

SEM Agreed Procedure

Title	Agreed Procedure 9: Management of Credit Cover and Credit Default
Version	2.2a
Date	27th March 2007

TABLE OF CONTENTS

1. INTRODUCTION	4
1.1. BACKGROUND AND PURPOSE	4
1.2. SCOPE OF AGREED PROCEDURE	4
1.3. DEFINITIONS	4
1.4. COMPLIANCE WITH AGREED PROCEDURE	4
2. DESCRIPTIVE OVERVIEW	5
2.1. CREDIT RISK	5
2.2. ELEMENTS OF SEM CREDIT RISK	5
2.3. CALCULATION OF PARTICIPANT EXPOSURES	6
2.4. CREDIT COVER	7
2.5. DETERMINATION OF CREDIT COVER	7
2.6. FAILURE TO PROVIDE CREDIT COVER	8
2.7. SETTLEMENT REALLOCATION AGREEMENTS	8
2.8. NEW/ADJUSTED PARTICIPANTS	8
2.9. CREDIT DEFAULT	9
2.10. UNSECURED BAD DEBT	9
3. PROCEDURE DEFINITION.....	10
3.1. MANAGEMENT OF CREDIT COVER REQUIREMENTS	10
3.2. MONITORING CREDIT COVER PROVIDER.....	17
3.3. CHANGING CREDIT COVER PROVIDER	17
3.4. WITHDRAWING EXCESS CREDIT COVER.....	17
3.5. LODGING NEW CREDIT COVER.....	17
4. APPENDIX 1 – DEFINITIONS AND ABBREVIATIONS	20
4.1. DEFINITIONS	20
4.2. ABBREVIATIONS.....	22
5. APPENDIX 2 – CALCULATION OF REQUIRED CREDIT COVER.....	23
5.1. CALCULATION OF PARTICIPANT EXPOSURES	23
5.2. REQUIRED CREDIT COVER	25

DOCUMENT HISTORY

VERSION	DATE	AUTHOR	COMMENT
2.0	3/11/06	SEM Implementation Team	Released to Regulatory Authorities
2.1	27/02/07	Regulatory Authorities	Updated with comments from review of Terminology across all APs and TSC
2.2a	27/03/2007	Regulatory Authorities	Updated for consistency and governance

RELATED DOCUMENTS

DOCUMENT TITLE	VERSION	DATE	BY
Trading and Settlement code (Code)	V1.2a	31/01/2007	Regulatory Authorities
Agreed Procedure 1 "Participant and Unit Registration and Deregistration"	V2.0		
Agreed Procedure 15 "Invoicing"	V2.0		

1. INTRODUCTION

1.1. BACKGROUND AND PURPOSE

This Agreed Procedure describes the specific procedures for the management of Credit Risk to be administered by the Market Operator (MO), and with which Parties to the Trading and Settlement Code (the Code) must comply.

1.2. SCOPE OF AGREED PROCEDURE

This Agreed Procedure is a definition of procedural steps to be followed by the MO and Participants. It forms an annexe to, and is governed by, the Code. This document is a statement of process and procedure. Parties' rights and obligations are set out in the Code.

1.3. DEFINITIONS

Save as expressly defined, words and expressions defined in the Code shall have the same meanings when used in this Agreed Procedure.

References to particular sections relate internally to this Agreed Procedure unless specifically noted.

1.4. COMPLIANCE WITH AGREED PROCEDURE

Compliance with this Agreed Procedure is required under the terms of the Code as set out in paragraph 1.10.

Note: During the development of this Agreed Procedure, terms under discussion and values that are not yet finalised are highlighted in yellow and put in brackets <>.

2. DESCRIPTIVE OVERVIEW

2.1. CREDIT RISK

Credit Risk is the risk of a payment default by a Participant on their financial obligations in the SEM. Effective management of this risk is essential to ensuring the financial integrity of the SEM (which in turn is fundamental in establishing the confidence of existing and potential new entrants).

2.2. ELEMENTS OF SEM CREDIT RISK

A Participant’s exposure is calculated in respect of their Supplier Units.

Credit risk in the SEM consists of six major elements:

Amounts invoiced but not paid: Amounts presently owed – basically, the market’s receivables.

Amounts calculated but not invoiced: Settlement amounts which have been calculated, but not yet included on an invoice. These may include Ex-Post Indicative Settlement Statement and Initial Settlement Statement amounts (depending upon the latest information available).

Exposure incurred but not calculated: Exposures related to a period that has passed (and electricity has been consumed), but the Ex-Post Indicative Settlement Statement amount has not yet been determined (generally due to time lag in receiving metering data and/or determining price).

Potential exposures during ‘time to remedy’: If a Participant defaults on their financial obligations in the SEM then the MO will draw down on their Credit Cover and may issue the Participant with a Suspension Order. The Participant will be granted a defined amount of time to comply with a Suspension Order before a Suspension takes effect. Additional exposures may be incurred in the SEM in this period.

Potential exposures during ‘time to remove’: The SEM contains an ‘obligation to serve’ retail customers. This requires that Supply Participants cannot be prevented from purchasing electricity in the market until all their retail customers are moved across to a Supplier of Last Resort. Additional exposures may be incurred in the SEM during this transition period.

Resettlement exposures: Additional exposures that may result from Resettlement of an already settled period.

This is illustrated for energy market exposures (for all elements except Resettlement) in Figure 1 below.

