

Monthly Monitoring Meeting

Thursday 30 January 2020, 10:00 – 12:00

Ofgem Office South Colonnade and Teleconference

AGENDA

Ref	Time	Title	Owner
1	10:10 – 10:25	SME slot – Loss of Mains Project	ESO
2	10:25 – 10:40	SME slot – Data Portal	ESO
3	10:40 – 11:00	SME slot – December balancing costs	ESO
4	11:00 – 11:10	ESO to highlight any particular notable points from the published report	ESO
5	11:10 – 11:20	ESO to answer any questions which OFGEM has sent prior to the meeting regarding to the published report	ESO
6	11:20 – 11:30	ESO to take other questions on the published report	ESO
7	11:30 – 11:45	Ofgem to give feedback on ESO performance	Ofgem
8	11:45 – 11:55	Review actions	All
9	11:55 – 12:00	AOB	All

Meeting record

Monthly Monitoring Meeting

Date: 30 January 2020

Time: 10:00 – 12:00

Venue/format: Ofgem Offices
London

Teleconference

ACTIONS

Meeting No.	Action No.	Date Raised	Target Date	Resp.	Description	Status
21	48	30 Jan	28 Feb	ESO	ESO to expand the metric to include the number of outages for each month	Open
21	49	30 Jan	28 Feb	ESO	ESO to provide update for Energy Forecasting Strategic Project	Open
21	50	30 Jan	28 Feb	ESO	ESO to present the update on the Wider Access project in the next meeting	Open

MAIN ITEMS OF INTEREST

1. SME slot – Loss of Mains Project

Key points:

- The Purpose of the LoM programme is to implement distribution code modification DC0079 and hence decrease the risk of distributed generator shutdown and reduce the balancing costs incurred in securing system faults.
- The LoM programme is structured with four work streams reporting to a steering group. The steering group gives affected stakeholders the opportunity to observe and challenge programme performance and to set direction.
- The project has made good progress and has approved 993 applications for a capacity of 4352MW at a cost of approximately £6m in Window One. There is

the potential to save up to £10m in 2020-21 providing a high proportion of the applications deliver successfully.

- The Window One report has been published on various websites. Window Two is now open addressing known issues from Window one. Results from Window Two, and an early view of conversion rates from Window One, will be available in March 2020.

Q&A Section:

Ofgem asked if the ESO was responsible for all activities in the LoM project group. The ESO said the Loss of Mains project was an industry project to accelerate compliance with the new loss of mains protection requirements in the Distribution Code which is implemented and a co-ordinated under contractual framework developed by National Grid ESO (NGESO) and agreed with DNOs. It is delivered by National Grid ESO (NGESO), distribution network operators, independent distribution network operators and the Energy Networks Association (ENA) The ESO is responsible for leading the programme and co-ordinating the programme workstreams with the aim of assuring consumer value.

Ofgem said there was feedback some types of generators would not be covered by the changes, such as those with inverters. Is the ESO confident the programme will fix the problem and stick to budget? The ESO said that efforts had been made to ensure that distributed generator owners understood that any device with Rate of Change of Frequency (RoCoF) or Vector Shift (VS) protection function on the site was set appropriately. This covers protection relays, any inverter controller, and any other device that is in service in accordance with the Engineering Recommendation G59/3. The DNOs will verify the work has been done, and will do so in accordance with the programme's delivery assurance policy which includes checks on individual. The steering group also evaluates the current progress, value and money spent to ensure the project is delivering value.

Ofgem said the ESO does not expect to see a reduction in balancing costs until 75% of protection relays have been changed. In the presentation, it showed the approved applications were under 20% of the total number of sites. When does the ESO expect to see 75% of changes being made to bring the balancing cost down? The ESO said currently the balancing cost on managing RoCoF was significant. Changing the protection setting is a quick way to reduce unnecessary trips and, as a result, reduce the balancing cost. The project is currently on the track with new applications in Window Two. The process is getting quicker with previous experience and better communication. The Window Two report in March will provide the evidence for current progress and next step plan.

2. SME slot – Data Portal

Key points:

- The ESO Data Portal went live in December 2019. It aims to solve three key data issues which are discovering and searching, consuming and reusing, and

understanding. It has been developed using an agile delivery model, the current minimum viable product is being used as a platform to engage with stakeholders, to refine the current offering and inform future development sprints.

- The portal is designed with a centralised repository for all published ESO data. It offers an intuitive way to search for and discover new items.
- Any published data in a machine-readable format will automatically generate an Application Programming Interface (API).
- Wherever possible data will be published under an open licence for stakeholders enabling consumers of the data to reuse freely.
- Detailed descriptions are attached to all datasets. The ESO also offers a single point of contact for all data queries.
- The data portal contributes to unlock system and consumer benefits and manage the fast-approaching challenges of flexibility.
- Positive stakeholder feedback has been received on convenient API design and improved data transparency.
- The next step is to migrate datasets so that they are exclusively on the data portal, and facilitate data format readability via the API. The ESO is also working on addressing stakeholders' suggestions, e.g. user registration and data dictionary.

