nationalgridESO

ESO Forward Plan 2019-20

Monthly Reporting - May

21st June 2019

Foreword

Welcome to our monthly performance report for May 2019.

Each month we report on a subset of metrics, which have data available at monthly granularity.

Our first quarterly report of this year will be published in July, and will detail our performance against our wider metric suite together with an update on our progress against the deliverables set out in our current Forward Plan[1].

A summary of our monthly metrics is shown in Table 1 below.

Contents

Metric	Performance	Status
Balancing cost management	£60.1m outturn against £108.7m adjusted benchmark	●
Energy forecasting accuracy	Demand forecast error met target; Wind forecast error met target.	●
Month-ahead BSUoS forecast	30% forecasting error	●
System access management	5.29/1000 cancellations	●
Connections agreement management	100%	●
Right first time connection offers	89%	●

Table 1: Summary of monthly metrics

You can find out about our vision, plans, deliverables and full metric suite in the Forward Plan pages of our website[2].

We welcome feedback on our performance reporting to box.soincentives.electricity@nationalgrideso.com .

Louise Schmitz

ESO Regulation Senior Manager

[1] https://www.nationalgrideso.com/document/140736/download

[2] https://www.nationalgrideso.com/about-us/business-plans/forward-plans-2021

Role 1 Managing system balance and operability

Operate the system safely and securely, whilst driving overall efficiency and transparency in balancing strategies across time horizons	Support market participants to make informed decisions by providing user friendly, comprehensive and accurate information

Metric 1 – Balancing cost management

May 2019 Performance

For monthly breakdown of costs, please refer to our balancing costs webpages[3].

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Benchmark cost (£m)	83.2	97.5	75.3	85.6	87.4	96.6	103.3	98.4	91.0	82.6	81.9	81.1	1064
Additional cost forecast due to WHVDC fault (£m)	11.3	11.2	0	0	0	0	0	0	0	0	0	0	22.5
Benchmark adjusted for WHVDC (£m)	94.5	108.7	75.3	85.6	87.4	96.6	103.3	98.4	91.0	82.6	81.9	81.1	1086.5
Outturn cost (£m)	77.9	60.1											138 [YTD]

Table 2: Monthly balancing cost benchmark and outturn.

Note that we are including an adjusted benchmark figure due to the fault outage of the Western HVDC link during April and May, as this event is outside our control.

To apply seasonality to the monthly benchmark figures, we have apportioned the calculated benchmark for the year (£1064m) across the 12 months in the same ratio as our year-ahead monthly BSUoS forecast[4].

[3] https://www.nationalgrideso.com/balancing-data
[4] https://www.nationalgrideso.com/document/141946/download

Supporting information

Balancing costs in May 2019 outturned at £60.1m, showing a decrease from the previous month of approximately £18m.

Most elements of the balancing costs were consistent with the cost in April.

RoCoF spend was slightly higher but this would be expected due to lower levels of inertia on the system.

However, constraint costs were significantly lower. There were low levels of wind throughout the month, with metered wind output 2.3TWh lower than April. This was the main driver behind the reduction in constraint costs, due to less actions required to manage power flow restrictions.

The Western Link HVDC cable was unavailable for the whole of May but the impact of this was mitigated by the low levels of wind. Therefore, with the favourable weather conditions, we were able to keep balancing costs below £2m on most days in May.

Metric 3 – Energy forecasting accuracy

May 2019 Demand Forecasting Performance

Figure 1: Demand Forecasting Performance, shows our performance for May as the green histogram against the blue target line.

