

ESO Forward Plan FY 18/19

February reporting

21st March 2019



Foreword

Welcome to our monthly report for February 2019.

This report focusses on the subset of our key metrics which are reported monthly.

In addition to these metric updates, we also include concise information to keep you briefed on relevant progress against important deliverables. We have continued to keep these updates in a tabular format to make it easy to track our progress against what we set out in our last quarterly report.

Some of the key headlines for February are:

- [Sharing](#) with our stakeholders the latest developments in the frequency response market and upcoming deliverables including the auction trial
- Publishing a Request for Expression of Interest for black start well ahead of the roadmap promise of Q3 2020
- Chairing the BSUoS task force for the two meetings during February. Deliverable 1 is continuing to progress and potential options in relation to Deliverable 2 are being developed
- Continuing to share documents to give guidance to stakeholders and facilitate code change
- Forecasting accuracy performance was better than the target 66% of the time for demand and 60% of the time for wind
- Monthly BSUoS forecasting error was less than 1%.

Contents

Foreword	1
Principle 1	3
Principle 2	6
Principle 3	8
Principle 4	9
Principle 6	12

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



Louise Schmitz
ESO Regulation Senior Manager



1. Performance

Principle 1

Support market participants to make informed decisions by providing user friendly, comprehensive and accurate information

Performance metrics

Metric 1 - Commercial Assessment Transparency

Month	FFR		Fast Reserve		STOR	
	On time	Right first time	On time	Right first time	On time	Right first time
April	●	●	●	●	n/a	n/a
May	●	●	●	●	n/a	n/a
June	●	●	●	●	●	●
July	●	●	●	●	n/a	n/a
August	●	●	●	●	n/a	n/a
September	●	●	●	●	●	●
October	●	●	●	●	n/a	n/a
November	●	●	●	●	n/a	n/a
December	●	●	●	●	n/a	n/a
January	●	●	●	●	n/a	n/a
February	●	●	●	●	●	●
YTD	●	●	●	●	●	●

● Published on-time ● Published right first time
 ● Not published on-time ● Not published right first time

Figure 1 - Metric 1 Commercial Assessment Transparency Performance

Supporting Information

Balancing service assessment results published to the agreed schedule:

- The FFR, Fast Reserve and STOR assessment results were published on time in February

FFR

For this month's FFR tender, this was a month ahead tender only. The FFR feedback webinar was held on 22nd February, with the presentation and Q&A session now uploaded onto our [website](#).

FR

Following procurement in January - no additional volume was procured in the February tender round. The intention was communicated to the market and no participants tendered in. The FR webinar was held on 22nd February, outlining the changes to the assessment following the detailed change proposal. The presentation and Q&A session now uploaded onto our [website](#).

Metric 2 - BSUoS Forecast Provision

Performance

Month	Percentage on time delivery of half hourly BSUoS forecast	Performance
December	100%	●
January	100%	●
February	100%	●
YTD	100%	●

Figure 2 - Metric 2 BSUoS Forecast Provision Performance

Supporting information

100% on time delivery of half hourly BSUoS forecast. We are now publishing our half hourly BSUoS forecast on our [website](#). We published this on time every working day in February ahead of the deadline of 08.00 of the day before for Tuesday to Friday and 17:00 Friday for the weekend forecast.

Full details of all metrics are [here](#).

