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## Issue 106 Digital Meeting Etiquette

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- Welcome to the Issue 106 Workgroup meeting 3 – 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

## Slido Guidance

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- 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

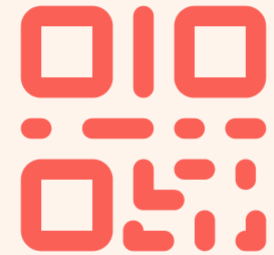
### Requirements:

- Internet access
- Web browser

Participants can join at [slido.com](https://slido.com) with **#1468339**

**Joining as a participant?**

# Enter code here



# ELELEXION

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**Issue 106 'Review of BSC Credit Cover Arrangements'**

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Meeting 3

15 June 2023

## Recap until Meeting 3

- Elexon presented a list of question on the Proposal Form and sent a survey to gather general feedback on the Credit Cover process
- On Meeting 1, Elexon proposed 5 work streams (WS), according to the main identified pain points:
  1. What should Credit Cover be used for?
  2. Data and timeframes
  3. Fairness and equality
  4. Impacts of providing Credit Cover
  5. Communication and Credit Governance
- The points discussed so far can be summarised in the following table:

Topic	Issues	WS	Meeting	Outcome
CEI, MEI, CALF, GC/DC	Distort reality	WS 1 and 2	1, 2	Elexon presented a new indebtedness calculation (Potential Mod 1)
MEA	To withdraw collateral takes too much time	WS 4	2	Elexon presented a solution, but there was no agreement on it
Credit Default	L1 and L2 Default Credit Refusal/Rejection Period	WS 2	2	Elexon presented three potential solutions, but there was no agreement on it

# Meeting Agenda

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Objectives for this meeting:

- Objective 1: agree on one of the proposed solutions for the 'looking backward' part of the new Credit Cover calculation
- Objective 2: vote on the proposed solution for CAP
- Objective 3: vote on the proposed solution for Credit Default

Agenda Item	Lead
1. Welcome and meeting objectives	Elliott Harper (Elexon) – Chair
2. Work stream 1: Proposed new Credit cover Calculation analysis and data	Chris Wood (Elexon) - Market Design
3. Work stream 2: Data and timeframes. Proposed improvements to current processes <ul style="list-style-type: none"><li>• CAP</li><li>• Changes to Credit Default</li></ul>	Tirath Maan (Elexon) – Subject Matter Expert and Proposer
4. Next steps	Cecilia Portabales (Elexon) - Lead Analyst
5. Meeting close	Chair



# CALCULATION

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## What should Credit be used for?

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In the event of a default, there needs to be funds to cover Charges accrued, and potential charges that maybe accrued between default and Market Exit

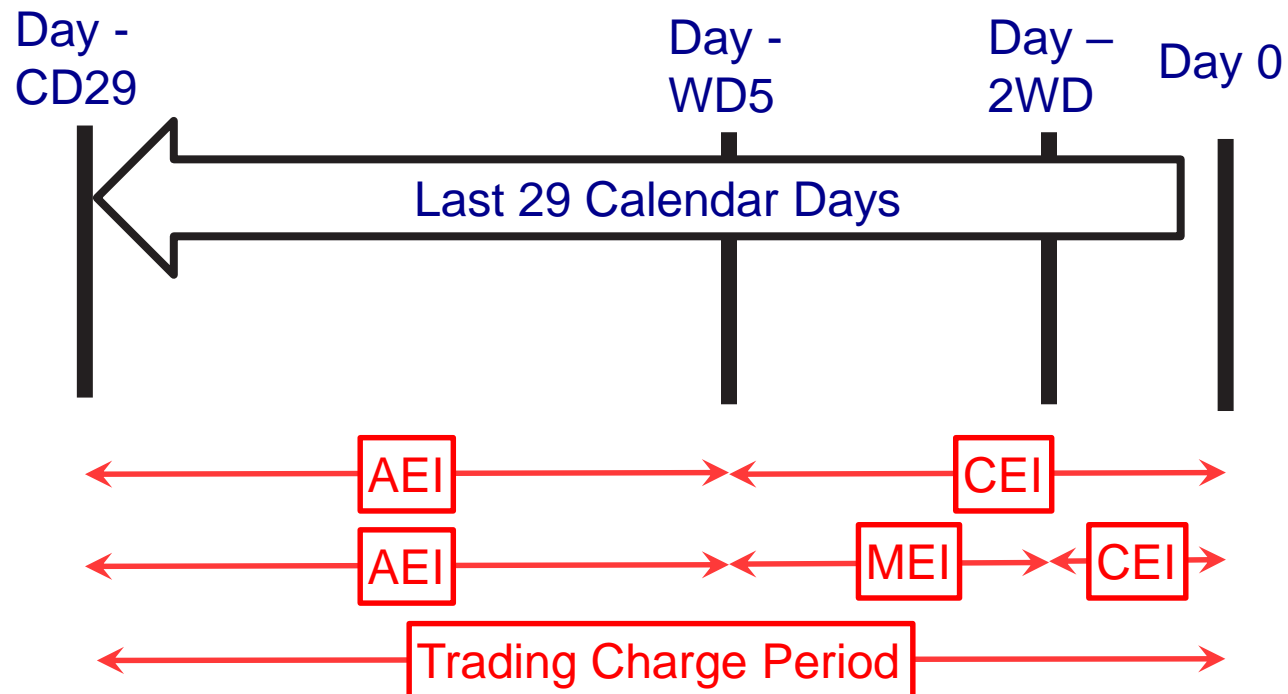
In simple terms – we need to be able to access enough money to cover outstanding costs at the point of Market Exit