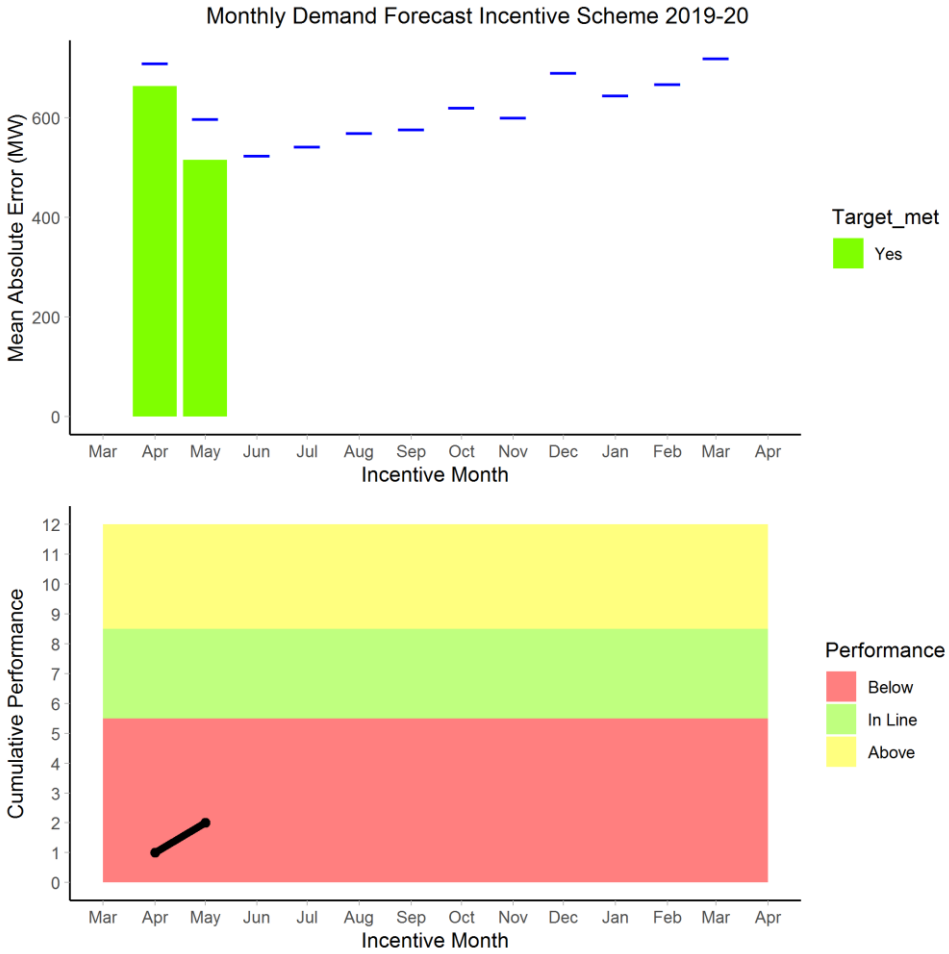

Figure 1: Demand Forecasting Performance

Supporting information

In May 2019, our day ahead demand forecast performance was within the target of 598 MW. May's MMAE (monthly mean average error) was 516MW. This was the second consecutive month for this financial year (2019-20) for which target has been achieved.

The main reason for this was that temperatures for the UK were characterised by near normal conditions.

Two of the most challenging forecasting days were the bank holidays on the 6th and the 27th of May. As with the Easter weekend, the Forecasting Team worked closely with other teams to prepare plans for the ENCC (Electricity National Control Centre) to mitigate risks caused by very low demands.

Minimum demand on the second bank holiday was the lowest National Demand observed so far in 2019. The day ahead error for the minimum demand on 27th May was below 300MW.

May 2019 Wind Generation Performance

Figure 2: Wind Forecasting Performance, shows our performance this month as the green histogram, against the blue monthly target.