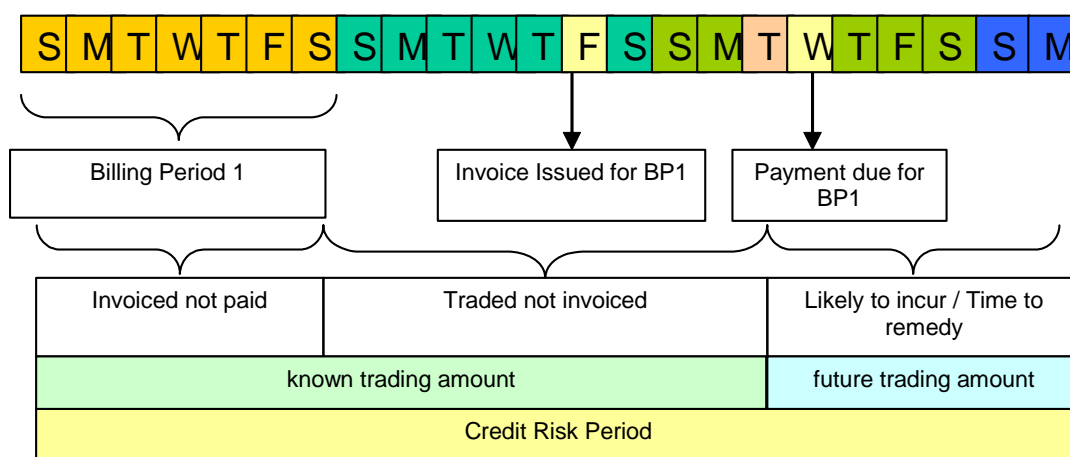


Figure 1 – Settlement Risk Period for Energy Market Exposures

In Figure 1, where the credit assessment is carried out on Tuesday of Billing Period 3, the Settlement Risk Period spans:

- Billing Period 1, which would be available as an Invoice issued on the Friday during Billing Period 2. This represents the amounts invoiced but not paid;
- Billing Period 2, which would be available as Ex-Post Indicative Settlement Statements or Initial Settlement Statements. This represents part of the amounts calculated but not invoiced;
- Part of Billing Period 3. Trading Days prior to Tuesday which are available as Ex-Post Indicative Settlement Statements. This represents the rest of the amounts calculated but not invoiced;
- Part of Billing Period 3. Trading Days prior to Tuesday which are not available as Ex-Post Indicative Settlement Statements (for example, if the credit assessment is completed before the receipt of Meter Data for Monday). This represents the exposure incurred but not calculated;
- The time from, and including Tuesday, through to when the Participant can be removed from incurring further liability. This represents both the 'time to remedy' and 'time to remove' periods.

It is important to remember that a Participant's Credit Risk is the aggregate Credit Risk for all potential payments in the SEM. It includes Trading Charges, Capacity Charges and Market Operator Charges, and any other amounts that serve to either increase, or offset, these obligations. This is because the risk posed by the Participant is an aggregate risk – a company goes bankrupt everywhere at the same time.

2.3. CALCULATION OF PARTICIPANT EXPOSURES

The first two of the Credit Risk elements above are referred to as Actual Exposures, as they are known amounts (although Ex-Post Indicative Settlement Statement amounts are still subject to further revision). The latter four elements are Undefined Potential Exposures – not known with certainty at the time of assessment, but can often be estimated to a given degree of statistical confidence, i.e. there is x% confidence that actual exposures, once determined, will fall below the estimated potential exposure amount. This confidence factor, known as the Analysis Percentile Parameter, is proposed by the Market Operator and approved by the Regulatory Authorities.

The total Participant's Credit Risk at any given point in time is calculated as the sum of:

- Actual Exposure: is the sum of outstanding invoices and 'settled but not invoiced' amounts.
- Undefined Potential Exposure: is the potential exposure for the time period from the last settled trading period through to when a Participant could be removed from incurring further liability (this time period is the Undefined Exposure Period). This encompasses elements 3-5 above. As the time periods are contiguous, this exposure is more appropriately calculated as a single risk amount, rather than three separate amounts. Determination of this amount will be based on a statistical analysis of historical exposures, where available (for new Participants, see Section 2.9).
- Re-Settlement Exposure: is the potential exposure from Resettlement. For SEM this is not calculated explicitly, but historical Resettlement amounts form part of the Settlement data analysed in calculating the Undefined Potential Exposure.

The MO will calculate the Participant's Credit Risk every Working Day, and at its discretion, on some non-Working Days. However, actions as a result of these calculations such as Credit Cover Increase Notices will only be issued on Working Days.

2.4. CREDIT COVER

Credit Cover is collateral required to be posted as a guarantee against a Participant's Credit Risk in the SEM. In the event of a payment default, this Credit Cover can be utilised by the MO to satisfy the Participant's outstanding financial obligations in the SEM. Because of the potential for Resettlement, a Participant withdrawing from the market will not receive full return of its Posted Credit Cover until the Resettlement period has passed (currently 14 months).

Credit Cover for use in the SEM must be posted in the form of either

- Cash (in the designate Currency of the Participant) in a SEM Collateral Reserve Account; or
- Letter of Credit (LC) from approved banks which are capable of being paid out within 1 Working Day following a Credit Call.

A Participant may meet its Credit Cover requirements by posting a combination of these types of cover. In the event of a Shortfall, the failure of a Participant to pay an Invoice in full, Posted Credit Cover will need to be accessible in a timely manner such that the MO can meet all payment obligations of the SEM. The Letter of Credit shall be in the form set out in the Code.

Participant must maintain its Credit Cover with a Credit Cover Provider who meets the Bank Eligibility Requirements.

If a Participant decides to change its SEM Collateral Reserve Account then it must first set up the new SEM Collateral Reserve Account with Credit Cover Provider. The details of the new SEM Collateral Reserve Account must then be submitted to the MO by the Participant by fax. The MO, in cooperation with the Participant will then arrange for the funds to be transferred from the old SEM Collateral Reserve Account to the new SEM Collateral Reserve Account.

The financial status of Credit Cover Providers will be reviewed by the MO at least monthly and at other times as the MO sees fit.