Metric 3 - Trades Data Transparency

Performance

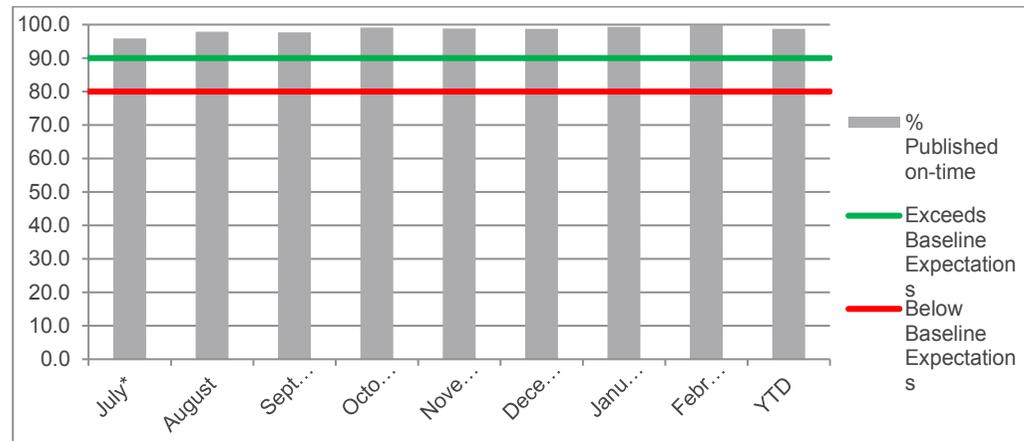


Figure 3 - Metric 3 Trades Data Transparency Performance

*indicates that July performance only shows performance from 16th-31st July

Supporting information

We have been publishing information about our trades on our new [web portal](#) since April. Since July we have been able to time stamp the trade allowing us to measure the elapsed time following the trade to its publication. In February, we successfully published 99.9% of its trades within 10 minutes of capture.

From 1136 trades, we've reported 1135 correctly within 10 min.

Metric 4 - Forecasting Accuracy

Performance

This metric covers the accuracy of our published DA Demand and Balancing Mechanism Unit (BMU) wind generation forecasts. To access the data that sits behind these metrics please click [here](#).

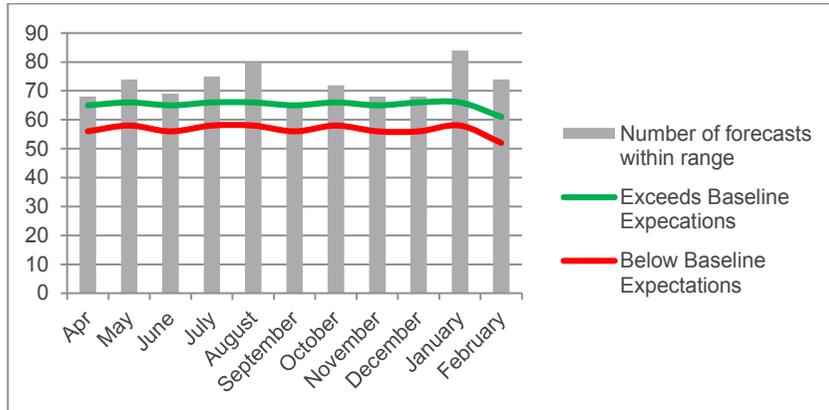


Figure 4 - Metric 4 Demand Forecasting Performance

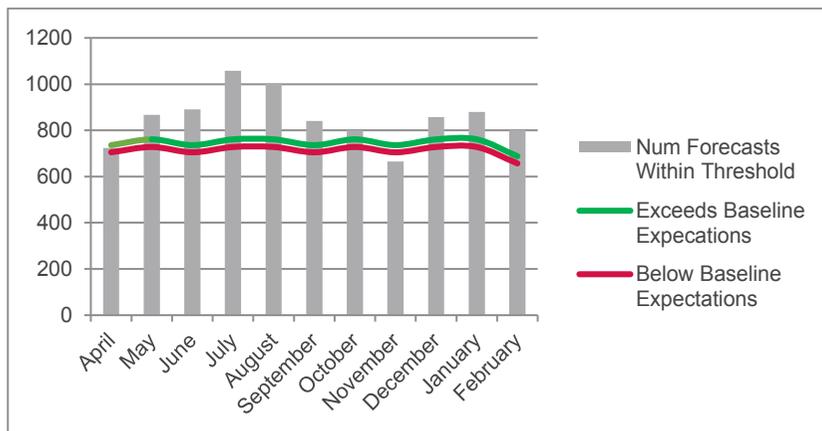


Figure 5 - Metric 4 Wind Forecasting Performance

Day Ahead Demand Forecasting Performance

In February 2019, we achieved a day-ahead (DA) demand forecast performance above our baseline expectation. We met demand monthly accuracy targets 66% of the time. Targets have been set to deliver a 5% reduction in error, on a monthly basis, against the average of the monthly performance over the last three years.