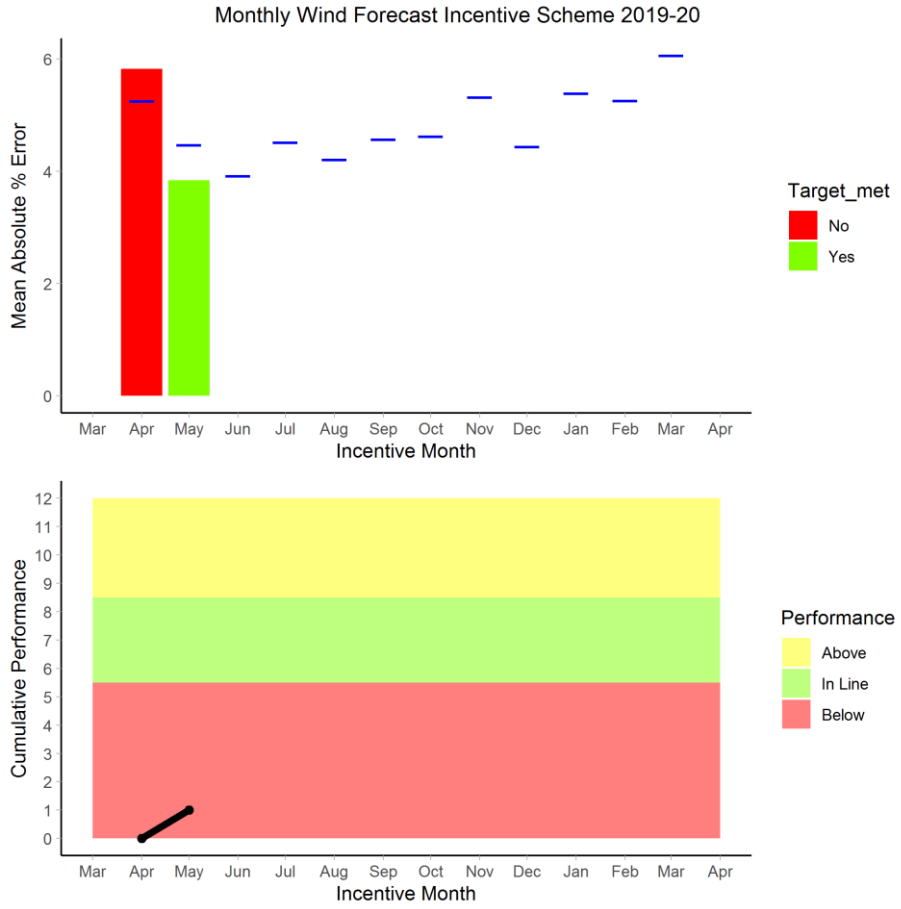

Figure 2: Wind Forecasting Performance

Supporting information

During April, there were two unseasonal weather pattern events. They occurred during periods of 3rd – 5th April and 24th -26th April. That made forecasts of wind speed and the timing of the arrival and the direction of travel of weather systems by our weather forecast provider more difficult than usual.

In May 2019, our day ahead wind forecasts were within target of 4.47 %. May's MMAPE (monthly mean absolute percentage error) was 3.83%.

This was because of a relatively settled month of low wind speeds for the time of year, together with low wind speed volatility. We have put additional resources into revising the capacities of new windfarms such as Beatrice Offshore Wind Farm which are not fully operational yet. Both of these factors have helped to support a good wind forecasting accuracy performance in May.

Performance benchmarks

At the end of the year, we will count how many months we have met our targets and apply the benchmarks:

- Below benchmark: 0-5 months;
- In line with benchmark: 6-8 months;
- Exceeds benchmark: 9-12 months.

Role 2
Facilitating Competitive Markets

Ensure the rules and processes for procuring balancing services maximise competition where possible and are simple, fair and transparent

Promote competition in wholesale and capacity markets

Metric 9 – Month ahead forecast vs outturn monthly BSUoS

Month	Actual	Month-ahead Forecast	APE	APE>20%	APE<10%
April-19	2.79	3.02	0.08	0	1
May-19	2.41	3.12	0.30	1	0

Table 3: Month ahead forecast vs. outturn BSUoS (£/MWh) May 2019 Performance

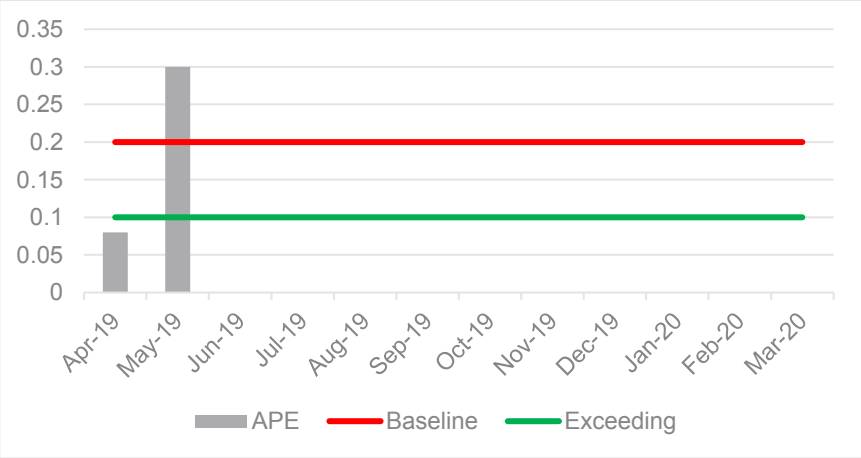

Figure 3: Monthly BSUoS forecasting performance

Supporting information

The APE for May was 30%. Due to the Western HVDC link unavailability, we adjusted the forecast upwards. However, low wind levels in May meant the actual impact on balancing costs of the faulted WHVDC, and therefore BSUoS, was less than expected.

Performance benchmarks

Exceeds benchmark: Exceeding is meeting baseline performance and five or more forecasts less than 10% APE.

