



# ESO Coronavirus Preparedness

10<sup>th</sup> June 2020

# Recap of topic areas from the Webinar last week

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:

[data.nationalgrideso.com/plans-reports-analysis/covid-19-preparedness-materials](https://data.nationalgrideso.com/plans-reports-analysis/covid-19-preparedness-materials)

We provided an overview of the changes to demand since lockdown and a forward view of the forecast demands through June 2020

The rest of the webinar was focused on ODFM, including a general update and FAQ

Questions from last week:

## **Dynamic containment**

Currently we don't have a re-baselined go-live date as key resource diverted onto short term operability issues -see update on our website <https://www.nationalgrideso.com/document/168216/download> for more information.

Announcements will be made on the on the [DC webpage](#), and via the [Future of Balancing Services email subscription](#). We would like to engage further on principles of the product design

## **Battery Asset Trial**

Outputs are still being discussed and will be shared when available.

ACCURATE

TIMELY

FLEXIBLE

**nationalgrid**ESO

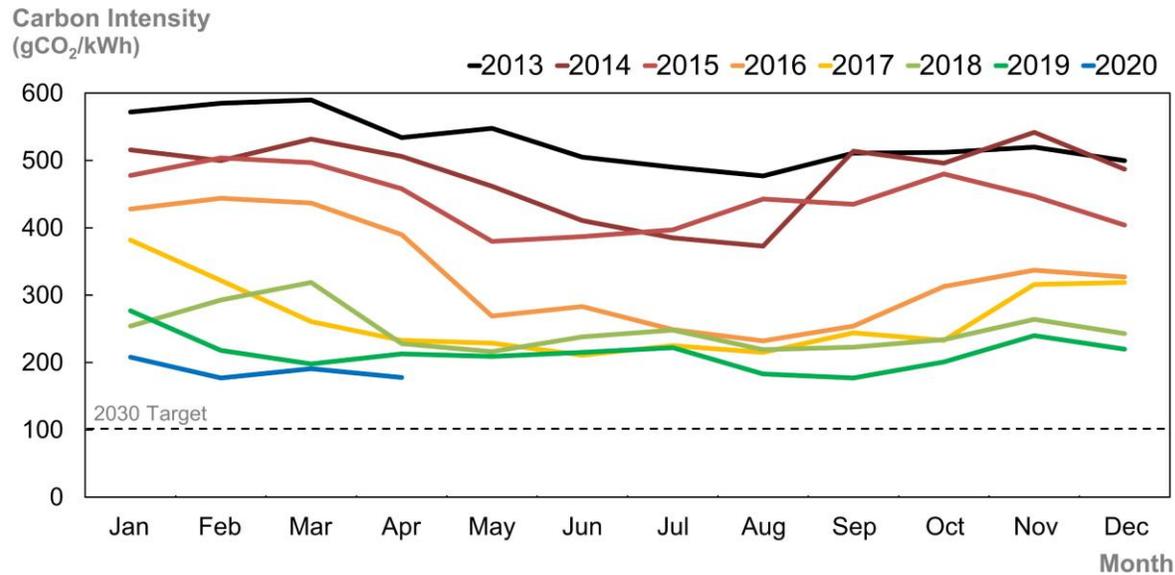


# New record for coal free generation – on the path to zero carbon operation

On the 28<sup>th</sup> April, the GB electricity system set a new record of more than 18 coal-free days

At midnight last night, this record was extended to 2 coal-free months

## The Decarbonisation of British Electricity



↓ **59.4% decrease**  
from 2013 to 2019

2013 **529** gCO<sub>2</sub>/kWh

2014 **477** gCO<sub>2</sub>/kWh

2015 **443** gCO<sub>2</sub>/kWh

2016 **330** gCO<sub>2</sub>/kWh

2017 **266** gCO<sub>2</sub>/kWh

2018 **248** gCO<sub>2</sub>/kWh

2019 **215** gCO<sub>2</sub>/kWh

\*2020 **189** gCO<sub>2</sub>/kWh

\*year to date

2020 has been a year of records:

- 20<sup>th</sup> April – solar generation peaked at 9.68GW
- 24<sup>th</sup> May – a combination of low demands and high solar and wind outputs saw the lowest carbon intensity record of 46g CO<sub>2</sub>/kWh.