2.5. DETERMINATION OF CREDIT COVER

In the determination of Credit Cover, the following values are used:

- **Minimum Change Level** – The amount of any increase or decrease in the Required Credit Cover must be greater than the Minimum Change Level before the MO will issue a Credit Cover Increase Notice or Credit Cover Decrease Notice
- **Warning Limit** – This is the ratio of Participant's Required Credit Cover to Posted Credit Cover that, if exceeded, results in a Warning Notice being sent to the Participant.
- **Trade Limit** – This is the ratio of Participant Required Credit Cover to Posted Credit Cover that, if exceeded, results in a demand for additional Credit Cover from the Participant.

Posted Credit Cover is compared against Participant Required Credit Cover:

- If the ratio of Participant Required Credit Cover to Posted Credit Cover exceeds the Warning Limit, then the MO shall issue a Warning Notice to the Participant. This warning is informational only and the Participant is not obliged to act on this.
- If the ratio of Participant Required Credit Cover to Posted Credit Cover exceeds the Trade Limit (and Required Credit Cover exceeds Posted Credit Cover by more than the Minimum Change Level), then the MO shall issue a Credit Cover Increase Notice to the Participant. The Participant will then be required to increase their Credit Cover so that they no longer breach this limit.
- If Participant Required Credit Cover is less than or equal to 67% of Posted Credit Cover, and the change in Required Credit Cover is greater than the Minimum Change Level, a Credit Cover Decrease Notice will be issued to the Participant, allowing them to reduce their Credit Cover to a lower amount. If they choose to do so, the MO will return cash posted, or allow the Participant to substitute a revised LC, as appropriate.

The MO will calculate the Required Credit Cover each Working Day. Ideally this function would be performed on a Trading Day basis, as liabilities continue to be incurred on weekends and bank holidays. The banking system, however, is shut on these days, so no funds can be transferred even if additional Credit Cover is required. In certain circumstances, however, the MO may calculate revised Required Credit Cover on weekends and bank holidays, in order to issue Credit Cover Increase Notices immediately upon the start of the next Working Day.

Warning Notices, Credit Cover Increase Notices and Credit Cover Decrease Notices will only be issued to Participants on Working Days.

This process should be sufficient to provide credit protection to the market in most situations. From time-to-time, however, situations are likely to arise which require the MO Credit Manager to exercise expert judgement, and potentially call for additional Credit Cover from some Participants. Events which might result in such a need include large price disturbances in the market, significant credit-rating downgrade of a Participant, or similar signs of Participant financial distress. Any decision to deviate from the algorithmically determined Credit Cover would need to be identified and justified to the affected Participant and the Regulatory Authorities (and would be subject to appeal via the Disputes process as set out in the Code).

2.6. FAILURE TO PROVIDE CREDIT COVER

If a Participant fails to comply with a Credit Cover Increase Notice within two Working Days then the MO will issue a Credit Cover Failure Notice. The MO will then initiate proceedings to suspend the Participant from the SEM.

2.7. SETTLEMENT REALLOCATION AGREEMENTS

The Code allows Participants to lodge Settlement Reallocation Agreements, for the transference of Settlement obligation in the market from one Participant to the other. This also serves to reduce the Credit Risk, and hence Credit Cover requirements, of one Participant, and increase the Credit Risk of the other. As opposed to many charges influencing Undefined Potential Exposure, Settlement Reallocation Amounts cannot be estimated based upon historical analysis; they are at the discretion of the Participants posting them. Participant Required Credit Cover calculations consider the impact of Settlement Reallocation Agreements.

In order to prevent large Credit Risks not covered by Posted Credit Cover, and the Pool being treated as a virtual clearing house of bilateral forward contracts, the following credit-related business rules apply to the submission and cancellation of Settlement Reallocation Agreements:

- A Settlement Reallocation Agreement must not cause the Required Credit Cover of a Participant to exceed its Posted Credit Cover (subject to the Minimum Change Level).
- Cancellation of a Settlement Reallocation Agreement must not cause the Required Credit Cover of the Participant to exceed Posted Credit Cover.
- The sum of the Settlement Reallocation Agreements for a Participant over a Settlement Period should not exceed the Participant's likely Trading Payments, Trading Charges, Capacity Payments or Capacity Charges, as appropriate, over that Settlement Period

2.8. NEW/ADJUSTED PARTICIPANTS

New Participants do not have any historical Settlement data which can be used as the basis for a statistical analysis of historical exposures, in order to calculate Undefined Potential Exposure. In this instance, the Participant will be required to provide forecast quantity data to the MO as part of the registration process. This will be used, in conjunction with a Credit Assessment Prices determine the Undefined Potential Exposure amount, and hence the Required Credit Cover.

The Credit Assessment Price used in the process will be made up of modelled/historical SMPs, the Variable Market Operator Price, the Imperfections Price and an Estimated Capacity Price.

The forecast quantities provided by new Participants will be evaluated against the Meter Data received from the relevant Meter Data Provider. If there is a significant difference between the Meter Data and the forecast quantities provided, the MO will calculate a Future Potential Exposure based on a 95th percentile analysis of the known Meter Data against the Credit Assessment Price extrapolated across the future risk period. This assessment methodology will be used until there is sufficient historical data for the statistical analysis.

An Adjusted Participant is a Participant whose load and/or generation configuration has changed significantly from historical patterns. This could be due to acquisition of new assets, winning significant new customers in the retail market, etc. In such cases, statistical analysis of historical exposures may not be a valid indicator of future performance, and the same processes will be used as for new Participants. Participants who are expecting an increase in their volumes by more than the Credit Cover Adjustment Trigger are required to notify the MO. In these cases, the MO will use forecast quantities to calculate the Participant's Undefined Potential Exposure until the length of time between their notification of the increase of their volumes and the last Trading Period covered in the most recent Settlement Statement issued for that Participant is greater than the length of time covered by the Historical Assessment Period.

