P359 'Mechanised process for GC/DC declarations'

This Modification seeks to introduce a new mechanised process for Generation Capacity and Demand Capacity declarations.

This Assessment Procedure Consultation for P359 closes:

5pm on **Friday, 6 April 2018**

The Workgroup may not be able to consider late responses.

The P359 Workgroup initially recommends **approval** of P359

This Modification is expected to impact:

- Generators
- Suppliers
- Interconnector Users
- ELEXON

ELEXON

Phase

- Initial Written Assessment
- Definition Procedure
- Assessment Procedure
- Report Phase
- Implementation

Contents

1	Summary	3
2	Why Change?	5
3	Solution	7
4	Impacts & Costs	9
5	Implementation	12
6	Workgroup's Discussions	13
7	Workgroup's Initial Conclusions	28
	Appendix 1: Workgroup Details	30
	Appendix 2: Glossary & References	37

About This Document

The purpose of this P359 Assessment Procedure Consultation is to invite BSC Parties and other interested parties to provide their views on the merits of P359. The P359 Workgroup will then discuss the consultation responses, before making a recommendation to the BSC Panel at its meeting on 10 May 2018 on whether or not to approve P359.

There are three parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, benefits/drawbacks and proposed implementation approach. It also summarises the Workgroup's key views on the areas set by the Panel in its Terms of Reference, and contains details of the Workgroup's membership and full Terms of Reference.
- Attachment A contains the draft redlined changes to the BSC for P359.
- Attachment B contains the specific questions on which the Workgroup seeks your views. Please use this form to provide your response to these questions, and to record any further views or comments you wish the Workgroup to consider.

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1 Summary

Why Change?

P359 was raised to address a concern that the current arrangements for re-declaring Generation Capacity (GC) and Demand Capacity (DC) values, using Metered Volumes, used by the Central Registration Agent (CRA) are ambiguous and resulting in low levels and/or inaccurate re-declared values. Failure to re-declare can result in underestimated credit cover requirements. This can increase the risk of non-defaulting Parties paying Default Funding Shares, should a Party not lodge sufficient credit cover (e.g. because their DC and Credit Cover Percentage (CCP) are understated) and then enter Payment Default.

Solution

P359 proposes to introduce an automated process for GC and DC submissions. As such, the Modification seeks to:

- Improve the accuracy of GC and DC declarations following a breach by introducing a consistent, objective and mechanistic method used for all re-declarations; and
- Relieve BSC Parties of the burden of re-declaring GC and DC values following a breach by requiring ELEXON to administer the mechanistic method.

Automated Process

Under the new process, the Central Registration Agent (CRA) will monitor Parties' Balancing Mechanism (BM) Unit Metered Volumes to identify 'GC/DC breaches'. Following the identification of a GC/DC breach, CRA will calculate the estimated positive and/or negative BM Unit Metered Volume(s) for the breached BM Unit(s), in accordance with a methodology established and maintained by the BSC Panel.

Once an estimated positive and/or negative BM Unit Metered Volume(s) for the breached BM Unit(s) is calculated, CRA will notify the relevant Lead Party of the breach, the estimated BM Unit's Metered Volume(s), and the replacement GC/DC values.

CRA will update the relevant BM Unit's Registration Details, to ensure replacement GC/DC values take effect from the beginning of the next Business Day. These details will also be published on the BSC Website.

ELEXON will administer a challenge process, should a Lead Party wish to challenge the replacement GC/DC values.

As such, the Modification seeks to:

- Improve the accuracy of GC and DC declarations following a breach by introducing a consistent, objective and mechanistic method used for all re-declarations; and
- Relieve BSC Parties of the burden of re-declaring GC and DC values following a breach by requiring ELEXON to administer the mechanistic method.

Impacts & Costs

P359 is expected to impact Generators, Suppliers and Interconnector Users, as these Parties submit GC and DC values.

P359 will impact the CRA with central costs of approximately **£91,258**.

Implementation

P359 is proposed for implementation on **1 November 2018** as part of the November 2018 BSC Systems Release.

Recommendation

The majority of the Workgroup initially believes that the P359 would better facilitate Applicable BSC Objectives (c) and Workgroup also unanimously agree that that P359 would better facilitate Applicable BSC Objective (d) compared to the current baseline. Therefore the Workgroup initially recommends that P359 should be **approved.**

2 Why Change?

Background

Following submission of seasonal GC and DC values, Parties must re-declare them if they breach thresholds in Section K3.4.3. These are currently 2% of GC or 10 Megawatt (MW), and 2% of the magnitude of DC or 10 MW.[1]

GC and DC values must reflect the expected maximum magnitude positive and negative metered volume for the BM Unit in the relevant BSC Season. Lead Parties must determine these values when they 'become aware' and 'in good faith and as accurately as [they] reasonably can'.

What is Generation and Demand Capacity?

Each BM Unit has a Generation Capacity (GC) and a Demand Capacity (DC). This is the maximum expected net Generation and Demand for that BM Unit in the current BSC Season.

These values are declared seasonally. Parties can make resubmissions during the Season if they breach these declared values

Issue 68

Issue 68 'Underestimation of Demand Capacity' was raised by ELEXON on 28 March 2017. It sought to investigate the under-requirement of Credit Cover due to inaccurate DC declarations and how to develop a solution to minimise the effect of these inaccuracies in the calculation of the Credit Assessment Energy Indebtedness (CEI) and CCP.

As part of Issue 68, the Issue Group considered whether the GC and DC re-declaration processes could be more mechanistic, with estimates determined and re-declared by ELEXON when the GC and DC is breached by more than the allowed tolerance, rather than by the Lead Party. Such an approach would reduce the administrative burden on BSC Parties, and increase the accuracy of submission, as re-declarations would follow a common calculation based on the historical Metered Volume data available.

This Modification is being raised based on one of the recommended solutions from Issue 68.

What is the issue?

Following a breach of a declared GC or DC value, Parties are required to re-declare a GC or DC value for the relevant BMU. Failure to do so can perpetuate an inaccurate GC or DC value being used to calculate CEI and CCP, as the breached value is retained until a re-declaration is made.

As the BSC does not specify an exact amount of Credit Cover that Parties must provide, inaccurate or understated DC values can result in Parties lodging less credit than their actual behaviour ought to require. This is because Parties are left to decide on the level of cover that they wish to provide in order to stay below the Credit Default levels. Therefore, failure to re-declare GC/DC values can result in inaccurate CCP which may increase the risk of non-defaulting Parties paying Default Funding Shares, should a Party not lodge sufficient credit cover (e.g. because their DC and CCP are understated) and then enter Payment Default.

Moreover, the BSC Section K3.4.5 requires the Lead Party to re-declare 'as soon as reasonably practicable after [it] becomes aware'. Without a clear requirement, there is a concern that Parties are not submitting timely GC and DC values following a breach.

[1] Please note that K3.4.3 is due to be amended following the implementation of BSC Approved Modification P357 on 22 February 2018.

Adherence with the process for re-declaring GC and DC values is challenging due to the current BSC rules which are ambiguous. For example the use of the term 'good faith' is subjective and does not provide clear direction to the Party as to what is reasonable; or the Panel or ELEXON in terms of monitoring and enforcement.

3 Solution

Proposed solution

P354 proposes to introduce a centralised and automated process for estimating BM Unit Metered Volumes following a breach of the GC or DC limits. The solution will be as follows:

- CRA will monitor Parties' actual BM Unit Metered Volumes to identify 'GC/DC breaches'.
- The BSC Panel will establish and maintain a method in a statement for estimating values of BM Unit Metered Volume (QMij) for use in the calculation of replacement GC and DC values.
- Following the identification of a GC/DC breach, CRA will calculate the estimated positive and/or negative BM Unit Metered Volume(s) for the breached BM Unit(s).
    - The method for estimating values of QMij is:

      To calculate GC for a particular BM Unit and a 'relevant' BSC Season, determine the positive value of QMij with maximum magnitude from all available, latest historical values of QMij for that BM Unit from the current BSC Season and the corresponding BSC Season 12 months earlier;

      To calculate DC for a particular BM Unit and a 'relevant' BSC Season, determine the negative value of QMij with maximum magnitude from all available, latest historical values of QMij for that BM Unit from the current BSC Season and the corresponding BSC Season 12 months earlier.
- CRA will notify the relevant Lead Party (including ELEXON and Electricity Market Reform (EMR) Settlement Services Provider) of the breach, the estimated BM Unit's Metered Volume(s), and the replacement GC/DC values.
- CRA will update the relevant BM Unit's Registration Details before the CRA daily run at 14:00, to ensure replacement GC/DC values take effect from the beginning of the next Business Day.
- ELEXON must administer a challenge process.
- CRA must securely publish details of BMUs' current and past GC and DC values, breaches and challenges on the BSC Website.
- ELEXON and CRA must maintain records relating to the identification of breaches, the estimation of BM Unit Metered Volumes, communications with Parties and the determination of challenges, for BSC Audit purposes.
- ELEXON will report on the number of GC/DC Breaches and number of challenges to the BSC Panel and/or Panel committee (i.e. Imbalance Settlement Group).

What is the Self-Governance Criteria?

A Modification that, if implemented:

(a) is unlikely to have a material effect on:

(i) existing or future electricity consumers; and
(ii) competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; and
(iii) the operation of the national electricity transmission system; and
(iv) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and
(v) the Code's governance procedures or modification procedures; and

(b) is unlikely to discriminate between different classes of Parties.

