Monthly Monitoring Meeting

Friday 10 January 2020, 10:00 – 12:00

Ofgem Office South Colonnade and Teleconference

AGENDA

Ref	Time	Title	Owner
1	*10:10 – 10:20*	**SME slot - November balancing costs**	*ESO*
2	*10:20 – 10:35*	**SME slot – Stability Pathfinder**	*ESO*
3	*10:35 – 10:50*	**SME slot – Voltage Pathfinder in the Mersey area**	*ESO*
4	*10:50 – 11:05*	**SME slot – Electricity Ten Year Statement**	*ESO*
5	*11:05 – 11:15*	**ESO to highlight any particular notable points from the published report**	*ESO*
6	*11:15 – 11:25*	**ESO to answer any questions which OFGEM has sent prior to the meeting regarding to the published report**	*ESO*
7	*11:25 – 11:35*	**ESO to take other questions on the published report**	*ESO*
8	*11:35 – 11:45*	**Ofgem to give feedback on ESO performance**	*Ofgem*
9	*11:45 – 11:50*	**Review actions**	*ESO*
10	*11:50 – 12:00*	**AOB**	*All*

Meeting record

Monthly Monitoring Meeting

Date: **10 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
20	**46**	10 Jan	30 Jan	Ofgem/ ESO	Ofgem to clarify the requirement for ESO daily balancing cost breakdown data; ESO to consider reporting the data on weekly basis	Open
20	**47**	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.	Open

MAIN ITEMS OF INTEREST

1. SME slot – November Balancing costs

The Electricity System Operator (ESO) presenter gave commentary on the £83.1m outturn against £99.9m benchmark.

Key points:

- Balancing cost in November was less than October with a £47m reduction in balancing spend and outturn costs were almost £17m below the benchmark for the month. The big change was a massive reduction in constraint costs along with small reductions in energy and system stability costs.
- The DINO - PENTIR 400 kV transmission line outage was completed on 30 October which contributed to the lower constraint costs. However, the wind in November was much lower than October which was the main driver of constraint costs and a major factor along with higher demands in the system stability performance.

- The reduction in wind output between October and November resulted in a reduction of spend across three main thermal constraints from £42.5m to £13.5m for the month.
- This was the main reason for the difference in monthly BSUoS outturn compared to the forecasted BSUoS for November.
- System inertia is an important index for system stability performance which is driven by the amount of synchronous generation on the system i.e. Gas, Nuclear, Biomass and Coal. Therefore, when the national demand is high, more synchronous generation is likely to connect to the network which leads to higher system inertia. Conversely higher wind and interconnector flows (which are non-inertia providing) will displace synchronous generation leading to lower inertia levels. In this case, the ESO needs to reduce the large generation units that exceed the in-feed loss limit to secure the system from unexpected faults. Small generators will be bought on to fill the generation gap. The balancing cost will be higher due to the above actions.

Q&A Section:
OFGEM asked the ESO whether balancing costs were mainly driven by weather conditions i.e. wind output, which could not be directly controlled by the ESO. Was this metric a good measure of the ESO's performance?

The ESO agreed that wind generation was the main driver of high balancing costs. The Electricity National Control Centre (ENCC) needed to bid off some wind output and offer on other generation units due to network constraints. However, there are other areas of balancing costs that are within the ESO's control and the ESO is working on these to reduce balancing costs. With improved models for wind and demand forecasting, additional services and earlier adjustment of system operational plans could improve operational performance which would lead to lower costs. The ESO is working with industrial participants to increase data accuracy and leading on the Power Available project to improve their models. As Julian Leslie, Head of National Control, pointed out, the network development roadmap relied on data input to improve the outturn performance. The ESO is also working on increasing its information transparency and collecting stakeholders' feedback to face constraint challenges in windy days.

2. SME slot – Stability Pathfinder

Key points:
- On 5 November, the ESO launched a tender for Stability Phase One to meet a requirement across GB. This multi-year contract, starting between 1 April 2020 and 1 April 2021, is the first tender for this type of service.
- The Stability pathfinder aims to expand the Network Options Assessment (NOA) approach to develop and test solutions for dynamic volts, inertia and fault levels.
- There are two phases of the stability pathfinder:
  Phase one
  - Short tender process to discover if economic solutions can be delivered across GB by April 2021 (or earlier depending on build time)

- Participation limited to proven technology types that can be included in our existing settlement and control systems

Phase two

- Longer tender process to discover if economic solutions can be delivered for specific requirements in Scotland by 2023 (or earlier depending on build time)
- Feasibility study stage included to understand capability from solutions with lower technology readiness levels
- Longer process allows time to consider alternative settlement and control approaches

Q&A Section:

Ofgem asked why the project had two phases. Ofgem asked whether the phase 1 technical requirements were restrictive as only certain technology types can participate. Are there any published criteria for the market? Has the ESO published the methodology and process for information transparency?

