

PUBLIC

Risk Evaluation Methodology 2017/18

Performance Assurance Procedures

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ELEXON

RISK EVALUATION METHODOLOGY 2017/18

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OVERVIEW

The Balancing and Settlement Code (BSC) requires the Performance Assurance Board (PAB)¹ to establish and maintain a methodology that it will use to assess Settlement Risks, determine their significance in relation to Settlement and evaluate Performance Assurance Parties (PAPs) performance against these risks. This methodology is called the Risk Evaluation Methodology (REM).

The PAB are required to review and update the REM on an annual basis by consulting with and considering comments received from PAPs and other interested Parties. Following this process the PAB approve and adopt the REM.

This is the REM for the Performance Assurance Operating Period (PAOP)² 10 – 1 April 2017 to 31 March 2018.

Target Audience

All BSC Parties, BSC Agents and Performance Assurance Parties as defined within the BSC.

INTRODUCTION

Underpinning Principles of the Risk Evaluation Methodology

This document sets out the requirements that the Performance Assurance Board (PAB) will follow to:

- Identify Settlement Risks;
- Evaluate identified Settlement Risks; and
- Assess the materiality of identified Settlement Risks in relation to Performance Assurance Parties (PAPs).

~~ELEXON~~ The PAB has designed the Risk Evaluation Methodology (REM) is designed to ensure fairness and consistency in the application of Performance Assurance Techniques (PATs) to PAPs, and that the REM is carried out as prescribed in the Balancing and Settlement Code (BSC) Section Z and in accordance with the [Annual Performance Assurance Timetable](#) (APAT).

Definition of Settlement Risk

Section Z, paragraph 5.1.1 (a) of the BSC defines a Settlement Risk as:

“... a risk of any failure or error in a step or process required under the Code (including in each case a risk which has materialised as an actual failure or an error) for the purpose of effecting Settlement or otherwise required in connection with Settlement in accordance with the provisions of the Code”.

The Code further stipulates in 5.1.1 (b) that:

¹ The Performance Assurance Board is appointed by, and reports to the BSC Panel. The PAB conducts and administers activities to provide assurance that all participants in the BSC arrangements are suitably qualified and the relevant standards maintained.

² The Performance Assurance Operating Period is the twelve month period of time over which assurance processes are reported on.

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"references to the significance of a Settlement Risk are to be construed in terms of both the probability of the failure or error (referred to in paragraph 5.1.1(a)) and its impact on Settlement".

Scope of the Risk Evaluation Methodology

The scope of the ~~Risk Evaluation Methodology (REM)~~ is the activities the ~~Performance Assurance Board (PAB)~~PAB and the Performance Assurance Administrator (PAA)³ will carry out to deliver the performance assurance procedures for Supplier Volume Allocation (SVA) and Central Volume Allocation (CVA) risks.

The distinction between SVA and CVA risks with regards to delivering the Performance Assurance Procedures

SVA Settlement Risks are subject to a full assessment of probability and impact in order to determine the overall significance of the risk. The PAB will deploy Performance Assurance Techniques (PATs) according to the significance of SVA Settlement Risks.

~~The BSC deems that~~ CVA Settlement Risks are all ~~deemed to be~~ significant in terms of both probability of failure and impact on Settlement. This is a requirement of Section Z of the BSC. ~~As a matter of course, we give these risks the highest~~ probability and impact ~~rating for these risks are given the highest rating as a matter of course and are we~~ do not subject ~~these risks~~ to changes year on year.

IDENTIFICATION OF SETTLEMENT RISKS

Settlement Risk Identification and Closure

We use the current Risk Evaluation Register (RER)⁴ as a baseline and the review includes:

- Net significance of Settlement Risks;
- Settlement Risks description and assumptions; and
- Closure and/or addition of Settlement Risks.

New risks may be identified from changes to processes, for example Modifications, Performance Assurance Board (PAB) strategy work streams and/or via Performance Assurance Parties. ELEXON will validate these to ensure that they are Settlement Risks as defined in the Balancing and Settlement Code (Section Z 5.1.1).

As risks are identified or revised through either annual review or within-period revisions, the PAB:

- Validates the risk to ensure that it is a Settlement Risk;
- Categorises the Settlement Risk using the categories, defined below; and

³ ELEXON, acting on the behalf of the Performance Assurance Board.

⁴ The Risk Evaluation Register (RER) sets out the Settlement Risks identified and evaluated by the Performance Assurance Board in accordance with the Risk Evaluation Methodology. The RER is comprised of a word document setting out the review process and outcome and an excel spreadsheet setting out the risks and their significance.

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- Evaluates the Settlement Risk using the criteria specified in this document.

~~We record~~ Any newly identified Settlement Risk ~~identified is recorded~~ in the RER. ~~We disregard~~ Risks that are not Settlement related ~~will be disregarded~~ (but may be noted and record ~~such risks~~ elsewhere if it is relevant to ELEXON or the PAB).