Not Self-Governance

The Proposer and Workgroup have provided an initial view that P359 does not meet the Self-Governance Criteria, and therefore should not be treated as a Self-Governance Modification.

The Proposer and the Workgroup believe the Modification, if implemented, is likely to have a material impact upon Self-Governance Criteria (v). This is on the basis that making the

change will impact the Code's governance procedures, through the introduction of a new process for submitting GC and DC declarations.

ELEXON believe that P359 will impact Self-Governance Criteria (ii), as the automatic setting of GC/DC may materially affect commercial activities (i.e. lodging credit) connected with generation or supply.

We seek the views of respondents to this consultation on this area. The Workgroup will then provide a recommendation on this to the Panel as part of its Assessment Report.

Assessment Consultation Question
Do you believe that P359 meets the Self-Governance Criteria and therefore should be progressed as a Self-Governance Modification? *Please provide your rationale with reference to the Self-Governance Criteria.*
The Workgroup invites you to give your views using the response form in Attachment B.

Alternative solution

At this stage, the Workgroup has not identified any alternative solutions which it believes would better facilitate the Applicable BSC Objectives compared with the proposed solution.

However one Workgroup member has indicated that there may be a case for an Alternative Solution, to address concerns with accuracy of Settlement Data. Please see "Should II or SF data be used to monitor for Breaches?" in Section 6.

Assessment Consultation Question
Do you agree with the Workgroup that there are no other potential Alternative Modifications within the scope of P359 which would better facilitate the Applicable BSC Objectives compared to the Proposed Modification? *Please provide your rationale and if 'No' please provide full details of your Alternative Modification(s) and your rationale as to why it/they would better facilitate the Applicable BSC Objectives than the Proposed Modification.*
The Workgroup invites you to give your views using the response form in Attachment B.

Legal text

The proposed changes to the BSC to deliver P359 can be found in Attachment C.

Assessment Consultation Question
Do you agree with the Workgroup that the draft legal text in Attachment A delivers the intention of P359? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment B

4 Impacts & Costs

This is the Workgroup's initial view of the impacts directly related to the implementation of Modification P359. We invite participants to detail any impacts that the implementation of the P359 solution would have on their organisation, quantifying where possible the approximate lead time and estimated costs associated with the identified impacts.

Estimated central implementation costs of P359

The implementation costs of P359 are approximately £91,258. These costs arise from changes to the CRA.

Indicative industry costs of P359

We expect P359 to directly impact Suppliers, Generators and Interconnector Users for the reasons detailed below.

P359 impacts

Impact on BSC Parties and Party Agents	
Party/Party Agent	Potential Impact
Generator	Parties that submit GC and DC values may require process changes, to implement this Modification. For example, to monitor and challenge BM Unit Metered Volume values estimated by the CRA.
Supplier	
Interconnector User	

Impact on Transmission Company
No identified impact.

Impact on BSCCo	
Area of ELEXON	Potential Impact
Market Analysis	ELEXON will no longer need to monitor Parties' BM Unit Metered Volumes to identify 'GC/DC breaches'. However, ELEXON will now need to administer a challenge process. ELEXON will also need to make changes to its internal systems, processes and guidance documents.
Settlement Operations	

Impact on EMR	
EMR Body	Potential Impact
EMRS	EMRS rely on BM Unit registration details for EMR Settlement purposes, and therefore there may be an impact. This will be confirmed as part of the EMR Impact Assessment.

Impact on BSC Systems and processes	
BSC System/Process	Potential Impact
CRA	Changes will be required to implement this Modification.

Impact on BSC Agent/service provider contractual arrangements	
BSC Agent/service provider contract	Potential Impact
None anticipated based on current understanding of solution.	

Impact on Code	
Code Section	Potential Impact
Section K	Changes will be required to implement this Modification.
Annex X-1	

Impact on Code Subsidiary Documents	
CSD	Potential Impact
BSCP15	Changes will be required to implement this Modification. That is, to describe the detailed circumstances and processes by which ELEXON (or its agent, the CRA) will monitor, estimate BM Unit Metered Volumes and update BM Registration Details; to further detail the content of notices and publications made by ELEXON (or its agent) as part of the processes.
CRA Service Description (CRA SD)	

Impact on other Configurable Items	
Configurable Item	Potential Impact
CRA User Requirements Specification (CRA URS)	Changes will be required to implement this Modification. That is, to make it clear the circumstances and processes by which ELEXON will monitor, estimate BM Unit Metered Volumes and update BM Registration Details.
New - GC or DC Estimation Challenge Guidance	A new guidance note to provide clarity to Lead Parties on the GC/DC challenge process and criteria.

Impact on Core Industry Documents and other documents	
Document	Potential Impact
Ancillary Services Agreements	No direct impacts identified.
Connection and Use of System Code	
Data Transfer Services Agreement	
Distribution Code	

Impact on Core Industry Documents and other documents	
Document	Potential Impact
Distribution Connection and Use of System Agreement	
Grid Code	
Master Registration Agreement	
Supplemental Agreements	
System Operator-Transmission Owner Code	
Transmission Licence	
Use of Interconnector Agreement	

Impact on a Significant Code Review (SCR) or other significant industry change projects
We do not believe this Modification will impact any open SCRs. The Proposer requests that this Modification be exempt from the SCR process. Ofgem was notified that this Modification was to be raised on 6 September 2017 and that it was ELEXON and the Proposer's view that this Modification should be a SCR Exempt Modification Proposal. Ofgem confirmed at the September BSC Panel meeting on 14 September 2017 that this is a SCR Exempt Modification.

Impact on Consumers
No direct impact identified.

Impact on the Environment
No direct impact identified.

5 Implementation

Recommended Implementation Date

The Workgroup recommends an Implementation Date for P359 of **1 November 2018**, as part of the November BSC Systems Release.

The Workgroup is mindful that although the recommended implementation date is achievable, it did not allow for contingency. As such, the Workgroup highlighted the benefit of a quick decision by the Authority on the Modification.

Assessment Consultation Question
Do you agree with the Workgroup's recommended Implementation Date? *If 'No', please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment B.

6 Workgroup's Discussions

The Workgroup discussions over three meetings centred on the development of a set of Business Requirements for the P359 Proposed Solution. The business requirements can be found in Appendix A.

The considerations for the different components of the business requirements are summarised below and align with the Workgroup Terms of References as agreed by the BSC Panel.

Identification and calculation

Is a specific definition of 'GC/DC Breach' necessary? Can current wording be adapted?

The Modification Proposal proposed to include a definition of 'GC/DC Breach'. Such a definition would act as a clear trigger for calculating GC/DC values 'on any Settlement day in which a BMU has a Metered Volume of greater magnitude than the GC or DC, from one or more Settlement period(s)'.

In the first Workgroup meeting, ELEXON noted that arguably, this is already reflected in BSC Section K3.4.3, and K3.4.2(c) and K3.4.5 which describe what to do upon identifying a breach. ELEXON queried whether a specific definition of GC/DC Breach would need to be introduced.

The Workgroup acknowledged that the current provisions in effect define a GC/DC breach. That is, they require the Lead Party to re-declare if a Party's BM Unit Metered Volume exceeds the GC or DC by an amount greater than the tolerances specified in K3.4.3 within a single Settlement Period.

ELEXON noted that the intention of introducing a definition of GC/DC breach would allow proposed provisions to operate (in particular, to trigger the estimation by ELEXON/CRA of BM Unit Metered Volumes for updating BM Units' GC and/or DC) and be measured more easily on a daily basis, rather than for a single Settlement Period. For example, the Modification Proposal includes a challenge process that is intended to run over a set number of working days. Therefore, to make it clear when parts of the process begin and end, it might be easier to attribute a breach to a specific day.

Further, ELEXON noted that the definition proposed in the Modification Proposal may require updating to ensure that it is aligned with changes proposed in Approved Modification P357 'Removal of GC/DC tolerance parameters from BSC Section', and to reflect the fact that GCs are positive and DCs are negative values.

The members at the first Workgroup agreed that, pending alignment with P357, the definition of 'GC/DC breach' set out in the Modification Proposal would likely be suitable. ELEXON proposed using an updated version of the criteria in K3.4.3 to reflect P357 and that GC and DC values are positive or negative values respectively:

> *'on any Settlement day in which a BM Unit has a positive value of QMij (subject to Section K3.4.4) divided by Settlement Period Day that is of greater magnitude than the GC by the GC Limits; or*
>
> *on any Settlement day in which a BM Unit has a negative value of QMij (subject to Section K3.4.4) with the maximum magnitude divided by Settlement Period Day that is less than the DC by the DC Limits.'*

ELEXON noted that the definition will be revisited as part of the Workgroup's review of the draft legal text

In the third Workgroup meeting, ELEXON noted that the term 'GC/DC Breach' has been changed to the 'GC and DC Breach Monitoring Criteria' to reflect their role in the operation of the solution. In particular, their role in monitoring for breaches and triggering the estimation of BM Unit Metered volumes GC/DC values.

What constitutes a breach – a single or recurring event?

The first Workgroup noted that a single infringement of the GC/DC Limit would constitute a breach. In the event of multiple infringements within a day, the first such event would trigger a breach and therefore start the process for ELEXON to estimate a new BM Unit Metered Volume and the opportunity for the Lead Party to challenge such a value. However, the group considered that it might be appropriate for any replacement value estimated by ELEXON to be based on the highest value on that day. This was to ensure that the replacement value would not be underestimated, and in turn potentially lead to another breach being triggered after submission. That is, if a breach is triggered early in the day and a new estimate of BM Unit Metered Volume determined at that point, then this estimate would not take account of actual BM Unit Metered Volume later in the day that might have set an estimate with a greater magnitude.