- It started off cold, with snow showers for many northern and eastern areas and some more general areas of snow in southern England.
- The rest of February was relatively mild and sunny with the monthly mean temperature and radiation above the long-term average.
- Towards the end of the month there was a period which can be characterised as warm days and cold nights. The daily maximum temperatures were unseasonably high. A maximum temperature of 21.2 °C was recorded in London on the 26th. However, the night-time minimum temperatures were relatively low for this time of year.
- February had average wind-speeds for the time of year, with around 3 days of isolated high wind-speeds corresponding to Storm Erik in the first half of the month.

Wind Balancing Mechanism Unit Forecast Performance

In February, we achieved a DA Wind BMU performance of above expectations. We delivered wind BMU forecasts which were within the month's accuracy target 60% of the time.

The target for each half hour for the season December18 – February19 is 5.46%, having considered the last three year's performance data up to and including March 18.

February had average wind-speeds for the time of year, with around 3 days of isolated high wind-speeds corresponding to Storm Erik in the first half of the month.

We are continuing to review the wind power models and are currently phasing in new cubic spline models for a number of sites.

Principle 2

Drive overall efficiency and transparency in balancing, taking into account impacts of ESO actions across time horizons.

Performance metrics

Metric 5 - Balancing cost management

Metric description

This metric measures the total incentivised balancing costs excluding Black Start spend compared with the benchmark. For full details of how this was calculated please see the performance metrics definition document [here](#).

Performance

For monthly breakdown of costs, please refer to the [hotspots](#) and the accompanying [data tables](#).

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	YTD
Benchmark cost (£m)	56.9	68.3	90.7	65.2	72.4	57.5	99.6	70.0	79.0	65.8	52.0	777.2
Benchmark adjusted for WHVDC (£m)	62.6	72.9	102.9	74.3	86.5	71.4	129.1	70.0*	79.0*	65.8*	52.0**	866.5
Outturn cost (£m)	56.2	59.3	84.5	78.2	72.0	140.2	145.4	107.6	95.5	77.2	80.3	996.6

Figure 6 - Metric 5 Balancing Cost Management Performance

*no adjustment needed as WHVDC was in service

**WHVDC was out of service so this number will be adjusted in the end of year report

Metric performance detail

In February, we spent £32m more than the benchmark cost, with constraints accounting for 59% of total spend. Outturn costs in February were similar to January, with £9m additional spend on constraints due to the unavailability of the Western Link HVDC. Several days of high constraint costs were driven by periods of high wind and low demands, which also contributed to RoCoF spend.

Details per day

- 01/02/19 Unit warmed, then run for margin due to uncertain demand levels.
Actions taken on the interconnectors to manage darkness peak ramp, delivering cost saving verses hydro alternatives. Saving £51/MWh.
- 04/02/19 Cost savings delivered from optimising and re-balancing constraints in line with current conditions. Increased capacity by 500MW, saving ~£50,000 per hour.
Cost saving achieved through trades on the interconnector to manage margin over the darkness peak.
- 09/02/19 Strategic decisions taken to manage RoCoF in light of forecast system conditions delivered costs savings. Unit traded off ahead of real time.
- 15/02/19 Actions taken on the interconnectors to manage RoCoF, saving the cost of additional machine.
- 18/02/19 Actions on the interconnectors to manage margin over darkness peak.
- 22/02/19 Action taken on the interconnectors to increase infeed in the morning pickup for margin. Cost saving of £9,000.
- 27/02/19 Overnight voltage analysis showed that unit could be de-synchronised early, after hydro pumping was established. Cost saving of £155,000.