Settlement Risk Categories

~~The Performance Assurance Administrator (ELEXON acting on behalf of the Performance Assurance Board (PAB))~~ The PAB has identified ~~and grouped~~ nine categories ~~under which each of Settlement Risks. Settlement processes can be grouped.~~ Each category relates to areas of the Settlement process (rather than participant specific activities). These categories facilitate the process of risk analysis and aid assessment of Settlement Risks. Each of the categories below can be viewed against the current risks in the RER. This is a non-exhaustive list which ~~the PAB may be added to or refined~~ as risks are identified.

- Meter reading acquisition;
- Derivation of energy volumes;
- Allocation of energy volumes to Half Hourly (HH) periods;
- Allocation of HH energy volumes to Trading Parties;
- Correction of HH energy volumes between Trading Parties;
- Derivation of energy imbalance volumes;
- Derivation of energy imbalance cash flows;
- Derivation of energy imbalance prices;
- Allocation of Trading Charges to Trading Parties (and Collection); and
- Miscellaneous.

Sources of Information

~~The following are~~ The main sources of information ~~used the PAB use~~ to review Settlement Risks ~~is set out below.~~ This is a non-exhaustive list which ~~the PAB may be added to or refined~~ as risks are identified:

- New and closed Balancing and Settlement Code audit issues during the previous and current Performance Assurance Operating Period (PAOP);
- The results and outcomes of the application of the Performance Assurance Techniques during the current PAOP;
- Panel and Panel Committee papers presented during the current PAOP;
- Change Proposals (CPs) and Modifications (both approved and implemented) during the current PAOP;
- Outcome of issues and standing issues in the current PAOP;
- Outcome from PAB strategy work streams;
- Potential Settlement Risks that have been highlighted by industry and made available to the Performance Assurance Agent; and
- ~~Feedback from discussion with Performance Assurance Parties on Settlement Risks and their net significance.~~

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Documentation of Settlement Risks

The PAB document each Settlement Risk using the following format:

"The risk that **[Event]** resulting in **[Result]**"; where:

- **[Event]** represents the event that would cause the Settlement Risk to materialise; and
- **[Result]** represents the result that is triggered by the event.

For example:

SR0072: The risk that Non Half Hourly data Collectors (NHHCs) process incorrect Meter readings, resulting in erroneous data being entered into Settlement.

EVALUATION OF SETTLEMENT RISKS

The Performance Assurance Board (PAB) evaluates and defines each Settlement Risk ~~will be evaluated and defined~~ in terms of the following attributes:

- Gross Settlement Risk significance;
- The controls that are in place, and the strength of those controls; and
- Net Settlement Risk significance.

Gross Significance

The PAB determine ~~the~~ the gross significance of a Settlement Risk ~~is assessed~~ by considering the probability ~~of a risk occurring~~ and ~~the~~ impact that a risk would have on Settlement if no controls were applied. Gross Settlement Risk represents the 'worst case' scenario for each Settlement Risk.

The ~~Once the Performance Assurance Board~~ PAB agrees the probability and impact ratings for each Settlement Risk⁵ (see Figure 1), and ~~it~~ then ~~calculates~~ the gross significance of the risk by multiplying the probability rating by the impact rating (see Figure 1).

Example for Calculating the Gross Significance
<p>SR0072 The risk that Non Half Hourly Data Collectors (NHHCs) process incorrect Meter readings, resulting in erroneous data being entered into Settlement.</p> <p>The gross significance will be:</p> $5(\text{Probability}) \times 4(\text{Impact}) = 20$

Figure 1: Calculating gross significance

⁵ Based on the criteria explained in this section.

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The PAB records the gross significance value for each Settlement Risk ~~is recorded~~ in the Risk Evaluation Register. Gross probability and impact offer a method to measure the relative importance of Settlement Risks and facilitates a comparison of other Settlement Risks relative to each other. It should not be interpreted as the absolute magnitude of each Settlement Risk.

Settlement Risk Probability

Settlement Risk probability is the likelihood of a Settlement Risk occurring and is scored using a numeric scale between 1 and 5, where 1 is the least likely and 5 the most likely (see table 1). In the case of the risk-based Performance Assurance Framework, ~~the PAB define~~ Settlement Risk probability ~~is defined~~ as the chance of a Settlement Risk occurring ~~during a single Performance Assurance Operating Period (PAOP).~~

The Balancing and Settlement Code (BSC) deems that ~~All~~ CVA Settlement Risks are ~~deemed to be~~ significant in terms of probability and ~~therefore the PAB are~~ always scored ~~them as a~~ probability rating of 5.

Probability Rating	Description
5	It is highly likely that the Settlement Risk will occur during a single PAOP.
4	It is likely that the Settlement Risk will occur during a single PAOP.
3	Approximately, the Settlement Risk is as likely to occur as not occur during a single PAOP.
2	It is unlikely that the Settlement Risk would will occur during a single PAOP.
1	It is highly unlikely that the Settlement Risk would will occur in a single PAOP.