## Existing Credit Calculation

- Simple Calculation:

*Credit Assessment Energy Indebtedness + (Metered Energy Indebtedness) + Actual Energy Indebtedness  
= Total Energy Indebtedness*

$$CEI + (MEI) + AEI = TEI$$

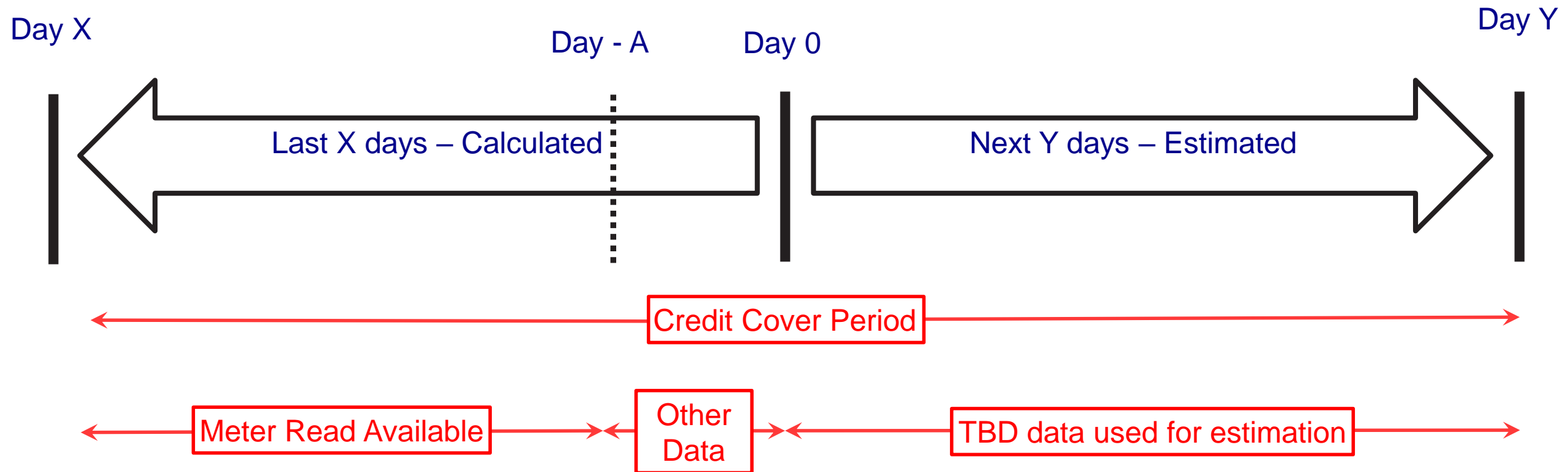




## Proposed Credit Calculation

- Simple Calculation:

