

PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

MEETING NAME Performance Assurance Board

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Purpose of paper For decision

Classification Public

Summary The Design Working Group has sought clarity from the PAB on three questions relating to the impact of Market-wide Half Hourly Settlement (MHHS). This paper provides responses to those questions for the PAB to approve before issuing them to the DWG.

1. Background

- 1.1 The Design Working Group (DWG) has developed its preferred Target Operating Model (TOM) for MHHS as part of Ofgem's Significant Code Review on Electricity Settlement Reform.
- 1.2 In November 2018, the DWG wrote to the PAB Chair recommending that the PAB expand the scope of the Performance Assurance Framework (PAF) Review to consider the appropriate PAF for MHHS. The PAB determined to treat the DWG request as a separate piece of work outside of the current PAF Review.
- 1.3 The DWG sought clarity from the PAB on three specific questions:
 - What high-level assurance framework/principles will be needed to support MHHS?
 - What elements of the PAF are no longer required, need to change, or need to be introduced under the TOM?
 - What DF Run cut-off and Disputes materiality threshold (or principles to determine the threshold) are appropriate for MHHS?
- 1.4 Since November, the relevant operational teams within ELEXON, the PAB and Trading Disputes Committee (TDC) have discussed the DWG's letter. ELEXON has undertaken an internal impact assessment to assess the impacts of the TOM on the PAF procedures and the PAF techniques.
- 1.5 Based on the outcome of these activities, this paper sets out answers to the DWG's questions for the PAB to agree, before we provide a response, on the PAB's behalf, to the DWG.

2. Question 1: What high-level assurance framework/principles will be needed to support MHHS?

- 2.1 The PAF manages risks to the Settlement processes. In 2017, the BSC Panel initiated a review of the PAF to ensure that it is fit for purpose in a changing market environment. The review is being delivered through four workstreams:
 - smart metering risks;
 - PAF Procedures;
 - data provision; and
 - PAF Techniques.
- 2.2 The second workstream – review of the PAF Procedures - looked at how:

PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

- Settlement Risk is catalogued and quantified,
 - cost-effective deployment of mitigating actions is planned
 - the effectiveness of such actions is reviewed, and
 - at governance of the PAF.
- 2.3 This review concluded in September 2018 and has delivered an improved approach to delivering the PAF.
- 2.4 The PAF procedures have been revised to ensure that the PAF is flexible enough to identify and address current and future Settlement Risks and issues. To enable a PAF that is dynamic and responsive to change, the concept of 'within period revisions' exists to provide for in-year change to the Risk Evaluation Methodology (REM), Risk Evaluation Register (RER) and Risk Operating Plan (ROP).
- 2.5 Given the extensive review of the PAF Procedures recently undertaken, ELEXON believes that it is fit for purpose to respond to changing market conditions, including the transition to MHHS. The PAF and PAF Procedures, therefore, provide a high-level assurance framework and a set of principles that the PAB can apply flexibly to assess any risk to Settlement associated with MHHS. They are flexible and designed to respond to perceived and actual risks to Settlement accuracy and to the transfer of data related to Settlement. Therefore, as the details of the TOM are known and as the BSC requirements are drafted, the PAB strategy can be prepared to appropriately respond to the changes.
- 2.6 Appendix 1 sets out an impact assessment of the implications of MHHS against all elements of the PAF Procedures.

3. Question 2: What elements of the PAF are no longer required, need to change, or need to be introduced under the TOM?

- 3.1 There are currently 16 Performance Assurance Techniques (PATs) available for the PAB to deploy against risks to Settlement. All of the techniques apart from Trading Disputes, Education and Change are currently in scope of the PAF Review and will undergo a full review¹ to ensure that they are fit for purpose and meet the current and future assurance needs of the BSC Panel, the PAB and the wider electricity industry.
- 3.2 An impact assessment of the implications of MHHS, focusing on the end state TOM, has been carried out for each of the techniques. This is included in Appendix 2.
- 3.3 The broad conclusions of the impact assessment is that, currently, no change is required to any of the PAF techniques. As more detail of the transition approach from current state to TOM is known, it may be appropriate to deploy various techniques against any identified risks to Settlement. The PAF procedures allow for this, and for adjustments to the techniques at any time to respond to risk and the PAB's risk appetite.
- 3.4 Potential impacts on the Trading Disputes PAT are addressed below.

4. Question 3: What DF Run cut-off and Disputes materiality threshold (or principles to determine the threshold) are appropriate for MHHS?