Principle 3

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

2018/2019 Deliverable	Target	Actual	Status	Baseline/ Exceeding	
Grow participation and promote fair access in provision of balancing services	Deliver Roadmap for Restoration service including: <ul style="list-style-type: none"> assessing the merits of different procurement models, and agree timeframes in our procurement methodology Improve metrics to provide more transparency on costs and capacity requirements 	Q4	Q3	<p>Trial a market approach for black start procurement in one region</p> <p>During 2018 we developed a proposal for a market approach for competitive black start procurement. We have published our Request for Expressions of Interest on the 1 February. This will gather stakeholder feedback to shape our approach</p> <p>In the Roadmap, this was outcome was promised during Q3 2020 and by the time we reach Q3 2020 we expect to have awarded contracts.</p> <p>Develop a combined services methodology and contract structure</p> <p>We have proposed methodology for parties offering a combined service to participate, and have invited combined service proposals through the recent launch of our competitive procurement event.</p>	Exceeding
	Raise a CUSC modification for removal of Enhanced Reactive Power Service	Q3	Q3	We raised the CUSC modification (CMP305) to remove ERPS. If approved, this will remove the need to run a tender every 6 months, for which there are no participants. The modification has been to Ofgem for decision and they have returned it to the Workgroup asking for additional information.	Exceeding
	Develop an integrated approach to buying standard and faster-acting frequency response	Q3	Q4	Our plan for the start of a new frequency response product suite was published on 28 th February on our website . The document brings together our latest work on the reform of frequency response markets to explain the journey so far, our rationale for change, what's been achieved to date, how these deliverables interact and how stakeholder feedback has shaped our work.	Exceeding

Principle 4

Promote competition in the wholesale and capacity markets

Outcome	2018/2019 Deliverable	Target	Actual	Status	Baseline/ Exceeding
Managing customer profitability	Update guidance documents	Q4	Q4	We have published one new guidance document in February.	
Facilitating Code Change	Provide transparent, easily accessible information to track modification proposals	Q4	Q4	We have published a new modification tracker here	
	New FAQ guides to improve understanding of the process, facilitating greater involvement across the whole market	Q4	Q4	We have published a new FAQ guide here	
	Cross code working, including forward planning, to increase convergence and reduce congestion and complexity	Q4	Q4	We have introduced horizon scanning documents for Grid Code , CUSC & STC .	
Delivering Code Change	Publish energy adequacy and operability updates in the context of EU exit	Early Q4	Q4	We are working closely with BEIS, Ofgem and wider stakeholders in this area. We now expect to publish our update related to EU Exit at the end of March.	Exceeding
	Comprehensive review of BSUoS	Ongoing		The BSUoS task force continued to progress Deliverable 1 and started to develop potential options in relation to Deliverable 2 with two meetings held in February. Updates are available on the Charging Futures website.	Exceeding