The Workgroup agreed that irrespective of when a breach occurred, ELEXON should use the most up to date actual BM Unit Metered Volumes available to it at the point it estimates a BM Unit Metered Volume.

Should II or SF data be used to monitor for Breaches?

ELEXON noted there could be instances where outlier BM Unit Metered Volumes, e.g. caused by spurious data or an exceptional event in a single Settlement Period, could lead to a breach.

ELEXON queried whether BSC Parties were aware of outliers driving GC/DC breaches, and whether the definition GC/DC Breach should account for outlier events, e.g. by being based on recurring instances rather than single events. Workgroup members noted that outlier events can occur, however they were relatively infrequent. One workgroup member highlighted that typically the outliers arise as a result of spurious data, for example, a Party Agent incorrectly inputs data, which are typically resolved by the Settlement Final (SF) run.

In order to better understand the frequency and materiality of spurious data between the Interim Information (II) and SF run, the Workgroup members took an action to provide ELEXON with examples that illustrate the effect of outliers. A number of Workgroup members provided data after the first Workgroup meeting.

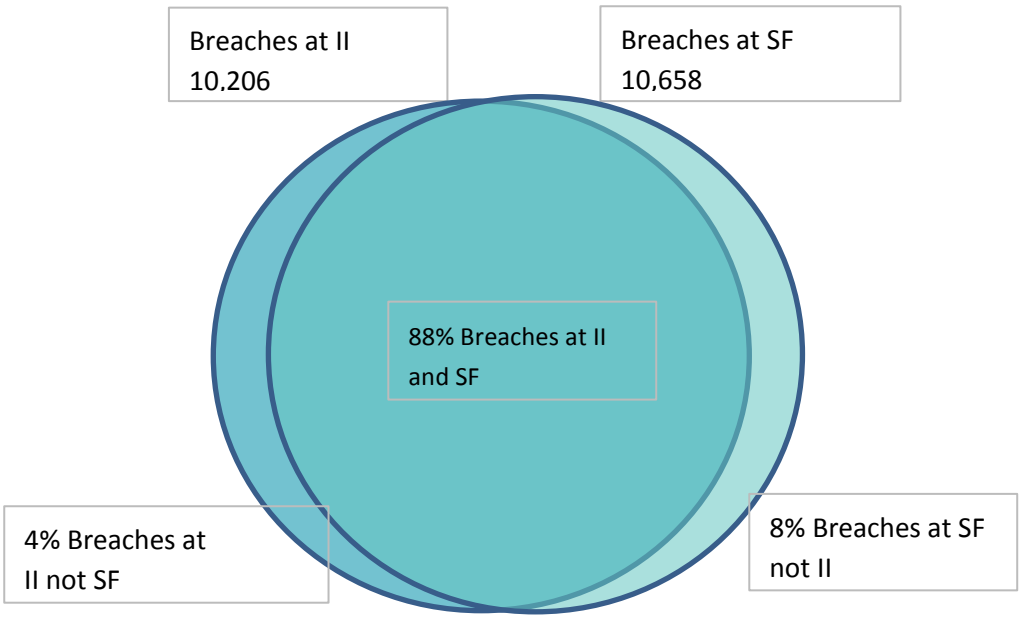
In the second Workgroup meeting, ELEXON presented analysis on the frequency and materiality of outliers between II and SF. ELEXON confirmed that the data used in the analysis was the Supplier Volume Allocation (SVA) registered metered energy Settled between 1 September 2016 and 31 August 2017. ELEXON reminded Workgroup members that the II run for the Settlement Administration Agent (SAA) is run at 5 working days and the SF run at 16 working days.

ELEXON noted that for all metered SVA registered demand and generation there is an increase from 51% to 59% of Energy Settled on Annualised Advances (AA) or actual reads between II and SF. For Non Half Hourly import energy, the volume settled on AA increases from 0% to 11%. This increase still leaves the majority of import energy settled on Estimated Annual Consumption (EACs) at the SF run. For Half Hourly import energy, the volume settled on actuals increases from 93% to 98% between II and SF.

In relation to the total DC and GC Breaches at II and SF between September 2016 and August 2017, ELEXON noted that for all Settlement Days where a DC breach occurred at II and SF, 88% occurred during both runs. Of the 12% that did not occur at both runs 4% occurred at II but not SF and 8% at SF but not II.

Where a BMU has breached their DC in a day at II but not SF the average difference between the actual metered demand and DC was 7.8MWh higher than for those breaches that occurred at SF but not II. This implies that the breaches that occurred at II were caused by larger values of Metered Volume that disappeared at SF. This may be explained by outliers but may be more likely due to estimates and EACs at II that overestimate consumption compared to actual metered volumes.

The percentage of GC breach days that occurred for both II and SF was 81%. This was due to 17.5% of breaches only occurring at the SF run. Where the GC breach occurred at SF not II, 91% of breaches were from Supplier BM Units.



Although ELEXON's analysis showed that overall industry-wide volumes tended to overestimate at II compared to SF, a Workgroup member noted that in some cases volumes are underestimated at II. At II the data quality that is submitted by Suppliers differs, as a result of the contractual arrangements with their agents. This is the case in particular for smaller Suppliers that have larger volumes of exports registered in their BM Units. As a result, the workgroup member felt that smaller Suppliers may find the costs of timelier meter reading (i.e. in time for the II Run) prohibitive compared to larger Suppliers, who may command a stronger negotiation position.

The Workgroup member believed that for some Parties there are large differences between II and SF settlement data due to missing data for half-hourly metered sites at II. This is because the Half Hourly Data Collector (HHDC) has been unable to retrieve and

process half hourly meter reads for those sites in time to include them in what they provide the Half Hourly Data Aggregator (HHDA) for the II Volume Allocation Run (VAR).

A Workgroup member expressed concerns that there may be an overemphasis on BM Units' imports relative to exports at II compared to SF. This effect may be a consequence of HHDCs submitting zero-value estimates for exports where a HH meter reading has not been collected by II. Furthermore, this may result in DC breaches at II, because the missing export results in a net BMU import at II when it ought to be a net export, which is often proved by SF when actual, non-zero, HH export metered data is included.

ELEXON completed analysis in response to the Workgroup members concern. Our analysis showed that there is a difference in the volumes reported at II versus SF. That is that over a year there appears to be approximately 2.2TWh of missing export.

ELEXON's analysis showed that, for all Suppliers BMU's with registered import and export volume, 82% of breach days occurred at II and SF; 9% of breaches that occurred at II did not occur at SF; and there were also 9% of breaches that occurred at SF and not at II.

This data was further split by party type; "big six" or "other Suppliers". For the "big six" Suppliers, 13% of breaches occurred at II not SF, and 11% of breaches occurred at SF and not II. Whereas for "other Supplier", 7% of breaches occurred at II not SF and 9% of breaches occurred at SF not II. This means, that "big six" suppliers experience more breach days at II and not SF, compared to "other Suppliers", who experience more breach days at SF than II.

Another Workgroup member noted that the difference between the number of breaches occurring at II and SF does not appear too material. However, the advantage of using II data over SF data, is that II data can be used sooner (i.e. rather than waiting 16 business days for SF, ELEXON could use Settlement Data after 5 business days), and consequently more Settlement Days in a BSC Season can be monitored. ELEXON completed analysis that showed that waiting for SF data would mean that approximately 26% of all Settlement Days across a year would not be monitored[2] (i.e. because by the time Settlement Data had reached SF, a new BSC Season will have begun), whereas approximately 9% of Settlement Days would be missed if II data was used.

The workgroup member went on to note that there are no obligations on Supplier Agents to issue reports regarding the II VAR to Suppliers. If monitoring of DC and GC breaches is to include using II data, Suppliers would be better placed to challenge breach notifications if they did receive the reports.

The Proposer noted that Suppliers are not incentivised to ensure data quality at II through Supplier charges, but can negotiate value added services with their appointed agents that can deliver improved data quality for II data. The Proposer suggested that should Suppliers not feel confident about the quality of the data provided by their agents, then they could renegotiate the terms of their contract.

The Proposer noted that enabling ELEXON to identify and update GC/DC values sooner should result in more reflective credit requirements thereby reducing all Parties exposure to the risk of contributing to Default Funding Shares. For these reasons the Proposer recommended that II data be used to monitor for breaches.

[2] Assuming that ELEXON monitored BMUs every Business Day.

Assessment Consultation Question
Do you believe that the II data should be used to monitor for GC/DC breaches? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment B

How frequently should ELEXON check for breaches?

ELEXON highlighted that currently checks are conducted on a fortnightly basis, based on II data. ELEXON asked the workgroup to provide a view on the frequency of the checks.

The Proposer suggested that ideally, the checks could be conducted on a daily basis. However, the Proposer reiterated that the intention of the Modification was to reduce the administrative burden on both BSC Parties and ELEXON. As such, the frequency of the checks should not create any unnecessary administrative burden. The Workgroup agreed that ELEXON should check as frequently as is cost effective and efficient.

ELEXON took an action to assess options in order to provide a view on the optimum frequency for monitoring.