2.9. CREDIT DEFAULT

If a Participant fails to pay an amount due, the Participant is deemed to be in breach of the terms of the Code. The MO will issue a Default Notice to the Participant, and the MO will issue a Credit Call upon their Credit Cover. The MO will also issue a Suspension Order to the Participant if

1. the Participant's Credit Cover Provider fails to meet the Credit Call by 12:00 on the next Working Day
2. the Participant does not restore its Credit Cover to the Required Credit Cover within 2 Working Days

The Suspension Order will include a requirement for the Participant to re-instate their Posted Credit Cover levels within a defined period of time. If the Participant fails to comply with the terms of the Suspension Order then they will be suspended from the market and the MO will initiate Termination proceedings against them.

2.10. UNSECURED BAD DEBT

The recovery of Unsecured Bad Debt is set out in Agreed Procedure 15 "Invoicing"

3. PROCEDURE DEFINITION

3.1. MANAGEMENT OF CREDIT COVER REQUIREMENTS

3.1.1. Overview

The rules of the SEM require that all potential exposures must be secured by Credit Cover. The Required Credit Cover levels are calculated as set out in the Code and repeated in Appendix 2 – Calculation of Required Credit Cover

Required Credit Cover is monitored against Posted Credit Cover every Working Day and potentially on non Working Days as required¹. Depending on this assessment, various warnings may be generated, or adjustments to Required Credit Cover:

- If Required Credit Cover is less than or equal to Credit Cover Return Level of Posted Credit Cover, Participants will be offered the opportunity to have cash from their SEM Collateral Reserve Account returned to them, or to substitute a lower value Letter of Credit.
- If the ratio of Required Credit Cover to Posted Credit Cover is greater than the Warning Limit, a formal Warning Notice will be issued to the Participant. The Participant may elect to post more Credit Cover, but is not obliged to.
- If the ratio of Required Credit Cover to Posted Credit Cover is greater than the Trade Limit (and exposure exceeds Posted Credit Cover by more than the Minimum Change Level, a materiality threshold), a Credit Cover Increase Notice is issued. This requires the Participant to post additional Credit Cover.

If Required Credit Cover is not posted within the specified time limit (within two Working Days of issue of notice by at latest 17:00), a Participant will be in breach of its obligations and a Suspension Order shall be issued. Settlement Reallocation Agreements which serve to increase the Participant's Required Credit Cover will be cancelled from the next Trading Day forward to such extent that the Required Credit Cover is greater or equal to the Posted Credit Cover.

If the Participant later re-establishes appropriate Credit Cover and the Suspension Order has only be issued in respect of the insufficient Posted Credit Cover, the Market Operator shall remove the Suspension Order.

The MO will seek a Termination Order against the Participant, if the Participant does not comply with the terms in the Suspension Order.

Following from Termination of a Participant, if any Credit Cover remains, the residual will initially be held to satisfy any other outstanding obligations of the Participant. Some Credit Cover could be held for up to 14 months, corresponding to Final Settlement. Once no longer required, residual Credit Cover will be returned to the Participant.

Following from Termination of a Participant, if obligations remain outstanding after the distribution of all Credit Cover, the MO will take action to recover outstanding sums. Any monies recovered as a result of this action will be distributed to those short-paid in the same ratio in which the Charge for Unsecured Bad Energy Debt or Charge for Unsecured Bad Capacity Debt was levied.

¹ Only assessment can take place on these days. No funds transfer is possible as the banking system does not operate. As such, the MO will not issue notices or warning to Participants on these days but only on days when funds transfer is possible.

3.1.2. Procedural Steps

#	Procedural Step	Timing	Method	By/From	To	Linkage
C2.1	Calculate Required Credit Cover and compare against Posted Credit Cover If Required Credit Cover/Posted Credit Cover ratio is less than the Credit Cover Return Level go to step C2.2 If Required Credit Cover/Posted Credit Cover ratio is greater than the Warning Limit go to C2.8 If Required Credit Cover minus the Minimum Change Level is greater than Posted Credit Cover C2.11	Each WD	-	Market Operator		
C2.2	If a Credit Cover Decrease Notice has not been sent in the last 5 Working Days Then send a Credit Cover Decrease Notice to the Participant to reduce their Credit Cover. Otherwise end of process	On the same day as assessment	Type 1 Channel	Market Operator	Participant	
C2.3	If Participant does not require to reduce its Credit Cover then end of process. If Participant requires to reduce its Credit Cover with a return of cash go to step C2.4 If Participant requires to reduce its Credit Cover with a reduced Letter of Credit go to step C2.6	Within 5WD of Credit Cover Decrease Notice	Manual	Participant		
C2.4	Request cash return, specifying the amount.	Within 5WD of Credit Cover Decrease Notice	Type 1 Channel	Participant	Market Operator	
C2.5	Return cash requested or the difference between Posted Credit Cover and Required Credit Cover on the day of transfer, whichever is less. End of process	Within 10WD of request	Bank Transfer	Market Operator	Participant	
C2.6	Raise and issue revised Letter of Credit and specify which existing Letter of Credit should be returned.	Within 5WD of Credit Cover Decrease Notice	Type 1 Channel	Participant	Market Operator	

