Issue 106. Digital Meeting Etiquette

- Welcome to the Issue 106 Workgroup meeting 1 we'll start shortly
- No video please to conserve bandwidth
- Please stay on mute unless you need to talk use IM if you can't break through
- Talk pause talk
- Lots of us are working remotely be mindful of background noise and connection speeds

ELEXCON

Issue 106 'Review of BSC Credit Cover Arrangements'

Meeting 1

21 February 2023

20/02/2023

Slido Guidance

- We would love to gather your thoughts using Slido as we move through today's session. We hope this is an engaging experience.
- Everyone should be able to vote and answer questions live during the presentation using Slido

Requirements:

- Internet access
- Web browser
- Participants can join at slido.com with **#2175 267**

Joining as a participant? # Enter code here

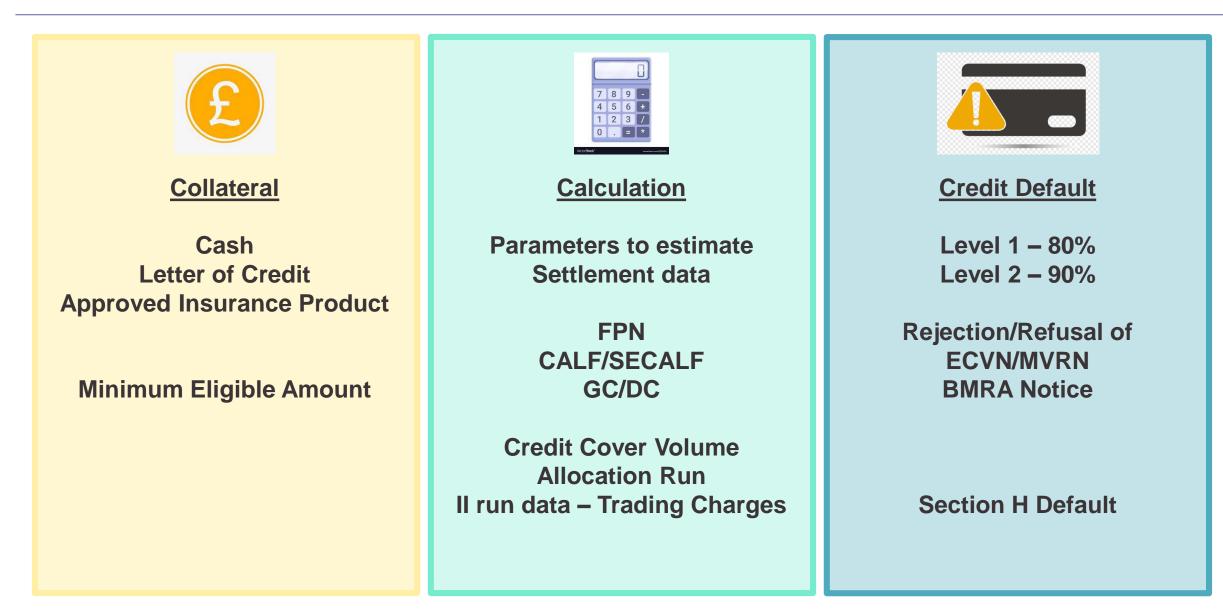
Agenda Item	Lead
1. Welcome and meeting objectives	Elliott Harper (Elexon) – Chair
2. Overview of BSC Credit Cover arrangements	Tirath Maan (Elexon) – Proposer and Subject Matter Expert
3. History of BSC Credit Changes	Chris Wood (Elexon) – Market Design
 4. Designing Credit Principles: Discussion 4.1 Survey outcomes 4.2 Workgroup feedback gathering 	Workgroup
5. Next steps – Issue 106 work streams	Tirath Maan
6. AOB - Meeting close	Elliott Harper



OVERVIEW OF BSC CREDIT COVER ARRANGEMENTS

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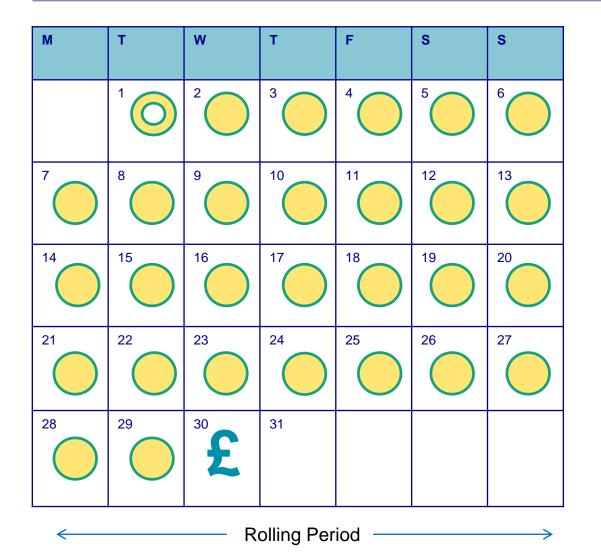
The Credit Cover Process