Performance metrics

Metric 9 - BSUoS Billing

Performance

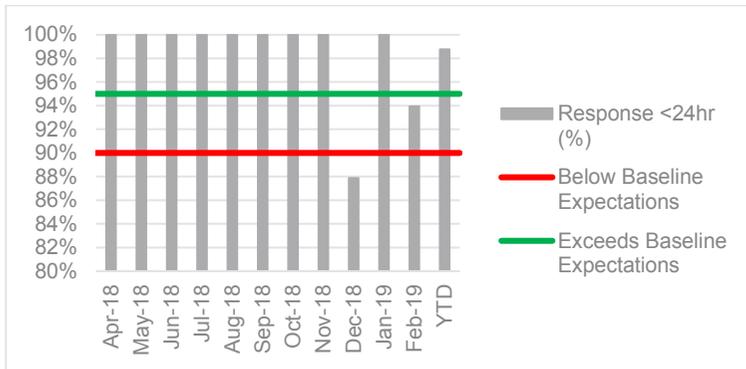


Figure 8 - Metric 9 BSUoS query response time

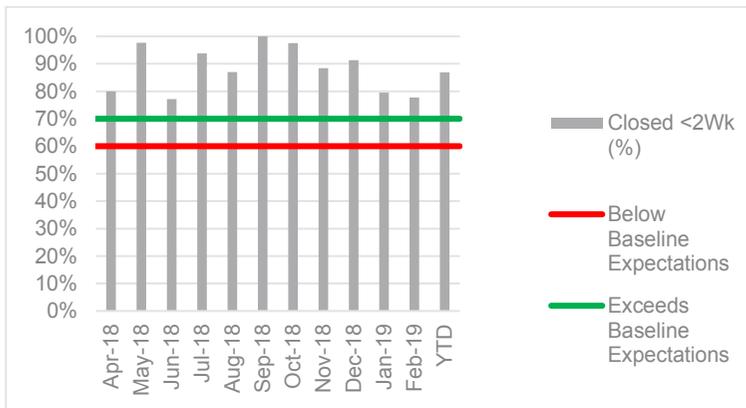


Figure 9 - Metric 9 BSUoS query resolution time

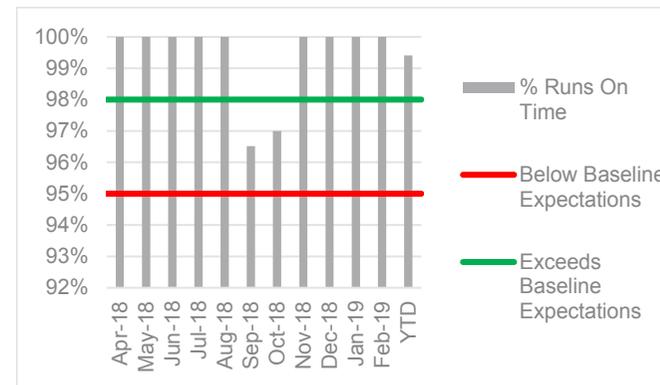


Figure 7 - Metric 9 BSUoS bills timeliness

Supporting information

Queries: We closed 36 queries during the month. We received 33 new queries in February. We received 4 customer survey results following query closure, 3 x excellent and 1 x Good. (Ratings available are: - Very Poor / Poor / Good / Excellent)

Billing – All daily Billing runs were completed on the day that they were due, 89 runs completed.

Communications – On the 22 February 2019 we issued a [Charging Circular](#) to our BSUoS distribution list and published it on our website to advise customers of an outage to the HVDC Western Link.

Metric 20 - Month ahead BSUoS forecast vs outturn

Month	APE below 10%	APE above 20%
April	●	
May	●	
June		
July	●	
August		
September		●
October		●
November		
December	●	
January		
February	●	
YTD	5	2
Target	5 or more green months	Less than 5 red months

Figure 10 - Metric 20 Month ahead BSUoS forecast vs outturn

Supporting information

Our forecast in January had an error of less than 1%.

Principle 6

Coordinate effectively to ensure efficient whole system operation and optimal use of resources

Performance metrics

Metric 14 - Connections Agreement Management

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
8	6	5	83%	●

Supporting information

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

9 months has now passed on the timeline for some of these agreements. Five out of six agreements have now been updated.

Progress is being made on the three remaining agreements:

- One has been sent to the customer this month
- One has been sent as a draft to the customer
- One of the agreements is still out of date after 9 months due to a complicated contract issue.