Comment [MA1]: This is the change to the methodology we are consulting on.

Table 1: Probability ratings for Settlement Risks

Guidance for Assessing the Probability of Settlement Risks

The PAB takes into account various factors when assessing Settlement Risk probability, including (but not limited to):

- The opportunity for failures to occur – the greater the volume and frequency of process events which contribute to the risk, the greater the opportunity for an error to arise;
- The complexity of the process(es) which might contribute to the risk – a more complex process might be more subject to errors than a simple process;
- The level of manual intervention in the process(es) – a significant level of manual intervention within a process increases the likelihood of errors arising within that process;
- The incentives surrounding the process(es) – where adverse incentives exist, it might be more likely that a process is not completed correctly, or at all; and
- Consideration of the performance history of the process(es) that contributes to the Settlement Risk, e.g. Performance Assurance Reporting and Monitoring System (PARMS) serial data and the prevalence of associated Balancing and Settlement Code Audit issues.

Figure 2 provides an example of how to assess the probability of a Settlement Risk occurring.

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Example: Assessing the Probability

SR0072: The risk that Non Half Hourly Data Collectors (NHHDCs) process incorrect Meter readings, resulting in erroneous data being entered into Settlement. We reviewed the data relating to this Settlement Risk:

- Opportunity for failures: Many (over 30m⁶ NHH Metering Systems that are routinely read);
- Manual intervention: Retrieval of Meter readings is a manual operation in NHHDC service; and
- Performance history: The erroneous Estimated Annual Consumption/Annualised Advance (EAC/AA) issue has been a prevalent Balancing and Settlement Code Audit issue since 2001.

Based on the above and Table 1, we assigned a **probability rating of 5**

Figure 2: Assessing the probability for Settlement Risks

Settlement Risk Impact

Settlement Risk impact represents how severe the impact of the Settlement Risk would be if it occurred. We measure the impact rating by the extent to which it would have an impact on the Supplier Volume Allocation (SVA) Objectives. The PAB has two objectives in the context of SVA; BSC Section Z 5.1.4 states that the PAB:

"...shall have regard to the following (so far as consistent with the provisions of the Code) save where to do so would, in the opinion of the Performance Assurance Board or Panel as applicable, substantially prejudice the interests of all Performance Assurance Parties collectively or a class of Performance Assurance Parties collectively:

- (i) the efficient, equitable and accurate allocation of energy between Suppliers resulting from the aggregated consumption of Metering Systems for which each Supplier is responsible; and
- (ii) the efficient, accurate and co-ordinated transfer of Metering Systems data by Performance Assurance Parties between Suppliers and Supplier Agents".

The PAB score the Settlement Risk impact using a numeric scale between 1 and 5, where 1 is the least severe and 5 the most severe. ~~Further details of the~~ ~~The scale~~ ~~are~~ ~~is further detailed~~ in Table 2.

~~The BSC deems that All~~ Central Volume Allocation Settlement Risks are ~~deemed to be~~ significant in terms of impact and ~~therefore the PAB are~~ always score ~~them~~ ~~as an impact rating a~~ of 5.

⁶ As of 31 December ~~2014~~2015, Supplier Meter Registration Service snapshot.

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Impact Rating	Description
5	The Settlement Risk has the potential to threaten the Balancing Mechanism and industry Settlement procedures as a whole; causing severe problems for customers, industry, the System Operator and/or ELEXON. Extreme Settlement Risks would have significant financial and/or political consequences on Performance Assurance Parties (PAPs).
4	The Settlement Risk has the potential to impact one or more Grid Supply Point (GSP) Groups and would have a significant impact on the business plans of multiple PAPs.
3	The Settlement Risk could have an impact on a particular area of Settlement and/or the business plans of one or more PAPs.
2	The impact of the Settlement Risk is not severe enough to pose a threat to PAPs' businesses, but is significant enough for the industry to consider addressing via corrective measures.
1	The Settlement Risk is not severe enough to pose a threat to PAPs' businesses and could be dealt with using normal business procedures; or the cost and effort required to address the Settlement Risk outweighs the benefit.

Table 2: Impact rating for Settlement Risks

Guidance on Assessing the Impact for Settlement Risk

When assessing the impact of a Settlement Risk, ~~ELEXON~~the PAB and the Performance Assurance Board (PAB) initially consider the result identified in the risk description and determines the extent to which the result falls into one of the result types described in Table 3 below. The PAB/ELEXON uses the guidelines in this table when assessing the impact of a Settlement Risk.

~~The PAB moderate~~ Settlement Risks ~~are moderated~~ using any additional observed evidence available, particularly any associated Balancing and Settlement Code Audit issues or information from materiality calculations linked to the risk.

Figure 3 shows an example of how ~~the the PAB assess the~~ impact ~~is assessed~~ for Settlement Risk 0072.

Example for Assessing the Impact
<p>SR0072: The risk that Non Half Hourly Data Collectors (NHHDCs) process incorrect Meter readings, resulting in erroneous data being entered into Settlement.</p> <p>While performing an assessment of the impact of this risk, we the PAB looked at the overall error in relation to the NHH annual take (pre-Final Reconciliation Run error/NHH). Taking this and the rating in the guidance on Settlement Risks impacts in Table 3 into consideration; we the PAB assigned an impact of 4 for this risk.</p>

Figure 3: Assessing Settlement Risk impact

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Result Type (as identified in Risk Description)	Initial Range of Impact Rating	Rationale	
Old or default data will be applied and used	1 to 2	<p>The Settlement Risk is not severe enough to pose a threat to Performance Assurance Parties' (PAPs') businesses and could be dealt with using normal business procedures or the cost and effort required to address the Settlement Risk outweighs the benefit.</p> <p>Or</p> <p>The impact of the Settlement Risk is not severe enough to pose a threat to PAPs' businesses, but is significant enough for the industry to consider addressing by corrective measures.</p>	<p>Old or default data might not be the best representation of reality but might provide the best approximation for a period of time. In some cases the use of old or default data in relation to Half Hourly (HH) Metering Systems might be considered to be less satisfactory than for the Non Half Hourly (NHH) equivalent. This is because HH metered consumption patterns might be more volatile than NHH consumption and, generally, any estimations made are based on smaller sample sizes.</p>
Data is missing or unavailable for use	2 to 3	<p>The impact of the Settlement Risk is not severe enough to pose a threat to PAPs' businesses, but is significant enough for the industry to consider addressing via corrective measures.</p> <p>Or</p> <p>The Settlement Risk could have an impact on a particular area of Settlement and/or the business plans of one or more PAPs.</p>	<p>The unavailability of data is likely to not only have a greater impact than use of old data but is also likely to require greater efforts to resolve. Where data is missing the impact is considered to be constrained by the magnitude/nature of the missing data.</p>
Erroneous data will be applied and used	3 to 4	<p>The Settlement Risk could have an impact on a particular area of Settlement and/or the business plans of one or more PAPs.</p> <p>Or</p> <p>The Settlement Risk has the potential to impact one or more Grid Supply Point (GSP) Groups and would have a significant impact on the business plans of multiple PAPs.</p>	<p>In some cases the use of erroneous data might be considered to have a similar impact to the unavailability of data. However, where erroneous data is used there is considered to be no constraint on the impact since the error could significantly deviate from the magnitude/nature of the correct data.</p>
Extreme instances of erroneous data or extended instances of missing/old data	5	<p>The Settlement Risk has the potential to threaten the Balancing Mechanism and industry Settlement procedures as a whole, causing severe problems for customers, industry, the System Operator or ELEXON. Extreme Settlement Risks would have significant financial or political consequences on PAPs.</p>	<p>Extreme Settlement Risks are unlikely to arise except in limited circumstances where identified risks are moderated upwards.</p> <p>It may be anticipated that risks arising in central systems which, would impact the whole of imbalance settlement would fall into this range of impact.</p>

Table 3: Guidance on Settlement Risk impacts

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Settlement Risk Control

Having identified a list of Settlement Risks and assigned the impact, probability and gross significance to each, the PAB will assess what controls are in place to mitigate against the Settlement Risk occurring. Having considered all relevant controls, the PAB will determine the net significance values for each Settlement Risk. For the purposes of this methodology:

- A control is identified as any Balancing and Settlement Code (BSC) defined requirement or otherwise established mechanism that should be applied routinely to the Settlement processes; and
- The Performance Assurance Techniques, e.g. Performance Assurance Reporting and Monitoring System (PARMS), BSC Audit are not considered to be controls. The ~~PAB will deploy thesey are tools that will be deployed~~ to provide industry with additional assurance.

Examples of controls include failure monitoring (e.g. exception reports or validation), failure mitigation (e.g. use of default and estimation methods) and defined standards (e.g. commissioning of Metering Systems). Once the set of controls for each Settlement Risk has been identified, the PAB will assess the effectiveness (or "strength") of each control in the set; as shown in Table 4.

Control Strength	Description
Low	Where the control strength is low, or no controls exist, net Settlement Risk significance will be gross Settlement Risk significance multiplied by 1.0 (i.e. will equal gross Settlement Risk significance).
Medium	Where the control strength is medium, net Settlement Risk will be gross Settlement Risk significance multiplied by 0.8 .
High	Where the control strength is high, net Settlement Risk will be gross Settlement Risk significance multiplied by 0.6 .

Table 4: Control strength for Settlement Risks

Controls Type & Mechanism

When assessing the strength of controls, the PAB first considers each individual control and takes account of various factors in relation to the control type and mechanism.