- 4.1 The TDC has noted the DWG subgroup's recommendation to set the DF Run at 12 months, and advised that caution should be used in assuming that the quality of metered data would improve under the TOM. The

¹ The review of Technical Assurance of Metering has concluded; four other techniques are under review now and all are due to be completed in Spring 2020. The recommendations of each review will be implemented as they are approved.

PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

TDC also noted that a number of errors are caused by inaccuracy in Meter Technical Details (MTDs), so a 12 month DF Run cut-off would only be favourable if reliance could be put on the quality of MTDs.

- 4.2 The Disputes materiality threshold is currently set at £3000, and specified in BSCP11 'Trading Disputes'. Recent analysis undertaken by ELEXON indicates that, using current data, raising the threshold to £5000 would result in an 11% reduction in the volume of Trading Disputes meeting the materiality threshold. It would be possible to undertake further analysis to assess the impact of a larger threshold. However, the TDC has noted that analysis would be undertaken using current performance data. It would be difficult to model the impacts of a higher materiality threshold under unknown performance levels and data resulting from the TOM.
- 4.3 The TDC concluded that a transitional period may be useful to enable a better analysis and understanding of Supplier performance under the TOM before committing to a set DF Run timescale and revised Disputes materiality threshold.

5. Recommendations

- 5.1 We invite you to:
- a) **COMMENT** on the contents of the paper; and
 - b) **AGREE** that it can be provided to the DWG.

Appendices

Appendix 1 – Impact assessment of the implications of MHHS against all elements of the PAF Procedures

Appendix 2 – Impact assessment of the implications of MHHS against all PATs

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PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

Appendix 1 – Impact assessment of the implications of MHHS against all elements of the PAF Procedures

Section Z

No immediate material impact.

Updates as required will be delivered by the Code changes drafted as part of the Significant Code Review in 2020.

PAB Strategy

No change required at this time.

MHHS is already drafted into the horizon change section of the strategy. This was approved by the PAB in December 2018 and will be reviewed periodically to direct the PAF's focus.

Risk Evaluation Methodology (REM)

No material changes envisaged.

We can consider what adjustments to the methodology might be useful, e.g. categorising MHHS risks separately, distinct impact scoring approach changes to the Impact bands. This can be done at any time as the REM is reviewed annually and can also be updated within-period.

Risk Evaluation Register (RER)

No immediate material impact.

The process for reviewing and amending the risk register is very flexible, so new risks can be added at any time through the annual or within-period revision processes.

The MHHS report describes each service at a high level, which could provide an initial view of the key processes that could impact Settlement if not completed to time or quality.

Risk evaluation uses data sources that provide information about past 'at risk' population types and sizes, failure rates and average impact volumes per failure, that are overlaid with assumptions about these metrics in the coming period. When MHHS initially goes live there will not be historical information to base these on, so more assumptions will likely need to be made, and revised within-year if necessary.

It is strongly recommended that access to performance information is considered in the design of the new TOM systems and processes, so that data is available to perform realistic and timely risk evaluation. Key sources of data we are currently using as risk indicators to evaluate the risks are listed below. Note that the Data Provision workstream of the PAF Review is evaluating these, and looking at alternative sources. Recommendations from the workstream are due autumn 2019.

- Performance Assurance Techniques:
 - BSC Audit Issues
 - Technical Assurance of Metering - non-compliances reported
 - PARMS Serials: NM11, HM11, HM14, SP08, HM13
 - Material Error Monitoring - Large EAC/AA, UMS
 - Trading Disputes
 - EFR action plans

PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

- Other ELEXON monitoring:
 - Line Loss Factor Audit
 - Smart Meter Technical Details report
- Other external:
 - Ofgem Reporting
 - Utility Week (revenue protection analysis)
- Information ELEXON has access to:
 - MPAS quarterly extracts
 - DTN flows: D0095, D0235, D0215, D0150, D0149, D0268, D0001, D0002, D0010, D0152, D0036
- Central systems data:
 - Supplier of Last Resort information
 - Manifest errors
 - System Buy Price
 - Central Systems data – SVAA, CDCA fault log
 - Aggregation log

Risk Operating Plan (ROP)

The plan for managing Settlement Risks is drawn up in advance of the year starting (1 April), and can be revised in-year if necessary. Therefore, the changes from MHHS can be taken into account in drawing up the ROP each year.

The PAB may wish to start a piece of work focussed on overseeing the transition to MHHS end state. This might be best managed under the ROP to provide transparency to Performance Assurance Parties about what to expect for assurance of the transition and overall management of risk to Settlement through the process.