Trading Charges from previous X days + An amount TBD for next Y days





# DATA ANALYSIS

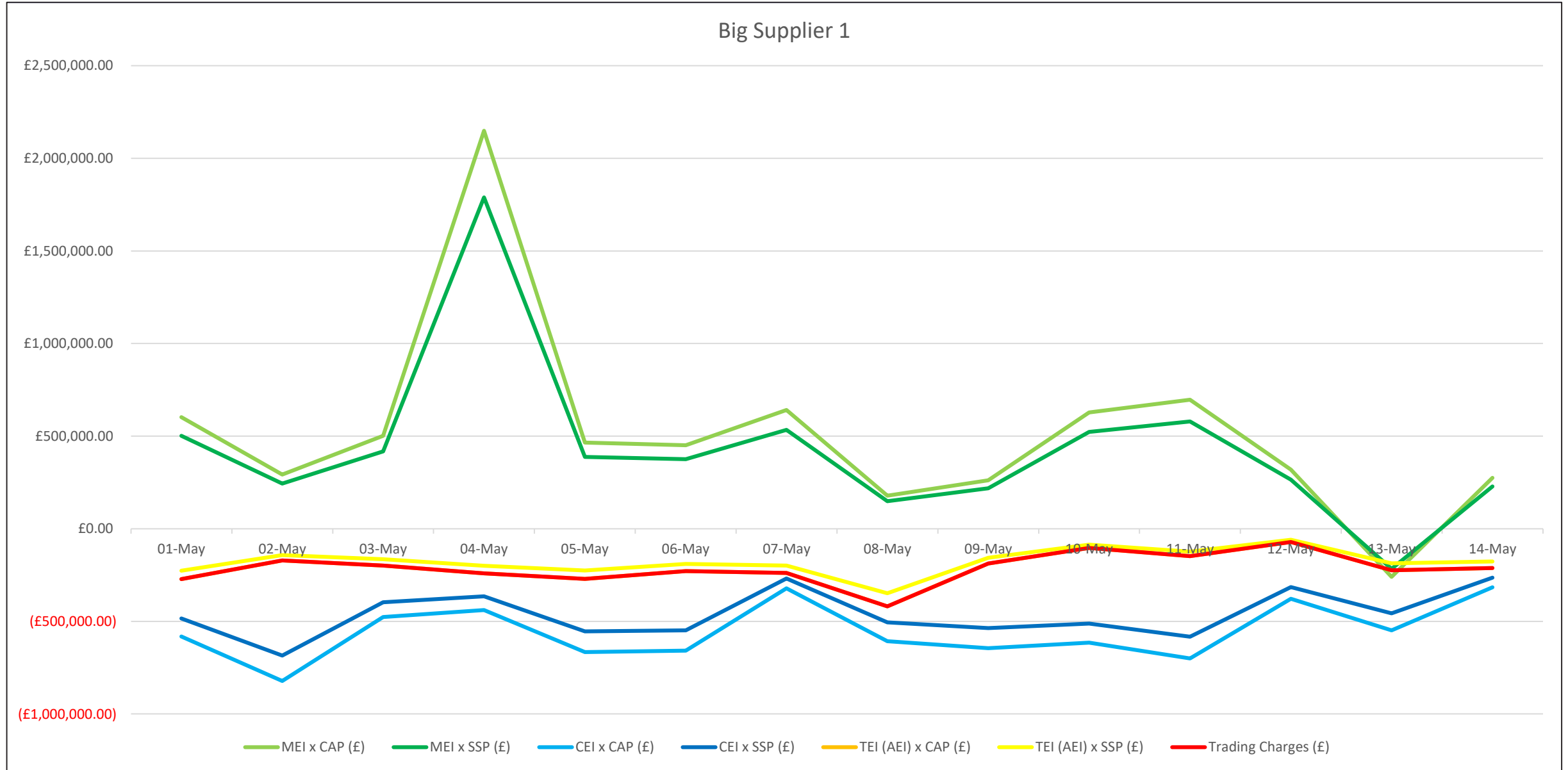
# Data Analysis

	Trading Charges (£)	AEI (MWh)	MEI (MWh)	CEI (MWh)	TEI (MWh)
22-May	-£69,062.51			-627.84	-627.84
21-May	-£55,079.95			-500.73	-500.73
20-May	-£205,416.02			-1867.42	-1867.42
19-May	-£142,509.68			-1295.54	-1295.54
18-May	-£116,387.25			-1058.07	-1058.07
17-May	£866,421.33		7876.56		7876.56
16-May	£427,763.77		3888.76		3888.76
15-May	£486,629.55		4423.91		4423.91
14-May	-£212,077.80	-1927.98	2,498.26	-2,877.97	-1927.98
13-May	-£224,589.87	-2041.73	-2,363.04	-4,981.75	-2041.73
12-May	-£71,186.60	-647.15	2,898.12	-3,441.78	-647.15
11-May	-£148,192.46	-1347.20	6,331.16	-6,366.65	-1347.20
10-May	-£103,733.98	-943.04	5,707.25	-5,586.42	-943.04
09-May	-£187,718.84	-1706.53	2,382.86	-5,859.10	-1706.53
08-May	-£418,664.62	-3806.04	1,623.34	-5,515.91	-3806.04
07-May	-£238,937.57	-2172.16	5,826.42	-2,927.49	-2172.16
06-May	-£228,614.56	-2078.31	4,097.25	-5,986.70	-2078.31
05-May	-£270,447.99	-2458.62	4,233.41	-6,050.17	-2458.62
04-May	-£240,736.03	-2188.51	19,534.32	-3,986.14	-2188.51
03-May	-£198,243.88	-1802.22	4,563.04	-4,332.10	-1802.22
02-May	-£171,533.18	-1559.39	2,657.57	-7,476.19	-1559.39
01-May	-£272,014.79	-2472.86	5,477.78	-5,291.26	-2472.86
30-Apr	-£169,519.27	-1541.08	N/A	N/A	-1541.08
29-Apr	£136,379.86	1239.82	N/A	N/A	1239.82
28-Apr	-£582,171.26	-5292.47	N/A	N/A	-5292.47
27-Apr	-£468,123.68	-4255.67	N/A	N/A	-4255.67
26-Apr	-£37,102.86	-337.30	N/A	N/A	-337.30
25-Apr	-£218,029.32	-1982.08	N/A	N/A	-1982.08