The Credit Cover Process

- The fundamental Credit Cover calculation methodology has not changed since inception.
- CAP changes often occur within weeks of a previous CAP change.
- In a unstable market, there is a disconnect between the CAP and the Imbalance Price. In general the CAP value has been higher than the average Imbalance Price.
- The calculation uses wide range of parameters to in effect estimate settlement. Issues with data will cause discrepancies in the calculation.
- These parameters may not always accurately reflect the trading characteristics of some Parties. We know there are pain
 points with the calculation and this is an area that is the most contentious.
- Recognise that the workgroup may wish to focus on these issues, however we believe there is value in firstly addressing the principles of Credit Cover and would like to centre the workgroups attention around this concept in the first instance. these first.

Credit Arrangements



- A collateral amount required to cover the period before Trading Charges are invoiced in case of Default.
- First invoice of a Settlement day is produced, on average, 29 calendar days after.
- No specific amount required to be lodged, It's is the Parties responsibility dependant on their trading characteristics.

Different Balancing Mechanism Units and roles

Non–Credit Qualifying BM Units

- Registered with suppliers and small generators that do not submit Final Physical Notifications (FPN's)
- GC/DC & CALF/SECALF values are used to calculate CEI element of the calculation for first 5 working days prior to II run

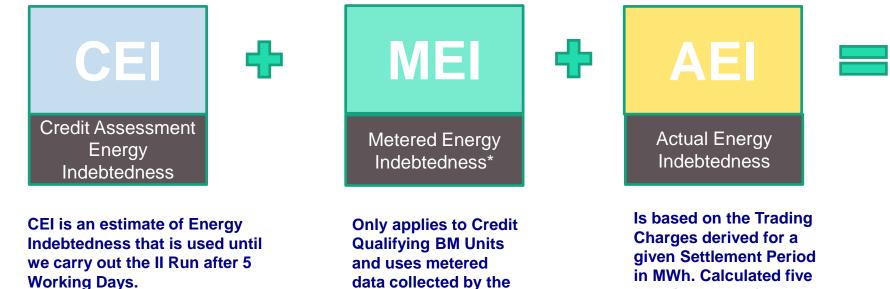
Credit Qualifying BM Units

- Registered with generators and are required to submit Final Physical Notifications (FPN's) to the System Operator (NGESO)
- Will use metered data from the Central Data Collection Agent (CDCA) to replace FPN data after two working days
- Generally seen with sites fitted with accurate Half Hourly meters where data can be collected quickly
- Can participate in the Balancing Mechanism (Submit Bids and Offers)

Interconnector BM Units

• Required to submit Final Physical Notifications (FPN's) to the System Operator (NGESO)

So How Do We Calculate Indebtedness?



The CEI uses different parameters depending on if the primary BM Units are Credit Qualifying or Non-Credit Qualifying. Only applies to Credit Qualifying BM Units and uses metered data collected by the Central Data Collection Agent (CDCA) to replace FPN data. Is based on the Trading Charges derived for a given Settlement Period in MWh. Calculated five Working Days after each Settlement Day using II run data and replaces the CEI and MEI. The total indebtedness over the 29 day calculation period combining the CEI, MEI if applicable and AEI.

TEI

Total Energy

Indebtedness

*Only for Credit Qualifying BM Units

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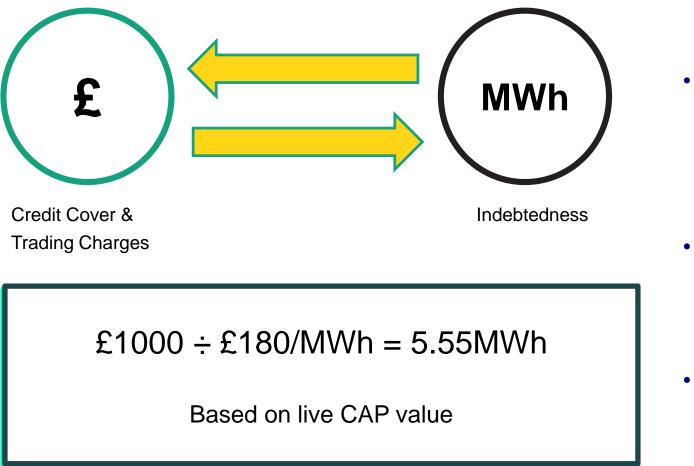
TEI for Non-Credit Qualifying BMUs

ndar Day 1	Calendar
CEI	Total Energy Indebtedness AEI
Parameters used to calculate estimated volume	Trading Charges calculated from; Metered Volumes, Contracts and Balancing Services Data
CEI	AEI
	Settlement Day +16WD (II (SF Settlement Run)

