

ESO Coronavirus Preparedness

29th April 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.

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

#clapforcarers demand pickup

We highlighted a new record for solar generation in GB (9.68GW) and provided an overview of the demand forecast for the weekend

We then carried out a deep-dive into the longer-term demand profile and how we are preparing for the associated operability challenges

Based on feedback from a previous webinar, we provide an overview of historic and forecast system inertia

And finally, we introduced the new NGENSO app, which allows users to identify the cleanest times to use electricity

ACCURATE

TIMELY

FLEXIBLE

Summary of ESO response to the COVID-19 outbreak



New Coal Free Record

At 14:00 today it will be
19 Days and 14 Hours
without Coal



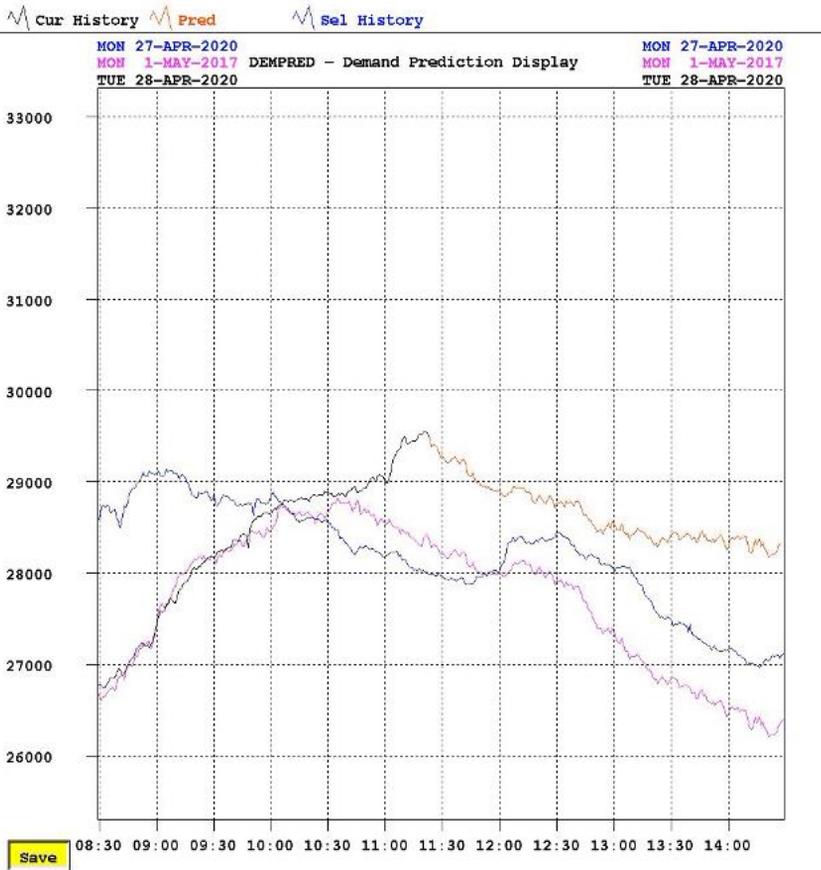
National Grid ESO
@ng_eso



Britain's done it! ⚡🔌 It's a new record for the longest period of [#coalfree](#) [#electricity](#) generation in this country. 18 days, 6 hours, 11 minutes *and counting*. More to come on this – in the meantime find out more about our [#zerocarbon](#) goals below [@beisgovuk](#) [@PastCoal](#)