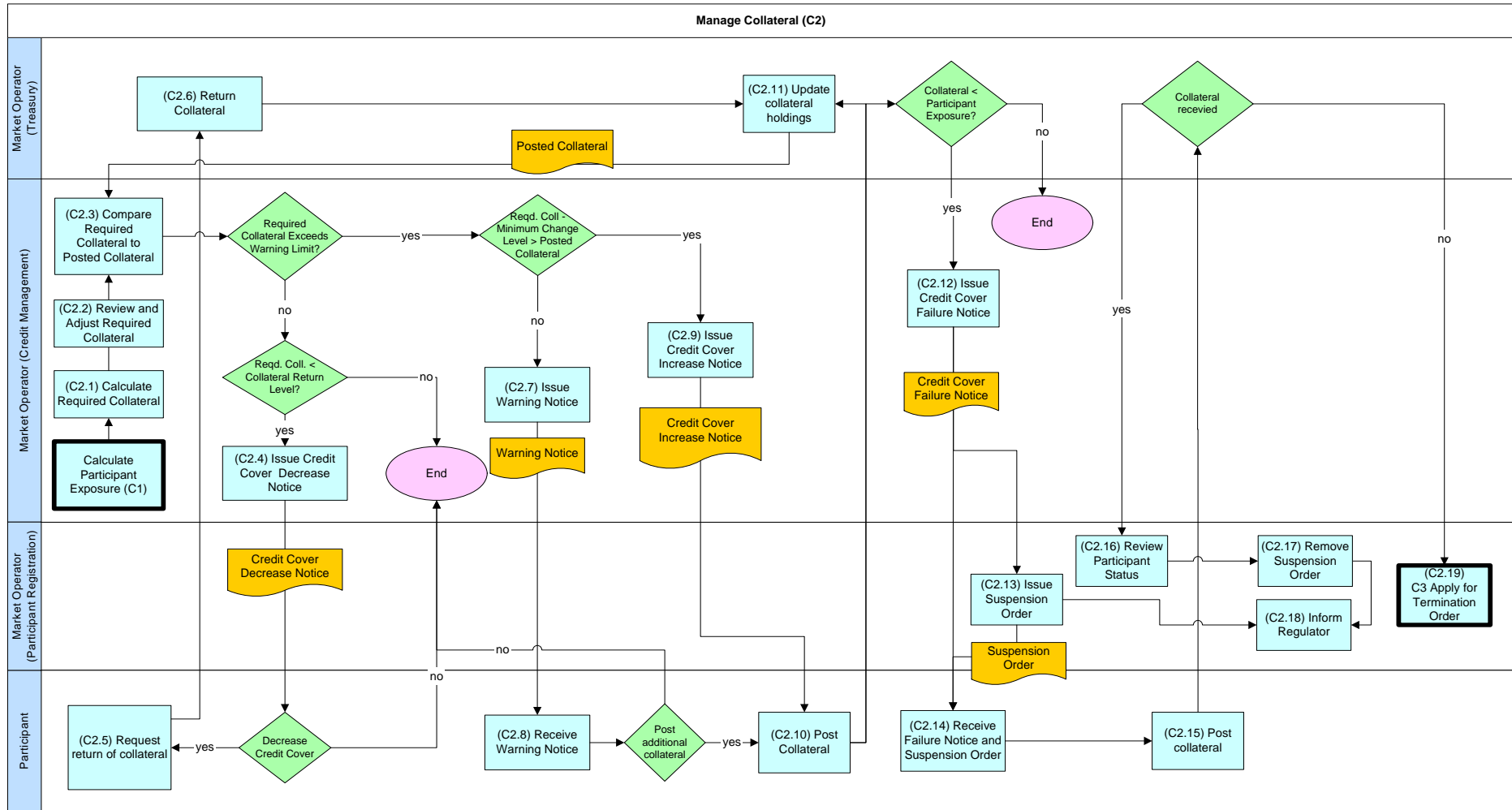
#	Procedural Step	Timing	Method	By/From	To	Linkage
C2.7	Validate revised Letter of Credit. If Letter of Credit is valid and the Posted Credit Cover (including the new Letter of Credit but excluding the returned Letter of Credit) is greater than the Required Credit Cover on the day of transfer Then return the requested Letter of Credit Otherwise return the new Letter of Credit End of process	Within 10 WD	Type 1 Channel	Market Operator	Participant	
C2.8	Issue a formal Warning Notice to the Participant.	On the same day as assessment	Type 1 Channel	Market Operator	Participant	
C2.9	If, the Participant elects to post additional Credit Cover Then issue new Letter of Credit or deposit cash Otherwise end of process	Whenever required.	Bank Transfer (cash) Type 1 Channel (Letter of Credit)	Participant		
C2.10	Validate new Letter of Credit. If invalid return new Letter of Credit. End of process	Within 10 WD	Type 1 Channel	Market Operator	Participant	
C2.11	Issue a Credit Cover Increase Notice.	On the same day as assessment	Type 1 Channel	Market Operator	Participant	
C2.12	Post the requested additional Credit Cover.	Within 2 WD of Credit Cover Increase Notice	Bank Transfer (cash) Type 1 Channel (Letter of Credit)	Participant	Market Operator	
C2.12	Calculate Required Credit Cover and compare against Posted Credit Cover If Required Credit Cover minus the Minimum Change Level is greater than Posted Credit Cover go to step C2.14 Otherwise go to step C2.13	1 WD after Credit Cover Increase Notice		Market Operator		
C2.13	Issue a Credit Cover Notice Withdrawal End of Process.	1 WD after Credit Cover Increase Notice	Type 1 Channel	Market Operator	Participant	

#	Procedural Step	Timing	Method	By/From	To	Linkage
C2.14	If the requested additional Credit Cover not received within 2 WD then go to step C2.16 If the additional Credit Cover is a new Letter of Credit then go to step C2.15 If the additional Credit Cover is cash then end of process.	Within 2 WD of Credit Cover Increase Notice	-	Market Operator		
C2.15	Validate new Letter of Credit. If invalid go to step C2.16 Otherwise end of process	Within 2 WD of Credit Cover Increase Notice	-	Market Operator		
C2.16	Issue a Credit Cover Failure Notice, Default Notice and a Suspension Order to the Participant. Inform System Operator	After 17:00, 2 WD after the issue of the Credit Cover Increase Notice.	Type 1 Channel	Market Operator	Participant	
C2.17	Inform Regulatory Authorities, the System Operators and the relevant Distribution System Operators and publish the Suspension Order	At same time of issue of Suspension Order	Type 1 Channel / Corporate Website	Market Operator	Regulatory Authorities / System Operators / relevant Distribution System Operators	
C2.18	Where the Participant has Settlement Reallocation Agreements where it is the Debited Participant then the Market Operator shall cancel sufficient number of these Settlement Reallocation Agreements such that its Posted Credit Cover is greater than its Required Credit Cover.	1 WD after the issue of the Credit Cover Increase Notice.				
C2.19	Post additional Credit Cover in order to re-establish credit	Within the timeframe set out in the Suspension Order	Bank Transfer (cash) Type 1 Channel (Letter of Credit)	Participant	Market Operator	