TEI for Credit Qualifying BMUs

ndar Day 1		Calendar
		Total Energy Indebtedness
CEI	MEI	AEI
FPNs VS Contracts	Metered Volumes	Trading Charges calculated from various sources; Metered Volumes vs Contracts and Balancing Services Data
CEI	MEI	AEI
lement Day Settle Day +		Settlement Day +16WD (SF Settlement Run)
		nt Day +5WD (II ement Run)

Credit Assessment Price (CAP)



 Elexon compares CAP with forward market prices

- Credit Committee assess and approve new values (following industry consultation)
- Communication to Industry 15WD before implementation



HISTORY OF BSC CREDIT CHANGES

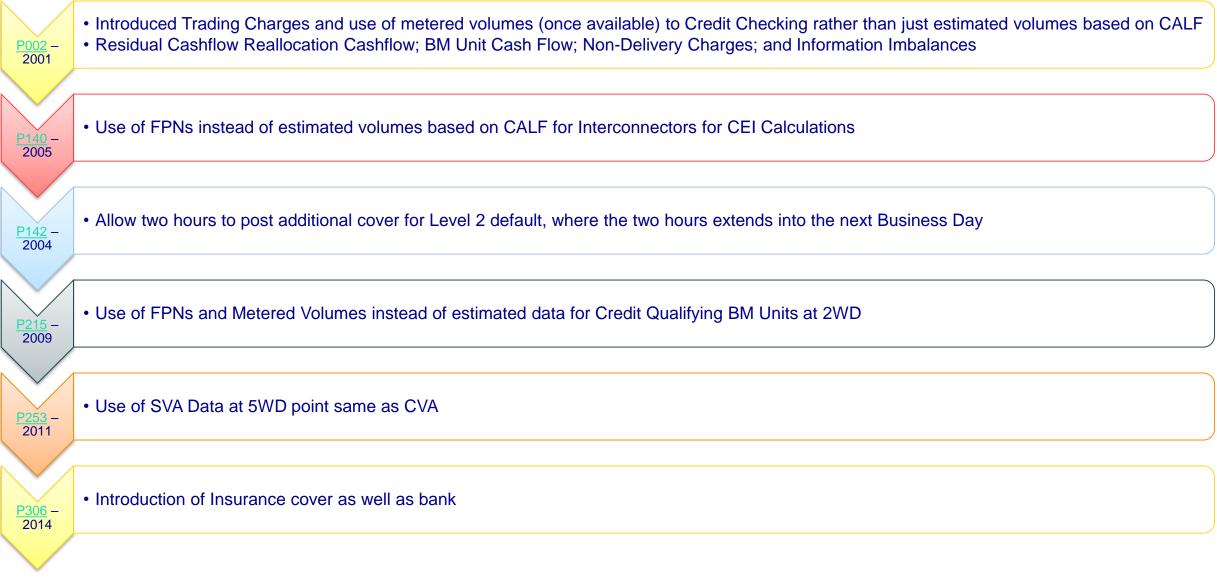
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Credit Modifications Implemented (Hyperlink in the Modification numbers)

Number	Description	Year
P002	Credit Indebtedness Methodology - Introduced Trading Charges as well as Imbalance and 29-day period	2001
<u>P016</u>	Allow GC/DC for the summer	2001
P039	Admin - Ties in processes with banking practices	2001
<u>P053</u>	Admin - Tidying-up Section M and requirments on ECVAA	2002
<u>P076</u>	Removed anomalies that allowed unpaid Trading Charges to cause negative indebtedness	2002
<u>P118</u>	Allows ECVAA to report Level 1 Default immediately on BMRS	2003
<u>P122</u>	Holiday CALF Adjustment	2003
<u>P123</u>	Changes in DC for Supplier and Additioonal BM Units during the year due to change in portfolio	2003
<u>P140</u>	Credit Cover for Interconnectors to use FPN instead of estimated volumes	2005
P142	Allows Level2 Defaulters two hours to post additional cover	2004
P152	Parties in default being able to reduce their Credit Cover once they have ceased trading	2005
P186	Removing need for absolute voulme criteria in GC/DC calculations	2005
P188	Additional rules once 100% CCP has been achieved and a Party is in default	2008
P214	Process changed for FAA rgarding advice and confirmation notes	2008
P215	Revised calculation methodology for Generating BM Units, replacing estimation with FPN	2009
P253	Use of SVA Data at 5WD point in the same way as CVA	2011
P306	Introuduced Credit form Insurance as well as bank	2014
P307	Changes to querry period before entering default	2015
<u>P310</u>	Refinement of credit calcs for Exporting Supplier BM Units	2015
P326	Introduction of WD and non-WD CALF Values	2017
P337	Extended Quarter Date Advice Notes below the Advice Note Threshold Limit (£500) payment form 3 to 5 WD	2016
<u>P345</u>	Reduced CAP Changes from 20 WD to 15 WD	2016
<u>P357</u>	Removal of GC/DC tolerance Limmit from Section K to allow for updates (published on webpage) without raising a modification	2018
P358	Allow GC/DC to be rolled over rather than defaulted to zero	2018
P359	Renotification of GC/DC volumes if BM Unit Metered Volume exceeds GC/DC values	2019
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Credit Modifications Implemented