1 Minutes Silence | Demand Pickup



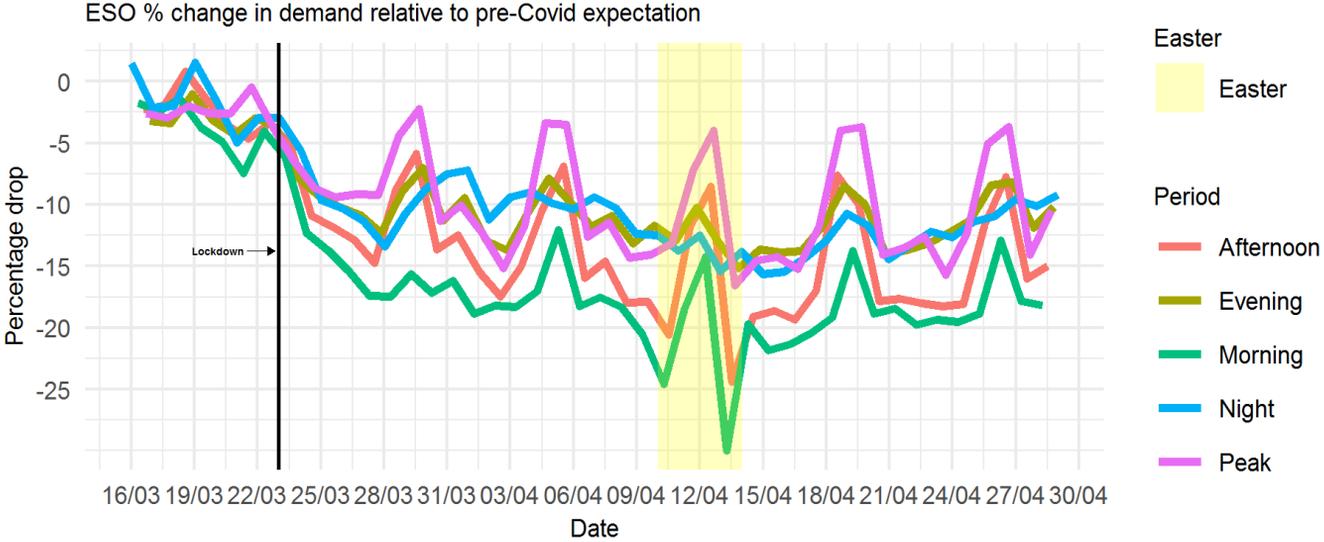
TV pickup on Tuesday 28th April was **430MW**

TV pickup forecast for Friday 8th May VE Day celebration will be finalised next week.

2 minutes silence at 11:00

veday75.org the organisers encourage people to take part in the 'Nation's Toast to the Heroes of WW2' at **3pm on the 8th May.**

Demand level reduction relative to pre-Covid expectation

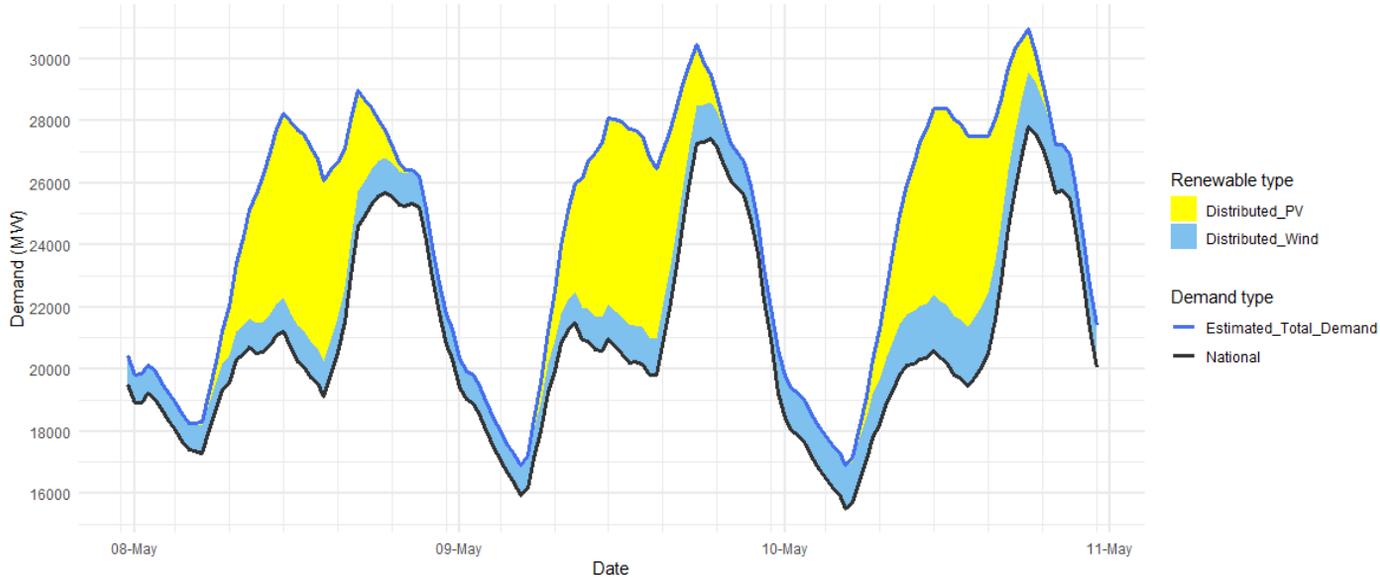


16/03 19/03 22/03 25/03 28/03 31/03 03/04 06/04 09/04 12/04 15/04 18/04 21/04 24/04 27/04 30/04