In line with benchmark: Of the 12 forecasts over a financial year, baseline performance is less than five forecasts above 20% APE.

Notable achievements and events this month

In May 2019 the ESO-led Balancing Services Charges Task Force concluded with the publication of a Final Report on 31st May – this report was the culmination of several months of cross-industry collaboration and effort to explore potential changes to Balancing Services Charges, including through a short consultation on the draft version of the report earlier that month.

Working under Charging Futures arrangements, the Task Force was engaging and transparent throughout the process, including recording Podcasts, holding Webinars and publishing agendas and minutes.

We would like to thank all those involved in this process, whether on the task force or whether contributing through task force engagement, and we are proud that the task force delivered its outputs on time and with some good feedback from key stakeholders.

We now await guidance from Ofgem on their views on the final report and on next steps; in the meantime, we plan to survey task force members to see how we might be able to improve if we were to use a similar task force model to explore another topic in future.

Roles 3 & 4
Facilitating whole system outcomes and supporting competition in networks

Coordinate across system boundaries to deliver efficient network planning and development	Coordinate effectively to ensure efficient whole system operation and optimal use of resources	Facilitate timely, efficient and competitive network investments

Metric 11 – System access management

May 2019 Performance

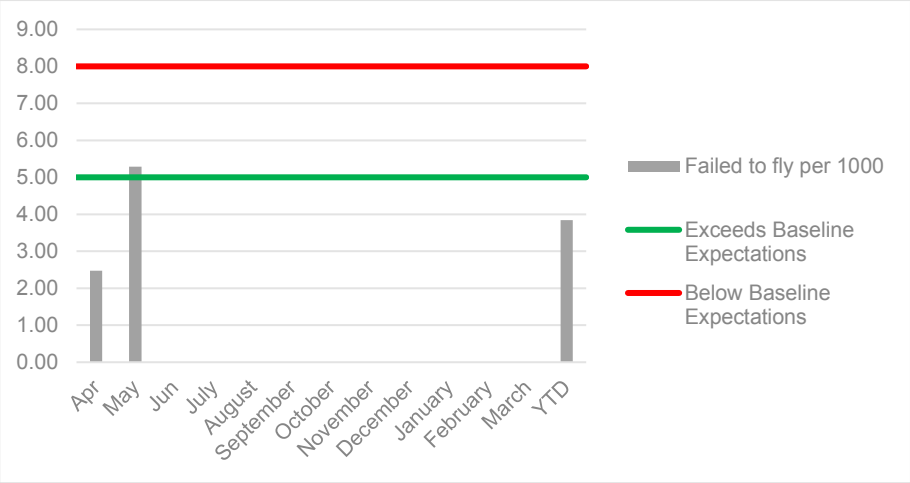

Figure 4: Number of outages delayed by > 1 hour, or cancelled, per 1000 outages

Supporting information

The increase in 'failed to fly' from last month was caused due to limitations of the assets not being clearly known, and also not studying the worst generation pattern which could have materialised during an outage.

We carry out a detailed investigation for every occurrence to identify the root cause of the problem and update our processes to ensure that this is not repeated.

Performance benchmarks

Exceeds benchmark: Less than or equal to 5 per 1,000 outages

In line with benchmark: Between 5 and 8 per 1,000 outages

Below benchmark: More than 8 per 1,000 outages

Metric 13 – Connections agreement management

May 2019 Performance

Number of agreements that need updating	Number of agreements that need updating identified 9 months ago	Number of agreements updated within 9 months	Percentage of agreements updated within 9 months	Status
4	0	1	100%	●

Table 4: Connections agreement management performance

Performance benchmarks

2018-19 performance: = 86%.

Exceeds benchmark: >90% of agreements to be updated within nine months of notification.

In line with benchmark: 80-90% of agreements to be updated within nine months of notification.

Below benchmark: < 80% of agreements to be updated within nine months of notification.

Supporting information

Ensuring that connection agreements correctly reflect any changes to the transmission system benefits consumers by preventing unnecessary constraint costs.

This metric measures the number of connection agreements updated within 9 months of notification.

So far 4 agreements have been identified:

- One was completed in April 2019, within the 9-month timeframe
- The second is within 9 months and is now with the customer
- The remaining two are in progress

Further agreements are being checked and will be added should a requirement to change the agreement be identified.

Metric 14 – Right first time connection offers

May 2019 Performance

Connections Offers	Results
Year to date number of connections offers	27
Year to date ESO related reoffers	3
Year to date percentage of Right First Time connections offers determined from ESO related reoffers	89%

Table 5: Connections re-offers data

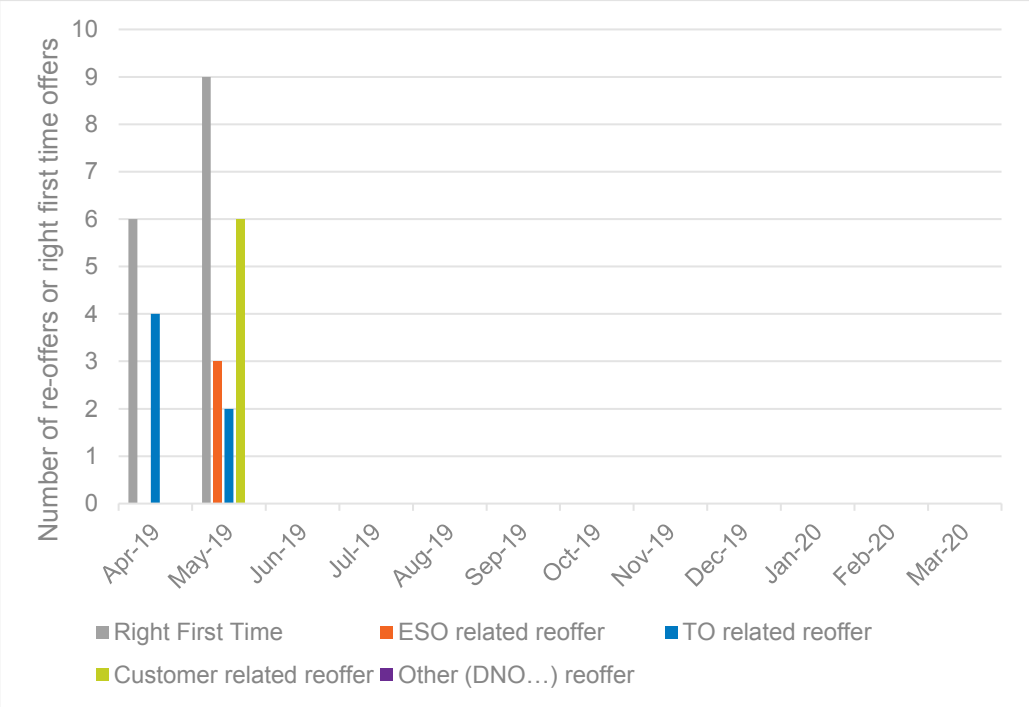

Figure 5: Connections offers monthly performance

Supporting information

There were 3 re-offers related to the ESO in May.

The first re-offer was caused by an update needed to the Charging Appendix; the second needed an update to the technical appendices due to unusual site configuration; the third needed an update to the technical appendices due to an incorrect EU Code User being used.

Performance benchmarks

2018-19 performance: = 94%.

Exceeds benchmark: >95% of offers right first time.

In line with benchmark: 95% of offers right first time.

Below benchmark: < 95% of offers right first time.

Notable achievements and events this month

- Commercial Solutions to Network Challenges Event – The ESO held an event on 16th May that opened with the ESO ambitions and where the NOA pathfinders fit into our future network development processes. There were three interactive sessions held with stakeholders which gave an opportunity to discuss our procurement processes for pathfinder projects, how we communicate requirements and the challenges for operating carbon-free. Summary feedback will be published in June.
- NOA Methodology Consultation Open – Our NOA methodology is open for consultation. For the first time, we have included the assessment for high voltage regions which was developed through our pathfinder processes. This year we have separated the document to allow stakeholders to comment on sections that are most relevant to them. This consultation closes 20th June.
- Mersey High Voltage Pathfinder RFI – Responses to the Mersey High Voltage requests for information (RFI) closed on 24th May. This is the next stage in one of our pathfinder processes from which we will review the information submitted. We will publish a summary decision on whether to tender by 30th June.
- Constraint Management Pathfinder Webinar - We held our Constraint Management webinar on 13th May with more than 70 participants from across the industry. We presented our initial findings around a time-limited long-term constraint management product during the webinar. We received a range of questions and comments around technical, commercial and future market framework of this pathfinding project. We aim to provide our initial view on those comments in June. As discussed during the webinar our aim is to have the market engagement such as a RFI in October and tender process in Q1 2020.

nationalgrideso.com

Faraday House, Warwick Technology Park,
Gallows Hill, Warwick, CV34 6DA