(Hyperlink in the Modification numbers)



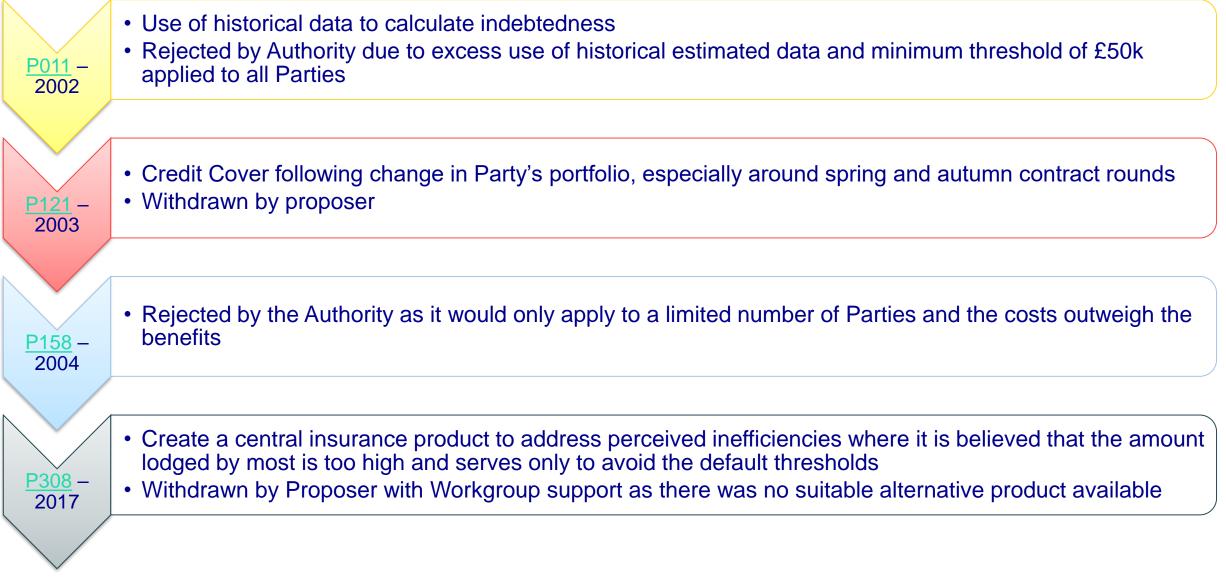
Credit Modifications Withdrawn or Rejected

(Hyperlink in the Modification numbers)

Number	Description	Year
P011	Rejected looking at historical indebtedness to calculate credit cover	2001
<u>P064</u>	Ability to reduce GC during a season and reduce TNUOS charges	2002
<u>P069</u>	Sought to extend material doubt when putting people into indebtedness	2002
<u>P120</u>	Reduce Credit Cover required during holiday periods when use would be lower	2003
<u>P121</u>	Impacts on Credit Cover following change in portfolio	2003
P132	Maintaining Credit more than 29 days after ceasing tradng but still having imbalance liability - uncertainty over calcs and not actually better than existing arrangements	2004
<u>P158</u>	Consolidated Line of Credit for multiple Parites in the same owner - No savings or efficiency	2004
P265	Use of estimated SVA data for Holiday periods, however the P253 solution solved the issue better	2011
<u>P308</u>	Central credit product - withdrawn as it wouldn't have solved the initial Issue	2017
<u>P417</u>	Place Letter of Credit and Insurance note on website - would have made the process of change longer	2021
P426	Combine Energy Indebtedness of BSC Parties for single credit cover - withdrwn due to apparent lack of support	2022

Credit Modifications Withdrawn or Rejected

(Hyperlink in the Modification numbers)





DESIGNING CREDIT PRINCIPLES: DISCUSSION

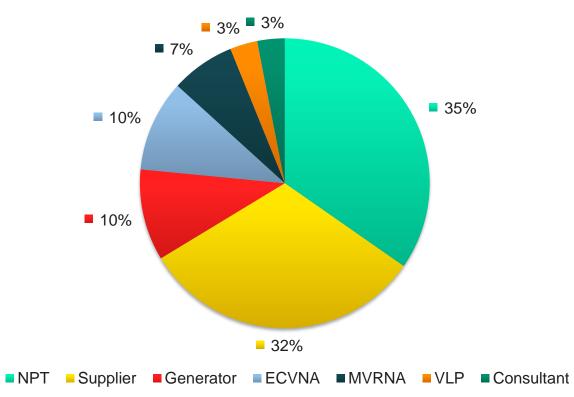
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Survey outcomes

• We had 20 responses to the survey

Organisation's role represented	#
Non-Physical Trader	10
Supplier	9
Energy Contract Volume Notification Agent	3
Generator	3
Metered Volume Reallocation Notification	2
Virtual Lead Party	1
Consultant	1