Time period	Percentage drop 28th Apr
Night	9.2
Morning	18.2
Afternoon	15
Peak	10.5
Evening	10.2

Demand Forecast for Early May Bank Holiday

ESO Demand from Friday 8th May to Sunday 10th May 2020
based on the current government policies in relation to the pandemic and on the latest weather forecast



National Demand Forecast Forecasting Period	Fri 8th May (GW)	Sat 9th May (GW)	Sun 10th May (GW)
Overnight minimum	17.3	15.9	15.5
Morning or early afternoon peak	21.2	21.5	20.6
Afternoon minimum	19.1	19.8	19.4
Evening peak	25.7	27.4	27.8

Short Term Operability | Purpose

Input Workstreams

Confirming system condition
assumptions

- Demand
- TO's
- DNO's
- Directly Connected
- Providers

Operability & Scenario Workstreams

Identifying system **need** &
setting **requirements**

- Frequency
- Voltage
- Thermal
- Stability
- Restoration
- Scenario planning

Outputs

Designing & implementing
solutions to resolve system
need & meet requirements

- Frequency
- Voltage
- Thermal
- Stability
- Restoration
- Scenario planning

Downward Flexibility Product | The Need

When demand is low, there may be a requirement for additional flexibility to balance generation and demand, as well as to achieve sufficient negative reserve and high frequency response.

Draft terms for an Optional Downward Flexibility Management (ODFM) Service were published yesterday as a route to market to access this flexibility.

This service will expand our ability to control output from providers we cannot currently access through the Balancing Mechanism (BM) and Platform for Ancillary Services (PAS).

We believe access to this embedded generation can be gained through this proposed service, however whole system impacts will be considered when assessing the use of the service, in collaboration with the DNOs.

This service will expand our ability to control output from providers we cannot currently access to increase our toolkit this Summer

Downward Flexibility Product | Draft Key Features

The service is an optional product whereby volumes can be offered from participants at day ahead 23:00 – 23:00

Assets must be able to sustain delivery for a minimum of a 3 hour continuous period.

The contract length is restricted to the summer period with an expiry date of 31st Aug 2020

The service is an “all or nothing” service, whereby 100% of the volume (MWs) offered would either be accepted for curtailment (in the case of generation) or demand turn up (in the case of demand).

DER will submit their £/MW/h for their service offering, along with the settlement periods they are making the service available for.

The £/MW/h can be changed on a weekly basis.

Once assessed, units who's offers are accepted will then receive email confirmation by 17:00 of the settlement periods they are being asked to reduce their output/increase their demand for, for delivery as early as 23:00 that day.

Considering whole system impacts will be key in our decisions to dispatch the service

Downward Flexibility Product | Participation

Who can participate?

Assets which:

- Are not currently registered as a Balancing Mechanism Unit under the Balancing & Settlement Code, or not currently signed up to a GTMA with NGENSO.
- Have the ability to sustain the service for a minimum of 3 hours
- Have the capability to operate the service via email utilisation from NGENSO.
- Have the capability to operate the service on non-working days and bank holidays.
- Have a total unit capacity of 1MW or more.
- Units can be aggregated up to a GSP level but cannot contain a mixture of technologies
- Generation assets have the capacity to reduce to 0MW for the specified time period.
- Demand assets can sustain consistent increased demand for the specified time period
- Units must NOT be participating in or contracted to any other balancing/flexibility or related services during periods when the service is offered
- Units connected to an ANM scheme cannot participate

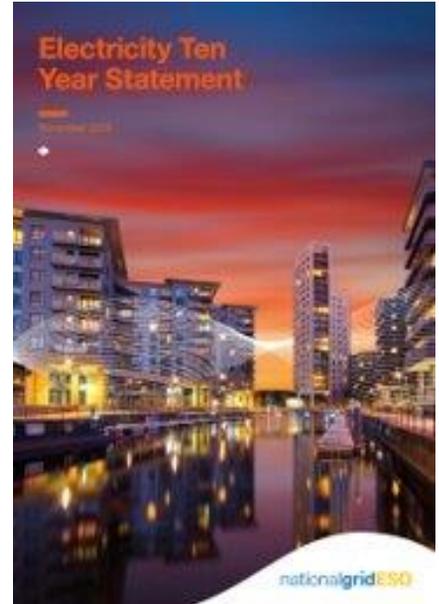
This service is only open to those assets which are not currently accessible/controllable by NGENSO.