ELEXON presented analysis in the second Workgroup, on how often GC/DC Breaches occur and how the frequency of checks (e.g. every day, every Tuesday) and use of Settlement Data at different Settlement Runs (e.g. II or SF Data) may affect the optimum frequency for monitoring.

The analysis looked at the:

- Number of checks that can occur
- Cost of conducting the number of checks
- Percentage of days that would be missed between checks
- Average interval between checks
- Average number of days until the first check occurs
- The minimum error in credit cover for a breached BMU

In order to complete its analysis, ELEXON made several assumptions: ELEXON confirmed that where the check falls on a bank holiday or weekend it assumed that the check would not take place. The 10 working day (WD) rule assumes that no check would take place in the final 10 days of the BSC season as Parties will be declaring for the next BSC season during this time. For the estimated cost of checks, this is calculated for a manual check process taking 3.5 hours of a Full Time Equivalent (FTE) per check. All of the figures were calculated for each season in a year (September 2016 to August 2017) and then annualised either by summing the values for each season or by taking an average.

Using SF Data increases the number of days until the first check by an average of 16 days compared to using II data. Therefore delaying the first check will increase the number of days an incorrect DC/GC value is used in the Credit Calculation before it is identified and updated. This risk is accentuated in Winter, Spring and Summer when between 46% and 52% of first breaches occur in the first week of the BSC Season. This suggests that approximately 50% of first breaches in a Season would not be identified until, on average, 9.5 business days and 26 business days into the Season when relying on II or SF data

respectively. The minimum impact a breached DC/GC value will have on a Party's Credit Cover is £2,640 per day[3].

ELEXON completed analysis that showed that waiting for SF data would mean that approximately 26% of all Settlement Days across a year would not be monitored[4] (i.e. because by the time Settlement Data had reached SF, a new BSC Season will have begun), whereas approximately 9% of Settlement Days would be missed if II data was used.

The least number of checks over a year is 15 checks, where SF data is used with 15 day rule and checked every other Tuesday. The maximum number of checks in a year is 229 where II data is used and a check takes place every day.

The Workgroup highlighted that there was not much difference between checking every day, checking every other day or checking once a week. Checking every day resulted in 9% days missed at II and 26% days missed at SF, whereas checking once a week resulted in 11% missed days at II and 27% missed at SF. One workgroup member suggested that optimising the frequency of checking may be best reserved for ELEXON's discretion, as checks may need to occur more frequently at the beginning of a BSC Season.

The Workgroup agreed that the business requirements should state that ELEXON will continue to monitor for GC/DC breaches at their discretion. This will allow for flexibility to determine the frequency of the checks. The workgroup also noted, that the implementation of the Modification would change the pattern for breaches, therefore this approach gave ELEXON flexibility to address such a change appropriately.

The Proposer confirmed that this meant monitoring all Settlement Periods, using II data.

Should the BSC allow for some flexibility on Breaches when the seasons roll over?

A Workgroup member highlighted that there may be an increased number of breaches on the first Settlement Period of each season. They noted that BSC Parties may not have sufficient reference data (from the relevant BSC Season) to re-declare a BM Unit Metered Volume for that BSC Season.

The Workgroup considered whether a potential solution requirement could be to ignore the first Settlement Period of the first day of the new BSC Season, because Parties would not have any reference data at that point on which to re-declare GC/DC values.

ELEXON noted after the first Workgroup meeting that there may not be a strong enough rationale for excluding the first Settlement Period of each Season from triggering a breach. That is, a GC/DC value is intended to accommodate the imports or exports for a BMU at any point in the season. The issue with breaches on the first Settlement Period (or the first few Settlement Periods) of a Season is that there is no or little reference data from that Season with which to determine a replacement GC/DC value. This may be resolved by either waiting for sufficient data to become available or basing the replacement value on Metered Volumes from outside the relevant Season.

[3] At the time of our analsyis the Credit Assessment Price (CAP) was £55/MWh and the minimum GC/DC breach limit was 1MWh. Therefore the minimum error cost per day of a breach was £2,640.00 = (£55/MWh x 1MWh) x 48 Settlement Periods.

[4] Assuming that ELEXON monitored BMUs every Business Day.

The Workgroup confirmed in the second workgroup meeting that all Settlement Periods would be considered. As such, the first Settlement Period would not be excluded.

Should the BSC include a clear route for escalating repeat offenders, e.g. to PAB if Party breaches GC/DC 'x' times in a Season or in the last 'x' days?

The first Workgroup considered whether the Modification could include an explicit, codified escalation route for Parties who continually breach their GC or DC. The workgroup noted that this explicit escalation route would be in addition to the BSC's existing general compliance and assurance arrangements, and the current credit default arrangements. As a result the inclusion of an additional process may be unnecessary.

A workgroup member queried the extent of the issue of persistent breaches, and 'downwards declarations'[5] of DC. ELEXON noted that Section K 3.4.2A limits a Lead Party to downwards declaring twice in each BSC Season. ELEXON took an action to update its Issue 68 analysis on the extent to which BSC Parties persistently understate their DC values and downwards declare after a breach.

In the second Workgroup meeting, ELEXON presented analysis on the persistence of downwards declarations. ELEXON confirmed that there were a total of 447 mid-season downwards DC declarations over the year. This is equivalent to 19% of all mid-season declarations. Spring has the highest number of downwards declarations with a total of 141 during the BSC Season.

Where a downwards mid-season declaration occurred, in 15% of cases the BMU breached their DC after the downwards mid-season declaration. In 11% of cases the BMU had breached their DC prior to the mid-season declaration. In 5% of cases the BMU breached their DC before and after the mid-season downward declaration.

In autumn, there were 16 cases of mid-season downwards DC declarations where the BMU breached before and after the declaration. In these cases the average mid-season downwards declaration was 0.84MWh.

The workgroup noted the analysis, and agreed that the limit on two downwards declarations for each BSC Season should not be amended as part of the Modification and noted that the BSC already provided suitable routes to escalate any perceived persistent breach.

Parties that do not re-declare after a breach notice

In the second Workgroup meeting, ELEXON also provided additional analysis that showed the workgroup the persistence of Parties who remain in breach and fail tore-declare their GC or DC, even after ELEXON has notified them that they have exceeded the GC/DC limits.

Currently, ELEXON runs four or five fortnightly checks during each BSC Season. ELEXON notifies Parties of any BMUs that have breached their declared GC/DC values by the GC/DC limits.

The below table summarises how many Parties did not re-declare for at least 28 days following a breach notification. If a Party has not declared by ELEXON's fifth check it is

[5] A 'downwards declaration' is the submission of a value of negative BM Unit Metered Volume (i.e. consumption) with a smaller magnitude. This has the effect of predicting a lower level of expected consumption in the BSC Season.

almost certain that the GC or DC will not be updated in the BSC Season. This is because by this point there is only a short time until the next BSC Season begins.

Season	Total Parties with 1 or more breaching BMUs (entire Season)	3rd check of Season (28 days worth of II data)	4th check of Season (42 days worth of II data)	5th check of Season (56 days worth of II data)	% of Parties with breaches that are >27 days old on final Seasonal check
Autumn 2016	59	3rd breach 5	3rd breach 2 4th breach 1	3rd breach 2 4th breach 1 5th breach 1	6.78%
Winter 2016	63	3rd breach 5	3rd breach 7 4th breach 3	3rd breach 1 4th breach 3 5th breach 1	7.94%
Spring 2017	58	3rd breach 5	3rd breach 3 4th breach 3	3rd breach 4 4th breach 1 5th breach 1	10.34%
Summer 2017	42	3rd breach 10	3rd breach 2 4th breach 3	N/A	11.90%

What principles or considerations should the method of calculating GC/DC values be based on?

In the first Workgroup, ELEXON asked the workgroup what the main principles ought to be for the method of calculating GC/DC values. The workgroup indicated a preference for accuracy, simplicity and replicability.

In its Modification Proposal the Proposer specified that historical metered data should be used in the calculation of the estimated value. ELEXON noted that using historical meter data would only reflect historical activity, and queried whether greater accuracy would be achieved by trying to account for future behaviour, e.g. by forecasting. ELEXON asked the workgroup for their views on using a point average forecast or a model of projected change in a Party's portfolio as an alternative. The Proposer highlighted that ELEXON is constrained by the data provided by BSC Parties under the BSC, therefore Settlement Data was the only viable option – that is, the BSC does not currently require Parties to share details of its portfolios or business plans, therefore ELEXON does not have the necessary data to effectively forecast or model a Party's future behaviour. The Proposer also suggested that adopting a backward looking approach ensures that calculations are based on existing, actual data, whereas a forward-looking method may be more risky, as any such model would be a prediction, could be difficult to effectively replicate and it is likely that Parties better understand their businesses than ELEXON.

In the second Workgroup meeting, ELEXON presented a set of draft business requirements. These requirements reflected the Proposer's suggestion, that is that the method for calculating estimates of QMij values must adhere to the following principles:

- Simple;
- Replicable;
- Accurate; and
- Uses historical Settlement Data only

The workgroup discussed whether a set of principles for calculating the values of BM Unit Metered Volume (QMij), should be codified. Including principles in the Code would make it clearer that changes to the method would need to satisfy these principles and that changes to the principles would require a BSC Modification.

A Workgroup member expressed concerns about including principles in the Code, noting that should they need to be changed in the future, a Modification would be required. The workgroup agreed that the principles should be described in the requirements for this

Modification, so that future workgroups can make reference to what principles were considered when P359 was being developed, but should not be codified.