Control Type

- Preventative controls seek to ensure that an issue does not arise in relation to a risk and so might be seen to be strong controls;
- Detective controls identify where an issue has arisen and generally require further corrective controls to address the identified issue.; and
- Corrective controls seek to ensure that an issue is addressed and so might be seen as effective controls. However, their strength might be considered lower than preventative controls as the impact of the issue might have already been felt.

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Control Mechanism

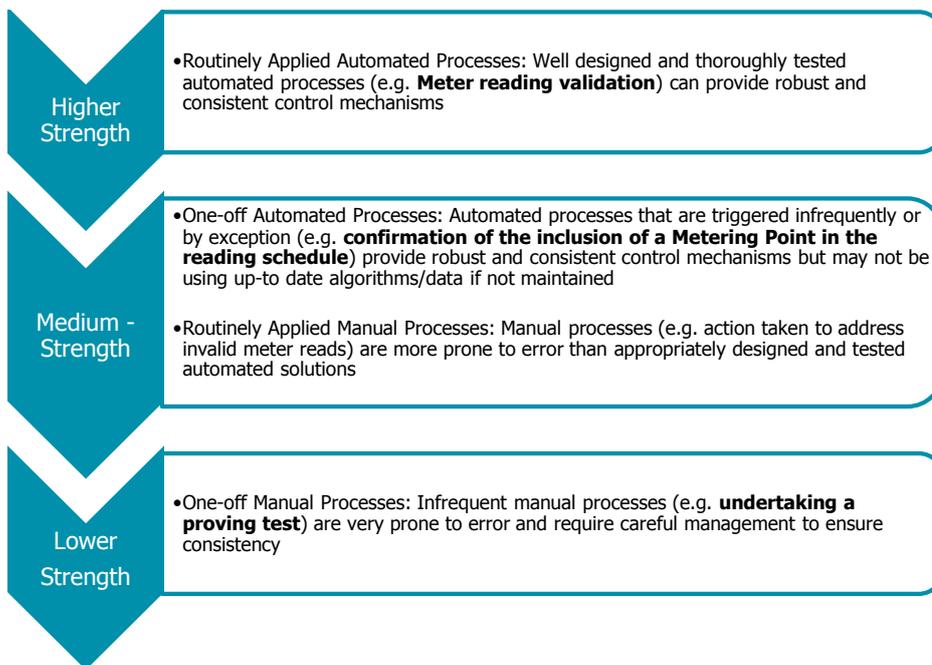


Figure 4: Guidance on control strength for Settlement Risks

The PAB assesses the overall strength (low, medium, high) of the aggregated set of controls ~~is-assessed~~ on a case by case basis by considering how the individual controls work together and the available supporting evidence, such as the prevalence of BSC Audit issues arising in areas subject to the controls. The PAB provides Figure 4 provides some generic guidance on assessing control strength, demonstrated in Figure 4. Figure 5 ~~isprovides~~ an example of how ~~we-the PAB assesses~~ control strength.

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Example Assessing Control Strength

SR0072: The risk that Non Half Hourly Data Collectors (NHHDCs) process incorrect Meter readings, resulting in erroneous data being entered into Settlement.

For this risk the PAB recognised the following as controls:

- Meter reading validation;
- The Non Half Hourly Data Collector (NHHDC) informs the Supplier of incorrect Meter register mappings;
- Investigate inconsistencies process;
- Site visit checks by the NHHDC; and
- Estimated Annual Consumption/Annualised Advance (EAC/AA) validation.

The control above for SR0072 contains several controls of varying strength for example Meter reading validation tends to be higher strength and site visits are lower strength; therefore ~~we~~ the PAB assigned an overall **control score of medium** for this risk.

Figure 5: Example for assessing control strength

NET SIGNIFICANCE

Assessing Net Significance

Once we have identified the control strength for a Settlement Risk as low, medium or high, we multiply the equivalent value of the control (as defined in Table 4) and the gross significance;

Net Significance = Probability × Impact × Control

Therefore, net significance represents a 'best case scenario' for each Settlement Risk. As a result of taking the controls into account, the Performance Assurance Board (PAB) scores the net Settlement Risk significance ~~is scored~~ using the same scale as gross Settlement Risk (i.e. out of 25) and round decimals normally. Figure 6 shows an example of this calculation.

Example for Calculating the Net Significance

SR0072: The risk that Non Half Hourly Data Collectors (NHHDCs) process incorrect Meter readings, resulting in erroneous data being entered into Settlement.