#	Procedural Step	Timing	Method	By/From	To	Linkage
C2.20	If Credit Cover is not re-established within Suspension Order timeframe go to step C2.23 If the additional Credit Cover is a new Letter of Credit then go to step C2.21 If the additional Credit Cover is cash then go to step C2.22	Within the timeframe set out in the Suspension Order	-	Market Operator		
C2.21	Validate new Letter of Credit. If invalid go to step C2.23 Otherwise go to step C2.22	Within the timeframe set out in the Suspension Order	-	Market Operator		
C2.22	Remove Suspension Order End of Process	Within 1 WD hours of Credit Cover restoration	Type 1 Channel	Market Operator	Participant	
C2.23	If the Participant is a Supply Participant then initiate process under Agreed Procedure 1 "Participant and Unit Registration and Deregistration" for the transfer of customers to Supplier of Last Resort	In accordance with Agreed Procedure 1 "Participant and Unit Registration and Deregistration"	In accordance with Agreed Procedure 1 "Participant and Unit Registration and Deregistration"	Market Operator		
C2.24	Apply to the Regulatory Authorities for a Termination Order	1WD after timeframe set out in the Suspension Order	Type 1 Channel	Market Operator	Regulatory Authorities	
C2.25	Regulatory Authorities approve Termination Order on defaulting Participant		-	Regulatory Authorities		
C2.26	Termination of the from SEM including Deregistration of Units	In accordance with instruction from Regulatory Authorities.	In accordance with Agreed Procedure 1 "Participant and Unit Registration and Deregistration"	Market Operator		

#	Procedural Step	Timing	Method	By/From	To	Linkage
C2.27	Hold any excess Credit Cover to satisfy potential outstanding amounts in future billing periods. Some of this amount will need to be held until the Participant's Resettlement obligations are met (around 14 months after last trading).	Up to 14 months after Termination of participation	-	Market Operator		
C2.28	Once any residual Credit Cover is no longer required, the remaining amount is returned to the Participant (or its trustee in bankruptcy).	After 14 months after Termination of participation	Bank Transfer	Market Operator	Participant	