BSC roles represented



• The survey presented three main topics that include several subtopics to be discussed during the different work streams

Торіс	Subtopic	
Calculations	Risk	Party's credit risk according to party's role and past behaviour
	Indebtedness	CAP, MEI, CEI, CALF
Timescales	Ore dit evelo	Period that is covered
Timescales	Credit cycle	Period to withdraw credit cover
Communications	When and how default is calculated and communicated, and enforced	

Work stream	Work stream	Work stream	Work stream	Work stream
1	2	3	4	5
What should Credit be used for?	Data and timeframes	Fairness vs equality	Impacts of Providing Credit Cover	Communication and Credit Governance

Topic 1: What should Credit be used for?

Survey question	Answers
	"actual indebtedness" "imbalance costs" "Credit cover should match with future obligations correctly"
Conceptually, what do you	"actual indebtedness" "imbalance costs" "Credit cover should match with future obligations correctly"
believe the	"It should cover all BSC charges and should cover a certain amount of risk. The main point of it being to ensure other
purpose of	suppliers are not left covering their debts if they default."
lodging Credit Cover should	"the purpose should be to reduce the burden of all mutualised costs arising from defaulting Parties on all other Parties"
be, and what	"credit should account for the specific activity of the Party and the risk attached to it. Based on this, on the reliability of the
should it cover?	Party and on the risk of the Party defaulting (i.e. high usage of credit at all times), a rating should be shared externally, i.e. with the exchanges, to assess the non delivery risk attached to each party"
(For example, should it cover all BSC	"To cover the period where Elexon cashout has not been charged ie from settlement day to the first financial settlement of imbalance which is the SF run"
charges, bad debt, be based on risk, only cover a certain timeframe	"Credit Cover must protect remaining members against bad debt being mutualisedThe current process looks at a static physical portfolio (GC, DC, CALF) using historical data to predict risk, however the industry is moving towards a more flexible responsive approach and a large number of members are penalised for thisThe credit cover process needs to align better to each Role type, Generators and Supplier, VLPs, NPT's do not have the same intention or commercial drivers when it comes to balancing their BSC Accounts."
etc)	"It should cover the timeframe and invoice amounts from delivery period end to invoice due date (e.g. SF)."
	"The purpose of Credit Cover should be to ensure that, should a Trading Party default, sufficient collateral is available to pay any debts."

Topic 1: What should Credit be used for?

Survey question	Answers Cont.
Conceptually, what do you believe the purpose of lodging Credit Cover should be, and what should it cover? (For example, should it cover all BSC charges, bad debt, be based on risk, only cover a certain timeframe etc)	"Should cover only the unbilled timeframe (i.e. between delivery and the first SF settlement run), rather than also attempting to cover reconciliation between billed settlement runs" "Credit Cover should be to ensure a Parties' has enough collateral to cover Trading Charge payments in case of that Parties' default." "It should be a risk based provision, covering a set time frame. It should cover contractual obligations from code requirements and if necessary, current and future obligations where Elexon holds exposure" "Debts must be covered. Those debts not recovered from front-loaded credit provision must be recoverable by mutualisation. The limit on mutualisation should be set by limiting the ability of participants to build up too much debt in the first place"

Topic 1: What should Credit be used for?

- What 'bills' should it pay?
- Cost vs Cover
 - Mitigation risk vs market conditions and risk appetite
 - Hybrid approach?
- Forward or backward looking, or both?



What should Credit be used for?

(i) Start presenting to display the poll results on this slide.

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Survey question	Answers
How does your organisation use the credit data published on the Elexon Portal?	"We react to the credit notices and can suspend market parties from trading. However, the information doesn't allow us to effectively manage our risk exposure. We need real time data on our counter parties to manage our exposure to possible nomination rejection. We use it - so manual interaction - however, an API would be best to work with." "We manage cashflow around it as it represents a lot of unused capital. We can pay bills immediately, and keep a small risk margin with Elexon, but now we have to work around the complicated 4 week process, different default levels, cure periods etc. It is all so unnecessarily complex. Plus it does not work reliably. We have multiple times alerted Elexon that their CC calculation is wrong (as we have implemented the logic behind it on our systems)."