SR0072 has a Probability of **5**, Impact of **4** and control strength of **Medium**; therefore:

Net Significance for SR0072: $5 \times 4 \times 0.8 = 16$

Figure 6: Example for calculating net significance

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Settlement Risk Thresholds

The PAB will prioritise its deployment of resources against Settlement Risks according to their net significance. The PAB have determined that SVA Settlement Risks with a threshold of 12 or above are top Settlement Risks. ~~The PAB manages Top Settlement Risks are managed through the application by applying of~~ Performance Assurance Techniques (PATs). ~~Where regular data is available, the PAB gets visibility of the performance of relevant PAs against the top Settlement Risks on a monthly basis via the Settlement Risk Report. Further information on Settlement Risk Reporting is available in the section on assessing the materiality of Settlement Risks in relation to PAs, p.20.~~

~~The lower level threshold has been set at 3, the PAA the PAB. All Settlement Risks with a net significance above 3 may be managed by the PAB through the use of PATs on an exception basis. Except in limited circumstances, Settlement Risks that have a net significance below 3 will not be actively managed by the PAB using PATs.~~

Risk Evaluation Key Assumptions

When identifying and evaluating Settlement Risks, ~~we the PAB applied~~ applies the following assumptions:

- The preceding steps in the process have been successfully completed thus excluding the cumulative impact of errors in the risk evaluation process;
- A Settlement Risk can be triggered by multiple root causes; for example, the identified root causes for SR0072 includes:
 - Incorrect Meter reads (e.g. transposed digits);
 - Meter readings for a new Meter entering data collection before the final reading associated with the old Meter does; and
 - Incorrect Change of Supplier/deemed readings.
- Control mechanisms will be defined in the Balancing and Settlement Code or established to detect, prevent or correct impact of errors in Settlement;
- Assurance will be delivered across all Settlement runs for all Settlement Risks with a greater focus on earlier runs for Half Hourly (HH) risks (e.g. Initial Settlement Run ~~(SF)~~ and Initial Reconciliation Settlement Run ~~(R1)~~) and later runs for Non Half Hourly (NHH) risks (e.g. Third Reconciliation Settlement Run ~~(R3)~~ and Final Reconciliation Settlement Run ~~(RF)~~);
- Generic controls which generally apply to all risks such as disaster recovery processes and system security controls are not considered as controls in the Risk Evaluation Register; and
- Settlement Risks are relevant to any Performance Assurance Party which might send, receive or take action in respect of processes, controls or data which relate to the risk in question.

PERFORMANCE ASSURANCE TECHNIQUES

~~Once the Settlement Risks are identified and evaluated the Performance Assurance Board (PAB) assigns the mitigating Performance Assurance Techniques (PATs) against those risks and corresponding roles in the Risk Operating Plan.~~

Risk Operating Plan

The Risk Operating Plan (ROP) sets out the Settlement Risks and the Performance Assurance Techniques (PATs) that the Performance Assurance Board (PAB) will apply to manage Settlement Risks relating to Supplier Volume

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Allocation (SVA), Central Volume Allocation (CVA) and central systems processes. The PAB review the ROP annually and publish it on the BSC website.

The PAB determine which Settlement Risks are material in relation to a PAP (and/or a distinct operating unit of a PAP) by making Risk Management Determinations (RMDs). The PAB then determine which PATs they will deploy against a PAP in relation to such risks.

RMDs are a version of the Risk Operating Plan tailored to a distinct operating unit(s) of a PAP. Typically the first PAT deployed against a PAP is Qualification. Thereafter the PAB, on an ad hoc basis, will review a PAPs RMD and make revisions in consultation with the PAP, as it considers appropriate. The PAB treats RMDs confidentially and only make them available to the associated PAP.

Assessing Mitigating Performance Assurance Techniques

We publish details of the PATs (as approved and published by the Panel from time to time) ~~can be found~~ on the Performance Assurance Techniques pages of the BSC website.

Assessing Mitigating Performance Assurance Techniques

For each Settlement Risk identified/evaluated, the PAB will assess the PATs that are best suited to mitigate the Settlement Risk by considering:

- Its own professional judgement;
- The cost/benefit of applying the PATs to the Settlement Risk;
- Past-precedent for similar Settlement Risks;
- General risk management best practice, for example:
 - The application of preventative techniques to high-impact Settlement Risks; and
 - Consideration of corrective PATs to Settlement Risks that are low impact (and possibly high probability).

For each Settlement Risk, ~~the Performance Assurance Agent (ELEXON on behalf of the PAB)~~ the will PAB identify:

- The 'mandatory' PAT(s);
- The 'standard' PAT(s); and
- The 'non-standard' PAT(s).

~~ELEXON will also record the projected cost for deploying the PATs across the Risk Evaluation Register and will also highlight any variations to the previously published BSCCo (ELEXON) Business Plan (including any impact on the approved BSCCo budget).~~

Comment [MA2]: Not relevant in the methodology. This is a procedural note for the ROP.

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Mandatory Performance Assurance Techniques

Mandatory PATs are those techniques that the PAB is required to apply to ~~a Business Unit (BU)~~⁷ ~~Performance Assurance Parties (PAPs)~~ who ~~has~~ ~~have~~ been assigned the Settlement Risk in question because they are mandated by the Balancing and Settlement Code.