3.1.3. Process Flow ('Swim-Lane') Diagram



3.2. MONITORING CREDIT COVER PROVIDER

To be Completed

3.3. CHANGING CREDIT COVER PROVIDER

To be Completed

3.4. WITHDRAWING EXCESS CREDIT COVER

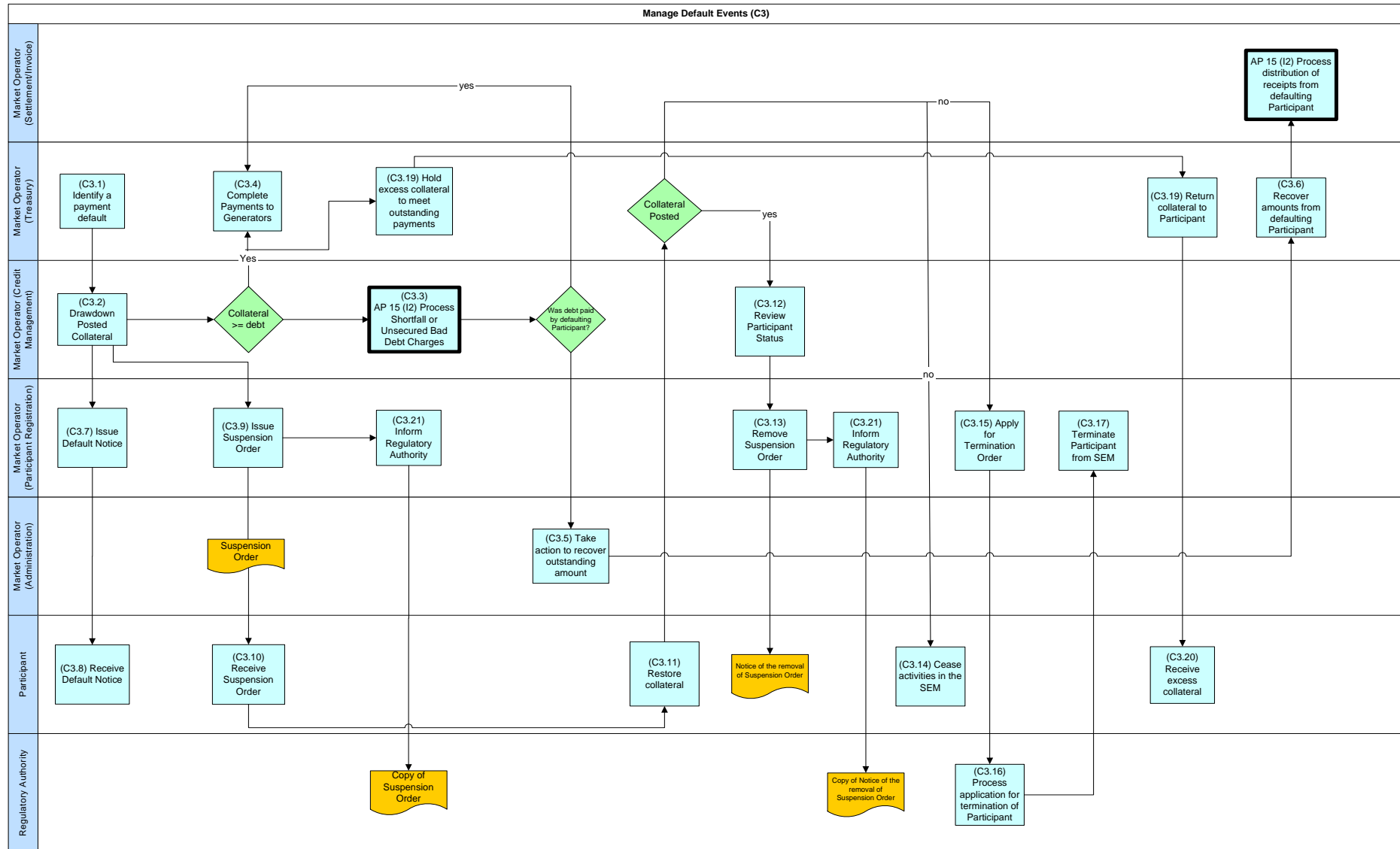
To be Completed

3.5. LODGING NEW CREDIT COVER

To be Completed

3.5.1. Procedural Steps

3.5.2. Process Flow ('Swim-Lane') Diagram



4. APPENDIX 1 – DEFINITIONS AND ABBREVIATIONS

4.1. DEFINITIONS

Actual Exposure	Credit exposures resulting from obligations which have already been determined – specifically, outstanding invoices, and un-invoiced Settlement amounts.
Ad Hoc Invoice	Definition required in this AP
Adjusted Participant	As defined in the Code
Agreed Procedure	As defined in the Code
Analysis Percentile Parameter	Percentage degree of statistical confidence that actual exposures, once determined, will fall below the estimated potential exposure amount.
Bank Eligibility Requirements	As defined in the Code
Billing Period	As defined in the Code
Billing Period 1	The first Billing Period to which a Settlement Risk Period applies
Billing Period 2	The second Billing Period to which a Settlement Risk Period applies
Billing Period 3	The third Billing Period to which a Settlement Risk Period applies
Billing Period Undefined Potential Exposure	As defined in the Code
Capacity Period Undefined Potential Exposure	As defined in the Code
Charge	As defined in the Code
Code	As defined in the Code
Credit Cover Return Level	Ratio of Participant Required Credit Cover to Posted Credit Cover at which a Credit Cover Decrease Notice is issued to a Participant, and they are able to reduce their level of Posted Credit Cover. This is initially set at 67%.
Credit Assessment Price	As defined in the Code
Credit Call	As defined in the Code
Credit Cover	As defined in the Code
Credit Cover Decrease Notice	Notice issued by the MO to a Participant informing them that they may request the return of Collateral.
Credit Cover Failure Notice	Notice issued by the MO to a Participant when they have failed to post Required Collateral within the specified time period. This is usually accompanied by Suspension of the Participant.
Credit Cover Increase Notice	Notice issued by the MO to a Participant requiring that they increase their posted Collateral. This is analogous to a ‘margin call’.
Credit Cover Provider	As defined in the Code
Credit Risk	The potential amount of payment default by a Participant on their financial obligations in the SEM
Default Notice	As defined in the Code.
Deregistration	As defined in the Code
Estimated Capacity Price	As defined in the Code
Euro	As defined in the Code
Generator	As defined in the Code
Generation Participant	As defined in the Code
Historical Assessment Period	As defined in the Code
Imperfections Price	As defined in the Code
Interest	As defined in the Code
Invoice	As defined in the Code
Letter of Credit	As defined in the Code

Market Operator	As defined in the Code
Meter Data Provider	As defined in the Code
Minimum Change Level	Minimum materiality threshold before a change in Participant Exposure requires a change in Posted Credit Cover. This level is set to €5,000 for Participants in the Republic of Ireland or £3,500 for Participants in Northern Ireland.
Minimum Collateral Level	The minimum level of Posted Collateral which is €50,000 or £35,000
New Participant	As defined in the Code
Participant	As defined in the Code
Party	As defined in the Code
Payment Due Date	As defined in the Code
Posted Credit Cover	As defined in the Code
Pounds Sterling	As defined in the Code
Reallocation Credit Value	The value of Settlement Reallocation which a Participant holds
Regulatory Authorities	As defined in the Code
Required Collateral	Total Collateral posting required by the MO to cover a Participant's exposures.
Required Credit Cover	As defined in the Code
Re-Settlement Exposure	The potential exposure from Resettlement for a Participant
Retail Market Operator	As defined in Agreed Procedure 1 "Participant and Unit Registration and Deregistration"
Secured Credit	See Credit Cover
SEM Collateral Reserve Account	As defined in the Code
Settlement Reallocation	As defined in the Code
Settlement Reallocation Agreement	As defined in the Code
Settlement Reallocation Amount	As defined in Agreed Procedure 10 "Settlement Reallocation"
Settlement Risk Period	As defined in the Code
Shortfall	As defined in the Code
Standard Participant	As defined in the Code
Supplier Unit	As defined in the Code
Supply Participant	As defined in the Code
Suspension	As defined in the Code
Suspension Order	As defined in the Code
Termination	As defined in the Code
Termination Order	As defined in the Code
Time-to-Remedy	Grace period granted to a Participant to remedy a non-payment of financial obligations to the market before Suspension Orders come into affect.
Trade Limit	Ratio of Participant Exposure to Posted Collateral that, if exceeded, results in a demand for additional Collateral from the Participant. The Trade Limit is 100%.
Trading Day	As defined in the Code
Type 1 Channel	As defined in the Code
Undefined Exposure Period	As defined in the Code
Undefined Energy Price	As defined in the Code
Undefined Potential Exposure	As defined in the Code
Unit	As defined in the Code
Unit Registration	As defined in the Code

Unsecured Bad Capacity Debt	As defined in the Code
Unsecured Bad Debt	As defined in the Code
Unsecured Bad Energy Debt	As defined in the Code
Unsecured Credit	Credit extended to a Participant on the basis of its deemed financial standing, without the requirement to post security (i.e. Collateral).
Variable Market Operator Price	As defined in the Code
VAT	As defined in the Code
Warning Limit	As defined in the Code
Warning Notice	Notice sent when Participant Exposure/Posted Collateral ratio exceeds the Warning Limit. A Participant is not obliged to respond to this type of notice

4.2. ABBREVIATIONS

AnPP	Analysis Percentile Parameter
CAP	Credit Assessment Price
CPUPE	Capacity Period Undefined Potential Exposure
ECP	Estimated Capacity Price
EUPE	Energy Undefined Potential Exposure
IMP	Imperfections Price
LC	Letter of Credit
LC Provider	Letters of Credit Provider
RAA	Settlement Reallocation Amounts
RCV	Reallocation Credit Value
SEM	Single Electricity Market
SMP	System Marginal Price
UEXP	Undefined Exposure Price
UPE	Undefined Potential Exposure
VMOP	Variable Market Operator Price
WD	Working Day

5. APPENDIX 2 – CALCULATION OF REQUIRED CREDIT COVER

The calculation of Required Credit Cover is set out in the Code and is repeated here for information.