The ESO said phase one focused on the short-term solutions and proven technology types that could be adopted in the existing settlement system. Phase two looked for long-term economic solutions that could be delivered for specific requirements. ESO said that phase 2 offers more opportunity for participation. Case studies were focussed on the feasibility of solutions with lower technology readiness levels. The Technical RFI feedback, outline plan and assessment criteria were published on our official website.
Ofgem noted that phase 1 is ~15% of the total inertia requirement. Ofgem asked how this work related to the ESO's zero carbon ambition in 2025, especially as the phase 1 technical requirements essentially limits participation to conventional generation, but they can tender up until 2026.

The ESO said conventional generation provided many benefits to system stability that needed to be replaced when this type of generation ran less frequently. To achieve the ESO's zero carbon ambition, the ESO were exploring how to articulate and quantify the properties synchronous generation provided, the potential for these to be provided by alternative technologies, and the value of a NOA type process for stability.

Ofgem asked how to evaluate the cost efficiency of buying up to 25,000 MVA.s in the phase one plan.

The ESO said the cost needed to be evaluated by analysing the extra cost of maintaining system stability and balancing the system without this new service. The cost benefit analysis of this project has detailed the benefit.

Ofgem asked if there were any key dates for phase 2 and whether phase 2 will be in a specific region.

3. The ESO said the timeline would be finalised in this quarter. ESO said that phase 2 was initially going to be in Scotland but it is looking at whether it can expand this.

Timelines will be confirmed once the scope of Phase 2 has been defined. **SME slot – Voltage Pathfinder in the Mersey area**

Key points:

- The Mersey high voltage tenders are the first for seeking solutions from embedded providers and long term locational services
- There are two phases for the high voltage pathfinder:
  Short-term phase
  - Opened reactive services to embedded users
  - Achieved access to increased power factors than we had initially expected

  Long-term phase
  - Received initial technical bids from a large volume of tenders
  - Have solutions covering a wide breadth of technology
  - Have solutions from regulated and non-regulated entities
  - Solutions from transmission and distribution levels
- The project also encountered challenges on technical assessment, distribution network limitations, DNO participants, cost transparency, etc.
- The ESO has actively engaged with the TO and DNOs on the overall pathfinder process and in specific areas.

Q&A Section:

Ofgem asked how the TO interacted with the voltage pathfinder.

The ESO said they collaborated with the TOs to evaluate all potential options. The methodology has been published and available for the tender. In the assessment, the ESO is relying on the TOs for asset data and information about technical aspects of operation and maintenance.

Ofgem asked comparing with other voltage issues, what was the lessons learnt from this.

The ESO said it was a challenge to address stability and voltage requirements simultaneously. Collaborating with network owners around information provision and managing large volume of questions from stakeholders are the main challenges.

Ofgem asked how the ESO was comparing network solutions (from a regulated asset) to market/commercial solutions.

The ESO said it was adopting a NOA style assessment to compare different solutions, and have published its methodology on the NOA website.

4. SME slot – Electricity Ten Year Statement (ETYS)

Key points:

- ETYS 2019 shows how the ESO improves the network development analysis and tools as part of the commitments in the ESO Forward plan.
- The new features of ETYS include a new probabilistic chapter, the System Requirement Form published online, pathfinder updates and faults level at minimum demand.

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

- Metric 14 remained below target due to big errors at the beginning this financial year. Although it is unlikely to hit the target by the end of this financial year, the ESO will still work hard to reduce the ESO related reoffers.
- The ESO is aware of the funding issue in the Pathfinder Project. The ESO was investigating the case and will solve it soon.

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

As per questions in the SME sections.

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

There were no further questions.

8. Ofgem to give feedback on ESO performance

Ofgem will prepare feedback and this will be discussed in the next meeting. (See Action 47)

9. Review Actions

Action 46 and 47 have been added. No action needs to be reviewed.

10. AOB

The ESO Forward Plan 2020-21 launch event will be on 23 Jan 2020. Please circulate invite to anyone interested in signing up for this event.

Ofgem asked if the ESO could publish the daily cost breakdown spreadsheet and MBSS report on a weekly basis. The ESO said that this would be reviewed by their commercial specialists. Further discussion on the detail was ongoing between relevant teams.

Ofgem has recruited two new candidates onto the ESO performance panel.

Ofgem suggested an SME slot on the loss of mains work for a future meeting.

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

3. 2019-2020 Reporting & Meeting Dates

Month	Report Published (15th WD)	Ofgem Meeting (20th 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**	27th Sep	11th October	Ofgem	Provide agenda for panel event	Closed
17	**41**	27h Sep	11th October	Ofgem	Ofgem to share stakeholder responses for Call for Evidence	Closed
17	**42**	27h Sep	1st November	ESO/ Ofgem	Advance phone call to discuss logistics and attendees for panel event	Closed
18	**43**	6th Nov	8th Nov	ESO	List of panel attendees and dietary requirements	Closed
18	**44**	6th Nov	11th Nov	ESO	ESO to send responses for Ofgem and Panel questions for mid year report	Closed