How should historical metered data be used and over what time?

ELEXON asked the group for thoughts on how historical data could be used and over what timescale such data should be collected and used; e.g. whether the last 30 or 60 etc. days, an average of the current or past BSC Season(s), or the weeks known for providing the maximum GC and DC values. The workgroup considered that a maximum value from a sample would likely be the most appropriate value, as the usage of an average could understate the GC/DC value and lead to further breaches. The workgroup requested that ELEXON return with analysis on a number of different method options.

ELEXON presented analysis demonstrating five methods for calculating the DC using the maximum metered volume from different historical datasets:

- Method 1 - Metered data from the Current BSC Season only
- Method 2 - Metered data from the Current BSC Season and BSC Season the year beforehand
- Method 3 - Metered data from the Current BSC Season and preceding BSC Season
- Method 4 - Metered data from the last 30 days
- Method 5 - Metered data from the last 60 days

ELEXON confirmed that a sixth method identified during the work group's first meeting was not fully assessed - metered data from specific weeks that typically have the highest DC/lowest GC. This was because initial analysis showed that there would be little additional benefit in assessing this method, given the data would be a subset of the already retrieved data in method 2.

To assess the methods, two tests were run for each method in each season between September 2016 and August 2017 – eight tests were run in total. The tests consisted of checking which BMUs had breached between their DC in the check period and calculating a new DC based on one of the above methods. The new DC values were then tested in a test period to see how many BMUs then breached the new DC in the test period and the average number of days for a breach to occur.

ELEXON noted that for six of the eight tests Method 2 had the lowest percentage of BM Units breaching the calculated DC in the test period. Method 1 has the highest percentage of BMU breaches for all checks.

In Autumn the highest percentage of BMUs breached during the test periods and of all methods tested Method 2 had the lowest breach percentages for the two autumn checks.

Method 3 and Method 5 retrieve similar datasets, hence the breach rates and average days to breach are similar.

The average days the new DC was valid for show the average number of days either until the next BSC Season or until the BMU breached its DC. Method 2 had the highest average valid days for both checks, the rest of the methods had very similar averages.

The workgroup considered the five methods and agreed that Method 2 appeared to produce the most robust estimates of BM Unit Metered Volume – that is values estimated

by Method 2 were less likely to result in a subsequent breach – please see Business Requirement 2.2, below, for a more detailed description of the agreed method.

The workgroup agreed that the method for estimating values of BM Unit Metered Volume should be specified in a statement established and maintained by the BSC Panel, or as delegated to a Panel committee. The Workgroup recommended that the Imbalance Settlement Group (ISG) would be an appropriate committee.

The Workgroup confirmed that the method statement should be added to the BSC Baseline Statement as a Category 1 Configurable Item – this would mean that it would be published on the BSC Website and that any future change to the statement would require an Approved Change Proposal. The statement would be drafted post-Approval of the Modification – it is common practice for changes to or new CSDs and CIs to be drafted as part of the implementation of Approved Modifications.

How should BSC Parties be notified of a breach and any automated change to their BM Units' GC or DC values?

Under current arrangements and as suggested in the Modification Proposal, BSC Parties are notified of a breach via an email from ELEXON to a Category A Authorised Person. ELEXON queried whether this was the most efficient approach for the industry. For example, could a data flow (e.g. over the Data Transfer Network) be sent or a notice be generated and sent from the ELEXON Portal. The Workgroup agreed that the initial notification was best provided through an email to a Category A Authorised Person; however reminders or notification of subsequent breaches on the same day could be shown on the BSC Portal. This would ensure that should further breaches on subsequent days occur, the BSC Party would be able to distinguish between breaches.

At its second meeting the Workgroup considered whether other categories of Authorised Person should receive the notification. That is one member noted that Category A persons may be executive members of staff and not operationally/directly involved in the process of monitoring and setting GC and DC values. Another member agreed that while it may not be appropriate to send such a notification to Category A Authorised Persons, it may be necessary so as to ensure that received notice is delivered, especially if the company has not specified an alternative person to contact (e.g. a Category F Authorised Person – Category F Authorised Persons are specifically responsible for updating BM Unit Metered Volumes for use in calculating GC and DC values).

The Workgroup agreed that the Business Requirements should require ELEXON to notify the Lead Party's Category F Authorised Person(s), or Category A if no Category F persons are specified, of the breach and the updated BM Unit registration details.

The Workgroup also discussed the implications of notifying Parties by email. A Workgroup member queried how confirmation would be received that the Party has received the email; noting that an employee may leave a company, and point of contact may not be updated.

ELEXON confirmed that it a Party's responsibility to manage their Authorised Persons and related contact details. ELEXON also confirmed that there are deemed receipt provisions within the BSC. That is, BSC Section H9.2.2(d) states that an email is deemed to be received one hour after being sent, in the absence of any undeliverable return receipt received by the sender during that period.

Enabling Parties to challenge any estimate calculated by ELEXON

The Proposal specifies that Parties should be able to challenge any estimate calculated by ELEXON. The purpose of the challenge process is to allow Parties some recourse when they believe an estimate calculated by ELEXON is inappropriate (e.g. because the Party is likely to have a better understanding than ELEXON of its actual/likely operation) or incorrect.

The Proposer suggested considering how existing Material Doubt provisions work as these could provide a template for handling challenges to estimates of QMij calculated by ELEXON.

Could material doubt be used for the challenge process?

ELEXON noted that currently material doubt is used in relation to credit. ELEXON noted that although material doubt may be broader than the scope of the GC/DC challenge process, it could be utilised for the challenge process. However, ELEXON also noted that the criteria for raising Material Doubt are highly subjective and challenged whether ELEXON would ever be able to effectively review or challenge a Parties' challenge, except if it were on the grounds of a clear data or calculation error. The workgroup agreed that challenges should only be raised if evidence of a data or calculation error could be shown.

At the second Workgroup meeting, ELEXON provided a view on what material doubt provisions could apply to the challenge process; specifically what criteria could be used as part of the assessment and in what timescales. This was to determine whether the existing material doubt provisions can inform the challenge process.

BSC states that ELEXON shall withhold notifying ECVAA of an authorisation relating to Credit Default where there exists 'a material doubt as to whether, at the time, the systems and processes used by the Energy Contract Volume Aggregation Agent (ECVAA) are giving correct determinations of the values of CCP for that Trading Party'.

Material doubt can be brought to ELEXON's attention by the ECVAA or 'otherwise'. It will often be raised as a result of the Trading Party submitting evidence to ELEXON of a circumstance likely to produce a material discrepancy between the ECVAA's determination of CCP and the true CCP of the party. Throughout the process, ELEXON has and retains ultimate discretion as to whether it has a material doubt regarding a Party's Credit Default status.

ELEXON suggested that application of a material doubt approach could be applied. In order to determine that material doubt exists, the following criteria must be satisfied:

- Substantial evidence
    - The evidence via the ECVAA or submitted by the Trading Party must be substantial in the context of the particular case.
- Material
    - The doubt as to the Party's credit default status must, in ELEXON's reasonable opinion, be material in the context of the particular case.
- Significant

- Where applicable, a projected discrepancy between II and SF data must be of 'significant' size.

To raise an appeal, the Party must submit a statement to ELEXON explaining the error in the calculation of GC/DC, and provide evidence that satisfies the following criteria for the appeal to be upheld:

- Actual error
    - evidence must demonstrate that either ELEXON has used the GC/DC calculation method incorrectly or that there is an error in the Metered Data/Settlement Data used to calculate a GC/DC value
- Material
    - evidence must demonstrate that the absolute percentage error is more than 5%, where percentage error = ABS((GCDC$_{ELEXON}$-GCDCParty)/GCDC$_{ELEXON}$)×100

Further, the Party must also submit an alternative GC/DC value that is based on the correct use of the method or uses correct Metered/Settlement Data.

The Workgroup agreed that a more specific set of guidance than material guidance was important to create certainty around the challenge process. One Workgroup member believed that a percentage error of 5% was too low, as he believed that there was substantial error in metering data.

The Workgroup agreed that the requirement in the Business Requirements should be for the Lead Party to provide evidence that the historic metering data used in the estimation contained an error, and that the decision on whether to uphold the challenge should be left ELEXON's discretion. Furthermore, should a Lead Party wish to challenge the estimated value, an alternative should be proposed.

ELEXON confirmed in the third Workgroup, the advantage of separating the criteria for challenging the GC/DC estimated value from the Material Doubt Guidance; it will avoid confusion. The separate guidance will be defined in Section K as 'GC or DC Estimation Challenge Guidance'. The P359 Workgroup recommended that the guidance note is updated to provide specific guidance in relation to challenging BM Unit Metered Volumes estimated by ELEXON.

Is a challenge process necessary?

The second Workgroup considered whether a challenge process was required at all. ELEXON noted that the BSC already allows Lead Parties to redeclare estimates of QMij (per K3.4.2 and K3.4.2A) which they could use if they believed an estimate calculated by ELEXON was inappropriate or incorrect. Use of existing provisions rather than creating a new challenge process would avoid the need to define and resource a new process, which might be more efficient. The Workgroup noted the existing provisions but considered that establishing a challenge process was important. A challenge process ensures Parties have an explicit means of identifying and resolving a concern with any value calculated by ELEXON, e.g. that erroneous metered data may have been used and is brought to light and resolved. It also allows a Party to maintain a degree of autonomy in managing the values that are submitted.

