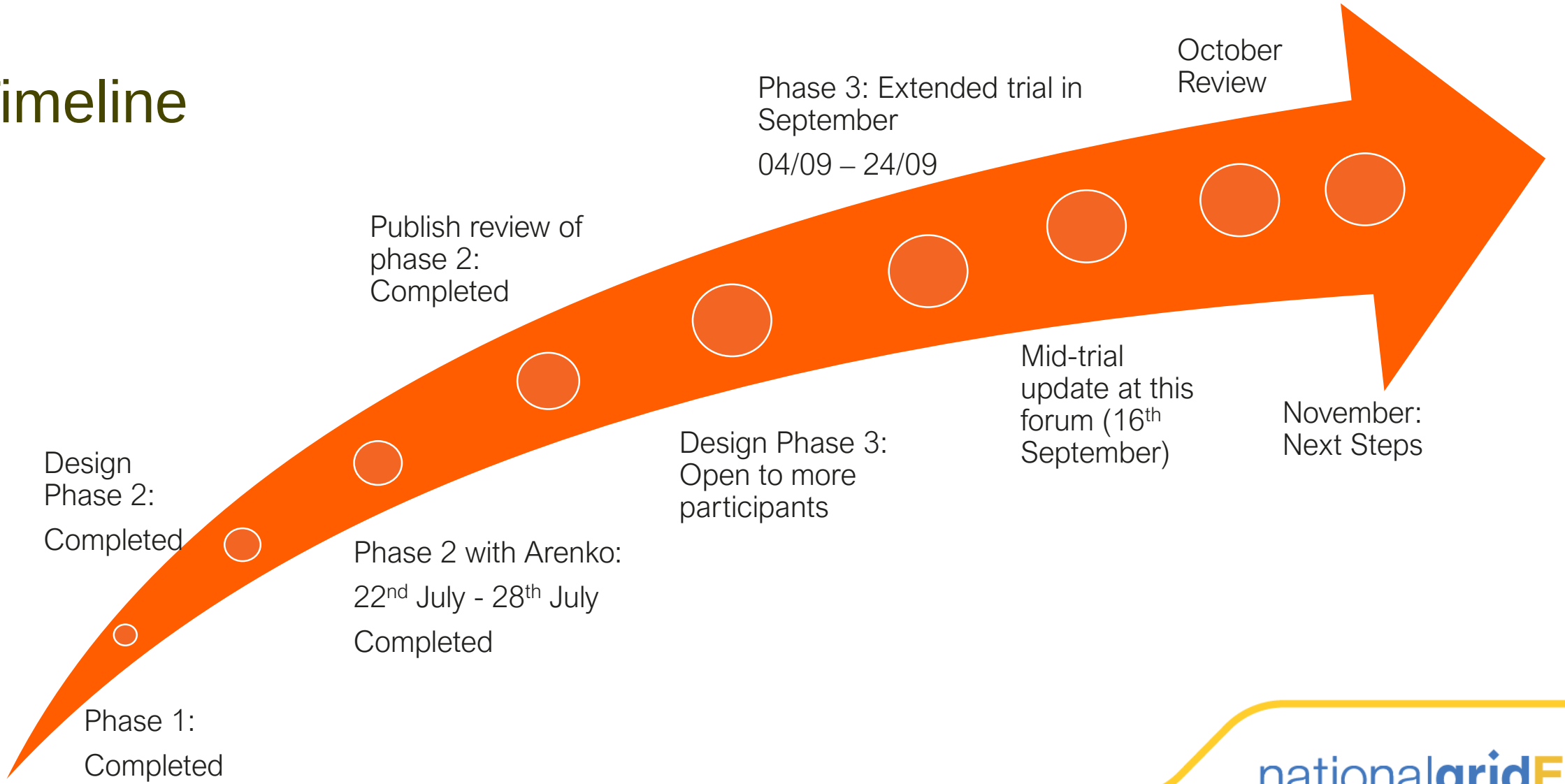
We therefore will not be procuring any further firm fast reserve

We intend to look at how fast reserve fits with the future design of standardised fast acting reserve products through reserve reform

We intend to continue to use optional contracts including optional fast reserve contracts as well as BMUs with dynamic parameters to deliver fast energy to meet our requirement for fast energy

Transparency | Reserve from Storage in the BM

Timeline



Transparency | Reserve from Storage in the BM

Phase 2 trial outcomes:

To access the full range of flexibility of Storage Assets in the BM.