We are continuing to work with industry to ensure we ready to run a coal free system with increasing share of renewables.

# Protecting Critical Staff to maintain Critical Operations

## ESO Recovery Plan

Majority of staff continue to work from home & over the summer

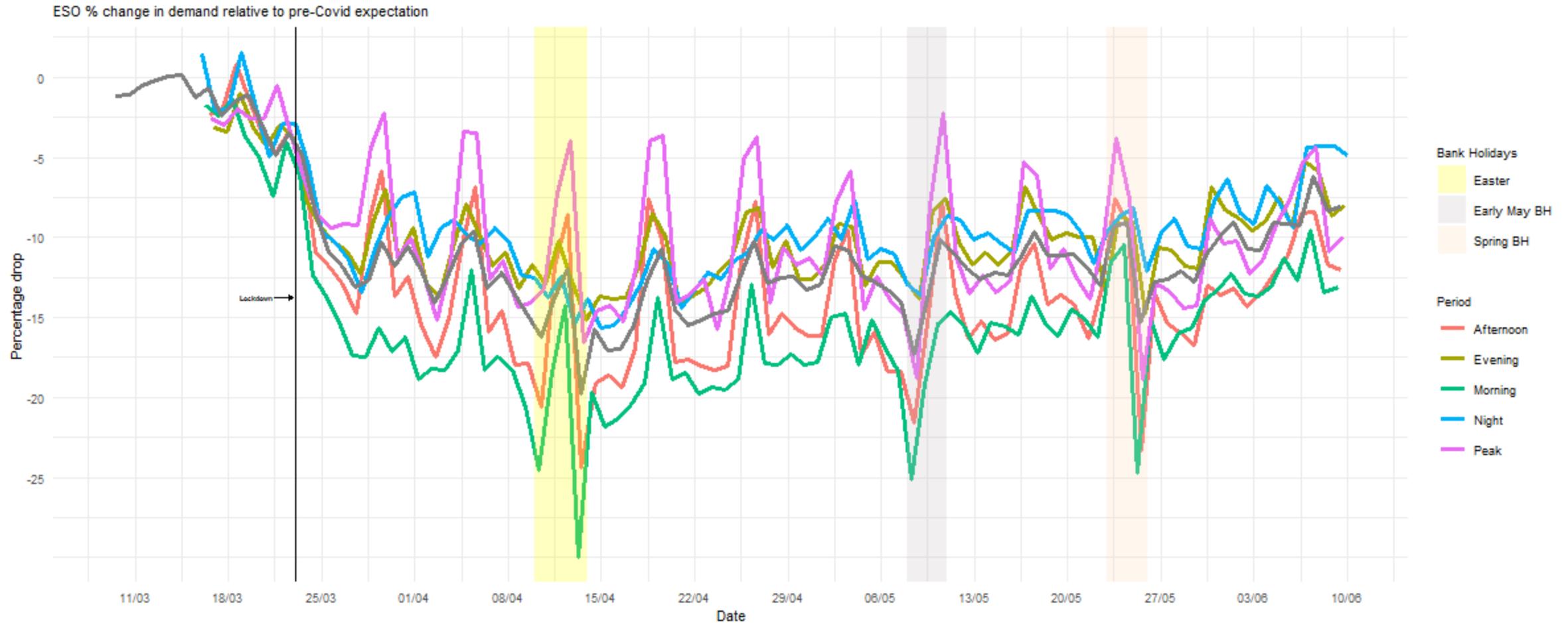
Phased response means re-occupation of offices will be staggered and in line with government working safely guidelines