Should a holding value be used while the challenge process is proceeding?

ELEXON queried what value should be used, and potentially submitted while a challenge process is underway. The workgroup suggested that the value calculated by ELEXON would be put into the CRA, and pending the end of the challenge process, if the estimate is incorrect, the Party's value would apply. The party's value would need to be evidence based, to explain why the replacement value is valid. ELEXON would then make a final decision, without an appeal route to Panel.

In the second Workgroup meeting, ELEXON presented an end to end overview of the timescale; from when the breach is triggered and raised, to when it is resolved. The workgroup reiterated their views from the first Workgroup meeting, that the estimated value should be submitted into the CRA on the next Business Day following identification of a breach, to reduce the amount of time incorrect GC/DC values are used.

As such, the workgroup indicated that the CRA must complete its review of all relevant BM Units in time so that any amendments to breached BM Units Registration Details (i.e. a new GC or DC value) can be processed that day to take effect the following Business Day.

In the third Workgroup meeting, ELEXON queried whether monitoring should be suspended for the BM Units that are subject to an open challenge. The Workgroup agreed that monitoring be suspended for BM Units that are the subject of an open appeal.

The Workgroup suggested that the Material Doubt Guidance be expanded to include GC/DC Challenge as grounds for Material Doubt.

Assessment Consultation Question
Should BSC Parties have longer than two Business Days to challenge the breach? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment B

Submission

How quickly should values be entered into systems?

ELEXON noted that there is a current CRA systems constraint. That is, changes to BM Unit Registration Details (including new estimates of QMij) must be submitted to the CRA before 2pm each day to ensure that they are loaded for use by ECVAA the following day. ELEXON asked workgroup members for their views on when the value should enter into the system. The workgroup noted that whilst Parties would not argue against registering values more quickly, this would need to be balanced with the cost of doing so. They noted that there were no issues with waiting until the following day for the values to take effect as this is the current process.

The workgroup discussed whether the process for submitting values could be automated, to reduce the administrative burden on ELEXON and the CRA. The workgroup asked ELEXON to assess the costs of such a system change.

In the third workgroup meeting, ELEXON presented the workgroup with impacts and cost of two solutions; one that is automated and the other that was in-house. The automated solution required the CRA to automate the monitoring for GC/DC breaches, estimation of QMij and update to BM Unit Registration details, whereas the in-house solution required that ELEXON continue to manage the monitoring of breaches, estimate QMij and notify

CRA of changes to QMij following a breach. The automated solution had a one off implementation costs of £91,258 to implement the necessary system changes. The in-house solution had a one-off system implementation cost of £76,582, but in addition, there was also an on-going operation costs of between £4,984 and £12,824 per annum, for ELEXON to monitor.

The Workgroup noted that the one-off cost differential between the two solutions was approximately £15,000. However, ELEXON highlighted that the overall cost of the in-house solution would be more than the automated solution within three years, due to the on-going costs to operate.

The Workgroup noted that even under the automated solution ELEXON would incur a cost to manage the challenge process. ELEXON agreed that they would need to resource any such challenge process but that these costs would be covered by existing business as usual operational expenditure and because ELEXON would no longer be manually monitoring QMij, they believed that on balance ELEXON would make a saving.

The Workgroup recommended that the automated solution be taken forward as the Proposer's Solution.

Zero submission

The Modification Proposal sought to prevent Lead Parties submitting estimates of BM Unit Metered Volume equal to 'zero' for BM Units with actual, historical metered volumes. This was proposed on the basis that any active participant would have some import or export, so estimating zero BM Unit Metered Volume is arguably not in 'good faith'.

However, in the first Workgroup meeting, ELEXON highlighted that a zero GC or DC may be appropriate for inactive or self-sufficient BM Units. ELEXON queried the Workgroup in what circumstances a zero submission should be appropriate. The workgroup highlighted a couple of circumstances. Examples included where a smaller supplier loses their sole customer in a Grid Supply Point (GSP) area; and another where a Generator decides to withdraw from participating in the wholesale market but not to disconnect the site entirely.

The workgroup also discussed how these types of zero submissions could be considered. Members discussed whether it would be appropriate for an automatic rejection of all zero values, and then provide the opportunity for Parties to appeal the rejection to ELEXON or the Panel.

The workgroup queried whether the infrequency of such an event warranted an automated mechanism. ELEXON agreed to update the analysis on zero declaration that was presented to the Issue 68 group, and present it at the next P359 meeting. This would enable the Workgroup to ascertain whether the infrequency of these breaches could be best served through engagement with ELEXON's Operational Support Managers (OSMs).

In the second Workgroup, ELEXON presented the updated Issue 68 analysis on zero DC submissions.[6] This analysis only looks at BM Units that were neither credit qualifying nor an Interconnector User; as these BM Units' credit requirements are determined with reference to their Final Physical Notifications rather than their GC or DC values. ELEXON noted that in all seasons between 57% and 64% of BM Units have a zero DC value at least

[6] The data used in the analysis was the SVA registered metered energy Settled between 1 September 2016 and 31 August 2017

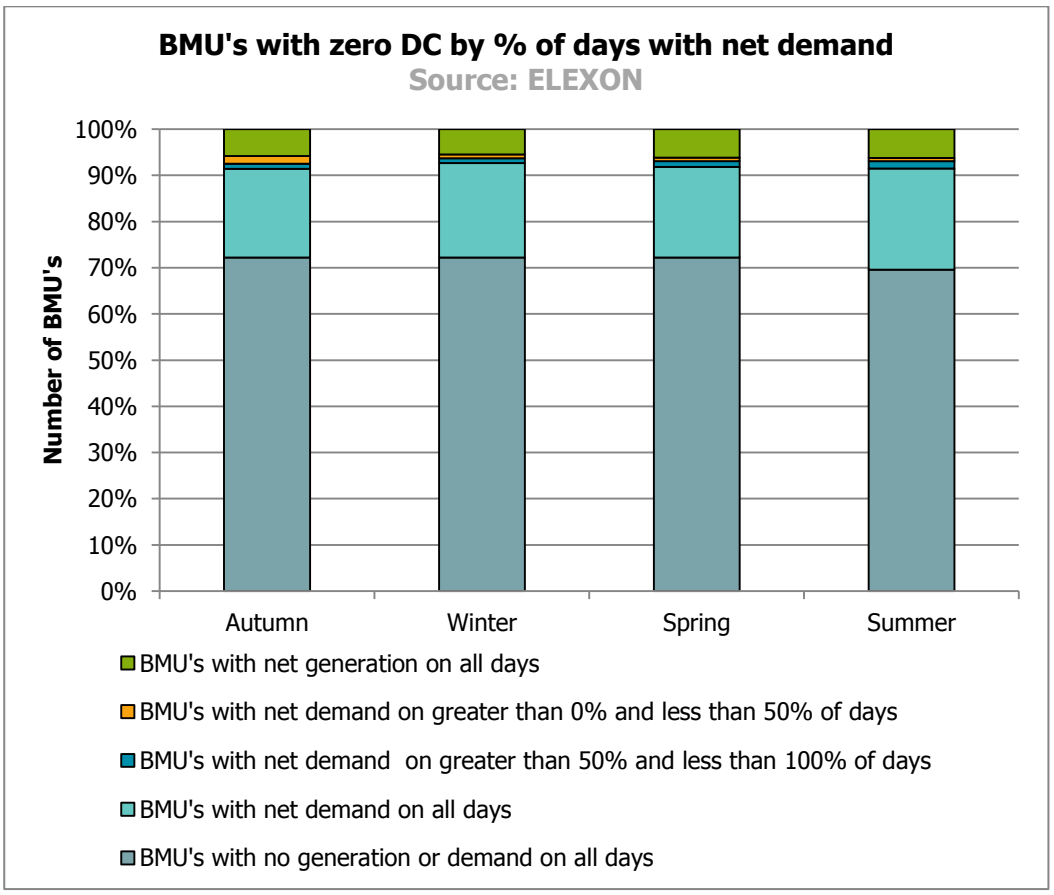
once in the season. Between 5.1% and 4.6% of all BM Units had a zero DC and non-zero DC.

For a Supplier BM Unit, where the DC is zero and the GC is non zero, the credit requirements are based on the GC and Supplier Export Credit Assessment Load Factor (SECALF). For all other instances the credit requirements are based on the DC and Working Day Credit Assessment Load Factor (WDCALF) /Non-Working Day Credit Assessment Load Factor (NWDCALF). For non-Suppliers BM Units, the credit requirements are based on the GC or DC and the WDCALF and NWDCALF.

Between 70% and 72% of BM Units had no demand or generation when they had a DC of zero. However, between 19% and 22% of all BM Units had net demand on all days they had declared a DC of zero; and between 7% and 9% of BM Units had net generation on some or all of the days they had zero DC.

ELEXON noted that there may also be a number of dormant BM Units contributing to the large proportion of BM Units with no demand or generation and a zero DC. For example, BM Units that are inactive 'off the shelf' Supply businesses, or Contracts for Difference (CfD) Generators.

A Workgroup member noted that 19% and 22% of all BM Units that had net demand on all days they had declared a DC of zero, and queried how many BM Units that represented. ELEXON confirmed that it was approximately 300 to 330 BM Units of approximately 1500 BM Units. The Proposer believed that this was a significant number of BM Units, however accepted that it would not be possible to determine which Parties might be acting in bad faith. The Workgroup agreed it would not be appropriate to include a requirement to automatically reject all GC and DC declarations of zero value.