Q&A Section:

Ofgem asked what the main challenge the ESO was facing to develop the data portal? Why doesn't the ESO publish all data? The ESO said the main challenge was the current data infrastructure. It is difficult to coordinate internal data systems with the data portal effectively and dynamically. To meet stakeholders' requirements, manual operation is often required to collect data across the operation system.

Ofgem asked how the ESO planned to deal with the increasing requests from stakeholders in the long term. The ESO said that in RIIO 2 the ambition is to have the appropriate infrastructure and supporting capabilities to efficiently publish data as required. Prior to the availability of the supporting IT investments, the ESO will work with stakeholders to prioritise publishing the data that provides the most consumer benefit.

3. SME slot – December Balancing Costs

The Electricity System Operator (ESO) presenter gave commentary on the £126m outturn against £91m benchmark.

Key points:

- December was a much more expensive month for balancing costs than November. The main drivers behind the increase were the costs for Constraints and RoCoF both of which are heavily impacted by the weather.
- Wind levels in England and Wales can have an impact on costs through displacement of synchronous generation, but this is much less impactful than Scottish Wind.

- Energy costs have also been rising over the year. Constraint costs are the most volatile element of total balancing costs and have the potential to be the largest element over the year. RoCoF costs whilst smaller than Energy and Constraints are also volatile driven by wind displacing synchronous generation.

- The ESO's actions to reduce balancing costs:

Short term

- Enhanced ratings with TO
- Plan for special days
- Daily balancing cost review
- Trading actions

Long term

- Stability and constraints pathfinders
- Response products
- Standardisation and reform of reserve services

Q&A Section:

Ofgem asked how the ESO negotiated with TOs to reduce balancing costs. The ESO said the system conditions changed throughout the year. The ESO explained that it ran system studies to determine where an enhanced rating would reduce the cost of operating the system. The ESO then requests an enhanced rating from the TO. The TO then runs a model which takes account of recent system loading, weather conditions and equipment type, to give a bespoke thermal rating for that piece of equipment under these conditions. Alternatively, some assets have equipment installed to facilitate dynamic line ratings, which allow for higher ratings to be used in particular weather conditions. Often, the higher level of loading permitted by the enhanced rating would not actually be experienced by the assets, unless a particular system fault occurs.

Ofgem asked the relationship between balancing cost and wind forecasting accuracy? The ESO said the balancing cost was mainly affected by constraints which did not directly linked to wind forecasting. The wind forecasting accuracy only affects the decision of how much reserve to hold, which impacts on response costs.

4. ESO to highlight any particular notable points from the published report

Q&A Section:

Ofgem asked the ESO to explain more on the statement "With increased price volatility (the first negative outturn price in the day ahead auction was observed in December), generators are less likely to run long, and therefore, resulting in higher cost on energy balancing." The ESO said previously when prices were less volatile most generators would run slightly long as a precaution against potentially punitive cashout prices when the market is short. As volatility has increased generators are running closer to balanced so as not to be exposed to potentially negative prices when the system is long. Conventional generators pay to reduce generation (saving on fuel costs) in a long system so we are taking less bids to balance the system and as there is less

conventional generation on the system we are sometimes having to take bids on wind units at negative prices (i.e. we pay them to reduce generation). Additionally, on high wind days, the power normally flowed from Scotland to England and was restricted under SSE-SP, SCOTEX and SSHARN which were the three main thermal constraints between Scotland and England. To balance the system, the control room needs to bid off Scottish wind generators and potentially replace this generation in England and Wales. In a long market, some of the power wouldn't need replacing as the system would be naturally long. Therefore, we have to replace more of the constrained generation leading to an increased cost in the short market. This results in higher balancing costs on windy days.

Ofgem asked the ESO if the new platform for energy forecasting stated in the roadmap would improve the forecasting performance. The ESO said the new platform was based on machine learning solvers. The core has more than 100 models running on the background. With more historical data fed into the system, the forecasting tool will increase its accuracy by figuring out which model is suitable for the current case. As data builds up, the ESO is expecting improved forecasting reports.

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

All the questions have been covered in the MS Word document and the SME Balancing Cost section.

6. ESO to take other questions on the published report.

There were no further questions.

7. Ofgem to give feedback on ESO performance

Role1:

Positive feedback was received on open data portal, however most deliverables were considered to be "baseline". Stakeholders have seen the ESO increasing publications to improve the transparency of real time decision making. Balancing costs were higher than last year, and Ofgem wanted to understand when short term actions would cause balancing costs to decrease. There were still some outstanding questions about adjustment factors and benchmarks. Stakeholders were satisfied that the majority of deliverables had been completed, and were looking forward to seeing further progress at the end of the year.

Role 2:

Ofgem were looking for reforms to be delivered on time. It is important to distinguish between production of strategies and roadmaps, and actual implementation of reforms. There were a number of delayed deliverables which require justification. The justification given for delays to reactive implementation was welcomed, but strong justification will

be needed for the delays to other roadmaps. Ofgem gave positive feedback on the procurement of black start services, and the auction trial (although it was noted that this was partly funded by NIA, and further information on the project's funding arrangements may be requested at the end of the year). Stakeholders were also interested to see the Charging Futures work progress in the next few months. Ofgem also stated that a plan would be needed for the implementation of the Clean Energy Package.

Role 3&4:

There were a few delays in the Forward plan, and Ofgem were keen to see the ESO fulfil its original commitments. There were delays which resulted from the ESO responding to stakeholder feedback. Metrics for long term activity are difficult to create, so the focus for this role should be more on deliverables. In some instances, the ESO has performed well, but metrics were not setup properly to reflect consumer benefit. Some metrics contain information which is more suited to a consumer benefit case study, or the stakeholder section of the report.

The ESO forward plan launch event was helpful. Some topics in the plan lacked details and interim milestones, and it was helpful to understand more detail at the event. There were some deliverables delayed previously and stakeholders want to see a plan for these to be delivered. It was suggested to add more details in addition to deliverables, i.e. a set of milestones. Stakeholders were also keen to understand the main activities which would make a difference, why particular deliverables had been selected as priorities, and how these deliverables were linked to the ESO mission. The panel found the event useful and welcomed the level of knowledge of the SME presenters.

8. Review Actions

Action 46 and 47 have completed.
Action 48, 49 and 50 have been added.

9. AOB

The ESO deliverable tracker is live on the ESO website:
<https://www.nationalgrideso.com/about-us/business-planning-riio/how-were-performing>.

Appendix 1 – Timetable

1. Annual Requirements

- Monthly
 - 15th working day of M+1 keeps cost basis historic
 - Meeting 20th working day of M+1
- Quarterly
 - 15th working day of M+1 following Q end (Jul, Oct, Jan)
- Half Year Report
 - 15th working day in October (M+1 after half year completed)
- Year End- Ofgem's Proposal
 - 7th May -consultation & draft licence (5 wks after year end)

2019	2019	2019	2019	2019	2019	2019	2019	2020	2020	2020	2020
May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
M	M		M	M		M	M		M	M	
		Q						Q			
					1/2YR						FYR

2. Monthly requirements

Date	Action	Owner	Note
15 th Working Day	Monthly report submission date	ESO	
No later than 5 Working Days before meeting	Provide the Chair with meeting papers	ESO	
20 th Working Day	Monthly Monitoring Meeting	Technical Secretary	
25 th Working Day	Minutes from meeting submitted	ESO	
End of Month	Chair to approve minutes from meeting	Chair	
2 nd Working Day after approval of the minutes	Publication of meeting minutes	Technical Secretary	

3. 2019-2020 Reporting & Meeting Dates

Month	Report Published (15 th WD)	Ofgem Meeting (20 th WD)	Report Type
May	22/05/2019	30/05/2019	
June	21/06/2019	28/06/2019	
July	19/07/2019	26/07/2019	Q1 Report
August	21/08/2019	29/08/2019	

September	20/09/2019	27/09/2019	
October	21/10/2019	28/10/2019	Half Year Report
November	21/11/2019	29/11/2019	
December	20/12/2019	10/01/2020	
January	22/01/2020	29/01/2020	Q3 Report
February	21/02/2020	28/02/2020	
March		28/03/2020	
April			
May			End of Year Report

Appendix 2 – Previously Closed Actions

Meeting No.	Action No.	Date Raised	Target Date	Resp.	Description	Status
17	40	27 th Sep	11 th October	Ofgem	Provide agenda for panel event	Closed
17	41	27 th Sep	11 th October	Ofgem	Ofgem to share stakeholder responses for Call for Evidence	Closed
17	42	27 th Sep	1 st November	ESO/ Ofgem	Advance phone call to discuss logistics and attendees for panel event	Closed
18	43	6 th Nov	8 th Nov	ESO	List of panel attendees and dietary requirements	Closed
18	44	6 th Nov	11 th Nov	ESO	ESO to send responses for Ofgem and Panel questions for mid year report	Closed
19	45	6 Nov	Dec	Ofgem	Ofgem to send draft of panel report and advise when final report is published	Closed
20	46	10 Jan	30 Jan	ESO/Ofgem	Ofgem to clarify the requirement for ESO daily balancing cost breakdown data; ESO to consider reporting the data on weekly basis	Closed
20	45	10 Jan	30 Jan	Ofgem	New agenda items: Ofgem to give feedback on ESO's performance in each monthly meeting. ESO to add this to the standing agenda.	Closed