TO BE COMPLETED

5.1. CALCULATION OF PARTICIPANT EXPOSURES

5.1.1. Overview

A Participant's Credit Risk is calculated as the sum of that Participant's Actual Exposure and Undefined Potential Exposure in respect of that Participant's Supplier Units.

Actual Exposure

Actual Exposure is determined as the sum of outstanding Invoice amounts, plus the sum of un-invoiced Settlement amounts for Settlement Days where an Ex-Post Indicative Settlement Statement or an Initial Settlement Statement has been produced. This calculation is performed across all markets and other payment streams. e.g. Energy Payment, Capacity Payment, Make Whole Payments, etc.

Undefined Potential Exposure

Undefined Potential Exposure represents the risk posed by obligations that are not known with certainty at the time of assessment – either because data is not yet available, or the obligation has not yet been incurred. This covers the period from the last Settlement Day for which an Ex-Post Indicative Settlement Statement has been produced through to when the Participant can no longer incur financial liability, the Undefined Exposure Period, being determined by:

- the amount of time a Participant is allowed to remedy a default, and
- any residual time required while a suspended Participant's retail customers are moved to a new Supply Participant.

The Undefined Potential Exposure is the sum of the Billing Period Undefined Potential Exposure and the Capacity Period Undefined Potential Exposure

The methodology used to determine Undefined Potential Exposure will differ depending upon whether the Participant has a reliable historical profile of Settlement or not. For Standard Participants, the Undefined Potential Exposure is determined as follows:

- Determine the 95th percentile statistical distribution of historical Settlement amounts over a look-back period known as the 'Historical Assessment Period'. The distribution is over the number of days in the future portion of the Settlement Risk Period and will give a 95th percentile distribution across that number of days, to give the potential exposure over this entire period.
- Calculate the offset due to all Settlement Reallocation Agreements (those with both positive and negative credit effect) which apply to the Participant over the Undefined Exposure Period.
- Apply the standard VAT rate for the Participant's jurisdiction.

For new Participants or those for whom historical usage is not a reliable statistical indicator of future exposure – such as those who have recently acquired large new load – a different methodology is required to calculate the Undefined Potential Exposure:

- Have Participants submit their forecast load quantities over the risk period (the Undefined Exposure Period), and determine an aggregate forecast for each Participant.
 - Determine the 95th percentile statistical distribution of historical prices over the Historical Assessment Period to get the Undefined Exposure Price.
-

- Determine the Credit Assessment Price by adding the Undefined Exposure Price to the Variable Market Operator Price, the Imperfections Price and an Estimated Capacity Price
 - Multiply the forecast quantity, Credit Assessment Price and number of days in the Undefined Exposure Period to give the potential exposure over this entire period.
 - Calculate the offset due to all Settlement Reallocation Agreements (those with both positive and negative credit effect) which apply to the Participant over the Undefined Exposure Period.
 - Apply the standard VAT rate for the Participant's jurisdiction.
-

To be Completed

5.2. REQUIRED CREDIT COVER

Required Credit Cover = Actual Exposure + Undefined Potential Exposure + Settlement Reallocation + VAT

$$RCCSpr = \max \left\{ 0, ASEpf + UPESpg - \sum_{a \text{ in } p} \sum_{h \text{ in } g} (SSREAaph + SSRCAaph) + VATpr \right\}$$

5.2.1. Undefined Potential Exposure

Undefined Potential Exposure = Billing Period Undefined Potential Exposure + Capacity Period Undefined Potential Exposure

$$UPEGpg = BUPEGpg + CUPEGpg$$

5.2.1.1 Capacity Period Undefined Potential Exposure and Billing Period Undefined Potential Exposure

Capacity Period Undefined Potential Exposure and Billing Period Undefined Potential Exposure are calculated differently for New/Adjusted Participants and Standard Participants

5.2.1.1.1 Capacity Period Undefined Potential Exposure for Standard Participants

Capacity Period Undefined Potential Exposure = Mean Capacity Period Settlement Sums over the Historical Assessment Period for Capacity + Analysis Percentile Parameter x Standard Deviation of the Capacity Period Settlement Sums over the Historical Assessment Period for Capacity

$$CUPEGpg = (CXSVUpg + AnPP(CSDSVUpg))$$

Standard Deviation of the Capacity Period Settlement Sums over the Historical Assessment Period for Capacity

$$CSDSVUpg = \sqrt{\frac{CPHAPg \sum_{\omega=1}^{\omega=CPHAPg} (CSVUpg\omega)^2 - \left(\sum_{\omega=1}^{\omega=CPHAPg} CSVUpg\omega \right)^2}{CPHAPg \times (CPHAPg - 1)}}$$

Mean Capacity Period Settlement Sums over the Historical Assessment Period for Capacity

$$CXSVUpg = \frac{\left(\sum_{\omega=1}^{\omega=CPHAPg} CSVUpg\omega \right)}{CPHAPpg}$$

Capacity Period Settlement Sum over the Historical Assessment Period for Capacity

$$CSVUpg\omega = \sum_{d \text{ in } \omega} \left(\sum_{u \text{ in } p} \sum_{h \text{ in } d} CPuh \right)$$

5.2.1.1.2 Billing Period Undefined Potential Exposure for Standard Participants