7 Workgroup's Initial Conclusions

Workgroup's initial recommendation

At this stage, the majority of the Workgroup believes that P359 would overall better facilitate the Applicable BSC Objectives and so should be **approved**. Members' views against each of the Applicable BSC Objectives are summarised below.

Applicable BSC Objective (c)

The Proposer and the majority of the Workgroup believe that this Modification better facilitates Applicable BSC Objective (c) as it will:

(i) minimise compliance costs for BSC Parties by allowing a central process to calculate appropriate replacement values, rather than enforcing compliance through an onerous manual process;

(ii) ensure better accuracy of GC/DC values used to calculate credit exposures and, as a consequence, support a more efficient allocation of risk and the cost to secure it. This in turn should help to minimise potential bad debt liabilities accruing which would ultimately be passed on to the consumer.

One workgroup member did not believe that Modification better facilitate Applicable BSC Objective (c). The Workgroup member believed that for some Parties there are large differences between II and SF settlement data due to missing data for half-hourly metered sites at II, because the HHDC has been unable to retrieve and process half hourly meter reads for those sites in time to include them in what they provide the HHDA for the II VAR. This can result in DC or GC breaches at II which would otherwise not be identified at SF. They argued that the automation of DC and GC breach monitoring based on II data can be expected to lead to an increased number of notifications to smaller Parties; for breaches that are identified at II, and are resolved by SF. This would result in an increase in monitoring by smaller Parties than at present, in order to validate breaches and estimates produced by CRA. In their opinion this does not better facilitate Applicable BSC Objective (c).

The Workgroup member believes that the overall cost of challenging spurious notifications will be higher for smaller suppliers than larger Suppliers; because they anticipated that smaller Suppliers will receive more notifications relative to their portfolio size. The Workgroup member believes that this will place smaller Suppliers at a competitive disadvantage compared to larger Suppliers. As such, they do not believe that this Modification better facilitates Applicable BSC Objective (c).

Further, the Workgroup member indicated that Smaller Parties with more limited resource than larger Parties will be expected to find it more demanding to investigate breach notifications and submit challenges where appropriate within the proposed 2 Working Day timescale. This could lead to smaller Parties having to lodge additional credit cover than really needed, which does not better facilitate Applicable BSC Objective (c).

The Workgroup member expressed a concern that there are no obligations on Supplier Agents to issue reports regarding the II VAR to Suppliers. If monitoring of DC and GC breaches is to include using II data, Suppliers would be better placed to challenge breach notifications if they did receive the reports. Otherwise they are unaware of any II data issue until they see the outcome of the II settlement run. Supplier Agents should be obligated to issue reports regarding the II VAR to Suppliers to ensure a level playing field if monitoring of DC and GC breaches is to include using II data.

Applicable BSC Objective (d)

This Modification also better facilitates Applicable BSC Objective (d) as it will improve the accuracy of GC/DC submissions and reduce the administrative burden on BSCCo staff to enforce compliance where values are not submitted or tolerances are breached.

Neutral on other Applicable BSC Objectives

At this stage, the Proposer and all Workgroup members believe that P359 is neutral against Applicable BSC Objective (a), (b), (e), (f) and (g).

Obj	Proposer's Views	Other Workgroup Members' Views[7]
(a)	• **Neutral** – no impact.	• **Neutral (majority)** – no impact
(b)	• **Neutral** – no impact.	• **Neutral (majority)** – no impact
(c)	• **Yes –** P359 will minimise compliance costs for BSC Parties and ensure better accuracy of GC/DC values	• **Yes (majority)** – agree with the Proposer • **No (minority)** – concerned that P359 will disproportionately impact smaller Suppliers
(d)	• **Yes** – P359 will improve the accuracy of GC/DC submissions and reduce the administrative burden	• **Yes (majority)** – agree with the proposer
(e)	• **Neutral** – no impact.	• **Neutral (majority)** – no impact
(f)	• **Neutral** – no impact.	• **Neutral (majority)** – no impact
(g)	• **Neutral** – no impact.	• **Neutral (majority)** – no impact

Assessment Consultation Question
Do you agree with the Workgroup's initial majority view that P359 does better facilitate the Applicable BSC Objectives than the current baseline, and so should be approved? *Please provide your rationale.*
The Workgroup invites you to give your views using the response form in Attachment B.

[7] Shows the different views expressed by the other Workgroup members – not all members necessarily agree with all of these views.

What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]

(f) Implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation

(g) Compliance with the Transmission Losses Principle

Appendix 1: Business Requirements

Business Requirements for the Proposed Solution

Preferences

The P359 Workgroup expressed a preference for developing a solution that:

- Reduces the administrative burden on BSC Parties and ELEXON; and
- Maximises the frequency of monitoring and the speed of calculation and communications so they are cost effective and efficient.

Assumptions

The business requirements have been drafted with the following assumptions:

- CRA executes a 'CRA Daily' run at 14:00 each Business Day that captures all updates to BM Unit Registration details, and for which, the earliest Effective From Date (EFD) can be the next Business Day. To facilitate this 'run', all updates must be input into CRA before 14:00.
- Reference to 'BSC Website' within the Business Requirements is as defined within the Annex X-1, which means the websites established and maintained by BSCCo in whole or in part for the purposes of the Code.
- References to 'next Business Day' within the Business Requirements are subject to the deemed receipt provisions within the BSC Section H9.2.2, where in the case of e-mail, it is deemed to have been received one hour after being sent, in the absence of any undeliverable return receipt received by the sender during that period.
- Based on current numbers of GC/DC breaches, it is anticipated that there will be approximately an average of 20 to 30 breaches each week, with a possible maximum of 90 breaches on a given day.
- References to BM Unit Metered Volume(s) relate to a specific Settlement Period (QMij).

Requirement 1	
CRA will monitor Parties' BM Unit Metered Volumes to identify 'GC/DC breaches'[8] at a frequency set most daily (Business Days only) but expected to be twice weekly on a Tuesday and a Thursday (only where these days are Business Days).	
1.1	CRA will not monitor BM Units that are the subject of an open appeal as per requirement 6 (requirement 6.4) below.
1.2	CRA must complete its review of all relevant BM Units in time so that any amendments to breached BM Units Registration Details (i.e. a new GC or DC value) can be processed that day to take effect the following Business Day.
1.3	BSCCo will notify CRA of any Emergency Instructions so the CRA can manually exclude these volumes from the relevant BMU Metered Volumes when monitoring for a GC/DC breach.

[8] In relation to a BM Unit, a GC/DC breach occurs when the criteria in K3.4.3 are met (taking account of K3.4.4). That is, where either the positive or negative value of actual BM Unit Metered Volume exceeds or the Lead Party becomes aware or believes it will exceed the GC or DC by the GC Limit or DC Limit, respectively. K3.4.3 can be seen in Appendix 1. Please note that K3.4.3 is due to be amended following the implementation of BSC Approved Modification P357 on 22 February 2018. The proposed wording of K3.4.3 is provided in Appendix 2 of this document.

Requirement 2	
The BSC Panel will establish[9] and maintain a method in a statement for estimating values of BM Unit Metered Volume (QM_{ij}) for use in the calculation of replacement GC and DC values.	
2.1	The Panel will own the statement, which will be added to the BSC Baseline Statement as a Category 1 Configurable Item.
2.2	The method for estimating values of QMij is: • To calculate GC for a particular BM Unit and a 'relevant' BSC Season, determine the positive value of QMij with maximum magnitude from all available, latest historical values of QMij for that BM Unit from the current BSC Season and the corresponding BSC Season 12 months earlier; • To calculate DC for a particular BM Unit and a 'relevant' BSC Season, determine the negative value of QMij with maximum magnitude from all available, latest historical values of QMij for that BM Unit from the current BSC Season and the corresponding BSC Season 12 months earlier.
2.3	ELEXON will publish the statement referred to in requirement 2.1 on the BSC Website.

Requirement 3
Following the identification of a GC/DC breach per requirement 1, and in time for any update to the BM Unit(s) Registration Details to take effect the next Business Day, CRA will calculate the estimated positive and/or negative BM Unit Metered Volume(s) for the breached BM Unit(s), in accordance with the method described in requirement 2.2.

Requirement 4	
Following the calculation of estimated positive and/or negative BM Unit Metered Volume(s) for the breached BM Unit(s), per requirement 3, CRA will notify the relevant Lead Party of the breach, the estimated BM Unit's Metered Volume(s), and the replacement GC/DC values.	
4.1	By 15:00, for all BM Units that require replacement GC/DC values, following the identification of a GC/DC breach per requirement 1, CRA will notify all Category F Authorised Persons for the relevant Party, or Category A Authorised Persons if no Category F Authorised Persons registered, that: • BM Unit(s) affected • a GC and/or DC breach has occurred, • the date the GC/DC breach occurred (i.e. the calendar date the CRA identifies the breach and notifies the Lead Party), • the Settlement Day(s) and Settlement Period(s) the GC/DC breach(es) occurred, • the relevant Effective From Date for the replacement GC/DC value and the values themselves – N.B. GC and/or DC value(s) are reported in MW, and • the estimate(s) of BM Unit Metered Volume used by CRA to update GC and/or DC value – N.B. the estimate(s) of BM Unit Metered Volume will be reported in MWh.

[9] The establishment of a document will require public consultation. All further changes to the document will follow the Change Proposal process.