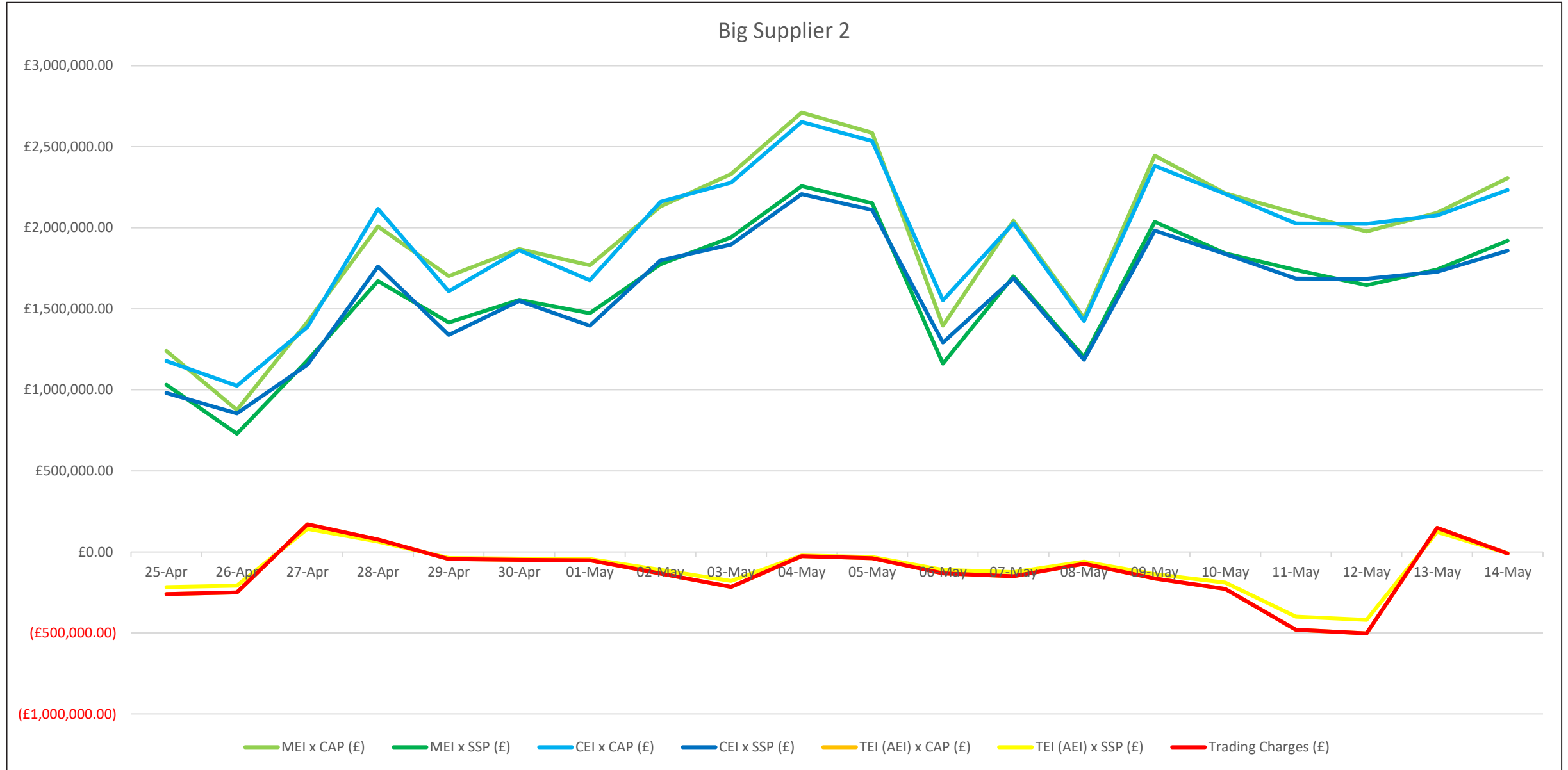
CAP = £110.00/MWh

SSP = £91.57/MWh

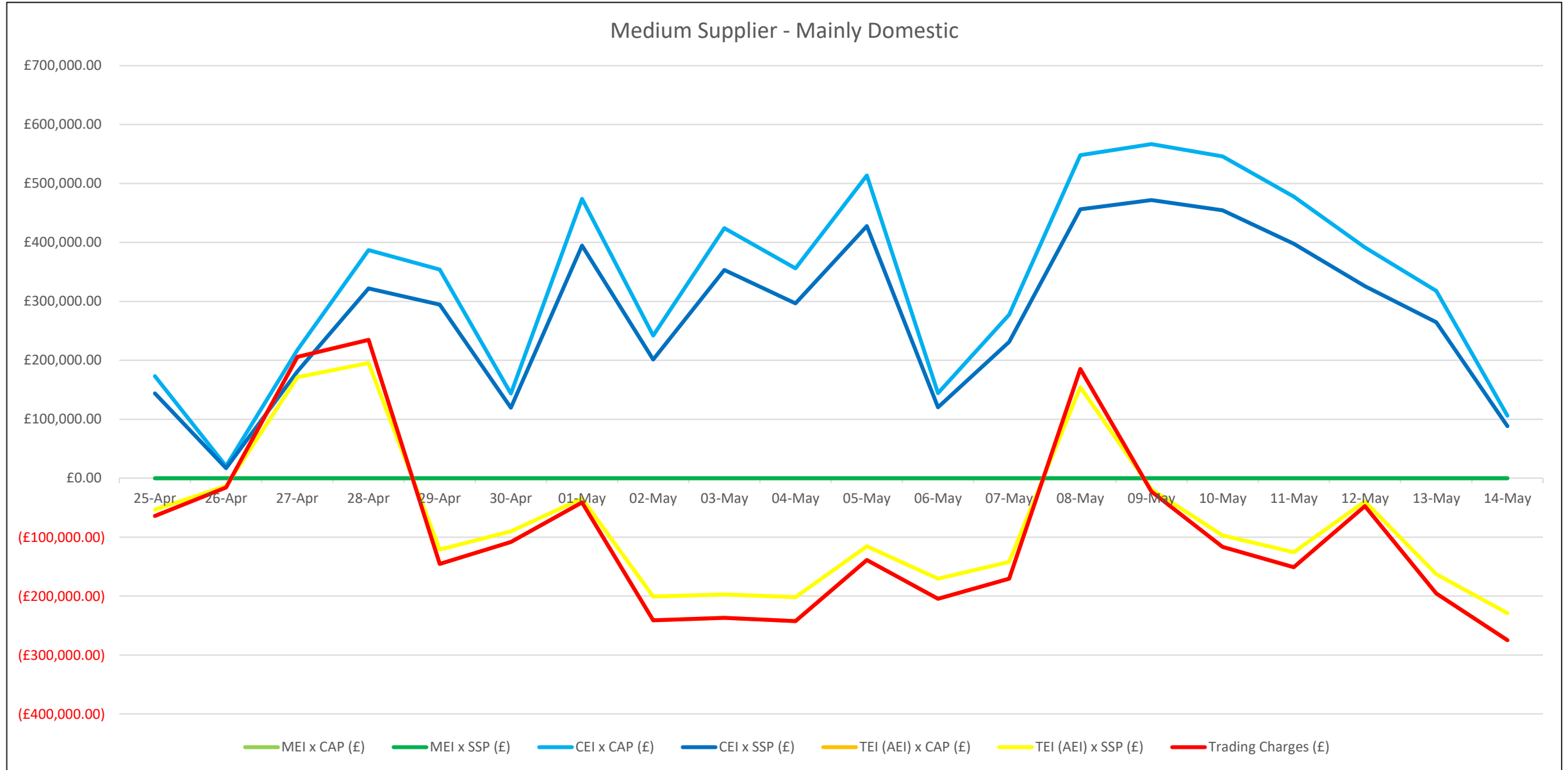
# Data Analysis



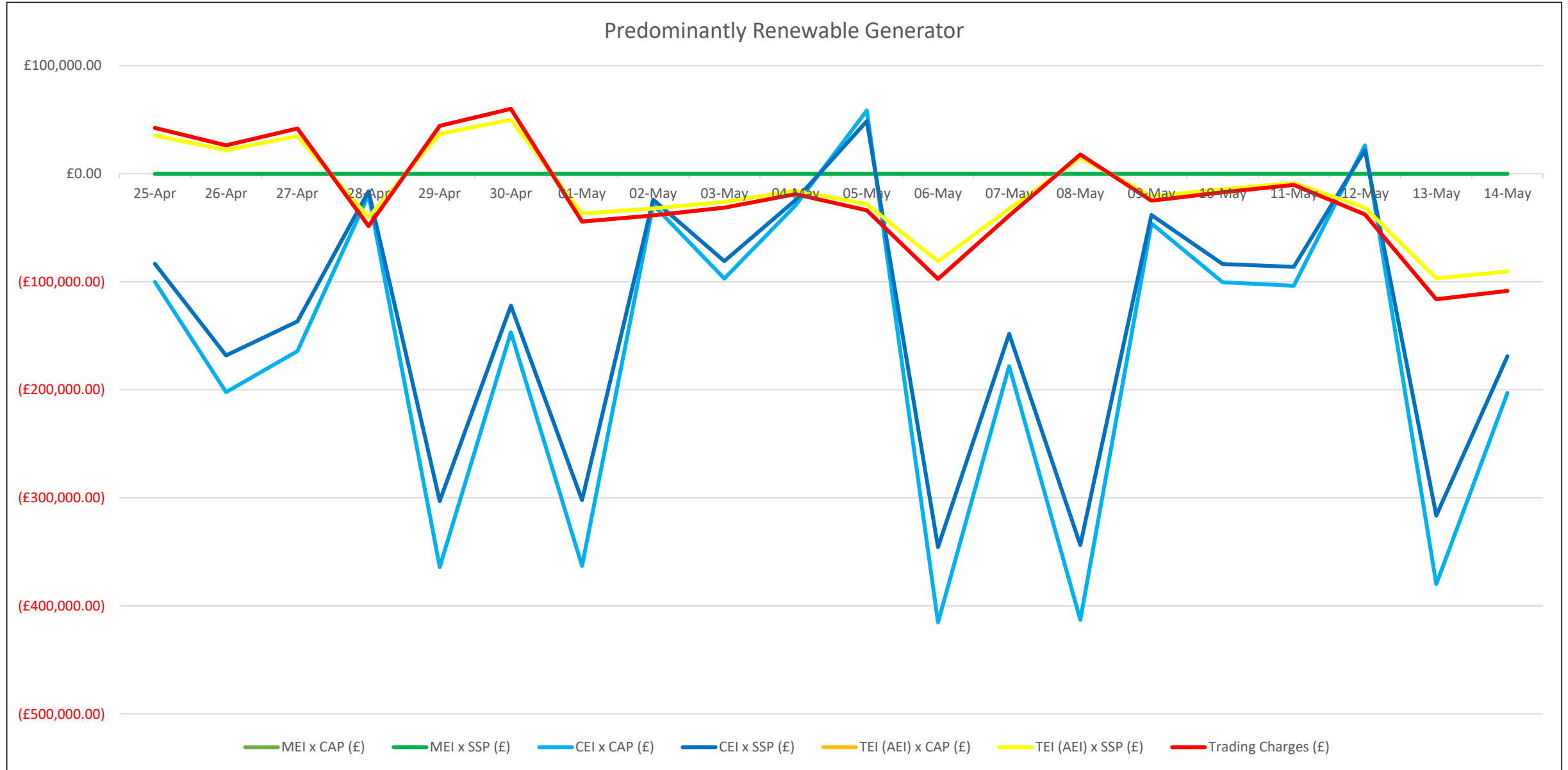
# Data Analysis



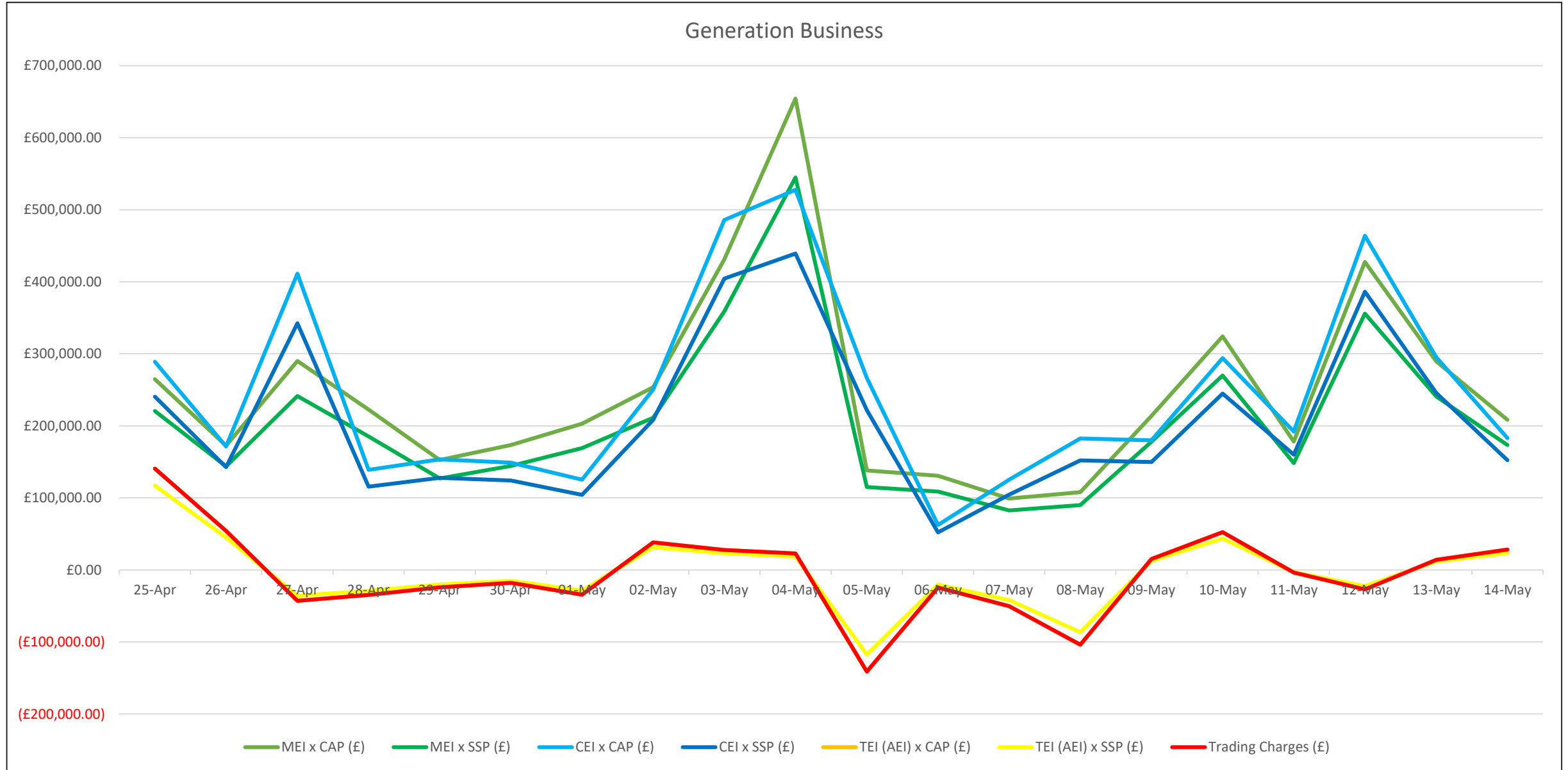
# Data Analysis



# Data Analysis



# Data Analysis

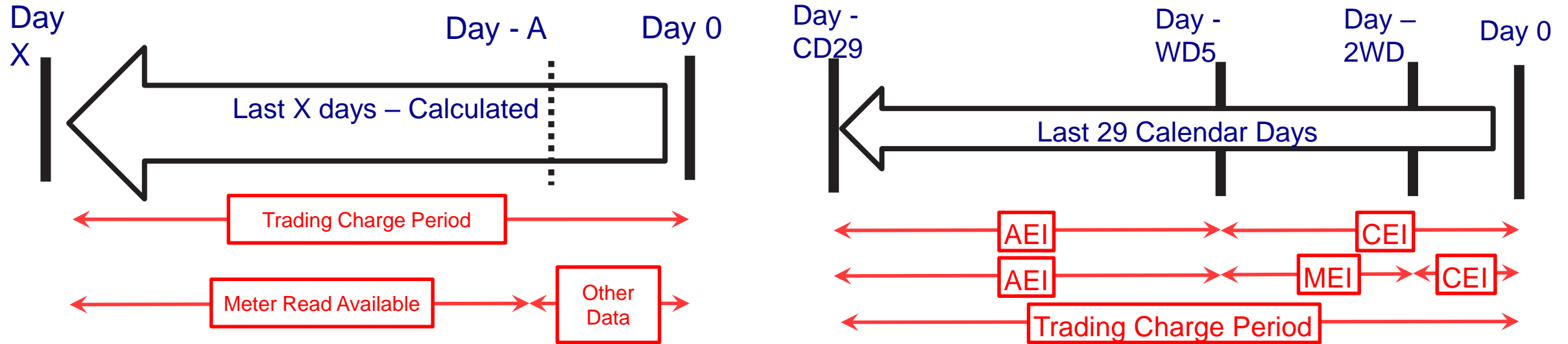






# ESTIMATED DATA CONUNDRUM

## 'Then' and 'Now' Estimating Data Options



Solving 'Now' (on right) should answer 'Then' (on left) conundrum for estimated data before Meter reads are available

- Options:
- Dynamic GC/DC and/or CALF
  - Maintain CEI/MEI for Credit Qualifying and Interconnector BM Units
- Estimated Trading Charges
  1. Average AEI on rolling basis
  2. Calculate AEI with estimated Meter Read

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## CALF and GC/DC

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### Generation/Demand Capacity (GC/DC)

- GC and DC are estimates of the Settlement Period maximum Generation and Demand capacity respectively for a BM Unit in a BSC Season
- GC and DC values are derived using the Lead Party's forecast of expected maximum magnitude of negative (Demand) and positive (Generation) BM Unit Metered Volumes for a single Settlement Period in the forthcoming or prevailing BSC Season
- Lead Party is required to submit to Central Registration Agent (CRA) maximum positive and negative BM Unit Metered Volume for each BSC Season
- CRA checks for GC/DC breaches i.e. whether the declared value is greater than the tolerance level for the actual Meter Volume
- CRA produces an estimated value in the event of a breach

### CALF

- Primary BM Unit's average generation/demand as a ratio of its maximum for the given BSC Season
- Calculated by BSCCo for each Primary BM Unit
- SMRS Primary BM Units and CMRS BM Units can have WDCALF and NWDCALF
- Principles and Guidance for calculating CALF is issued by BSC Panel
- Can be updated following request to BSCCo
- There are variations on the calculation for embedded generation

# Use of CALF and GC/DC

- BSC Section M 1.2.3 is Credit Assessment Credited Energy Volume minus Account Bilateral Contract Volume

$$CEI_{pj} = \sum_{a,i} CAQCE_{iaj} - \sum_a QABC_{aj}$$

ECVN  
Reallocation

- Essentially, the volume of electricity passing through the BM Unit's meters, adjusted for any volume reallocated to other Energy Accounts
- CAQCE<sub>iaj</sub> for non-Credit Qualifying and non-Interconnector BM Units contain reference to CALF and GC/DC

e.g.  $CAQCE_{iaj} = (SPD * BMCAIC_i) * (QMPR_{iaj}/100) + QMFR_{iaj}$

iaj = per BM Unit (i) per  
Energy Account (a) per  
Settlement Period (j)

Settlement Period  
Duration (h)

Metered Volume Percentage  
Reallocation (%)

Metered Volume Percentage  
Reallocation (MWh)

- BMCAIC<sub>i</sub> (BM Unit Credit Assessment Import Capability) is what we are concerned with in this example
- BMCAIC<sub>i</sub> = WDCALF\*DC<sub>i</sub> or – depending on day WDCALF can be replaced with NWDCALF
- BMCAEC<sub>i</sub> = WDCALF\*GC<sub>i</sub> where 'EC' represents Export Capability is used where applicable – M1.2.3 has more detail
- This essentially gives us a proxy for the BM Unit Metered Volume until that becomes available on WD+1/WD+4

- For Lead Energy Account for Credit Qualifying and Interconnector BM Units:

$$CAQCE_{iaj} = FPN_{ij} - \sum_a CAQCE_{iaj}$$

- For each Subsidiary Account:

$$CAQCE_{iaj} = FPN_{ij} * (QMPR_{iaj}/100) + QMFR_{iaj}$$

## