Monthly Monitoring Meeting

Friday 26 February 2021, 10:00 – 12:00

Teleconference

AGENDA

Ref	Time	Title	Owner
1	*10:05 – 10:20*	**SME slot – Balancing Costs**	*ESO*
2	*10:20 – 10:35*	**SME slot – Accelerated Loss of Mains Change Programme (ALoMCP) update**	*ESO*
3	*10:35 – 10:50*	**SME slot – Network Options Assessment (NOA) 2021-22 publication**	*ESO*
4	*10:50 – 11:05*	**SME slot – 1E Customer Value Opportunities metric**	*ESO*
5	*11:05 – 11:15*	**ESO to highlight notable points from the published report**	*ESO*
6	*11:15 – 11:25*	**ESO to take questions on the published report**	*ESO*
7	*11:25 – 11:35*	**Ofgem to give feedback on ESO performance**	*Ofgem*
8	*11:35 – 11:45*	**Review actions & AOB:** • **Role 3 deep dive** • **End of year event**	*All*

Meeting record

Monthly Monitoring Meeting

Date: **26 February 2021**
Time: **10:00 – 12:00**
Venue/format: **Teleconference**

ACTIONS

Meeting No.	Action No.	Date Raised	Target Date	Resp.	Description	Status
30	**69**	8/1/21	April 2021	ESO	Demonstrate plan to lower Constraint costs[1]	Closed
30	**70**	8/1/21	5/2/21	ESO	Share scope of 'Joining the dots' work[2]	Closed
30	**71**	8/1/21	May 2021	ESO/ Ofgem	Discuss what Panel would want to see from "Deep dive" on Role 3 activities for the end of the year following on from 'Joining the dots' session.[3]	Closed
30	**72**	29/1/21	26/2/21	ESO/ Ofgem	Organise session with ESO wind forecasting team to discuss performance data changes	Closed
30	**73**	29/1/21	26/2/21	ESO	SME to present at next monthly meeting to discuss 1E customer values metric	Closed
30	**74**	29/1/21	26/2/21	ESO	SME to present at next monthly meeting to discuss Network Options Assessment (NOA) publication	Closed
30	**75**	29/1/21	May 2021	ESO/ Ofgem	Discuss what Panel will want to see in the end of year report. ESO to share a mock version to find out the priorities.	Closed

[1] Closed by holding a 5-point plan webinar on 26 February.
https://twitter.com/ng_eso/status/1364575815506092032?s=20

[2] Closed by ESO/Panel session on 5 February.

[3] Closed by agreeing the Role 3 "deep dive" plan for the end of year event.

31	**76**	26/2/21	31/3/21	ESO	Provide some examples of units unavailable for tight margin and how Short Term Operating Reserve (STOR) sits on the top of the operating reserve	Open
31	**77**	26/2/21	31/3/21	Ofgem	Share updated organisation chart for the Ofgem team	Open

MAIN ITEMS OF INTEREST

1. SME slot – Balancing costs

The Electricity System Operator (ESO) presenter gave commentary on the £136.3m outturn excluding blackstart against the £133.2m benchmark.

Key points:

- January costs were slightly lower than last year. However, the energy costs were much higher due to procuring operating reserve during tight margin periods.
- January costs were lower than December with £26.8m more on energy balancing, reserve and response, £44.9m less on constraints, £6.9m less on Rate of Change of Frequency (RoCoF), £3.6m more on Black Start and £0.8m less on Reactive.
- Demand has been higher in this lockdown as businesses seem to have found ways to adapt and with the naturally higher winter demands the reduction has not been as challenging. Demand for the month has been around 5% lower than we would have expected without COVID-19.
- Constraint costs were low for the month due to a combination of good network availability and benign weather. Wind was lower than December and 1.5TWh lower than January last year. The two biggest constraints were still in the north but were much lower than previous months.
- The big increase in costs was Energy and specifically Operating Reserve. The tightness of the system drove the prices up. The average margin price was £155.36/MWh compared to £70.09/MWh in December and £32.15/MWh in November.
- Although there were fewer thermal constraints present in January, tight margins meant that the control room had to re-optimise against changing conditions or looked for ways to use more flexible units to achieve savings.

Q&A Section:

Q1. Has there been any thought on how COVID-19 played a role in the systems tight margins in January? Did COVID-19 help or hinder this? Would margins have been even tighter if COVID-19 was not supressing demand?

A1. The COVID-19 lockdown helped lower the national demand by about 5%, however the reduction was less over the peak and was mainly seen in a suppression of the morning pick up. However, the operational surplus was lower than last year due to generation outages and plant closures of up to 2.25 GW bringing a reduction in maximum technical generation capacity. There is a detailed analysis of the changes in the Winter Outlook report: https://www.nationalgrideso.com/document/178126/download/

Q2. Which plant was available during the summer and were not available in January as you would have expected it? Was this a change to outage plans?

A2. It was not just outage plans. The general market impact was that the providers with multiple plants were not fully available. ESO expected more generation units to be out in the system. However, the challenging conditions have changed things a lot. Although the low demand in January helped relieve the situation, there were also challenging conditions from last year which meant we have less generation units available to meet the requirement. Happy to provide some examples and bring discussions offline.

Q3. Noticed a slight change in Balancing Costs Data in the last monthly meeting is this due to them being updated? e.g. Energy costs for November in November's meeting slides were £50m but in the December meeting slides, Novembers Energy costs were now £53.3m.

A3. This is because of the reconciliation process. The settlements algorithm goes through various stages. Each month we revise all the previous months and run it through the algorithms again. Then each segment of data that changes will lead to a slight change in the distribution of the costs. So, it goes through initial run Interim Initial (II) and then through Settlement Final (SF), and then Reconciliation 1 (R1) to Reconciliation 3 (R3) before Reconciliation Final (RF) which is two years post event[4]. Thus, there will be slight variances in historical costs through that period as it goes through the reconciliation.

Q4. Is there an obvious reason for the increased operating costs? Why wasn't Short Term Operating Reserve (STOR) utilised more in tight margins?

A4: It's to do with the policy. STOR needs to be kept back as a short term operating reserve. So, we cannot plan to use to STOR to meet the peak. We need other units on top of that. Various units have to be ordered well in advance to ensure that if demand doesn't turn out higher, or the wind drops, or there is some unforeseen circumstances, we still have STOR available to secure the system. Happy to share information of how much STOR is sitting on top of operating reserve to give a clearer picture of the margins.

2. SME slot – Accelerated Loss of Mains Change Programme (ALoMCP) update

[4] https://www.nationalgrideso.com/industry-information/charging/balancing-services-use-system-bsuos-charges, see historical BSUoS data for II, SF and RF.

Key points:

- ALoMCP aims to check and update Loss of Mains protection at 50,000 / 27GW embedded generation sites to eliminate the balancing costs and system risks associated with managing Rate of Change of Frequency and Vector Shift.
- Forecast spend of £100m expected from BSUoS to deliver programme with DNOs and IDNOs which enables payments to sites implementing changes via quarterly application windows, with verification of changes through DNOs.
- There was 10.7GW applications approved, 2.4GW applications under assessment, 7.9GW changes self-reported and 6.2GW verified by DNOs.
- The project has prioritised supporting summer operability in 2021.
- There were still challenges on inverter manufacturer guidance, segmenting customer data, low awareness and scheduling changes for large sites.
- Programme strategy for the year 2021-22:
    - Identify and engage sites with low RoCoF
    - Engage 1,000+ sites with 5-50MW capacity (12.5GW)
    - Raise awareness of the need to act
    - Improve online guidance for 40,000+ sites <250kW
    - Identify more capacity that has achieved compliance outside of the programme

Q&A Section:

Q1. Which costs are related to managing RoCoF?

A1. The best tool for that is the Monthly Balancing Services Summaries (MBSS)[5] which break down the costs into detail. This is the basis of historical costs.

Q2. It is more of a reflection than a question. One of the things the panel said was that they were interested to see how the ESO stepped up to make progress in reaching and engaging with the stakeholders in different communication channels to continue progress and trying to think about alternatives to a financial incentive. I would encourage you to summarise it in the end of year report.

A2. It is a fair challenge to us and we will make sure all the actions we're taken are visible at the right time. We know we can also get more value from one to one conversation with the larger sites. We will put what we have achieved in the end of year report.

Q3. ESO ran through a session showed the forecasted range of RoCoF potential loss size: 250 to 750MW drop at 0.125Hz/s and 200 to 625MW drop at 0.2Hz/s[6]. Are you prioritising work on certain sites?

[5] https://www.nationalgrideso.com/industry-information/industry-data-and-reports/system-balancing-reports

[6] https://www.nationalgrideso.com/document/183426/download, Section 8.4.5, Page 25.

A3. We are taking sites with the 0.2Hz/s threshold as high priority.

3. SME slot – Network Options Assessment (NOA) 2021-22 publication

Key points:

- NOA assessed 171 options this year as compared to last year's 147 options.
- NOA recommended proceeding 41 asset-based options, investing £183 million this year with total cost of £13.9 billion. It also developed 4 ESO-led commercial solutions that can provide up to £2.1bn of additional consumer benefit
- Highlighting some options, the NOA has recommended to "Proceed" with:
    - Five subsea HVDC links
        - Four Anglo-Scottish links
        - One link from Suffolk to Kent
    - 15 new onshore transmission routes
        - 11 are located in the north to accommodate power injection from HVDC links
        - 4 in the south to accommodate increased power flows from offshore wind
    - Four ESO-led commercial solutions
        - Two in the Scottish border
        - Two in East Anglia region
- In order to calculate the consumer benefit of NOA, a comparison was made with a credible counterfactual that represents inefficient NOA recommendations. This would involve using the concept of "single year anti-regret". Where 'critical' options that received a "Proceed" recommendation would be "Delay" and vice versa. Single year least regret analysis measures the economic regret of delivering the option against the regret of not delivering it. Where the economic regret of an investment strategy is the net benefit difference between that strategy and the best strategy for that scenario
- Therefore, to calculate the consumer benefit generated from ESO options, a comparison is made between the consumer benefit specifically of ESO options as a percentage of the overall consumer benefit of the NOA.
- This consumer benefit is calculated for each of the four FES scenarios. Last year, at the time of reporting the consumer benefit for 2019/20, which were based on FES 2019, the latest market intelligence and views from the wider industry was used, and saw that three out of the four FES 2020 scenarios that were being studied would meet the 2050 net zero targets.
- Therefore, at the time, FES 2019 Two Degrees scenario most accurately represented this updated view and was the most appropriate scenario for reporting consumer benefit for 2019/20.
- This year the same approach has been taken and an average was calculated for three out of four scenarios that meet net zero targets. This aligns with other metrics that are reported on and is consistent with last year
- Using this method, the consumer benefit of ESO options was 5%, which according to the metric, is exceeding the baseline.

- NOA enhanced communications:
    - ETYS publication is now a fully online publication
        - Allowed for further flexibility and a change to the ETYS publication from previous years.
        - Can gain useful analytics as to chapters that are most engaged on by stakeholders
    - NOA website has been refreshed
        - Reimagined the website to make it more accessible for stakeholders to see the latest key messages of the NOA.
    - Continued use of interactivity in the NOA publication
        - Building on last year. Continued interactivity to the publication and maintaining of the interactive map that received good feedback from stakeholders.
    - More engagement meetings: 11 Feb webinar with more than 200 participants
        - Increased engagement in order to explain to stakeholders the Network Planning process, including FES, ETYS and NOA and how they work together.

Q&A Section:

Q1. Could you explain a bit more on the benchmarks that were chosen to measure your performance?

A1. We have used the same methodology as we reported last year to calculate the consumer benefit of ESO options. Using that, we calculated the consumer benefit for each FES and took an average of three out of the four scenarios that meet net zero. This is average was 5% and according to the metric, a value greater than 4% is Exceeding the baseline.

The percentage benchmark was defined in the Forward Plan 20-21[7] which was the same as the Forward Plan 19-21[8]. When we drafted it, we had consulted on whether the benchmark should be kept the same. As a result, they were kept the same as part of the Forward Plan process.

Q2. What engagement have you done to identify the interested person/parties in the NOA process?

A2. The interested person's process was introduced last year, and we are currently trying to refine the process. We have planned engagement with Ofgem to try and understand how we best develop the future process taking into account feedback from all stakeholders.

[7] https://www.nationalgrideso.com/document/166441/download

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

We plan to include a more detailed summary of this year's interested persons' process in the NOA methodology consultation scheduled for May, which will include the timescales for this year's process. Regarding engagement with Interested Person of the aspects is how we present the system needs through the System Requirement Forms (SRF), which is the information we pass to the TOs currently to indicate where the electricity system needs are and that is the information we present in the Electricity Ten Year Statement (ETYS) looking at all the boundaries on the network. We are investigating how and when we could present this information more broadly.

4. SME slot – 1E Customer Value Opportunities metric

Key points:

- The Customer Value Opportunities metric captures the value created by NGESO for customers and the end consumer, by going over and above our policies and procedures to deliver benefit to both the customer and end consumer.
    - This results in savings to constraint costs which leads to lower bills for the end consumer.
    - This has a direct and positive impact on customer satisfaction.
    - Improves safety, reliability and quality of service
- The ESO has improved their process by increasing visibility and engagement with stakeholders.
- The Network Access Planning (NAP) team add value by using their engineering expertise and judgment to propose innovative ways of planning system access.
    - Request for rating enhancement from TOs
    - Identifying and facilitating opportunity outages
    - Optimising outage plan to reduce constraint costs
    - Proposing and facilitating alternative solutions for long outages that impact customers
    - Re-evaluating system capacity
    - Outage duration reduction for customers
    - Aligning outages with customer maintenance and generator shutdowns
    - Reduction of outage duration and splitting of outages to minimise constraint costs

Q&A Section:

Q1. Is it correct that the customer value metric is measuring a large range of different activities in the Network Access space, and is not just about the situations where you are using System Operator Transmission Owner Code Procedure (STCP) 11.4?

A1. It is not just about the situation in STCP11.4[9].

[9] https://www.nationalgrideso.com/document/133421/download

Q2. What is the counterfactual used to calculate your benefits?

A2. The counterfactual is defined on Page 32 in the Forward Plan Addendum[10].

Q3. Do you ever get tension from the TOs if you see an opportunity which could be can result in savings?

A3. In most cases, the TOs are happy to facilitate the solutions. But in some occasions, there could be a little resistance from the TOs. We have a process called the Network Access Policy process. It is a framework where the TOs justify the work that they want to do and the ESO makes the decision using the cost and the importance of the work that the team wants to do versus the amount of costs to the end consumer. In some cases where the TOs carry out work to enable new connections, we see that on the long run the benefit outweighs the short-term constraint impact.

Q4. Are actions taken within this year delivering savings for same year or are they affecting future years as well?

A4. It captures both this year (Current year) and the year ahead. We have some value captured by our year ahead planners. They are the ones who form the plan that we will carry on into the next year.

5. ESO to highlight any notable points from the published report

ESO summarised the key points from the report.

6. ESO to answer any questions which Ofgem have sent prior to the meeting regarding the recently published report

- Balancing questions answered during presentation. See above.
- The answers to other questions will be sent directly to Ofgem.

7. ESO to take other questions on the published report

Q1. In the wind forecasting section, you mentioned that the errors were caused by the cold weather and they turned them off for safety reasons. Do you have any information about it?

A1. Individual wind farms would apply their own safety standards- it's not something the ESO has visibility of.

8. Ofgem to give feedback on ESO performance

[10] https://www.nationalgrideso.com/document/173131/download

- There was nothing to feed back.

9. Review Actions and AOB

- Closed action 69, 70, 71, 73 and 74
- Added action 76 and 77
- Ofgem will find a time for the Performance Panel to run the Role 3 deep dive session.
- The End of year panel event will be a virtual webinar.
- Ofgem will share an updated organisation chart with ESO.
- For Ad-hoc questions, please send it to the ESO incentives email: .box.soincentives.electricity@nationalgrideso.com

Appendix 2 – Previously Closed Actions

Meeting No.	Action No.	Date Raised	Target Date	Resp.	Description	Status
28	**66**	3 Nov	8 Jan	ESO	ESO to share views on the interactions between the Constraint Management Pathfinder and the possible RIIO-T2 incentive that could allow TOs to earn a payment based on a share of the cost saving actions that may reduce constraint costs	Closed
29	**67**	8/1/21	29/1/21	Ofgem	Follow up questions on ESO response to the interactions between the Constraint Management Pathfinder and the possible RIIO-T2 incentive	Closed

29	**68**	8/1/21	29/1/21	ESO	SME to present at next monthly meeting to discuss wind forecasting metric and how ESO are addressing errors	Closed