Example: Supplier Charges ~~are applied to all PAPs who operate as Suppliers.~~

Standard Performance Assurance Techniques

Standard PATs are the default techniques that the PAB will apply to ~~a BU~~ ~~PAPs~~ who ~~has~~ ~~have~~ been assigned the Settlement Risk in question ~~in the Material Business Unit's (MBU)~~⁸ ~~Risk Management Plan (RMP).~~ ~~The PAB may switch off S~~ ~~standard PATs may be switched off for a BU~~ ~~PAPs~~ and where this is the case, ~~an it will explanation provide an explanation in the will be provided in the~~ ~~ROP.~~

Example: BSC Audit may be switched off for smaller PAPs if PAB deems it appropriate.

Non-Standard Performance Assurance Techniques

Non-standard PATs are techniques that the PAB may consider applying to derive additional assurance that the ~~BU~~ ~~PAPs is~~ ~~are~~ addressing the Settlement Risks that have been assigned to it ~~in the MBU's Risk Management Plan (RMP).~~ ~~Where the PAB applies~~ ~~Where Non-~~ ~~Standard PATs are applied~~ to address a Settlement Risk, ~~an it will explanation explain will be provided in in line with the relevant Code Subsidiary Documents~~ ~~its rationale to the relevant PAPs.~~

Example: Error and Failure Resolution is applied at the approval ~~of~~ ~~by~~ PAB following an error or failure being identified.

Table 5 sets out each PAT by category type.

Comment [MA3]: Business Unit (BU) replaced by PAP for simplicity and consistency with other performance assurance processes. BU and Material BU are primarily used when describing the application of a PAT in respect of a distinct operating unit of a PAP, termed material business unit in Section Z5.7.3 and used when PAB are making a Risk Management Determination.

⁷ ~~A market participant/role code combination. Performance Assurance Techniques are deployed at BU level.~~

⁸ ~~Group of one or more Business Units for the same legal entity. Risk Management Plans are deployed at MBU level.~~

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Technique	Type	Category
Qualification	Preventative	Non standard
Re-Qualification	Preventative	Non standard
Bulk Change of Agent	Preventative	Non standard
Education	Preventative	Non standard
Performance Monitoring and Reporting	Detective	Mandatory
Material Error Monitoring	Detective	Standard
Technical Assurance of Metering Systems	Detective	Mandatory, standard, non-standard
BSC Audit	Detective	Standard
Technical Assurance of Performance Assurance Parties	Detective	Non standard
Peer Comparison	Incentive	Standard
Removal of Qualification	Incentive	Non standard
Breach and Default	Incentive	Non standard
Supplier Charges	Remedial	Mandatory
Error and Failure Resolution	Remedial	Non standard
Trading Disputes	Remedial	Non standard
Change Mechanisms	Remedial	Non standard

Table 5: Diagrammatic representation in the ROP

The PAB deploys CVA PATs ~~are deployed~~ as mandated within the BSC. In particular:

- The scope of the BSC Audit will encompass central systems including the Balancing Mechanism Reporting Agent; Central Registration Agent; Central Data Collection Agent; CVA Meter Operator Agents; Energy Contract Volume Aggregation Agent; Funds Administration Agent; Market Index Data Providers; Settlement Administration Agent; and Supplier Volume Allocation Agent;
- CVA Meter Operator Agents will remain subject to the SVA Qualification, re-Qualification and Removal of Qualification processes; and
- CVA Metering Systems will remain within the scope of the Technical Assurance of Metering Systems (TAM) technique delivered by the Technical Assurance Agent (TAA).

ASSESSING MATERIALITY OF SETTLEMENT RISKS IN RELATION TO PERFORMANCE ASSURANCE PARTIES

The Performance Assurance Board (PAB) considers ~~Aa~~ Settlement Risk is ~~considered~~ material to a Performance Assurance Party (PAP) where:

- There is a risk that a PAP may cause or contribute to the occurrence of the risk by failing to perform an obligation under the Code or any Code Subsidiary Document; and
- The ~~significance of the~~ risk has been determined to be significant by the PAB.

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A Settlement Risk may be material to a PAP because it relates to a class (e.g. Supplier, Meter Operator Agent, Data Collector, Data Aggregator, Meter Administrator, Licensed Distribution System Operator and/or Registrant) to which the PAP belongs or it may relate to the PAP individually.

Risk Management Plans

~~Risk Management Plans (RMPs) document the Settlement Risks and the Performance Assurance Techniques (PATs) relevant to each Performance Assurance Party/Material Business Unit; in effect, the RMP is a version of the Risk Operating Plan (ROP) tailored for each organisation. RMPs can be updated throughout the Performance Assurance Operating Period. The RMP does not monitor performance. The approach to applying RMPs is explained below.~~
Risk Management Plans (RMPs) document the Settlement Risks and the Performance Assurance Techniques (PATs) relevant to each Performance Assurance Party/Material Business Unit; in effect, the RMP is a version of the Risk Operating Plan (ROP) tailored for each organisation. RMPs can be updated throughout the Performance Assurance Operating Period. The RMP does not monitor performance. The approach to applying RMPs is explained below.