Electricity Ten Year Statement (ETYS) | Overview

The aim of the ETYS is provide a transparent view of the transmission system capability which encourages innovation and informs developments that ensure a secure, sustainable and affordable energy future.

The ETYS communicates the system needs by publishing the current boundary capabilities, future requirements and power flows on each part of the national electricity transmission system for the next 10 years.

The ETYS can be found on the National Grid ESO's website at <https://www.nationalgrideso.com/research-publications/electricity-ten-year-statement-ety5>.

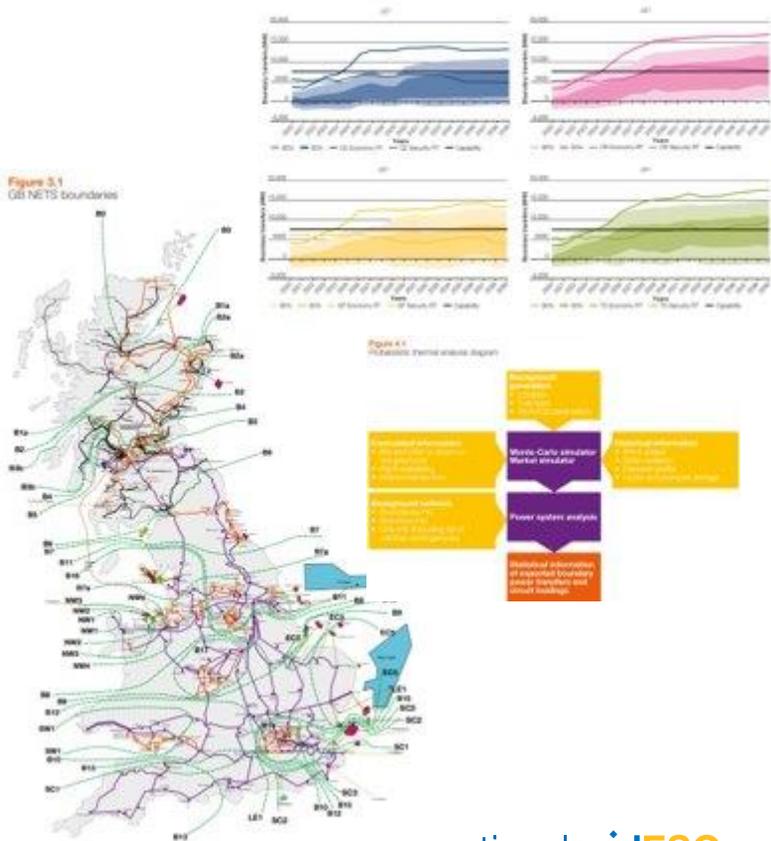


Electricity Ten Year Statement (ETYS) | Overview

Detailed view of the GB network capability by applying the SQSS criterion to identify constraint boundaries

Present the current and expected power flows for the next 10 years by looking at Future Energy Scenarios (FES) to highlight the need for network reinforcements.

Carry out innovative approaches to define background conditions - using a probabilistic approach to define credible year-round network needs.



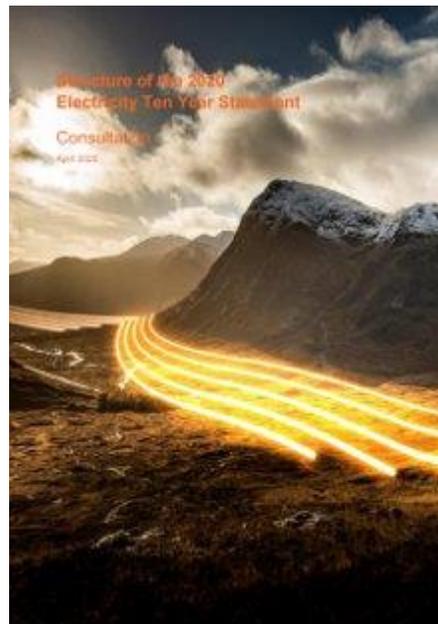
Electricity Ten Year Statement (ETYS) | Consultation

Every year when preparing the ETYS, we engage with all our stakeholders and readers to get their feedback on the previous publication and thoughts on the proposal for the next ETYS through a survey.

We value the feedback from all our stakeholders and the document has evolved and improved every year. You can view the consultation on the 2020 ETYS Proposal on the [ETYS Website](#).

The survey on the proposal opened on Monday 27th April 2020 and the deadline for this is **5PM on 15th May 2020**. The survey can be accessed by clicking [here](#).

If you have any comments or feedback, please email us at transmission.ety@nationalgrideso.com



Q&A

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:

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