Metric 15 - System Access Management

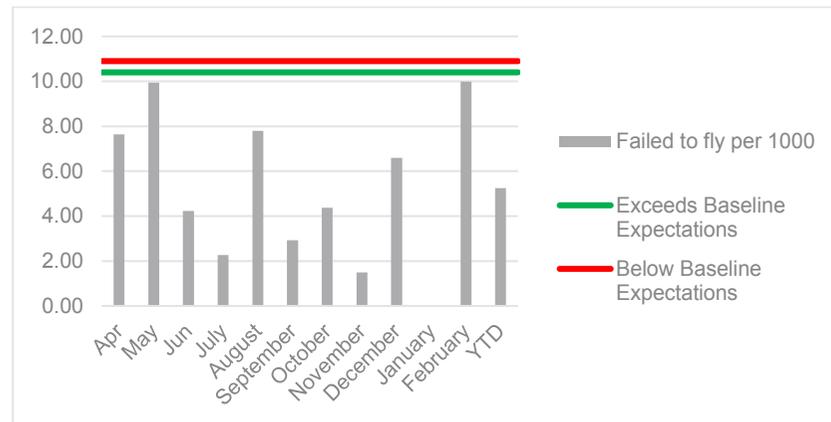


Figure 11 - Metric 15 System Access Management Performance

Supporting information

In February, we had five outages that were classified as fail to fly.

Metric 21 – Right First Time Connection Offers

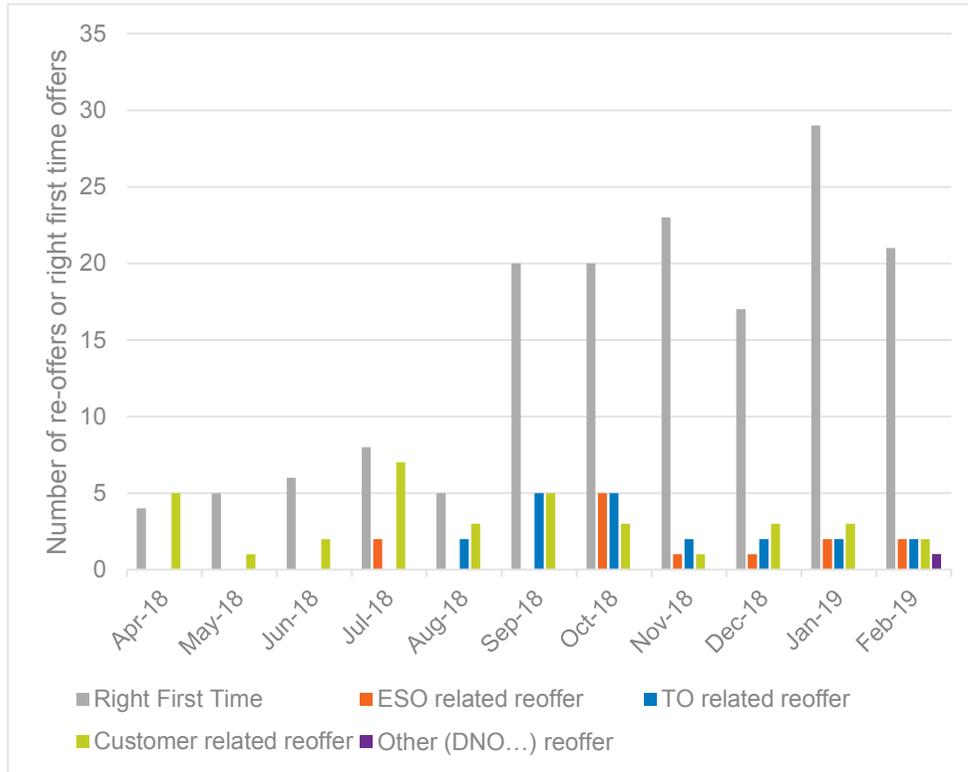


Figure 13 - Metric 21 Right first time connections offers

Performance

Year to date number of connections offers	214
Reoffer required due to ESO error	13
Year to date percentage of connections reoffers caused by ESO error	6.1%
Exceeds expectations; On target; Below expectations	0-5%; >5-15%; >15%

Figure 12 - Metric 21 Right first time connections offers year to date performance

nationalgrideso.com

Faraday House, Warwick Technology Park,
Gallows Hill, Warwick, CV346DA

nationalgridESO