Approach to Application of Performance Assurance Techniques (detailed in the RMP)

~~To appear on a Risk Management Plan (RMP), a Settlement Risk must have at least one Performance Assurance Technique (PAT) available to be deployed (in the Risk Operating Plan (ROP)). The Performance Assurance Board (PAB) then assesses the Settlement Risk for each associated Business Unit (BU) to determine how rigorous it will be in the application of PATs.~~

Typically, when a BU-PAP is identified as having the potential to contribute to a particular Settlement Risk (or to have caused a Settlement Risk to materialise as an issue), it is assigned those Performance Assurance Techniques (PATs) that are flagged as 'mandatory' and 'standard' for the Settlement Risk in question. There is no flexibility in the application of mandatory PATs and they must always be applied to address the Settlement Risk to which they relate.

If the PAB feels that it is appropriate, then they may apply fewer standard PATs (from the shortlist against the Settlement Risk in the ROP) ~~may be applied~~ to the BU-PAP e.g. ~~they may not apply audit~~ audit may not be applied to small PAPs. Conversely, the BU-PAP may have some of the additional non-standard PATs ~~(from those available in the ROP)~~ assigned to it e.g. Error and Failure Resolution and Technical Assurance of Performance Assurance Parties ~~(TAPAP)~~ if a particular problem is detected. For each Settlement Risk that has been assigned to a BU-PAP, the BU-PAP will only have those PATs that are 'linked' to the Settlement Risk on the ROP assigned to it.

Where ~~the PAB has assigned a BU has been assigned~~ fewer standard PATs to a PAP, or additional non-standard PATs, the PAB provides the rationale for this ~~in the BU's RMP. Where the PATs do not differentiate between the mandatory and standard PATs, no rationale will be provided in the RMP.~~

~~The PAB creates an initial RMP for each MBU. When there is a change in circumstance, such as a trigger for Re-Qualification or a Technical Assurance of Performance Assurance Party (TAPAP) check, it makes amendments to an MBU's RMP to reflect this by the application and/or disapplication of non-mandatory PATs.~~

~~On an annual basis, following the review of the Risk Evaluation Register (RER) and the ROP, the PAB is presented with all the RMPs to review and, if necessary, amends the RMPs for the following PAOP in relation to the RER, ROP and additional information from the BU. The PAB considers all BU Settlement Risks on an individual basis and for each Settlement Risk that the BU has, the PAB determines what PATs (from the shortlist in the ROP) it wishes to apply to the BU. RMPs can also be updated on a monthly basis if the BU's performance changes or there are associated changes to the RER and the ROP.~~

Having assessed each Settlement Risk individually, the PAB considers all of the Settlement Risks that the BU-PAP has as a whole. This will enable the PAB to identify any opportunities for greater efficiency in the application of PATs by considering where a single PAT can be applied once to address more than one Settlement Risk.

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Monitoring Settlement Risks

The PAB considers how each ~~Business Unit's (BU's)PAP's~~ performance might impact and/or contribute to the materiality of the Settlement Risk; and uses the PATs available to minimise the impact on Settlement. This is facilitated by reviewing the Business Unit Settlement Risk Ratings (BUSRRs) and the Settlement Risk Report. Each is discussed in turn below.

Business Unit Settlement Risk Rating

~~The PAB has developed the Business Unit Settlement Risk Ratings (BUSRRs) have been developed by the PAB to determine the extent of a BU's materiality risk a PAP and/or a distinct operating unit of a PAP pose to Settlement. The term Business Unit refers to a distinct operating unit for a particular PAP.~~ The PAB approves criteria for determining a BUSRR for all the top Settlement Risks which are currently measurable. Applying these criteria allows the PAB to assess the materiality of the top Settlement Risks for each ~~Performance Assurance Party~~. We publish full details on the BUSRR criteria on the BSC website.

Settlement Risk Report

The Settlement Risk Report (SRR) illustrates market trends and industry performance subject to the availability of data and ~~ELEXON is presents thised by ELEXON~~ to the ~~Performance Assurance Board (PAB)~~ on a monthly basis. It looks at the performance of Suppliers and Meter Operator Agents⁹ in relation to top Settlement Risks and provides an overview of the BUSRRs for each Settlement Risk. Within the context of each Settlement Risk, the PAB uses the information provided in the SRR to explore the extent to which a ~~BU-PAP~~ might impact or contribute to the materiality of the Settlement Risk. For example, one ~~BU-PAP~~ operating in a well-managed environment, may pose inherently less risk to the successful delivery of a process than another ~~BU-PAP~~ with the same Settlement Risk but with a less well developed management process.

⁹ Other relevant ~~role codes~~PAPs may be included if performance data becomes available.

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REFERENCES

Document
BSC Section Z
Glossary
Performance Assurance Processes: <ul style="list-style-type: none">• Risk Evaluation Methodology• Risk Operating Plan• Risk Management Plan
Settlement Risk Report (non-confidential version) , see 'historical meetings'.