Recognition that these assets can meet a range of operational needs

Allocation of Sustained (“Regulating”) Reserve (Upward and Downward) – aligned with ESO ambitions for access to assets across all markets

Utilisation of the allocated Reserve – Ensuring real time balance of energy against demand

Frequency Control – Short burst of energy to arrest changes in frequency

Phase 2 Trial allowed us to gain experience to determine what was possible, how this worked in practise and build an understanding of the capabilities which were required

Transparency | Reserve from Storage in the BM

Phase 3 Trial

The following shows the participation on a 24/7 basis

Asset Owner	Operator/Optimiser	Asset Size	Start Date	End Date
Gresham House	Arenko	41MW	04/09/2020	24/09/2020
Gresham House	Habitat	49MW	04/09/2020	24/09/2020
Gresham House	Habitat	16MW Import/20MW Export	04/09/2020	24/09/2020
Gresham House	Flexitricity	49MW	tbc	24/09/2020

We are still open to additional participants to enter later into the trial on a 24/7 basis, please contact commercial.operation@nationalgrideso.com if you wish to be involved.

Transparency | Reserve from Storage in the BM

Process

- Providers will submit prices assuming activation of the service
- Assessment by control room in four hour blocks, aligned with operational need as part of final System Operating Plan process
- Control Room will activate ten minutes ahead of gate closure.
- If no activation, prices will revert to standard pricing
- Bids & Offers will be instructed as per July trial to provide availability payment.
- Utilisation will be based on operational need reflecting real time requirements

Transparency | Reserve from Storage in the BM

Phase 3 Aims:

- Facilitate more participants efficiently and effectively
- How does the control room robustly plan, commit and utilise providers taking account of the interactions across the various elements of flexibility accessible e.g. sustained reserve versus frequency control
- What would an enduring solution look like?
- Debate the sustainability of existing arrangements to allow access to fullest flexibility that storage can provide
- Three week extended trial allows us to operate over a variety of market and operational conditions and to adjust processes accordingly

Transparency | Ofgem Open Letter

Ofgem on 17 August 2020 published and Open letter - here

"The GB electricity system has seen an increase in balancing costs this spring and summer 2020, coinciding with the onset of the COVID-19 pandemic. Specifically, the period from March to July 2020 has seen balancing costs of £718 million, which is 39% higher than the ESO expected costs would look like in this period. These costs increased at the same time as nationwide lockdowns changed consumer electricity consumption behaviour and reduced industrial activity. Moreover, some of this period saw high level of renewables output, which required the ESO to take a large number of actions to balance the system and ensure system operability.

This letter sets outs our intention to evaluate the high balancing costs on the GB electricity system this spring and summer and identify lessons that need to be explored further in order to reduce costs to consumers going forward. This letter also describes how we intend to engage with stakeholders in this process."

Three main areas of focus

1. Long term preparedness
2. Crisis management and response
3. Lessons for the future

Ofgem will be seeking evidence from the ESO during August before running virtual round tables in early September before finishing the review in October.

To participate please review the letter and contact Ofgem on esoperformance@ofgem.gov.uk

Summer ESO Actions

People

- Focused on keeping our people safe to ensure that uninterrupted power system operation can continue

Transparency

- We have engaged industry across these webinars and other webinars with DNOs and TOs
- Providing information on;
    - Demands
    - Operability Challenges
    - Changes to projects
    - All of which you have told us has supported your decision making during this period
- Provided updated BSUoS Forecasts to support industry in understanding the complexity and increased costs over the summer

Actions

- Identified through robust analysis the operability challenges of suppressed demands over the summer
- Highlighted the requirements for increased flexibility and sought from industry parties through Super-SEL contracts
- Developed and launched a new product – ODFM which has enabled over 4GW of new entrants to the market to support the most critical points
- Ensured continued flexibility with a contract with EdF to reduce the output of Sizewell
- Provide code clarity in relation to last resort Emergency Instructions through the Grid Code Modification GC00143
- Supported CUSC change CMP350 to defer up to £100m of costs from 20/21 to 21/22
- Continued to progress ESO forward plan commitments.

Review

- Supporting Ofgem in their review of the Spring/Summer of 2020

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 the Q&A section in Webex and we will try to answer as many as possible now

Please continue to use your normal communication channels with ESO

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

box.NC.Customer@nationalgrideso.com