Risk Evaluation Supplementary Information (RESI) sheets

No material impact from MHHS.

These sheets explain how we evaluate the impact of each Settlement Risk, such as the data sources used and the assumptions made about likely manifestation of the risk in the coming year. These can be amended as necessary.

Reporting

No material impact from MHHS.

The PAF reporting suite is currently being reviewed by the operational team, supported by the PAF Review for data sources and proofs of concept, for analysis and reporting tools and approaches.

It will be necessary to build in flexibility for changes in the risks going forward, even without MHHS. Therefore reporting will have to flex to differing risk priorities, data sources and report recipients.

See note above about availability of data to evaluate (and report on) risks.

Issue Register

No material impact.

PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

Any issues (non-compliances) on the register that related to the current Settlement arrangements would be considered in the transition plan. The PAB, with ELEXON support, would need to discuss and decide how to manage underperformance in the 'old' world and what action it should take to maintain accuracy of Settlement volumes through the transition.

Near-Miss Register

No material impact.

However, this may be a useful tool in the transition process to identify failures early and make changes or issue guidance to avoid the same problems in future.

Risk Policies (BUSRRs)

No material impact from MHHS.

These 'policies' are being drafted to describe for the focus risks what performance is acceptable or not, and what consequences (PAT deployment and escalation) there will be for non-compliance and under-performance. The PAB, with ELEXON support, would need to consider what levels of performance should trigger PAF action for the Settlement Risks related to the current arrangements and the proposed TOM.

Other

- LWIs – ELEXON working procedures would need to be updated
- Guidance notes – other subject specific guidance notes should be reviewed
- Website – various pages and uploaded documents would need to be updated
- Risk visualisation tool – risks would need to be updated

PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

Appendix 2 – Impact assessment of the implications of MHHS against all PATs

All the techniques except Trading Disputes, Education and Change are in scope of the PAF Review. The notes below set out potential changes that may arise from the PAT reviews (taking place as part of the PAF review project) with an assessment of impacts against the TOM (based on what is known currently about how the PATs may look after they have been reviewed under the PAF review project).

Qualification

PAT Review – assumed that there will still be Qualification, and it will still be a self-assessment by applicants to perform a Qualified role under the BSC, which is reviewed and reported on by a service provider and/or ELEXON. There may be changes to the details and delivery of the processes, including (e.g.) controlled market entry, more targeted application of the SAD.

MHHS – New roles as Qualified Persons and possibly a combination of existing and new organisations applying for Qualification. Impacts (and assumptions):

- List of Qualified roles – will be changed via the SCR
- SAD changes – will be changed via the SCR
- Applications to be active at start of transition – assume existing organisations who want to perform one or more of the new roles will apply and go through the process more or less together as the new systems and processes are tested and rolled out. There may be applications from completely new BSC Parties / Agents that come in between when parties can first apply and completion of the transition period.
- Applications for old roles will be allowed to continue, potentially until a cut-off date when it would not be possible for Qualification to complete before the new TOM is live.
- There would need to be a lot of engagement with parties throughout this process, with education, workshops, guidance, testing support.

Re-Qualification

PAT Review – assumed that there will still be re-Qualification, and it will still be an updated self-assessment by applicants to perform a Qualified role under the BSC, which is reviewed and reported on by a service provider and/or ELEXON. Suppliers may be included in re-Qualification and there may be changes to the details and delivery of the processes.

MHHS – New roles as Qualified Persons subject to re-Qualification. Impacts (and assumptions):

- List of Qualified roles subject to re-Qualification – will be changed via the SCR
- We would draft new guidance on what might constitute material change and trigger re-Qualification.
- If there were material changes to the arrangements after go-live to fix issues or deliver deferred changes, the need to re-Qualify would be directed by PAB.

PARMS

PAT Review – Full review of PARMS to improve data provision; examine the cost effectiveness of any alternative ways of providing performance reporting for the PAF. As the priority risks should change more frequently in future, it's important any monitoring and reporting of key processes is easy to change for new data sources, and reporting on different parties, frequencies etc.

It's likely we'll want to change what's currently measured, try to get more independent reporting from BSC Parties

PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

to reduce burden and increase accuracy/consistency. We may recommend taking the performance standards out of the BSC, to allow risk appetite to be set by the PAB without the need for a Modification.

MHHS – Impacts (and assumptions):

- Current NHH Serials will become redundant
- Current HH Serials may not be appropriate for the new services/party types in the TOM design
- New party types may need to submit the data
- Current performance standards (e.g. % energy on actuals / estimates) may not reflect risk appetite in future.
- Indication of cost / scale of change might be CPs 1334 and 1325 which introduced new and removed obsolete serials in 2010.

Removal of Qualification / Breach & Default

PAT Review – Consider risk-based evidence for escalation and PAB decision making appropriately directed by PAA input.

MHHS – Assume new Qualified Persons types will be subject to Removal of Qualification unless they are BSC Parties who will be subject to Breach & Default, as now. No direct impact from MHHS envisaged.

Error and Failure Resolution (including escalation)

PAT Review – Review the methods for evidencing EFR and how we engage with participants. Assumed that there will still be EFR and escalation routes, possibly with additional formal layers with Ofgem support e.g. limits on registration.

MHHS – No direct impacts from MHHS on the EFR technique (the process). Although it may be a key technique for the transition (in the same way as it was applied for monitoring compliance with P272).

BSC Audit

PAT Review – Consider how to make more use of data and improve sampling process, and do general review of resourcing, planning and execution, including how all audit PATs fit together.

MHHS – Impacts (and assumptions):

- CVA work and Auditor opinion stays the same.
- SVA scope now has much more flexibility, so can be directed as per the Risk Operating Plan.
- Ad hoc audits can be carried out by the BSC Auditor.

Technical Assurance of Metering

PAT Review – Review of the sampling methodology / size, resources and delivery; increase flexibility in scoping to respond to the APB's risk appetite.

MHHS – SVA roles of registrant, LDSO, Metering Service (Advanced) would be fundamentally as now in terms of managing what are currently larger Half Hourly meter points, and CVA roles unchanged. No significant impacts foreseen.

Technical Assurance of Performance Assurance Parties

PAT Review – Consider more effective and efficient use through better access to and use of data, sharing of best practice with check results and how all audit PATs fit together.

PAB219/05 - MARKET WIDE HALF HOURLY SETTLEMENT AND PERFORMANCE ASSURANCE FRAMEWORK INTERACTIONS

MHHS – Technique is already very flexible. No impacts foreseen.

Peer Comparison

PAT Review – Consider how the technique can work with new Settlement Risks and KPIs. Currently Peer Comparison reports can only be produced for PARMS Serials. This technique is widely considered to be effective in principle, though the reports are not user friendly.

MHHS – Not necessarily any impact if there are still PARMS Serials and/or if the review results in peer comparison that can be deployed flexibly to other performance assurance measures to respond to risk. Updating the reporting would likely be relatively straightforward.

Supplier Charges

PAT Review – Full review of Supplier Charges; focus on whether it is feasible to use the more accurate risk appraisal and improve the methodology for pre-estimate of loss. Consider alternatives including if the technique should be discontinued. The exact Serials that could attract a Supplier Charge could be managed separately.

MHHS – Some of the Serials would become redundant and for the others, the current Supplier Charge may not reflect a realistic pre-estimate of the loss suffered by Suppliers due to underperformance of other Suppliers.

Material Error Monitoring

PAT Review – Consider if a single approach to data provision for performance monitoring is appropriate (i.e. merged with PARMS), and review each current MEM area to confirm if it remains worthwhile. This is a very flexible technique, which is essentially any routine monitoring of a risk that falls outside PARMS Serials.

MHHS – No impact envisaged besides natural obsolescence of the MEM areas - at least three of the current four are primarily or entirely NHH focused.

Bulk Change of Agent

PAT Review – Assess risk-based alternatives to the current threshold, and whether the techniques should be discontinued in favour of others e.g. TAPAP. Currently Suppliers usually change agent at a rate slightly under the threshold to avoid triggering it.

MHHS – The main purpose of restricting how many changes of agents a Supplier could register with an SMRA at one time was to protect the SMRAs' systems from being overloaded. Through improvements in systems to date, and in future through Fast Switching and MHHS, this technique may become obsolete anyway.

Performance Assurance Techniques not in scope of the PAF Review:

Trading Disputes

It is envisaged that the Trading Disputes process will operate as now, albeit potentially with shorter timescales and higher error threshold, so limited impact to implement once timescales and thresholds agreed.

Education

Education is a technique when it is specifically deployed to help mitigate risk. It is fully flexible and should not be impacted by MHHS.

Change

BSC Change is a technique when it is specifically deployed to help mitigate risk. It should not be impacted by MHHS.