Critical staff remain protected and this will continue during Recovery

Identified those with business or personal needs to return to the office and working to facilitate this

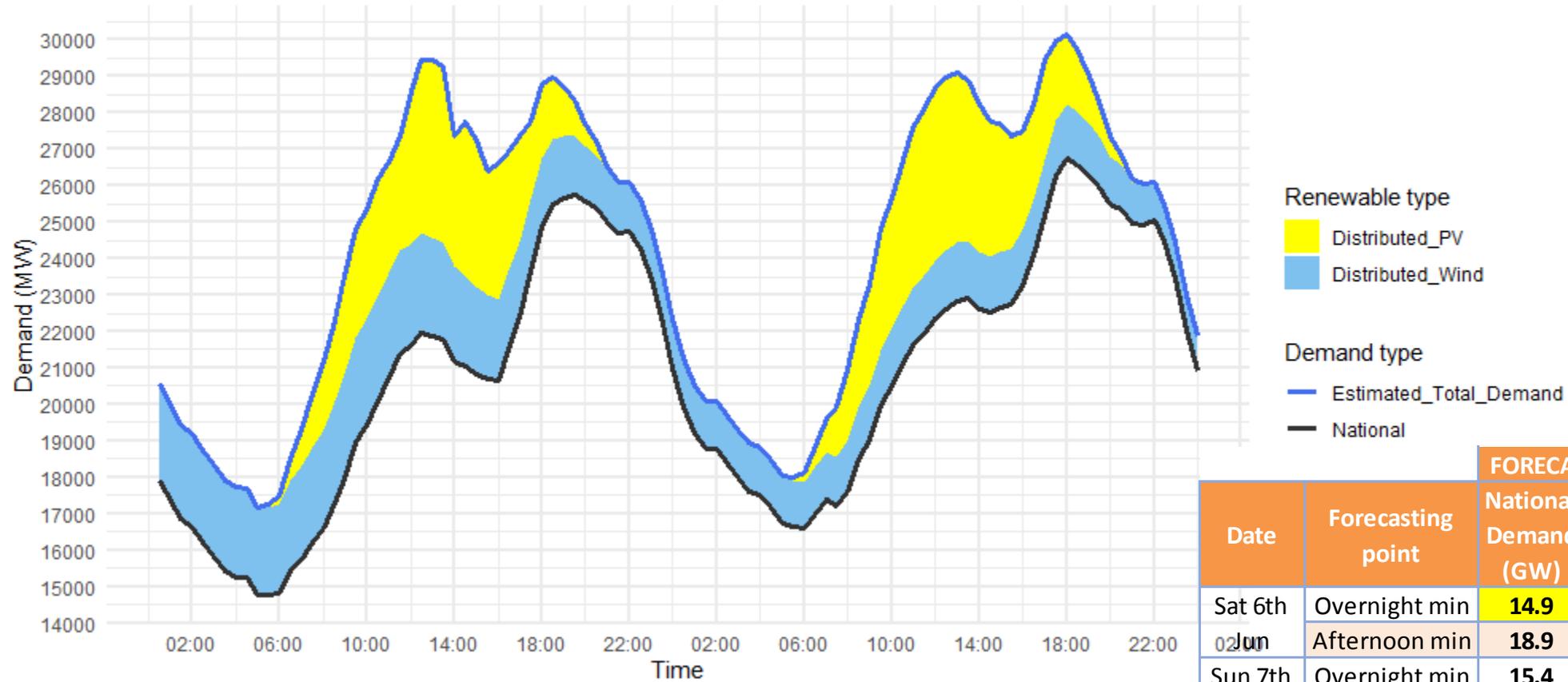


# ESO assessment of demand reduction



# Demand | 6<sup>th</sup> & 7<sup>th</sup> June outturn

ESO National Demand outturn\* 6th & 7th June 2020  
 \*no ODFM instructed

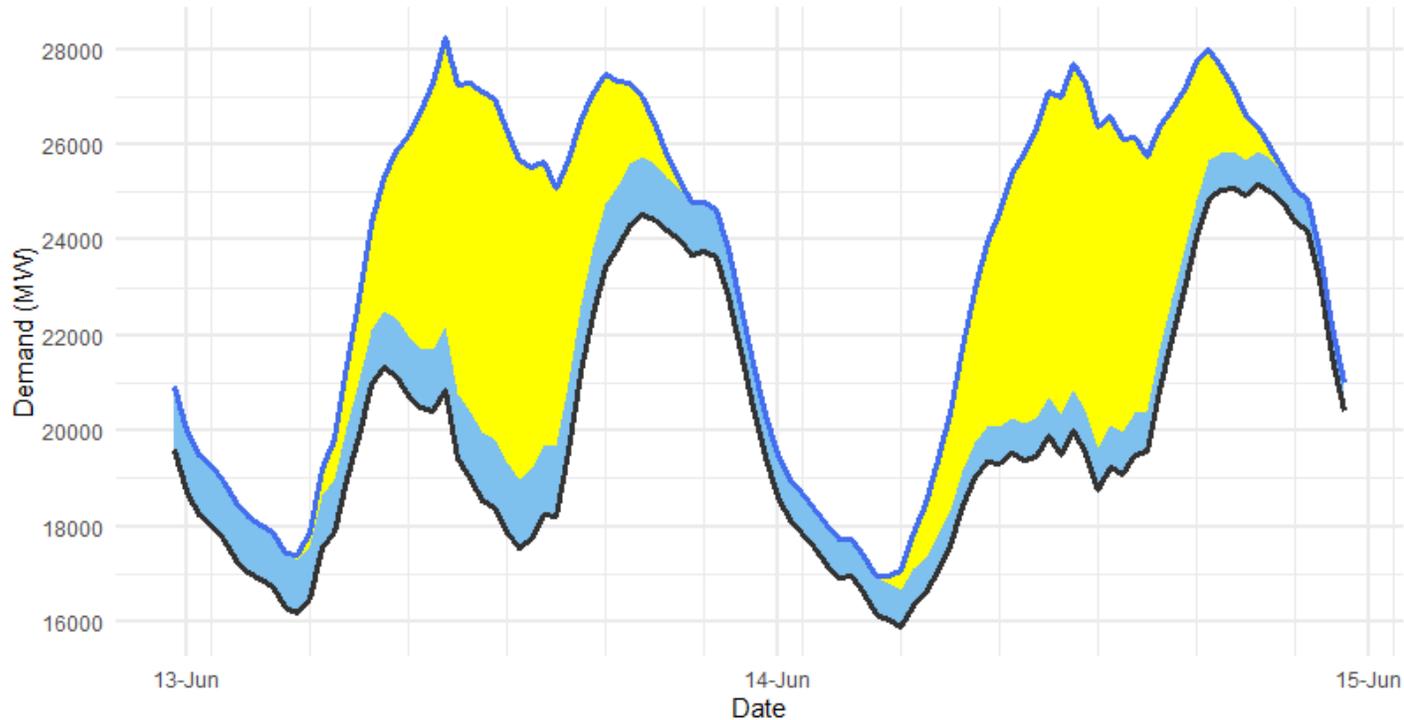


Date	Forecasting point	FORECAST (Thu 4th Jun)			OUTTURN		
		National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
Sat 6th	Overnight min	14.9	2.3	0.3	14.8	2.4	0.0
02 Jun	Afternoon min	18.9	2.4	4.7	20.7	2.2	3.7
Sun 7th	Overnight min	15.4	1.6	0.3	16.6	1.3	0.3
Jun	Afternoon min	20.1	1.8	4.3	22.5	1.6	3.7

# Demand | 13<sup>th</sup> & 14<sup>th</sup> June

## ESO Demand forecast 13th - 14th June 2020

based on the current government policies in relation to the pandemic and on the latest weather forecast



### Renewable type

- Distributed\_PV
- Distributed\_Wind

### Demand type

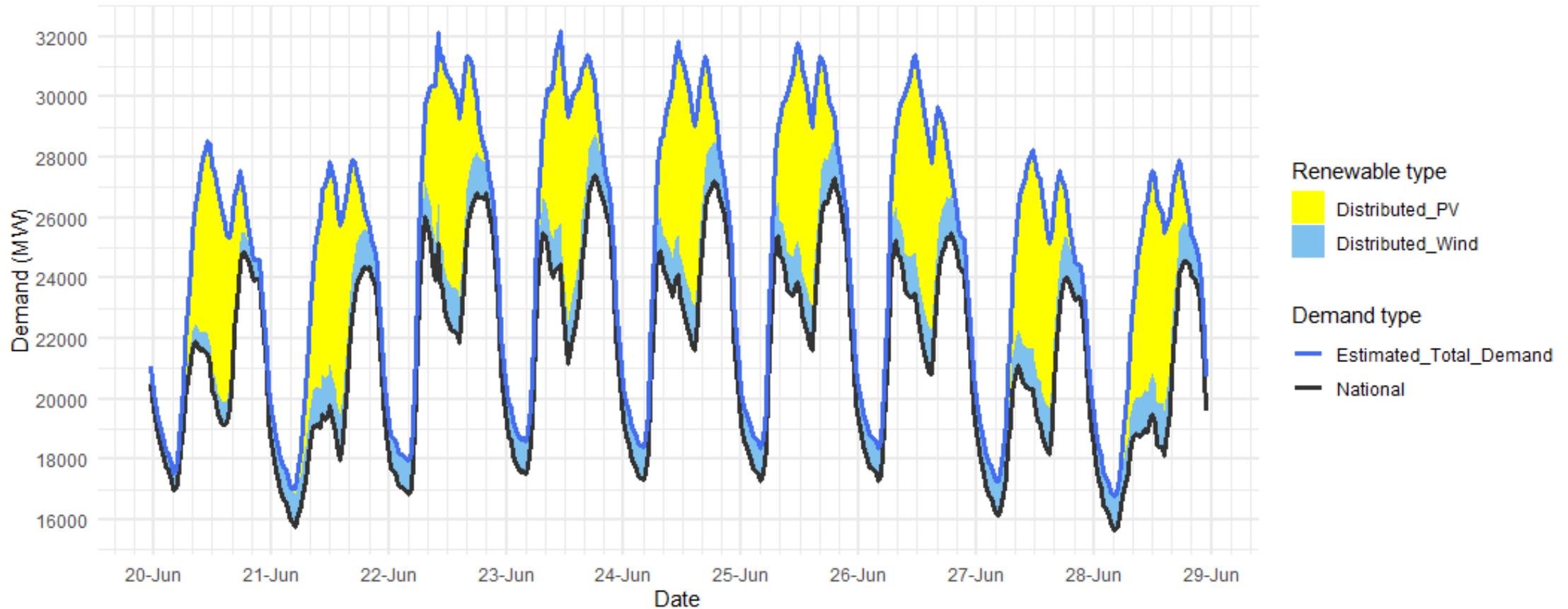
- Estimated\_Total\_Demand
- National

Date	Forecasting point	National Demand (GW)	Dist. wind (GW)	Dist. PV (GW)
Sat 13th Jun	Overnight min	<b>16.2</b>	1.1	0.1
	Afternoon min	<b>17.5</b>	1.4	6.7
Sun 14th Jun	Overnight min	<b>15.9</b>	0.8	0.4
	Afternoon min	<b>18.8</b>	0.9	6.7

# Forecast for June 2020

## ESO Demand forecast 20th - 28th June 2020

based on the current government policies in relation to the pandemic and on the latest weather forecast



# What have we done | Optional Downward Flexibility Product | Update

4GW signed onto the service terms so far with provider onboarding continuing.

No instructions were issued this week however a market information CSV has been published reflecting the availability of units, including prices and volumes submitted.

Further details can be found in the [market information report](#)

Market communication related to service instructions will be published via BM reports &:

<https://extranet.nationalgrid.com/sonar/>

Please sign up for notifications

We have also published an interactive guidance document on the website. The document provides an overview of the service, explains how to participate, assessment and settlement information, and FAQs. You can access this document via this [link](#)

If you are interested in participating in this service or if you have any questions, please contact: [commercial.operation@nationalgrideso.com](mailto:commercial.operation@nationalgrideso.com)

The service terms for ODFM end 31/08/20, with a one month extension clause should system conditions mean the service is required. We will seek feedback from the market and review learning in order to inform the design of an enduring footroom service as part of Reserve Reform. Already there is plenty of learning that will not only inform future Reserve products, but many of our projects to deliver our zero carbon 2025 ambition

e.g. Regional Development Programmes

# Optional Downward Flexibility Product | FAQs

## Envelope of uncertainty

Beyond T-24 hours  
Scenario analysis &  
planning

T-24 hours  
Day ahead  
planning

T-4 hours  
Scheduling  
Timescales

T=0  
Real time  
ENCC actions

T+X  
Post event  
Review

ODFM  
decision

Trades &  
Super SEL  
enactment

BOAs

Time

### Inputs into ODFM decision:

- Demand Forecast
- Positive and Negative Reserve requirement
- Contribution to demand of:
  - Nuclear,
  - Pump Storage,
  - Interconnector flows,
  - Minimum CCGT requirement (to meet the voltage and inertia contributions)
  - additional CCGT MWs running to meet demand not inertia
- Overlay:
  - Metered wind forecast
  - Available bids on wind
  - Balancing actions required for network congestion
  - Any market actions drive by price signals

### Assessment of ODFM

- Assess if we have a balanced position and can satisfy our downward requirements, or if further action is needed.
  - Action needed to resolve imbalance?
  - Action needed to meet requirement for negative reserve?
- If yes, review commercial options available e.g. what can reasonably be assumed with respect to trading on interconnectors?
- Refine assumptions to deduce a requirement for ODFM in line with envelope of uncertainty at that time

# ODFM | Review of last weekend

- The Saturday 1B **demand** outturned at 14.8GW, slightly higher than the minimum demand period experienced so far
- The most challenging periods for downward regulation do not necessarily correlate with the periods of lowest demand, such as this weekend
- The low demand this weekend was primarily driven by high levels of **embedded wind**
- This was also reflected in high levels of **transmission connected wind**, which we can access in the BM – we scheduled over 7GW of wind BOAs for Saturday's overnight minimum
- High levels of renewable generation in GB, meant that prices were favourable compared to continental Europe, meaning interconnectors likely to export
- At the D-2 stage ahead of last weekend, we forecasted the potential need to use ODFM
- However, due to the availability of wind actions and improved certainty of interconnector positioning, the decision at the D-1 strategy meeting was that ODFM was not required.

## Inputs into ODFM decision:

- **Demand Forecast**
- Positive and Negative Reserve requirement
- Contribution to demand of:
  - Nuclear,
  - Pump Storage,
  - **Interconnector flows,**
  - Minimum CCGT requirement (to meet the voltage and inertia contributions)
  - additional CCGT MWs running to meet demand not inertia
- Overlay:
  - Metered wind forecast
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# 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.**

**During w/c 22<sup>nd</sup> June, we will be publishing the annual Winter Review and Consultation document. We would like to use the webinar during that week to discuss this consultation. We want to understand your views on how the lockdown might have affected your winter planning and whether there is anything that we should take into account in the Winter Outlook**

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@nationalgrid.com](mailto:box.NC.Customer@nationalgrid.com)