Requirement 4	
4.2	Notices sent to BSC Parties should include a link to the BSC Website, where the Party will find more details of their BMU(s)'s GC/DC values and breaches – see requirement 8 below.
4.3	CRA will copy ELEXON (Settlement Operations generic inbox, Capacity Market (CM) Settlement Service Provider inbox and CfD Settlement Services Provider inbox) on all notices sent to BSC Parties in accordance with requirement 4.
4.4	CRA must securely publish on the BSC Website the estimate(s) of BM Unit Metered Volume it used to update the BM Unit's GC and/or DC, the replacement GC and/or DC value(s), and the EFD.
4.5	Access to the published data shall be limited to Authorised Persons (Category A and F) of the relevant Lead Party.

Requirement 5
Following notification to the relevant Party, CRA will update the relevant BM Unit's Registration Details before the CRA daily run at 14:00, to ensure replacement GC/DC values take effect from the beginning of the next Business Day.

Requirement 6	
ELEXON must administer a challenge process.	
6.1	Starting from the beginning of the Business Day following the sending of the notification described in requirement 4, the Lead Party has two Business Days to challenge the value calculated by ELEXON.
6.2	To submit a challenge, the Lead Party must notify ELEXON.
6.3	In order to challenge a value calculated by ELEXON, the Lead Party must propose an alternative to the replacement BM Unit Metered Volume(s) for the relevant BM Unit(s), based on evidence.
6.4	Upon receiving notice of an appeal, ELEXON must notify CRA of the appeal. This is to ensure the BSC Website is kept up to date and to ensure that monitoring, per requirement 1, excludes the BM Unit under appeal.
6.5	ELEXON will liaise with the Lead Party to consider the challenge in line with the GC or DC Estimation Challenge Guidance note.[10]
6.6	Material Doubt Guidance will be expanded to include GC/DC Challenge as a grounds for Material Doubt
6.7	Within two Business Days of receiving a challenge, ELEXON will decide whether or not to uphold the challenge and notify the Lead Party of its decision. As part of its consideration ELEXON will liaise with the Party to consider the Party's proposed estimate of BM Unit Metered Volume.
6.8	ELEXON will determine the outcome of the appeal and any alternate BM Unit Metered Volume. ELEXON's decision is final.

[10] The P359 Workgroup recommended that the guidance note is updated to provide specific guidance in relation to challenging BM Unit Metered Volumes estimated by ELEXON.

Requirement 6	
6.9	ELEXON will notify CRA of its decision and any alternate BM Unit Metered Volume(s), to be used to update the BM Unit's Registration Details at the beginning of the next Business Day (or the following Business Day if notice is sent after 13:00).

Requirement 7	
CRA must publish details of BMUs' current and past GC and DC values, breaches and appeals on the BSC Website.	
7.1	The BSC Website will enable an authorised user to load details relating to a specific BM Unit.

7.2	For a specific BM Unit, CRA must publish the following data items on the BSC Website:
	• GC/DC values
	  ○ Current GC value
	  ○ Current GC value Effective From Date
	  ○ Current DC value
	  ○ Current DC value Effective From Date
	  ○ All previous GC values and corresponding EFD and ETDs, from the last 24 months
	  ○ All previous DC values and corresponding EFD and ETDs, from the last 24 months
	• Breach details (spanning the last 24 months)
	  ○ Breach Identification Date/Time stamp
	  ○ GC or DC breach
	  ○ Settlement Date(s)
	  ○ Settlement Period(s)
	  ○ Actual BM Unit Metered Volume that triggered breach
	  ○ Prevailing GC or DC
	  ○ ELEXON calculated estimate of BM Unit Metered Volume
	  ○ EFD for GC or DC based on ELEXON estimate
	  ○ Appeal status – 'No appeal', 'Appealed', 'Upheld', 'Rejected'
	  ○ Estimated BM Unit Metered Volume following the conclusion of an appeal

7.3	CRA must securely publish on the BSC Website.
7.4	Access to the published data shall be limited to Authorised Persons (Category A and F) of the relevant Lead Party. N.B. Publication of the data in accordance with this requirement 7 is in addition to and does not replace or amend existing requirements under the BSC to report BM Unit Registration details, which may be provided to persons other than Authorised Persons of the Lead Party

Requirement 8
ELEXON and CRA must maintain records relating to the identification of breaches, the estimation of BM Unit Metered Volumes, communications with Parties and the determination of appeals, for BSC Audit purposes.

Requirement 9	
CRA must handle conflicting submissions of replacement GC/DC Values when updating a BM Unit's Registration Details (i.e. GC/DC) to take effect on the same day.	
9.1	If, for a single BM Unit, CRA are faced with multiple GC or DC values to take effect from the beginning of the next Business Day, it must select only one of the available GC or DC values according to the following order of preference (where 1 is most preferable and 3 is least): 1. A value submitted by ELEXON following the conclusion of an appeal per requirement 6. 2. A value estimated following the identification of a breach per requirement 3. 3. A value submitted by the Lead Party (not as a consequence of an appeal, but in accordance with K3.4.2 and K3.4.2A).

Requirement 10	
ELEXON will report on the number of GC/DC Breaches and number of Appeals to the Panel and/or Panel Committees.	
10.1	The report will provide anonymised and aggregated statistics
10.2	Unless prescribed by the Panel, ELEXON will determine the frequency of reporting.

Appendix 2: Workgroup Details

Workgroup's Terms of Reference

Specific areas set by the BSC Panel in the P359 Terms of Reference
What should be the definition of a GC and DC breach, which triggers the calculation and re-declaration of the GC and/or DC?
How should ELEXON use Metered Volume data to determine GC and DC values for a BMU?
How can parties dispute ELEXON's calculated value and/or apply alternative volumes?
Should the CRA reject all GC/DC submissions with a value equal to zero where the BMU has a non-zero positive/negative historical Metered Volume?
What action should be taken, should a Party submit a GC or DC value equal to zero, even though they have a non-zero/negative Metered Volume?
What changes are needed to BSC documents, systems and processes to support P359 and what are the related costs and lead times?
Are there any Alternative Modifications?
Should P359 be progressed as a Self-Governance Modification?
Does P359 better facilitate the Applicable BSC Objectives than the current baseline?

Assessment Procedure timetable

P359 Assessment Timetable	
Event	Date
Panel submits P359 to Assessment Procedure	14 Sept 17
Workgroup Meeting 1	19 Oct 17
Workgroup Meeting 2	23 Jan 18
Workgroup Meeting 3	6 Mar 18
Assessment Procedure Consultation	20 Mar 18 – 6 Apr 18
Workgroup Meeting 4	W/B 16 April 18
Panel considers Workgroup's Assessment Report	10 May 18

Workgroup membership and attendance

P359 Workgroup Attendance				
Name	Organisation	19 Oct 17	23 Jan 18	6 Mar 18
Members				
Lawrence Jones	ELEXON (Chair)	✓	✓	✓
Jemma Williams	ELEXON (Lead Analyst)	✓	✓	✓
Andy Colley	P359 (Proposer)	✓	✓	✓
Karl Maryon	Haven Power	✓	✓	✓
Gary Henderson	Everis	✗	✓	✓
Kenneth Skou	Neas Energy	✓	✓	✓
Joshua Logan	Drax	✓	✓	✓
Richard Mawdsley	Flow Energy	✓	✗	✓
Ross Haywood	RWE	✓	☎	✗
Alan Goodbrook	Good Energy	✗	✓	✓
Tom Steward	Good Energy	✓	✗	✗
Attendees				
Nick Rubin	ELEXON *(Design Authority)*	✓	✓	✓
Emma Tribe	ELEXON *(SME)*	✓	✓	✗
Adam Jessop	ELEXON	✗	✗	✓
David Stephens	ELEXON *(Lead Lawyer)*	✓	✓	✓
Anastasia Charalampidou	Ofgem	✓	✗	✓

Appendix 2: Glossary & References

Acronyms

Acronyms used in this document are listed in the table below.

Acronym	
Acronym	Definition
AA	Annualised Advances
BMU	Balancing Mechanism Unit
BSC	Balancing and Settlement Code
BSCP	BSC Procedure
CEI	Credit Assessment Energy Indebtedness
CCP	Credit Cover Percentage
CfD	Contracts for Difference
CM	Capacity Market
CRA	Central Registration Agent
CRA SD	CRA Service Description
CRA URS	CRA User Requirements Specification
DC	Demand Capacity
EAC	Estimated Annual Consumption
EMR	Electricity Market Reform
FTE	Full Time Equivalent
GC	Generation Capacity
GSP	Grid Supply Point
HHDA	Half Hourly Data Aggregator
HHDC	Half Hourly Data Collector
II	Interim Information
IWA	Initial Written Assessment
NWDCALF	Non-Working Day Credit Assessment Load Factor
OSM	Operational Support Manager
SAA	Settlement Administration Agent
SCR	Significant Code Review
SECALF	Supplier Export Credit Assessment Load Factor
SF	Settlement Final
SVA	Supplier Volume Allocation
VAR	Volume Allocation Run
WD	Working Day
WDCALF	Working Day Credit Assessment Load Factor

External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
3	Issue 68 page on the ELEXON website	https://www.elexon.co.uk/smg-issue/issue-68/
4	P359 page on the ELEXON website	https://www.elexon.co.uk/mod-proposal/p359/
13	P357 page on the ELEXON website	https://www.elexon.co.uk/mod-proposal/p357/