Survey question	Answers
If you were to design the credit processes from scratch, what principles would you stick with?	 "Ensure it is regularly updated to correctly calculate indebtedness for all asset and service types, ie the CEI calculation for embedded generation delivers incorrect indebtedness positions" "use the most accurate data - ie the provisional imbalance prices published by the grid of about 20 minutes after delivery, not an estimate using historical data - the estimates are extremely accurate. Also, don't tie up capital when not necessary. This would mean paying/debiting imbalance invoices the wiring day after delivery. Currently this takes a month. You can invoice the adjustments in future invoices. If this is impossible, remove the 10 day query period for decreasing the lodged capital. This created many cashflow issues for my company in the past." "shorter settlement windows, higher utilization of collateral before default notice, no default CALF values applied to any Party" "For non-physical traders it is would be quite simple: At any given point in time you know what a party's imbalance position is. Multiply with the imbalance price and then you have what the party (elexon) owes to Elexon (the party). What about periods where imbalance price hasn't been published yet? I would use the indicative price until II, SF, etc run gets published, i.e. the price published at minute 22/52. What about for periods where the indicative imbalance price hasn't been published indicative imbalance price." "shorter settlement windows, higher utilization of collateral before default notice, no default CALF values applied to any Party" "Is it possible to get the SF data much quicker now that HH meters are being introduced market wide? Maybe then having the R1 in replacement of the SF position and so on"

Survey question	Answers Cont.
If you were to design the credit processes from scratch, what principles would you stick with?	"The credit cycle should be as short as possible (preferably daily or weekly) to detect defaults early. Participants should put down cash or bank/parental guarantees as collateral to cover trading within a credit cycle. The current outstanding payments should be included in the Credit Cover calculation. Trading/interconnector limits should be based on the current calculation (collateral + outstanding payments)" "Shorter settlement terms (where actual data is not available, additional credit cover required), incentivise member to provide better data. This could be calculated based on average reconciliation values. Mechanism / calculation that accurately tracks the current market conditions, i.e. rolling 7 day SIP average, instead of a consultation period the uncouples CAP from the market. Calculation that addresses multiple risk levels based on roles and their activity"
	"System prices are pretty accurate already in the RT run (for outage periods a default price can apply). Credit Cover should be calculated entirely based on system prices and not on CAP, which is an unnecessary complication that generates a lot of overhead for everyone, with little benefit. II run is good enough to already issue invoices, for example. Invoicing sooner would reduce risk for Elexon and it would ease cashflow problems for market participants. Now everyone has to account for debt over a 4weeks period, whereas the actual amount is known reasonably accurately already 22minutes after delivery (especially for Non physical traders). Basically, invoice much sooner, get rid of CAP."

Survey question	Answers
In your view, what Credit Cover arrangements would you like to see improved? (Please provide as much detail as possible to help us understand your answer)	 "fix the CEI calculation for embedded generation which my organization to the brink of financial failure. It appears to be a symptom of a wider issue, market participants and commercial models are changing but Elexon's credit calculations do not appear to be keeping pace with those changes." "How the Energy Indebtedness is calculated" "Closer reflection of outturn system prices, noting recent period of significant divergence of CAP." "Flexibility to reduce credit terms at times of high default risk. This would reduce burden of security collateral on Parties (albeit increase working capital requirement). This could be a more sustainable methodology, although requiring sweeping changes to BSC and Elexon cash-flow management." "CALF assessment (no default value). Default risk should be reflective of the risk profile of each Party. Non delivery risk on the exchange side should reflect the Party risk profile" "CAP is a hindrance so perhaps looking into a new methodology on the CAP calculation" "The Credit Cover calculation should be based on the maximum net position a participant has during the day and not scale with the volume of trades."

Survey question	Answers Cont.
In your view, what Credit Cover arrangements would you like to see improved? (Please provide as much detail as possible to help us understand your answer)	"Shorter timescales, no CAP. Start billing at RT, and the do differences in subsequent runs." "Faster application of metered and BM data in to the calculations where the information is already available." "AEI is fine, but CEI and MEI tend to be inaccurate. AEI truly represents the amount owed to Elexon for days where an 'II' run has taken place but not yet paid for. The MEI variable compares metering against contract position and where differences are found these are a proxy for either imbalances or BM acceptances and a credit requirement is created priced at CAP. The problem is that CAP is not really a reasonable estimate for an imbalances price or BM acceptance. If we consider a large wind farm it might at times receive considerable negative bids in the BM meaning Elexon will owe money to the wind farm. However, under the current process every MWh of BM bid will accumulate a credit requirement for the wind farm priced at CAP. it would helpful to consider actual BM volumes in order to separate MEI volumes into estimates of BM volumes and energy imbalances. The real cost of BM actions could be used ASAP in the CEI and MEI variables as this data is available live on BMRA. For imbalance prices why not use the estimated cashout price from BMRA for each half hour rather than a fixed price of CAP?" "More flexibility to increase/decrease the amount lodged - shorten the MEA calculation period." "Shorten the length between submission of credit cover request and actual withdrawal. Credit cover situation can change dramatically within 10 days of MEA assessment period, while at the point of request submission, party is entitled to withdraw."

- Real time vs estimated data
- Accuracy of estimation
- Where does 'real' data come from



Data and timeframes

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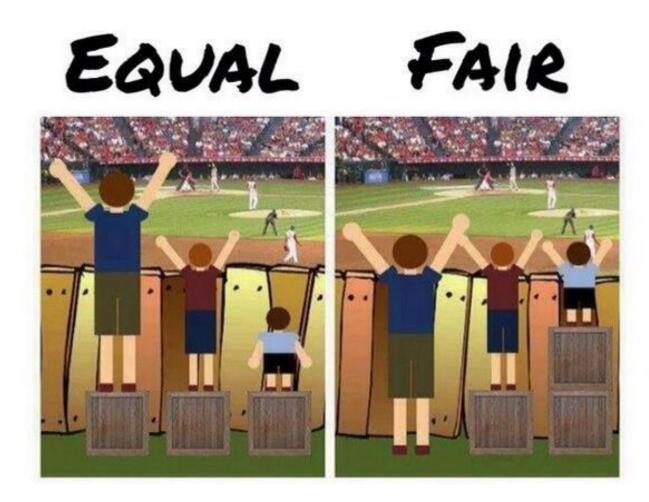
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Topic 3: Fairness vs equality

Survey question	Answers
If you were to design the	"Collateral based on financial standing; the higher the credit risk, the higher the collateral."
cradit processos	"Credit should reflect a Pary's credit risk. Arrangements should minimise mutualised costs. It is legitimate for credit arrangements to be a barrier to the entry of insufficiently funded parties."
what principles would you stick with?	"Do not treat all counterparties the same. Acknowledge the role of market places and consider the risk profiles."
	"100% bad debt covered by Credit process"
	"Calculation that addresses multiple risk levels based on roles and their activity." "To minimise the value of costs which are required to be socialised around the industry in the event of the insolvency of a
	BSC party, due to sufficient credit cover being in place for a counterparties potential liabilities."
	"Everyone should have sufficient credit cover in place and be responsible for their own costs in the event of default without the need for mutualising debt"
	"Continue with the rolling 29 calendar days which aligning with the invoicing settlement calendar. It should also cover a certain percentile bad outcome, with well-behaved payers needing to post less credit."
	"A party with a strong Credit rating should have a lower collateral requirement."
	"Once a credit default situation arises and a remedy is not provided within the agreed timeframe the participant should be expelled more quickly than currently occurs and the customers should be SOLR'd elsewhere."

Topic 3: Fairness vs equality

Survey question	Answers
In your view,	"mutualisation should not exist, so the cap should be £0"
should there be a limit to the	"The cap should be at zero. The concept of mutualisation punishes the good ones for the acts of the bad ones."
amount of debt that is	"The high risk Parties should participate to the recovery fund more consistently than low risk parties"
recovered through	"mutualisation should be sent to general taxation under the government. Ofgem are in control of entry into the electricity market. Therefore the government should be responsible for failure to pay."
mutualisation, and if so, what	"Mutualisation is a way to solve bad credit systems. The aim should be to bring the mutualisation to zero."
should that cap be?	"since mutualisation market parties accept liability for the acts of others"
	"Credit Cover should be established to cover the bad debt position taken by a member. A large number of industry parties are bearing the cost of poor financial management of previous members (not just under the BSC). This pushes up prices for end users across the industry as costs are passed through."
	"No limit, but split by agent roles. There is no need for Non Physical Traders that have sound business models to pay for suppliers with unsound businesses."



Topic 3: Fairness vs equality

- Different parties/party roles = different requirements?
- Case by case requirements/modelling
- Impact on third parties
- Market access ease or impediment?



Fairness vs equality

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Topic 4: Impacts of Providing Credit Cover

streams."

Survey question	Answers
What impact does lodging credit cover collateral have	"As a non-asset based business with a limited balance sheet our access to credit support is limited and most counterparty collateral is lodged as cash so managing the increasing levels of collateral is a major financial issue for the company. It results in us often having to optimise assets for cash rather than profit which can have a serious impact on customer retention and acquisition
on your organisation?	"Cash / collateral use that could be use in other areas" "worsens operational cashflow"
(Including the impact on capacity to	It significantly hampers it at times of large volatility. Largely because of the 10-day query period. If a major long position follows a major short position, my company may end up having a lot of cash tied up with Elexon and be unable to either open new long or new short positions
trade/operate)	Lodging Credit Cover collateral, and even more the non delivery risk on the exchange side attached to it, forces the organization to limit their trading activity on high value days, where the market would need liquidity and dynamicity the most
	"trading pattern of a liquidity provider includes buying and selling each contract multiple times during the intraday market. The current credit calculation only summarizes all the sales which means that our calculated risk and collateral requirements scales with the volume of trades rather than net exposure and risk. For reference, the credit calculation in all other markets uses a maximum net exposure to estimate the collateral requirements. Currently, the consequence is that we are unable to provide as much liquidity as we would like to in UK and even had to stop over Christmas."
	"It reduces liquidity. it stretches cashflow of one delivery period over 4 weeks"
	"In the period of CAP higher than average market price, credit cover requirements are larger than short-term cash inflow

Topic 4: Impacts of Providing Credit Cover

- Market and/or commercial impacts
- Preventer of growth and/or innovation?
- Cashflow, liquidity and impact on business
- Lodging cover and providing cash balance of speed vs intentional impediment





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What are the market and/or commercial impacts of providing Credit Cover?

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Topic 5: Communication and Credit Governance

Survey question	Answers
Do you have any comments around the BSC Credit cover timescales?	"The period of hidden default is too long this should be made public earlier." "I sometimes get worried at the weekend will the party be put into default." "Lodging collateral is a very simple process. But, the Credit default threshold is very punitive and the window to resolve it extremely tight"
Both in terms of lodging collateral and the Credit Default timeline.	"the code is fine in term of the arranging collateral process, except on the Energy Imbalance calculation. This calculation should be part of the credit set-up (like in every other area, were credit team is the focal team not only on the arranging of the collateral but also to calculate the imbalance). Credit team should have its own communication set-up" "the time to react is reasonable. We have a problem with the communication of the credit default. Default should be announced when there is still time for healing. Default should really mean after for example 4 Hours or EOD the specific company is out of the market."

Topic 5: Communication and Credit Governance

- Behaviours
- Communication of issues and changes
- Compliance
- Enforcement and escalation (Ofgem)



Communication, compliance and enforcement?

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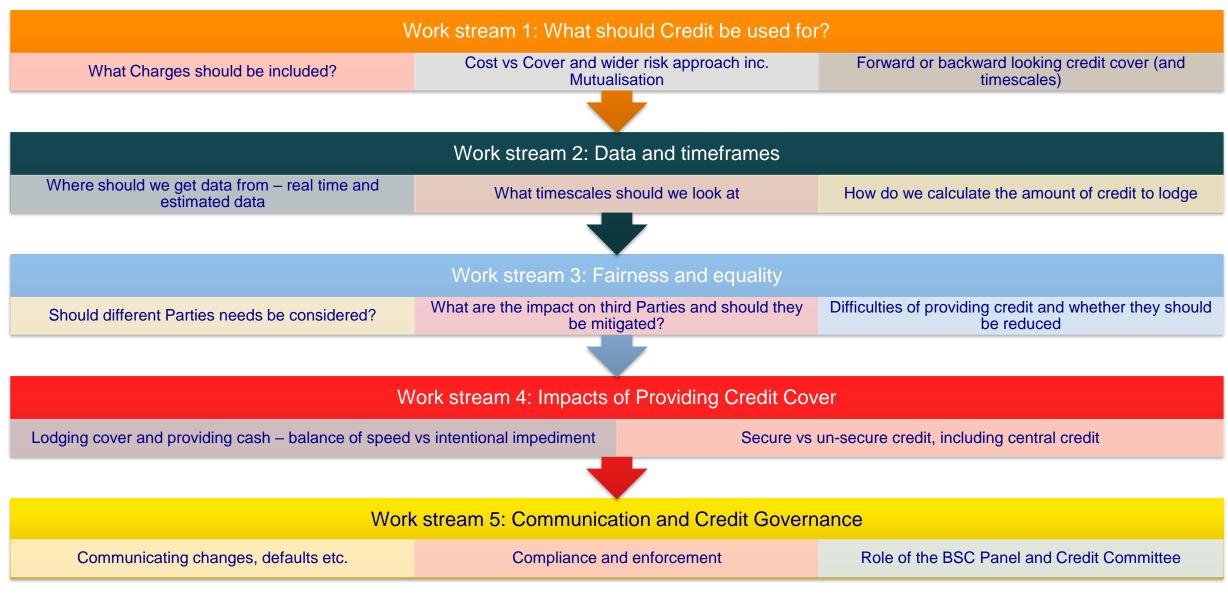
NEXT STEPS

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Workgroup meetings housekeeping

- Workgroup members are more than welcome to attend all session, but do not have to.
- We intend to keep future meetings concise and focused on the defined topic areas to discuss. This will allow a more efficient progression of Issue 106.
- According to the level of interest, attendance and work defined, some topics may have more than one meeting
- To keep up momentum, and to be able to start other change processes if needed, we would like to keep the assessment period as short as
 possible

Next Steps





Which work streams are you interested in attending?

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20/02/2023



How frequently could you attend a workgroup?

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20/02/2023

MEETING CLOSE

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THANK YOU

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21 February 2023

Acronyms

- CEI Credit Assessment Energy Indebtedness
- MEI Metered Energy Indebtedness
- AEI Actual Energy Indebtedness
- TEI Total Energy Indebtedness
- GC Generation Capacity
- DC Demand Capacity
- CALF Credit Assessment Load Factor
- SECALF Supplier Export Credit Assessment Load Factor
- **FPN** Final Physical Notifications
- CAP Credit Assessment Price
- ECVN Energy Contract Volume Notification
- MVRN Metered Volume Reallocation Notification
- NPT Non-physical Trader
- VLP Virtual Lead Party
- NGESO National Grid Electricity System Operator
- BM Balancing Mechanism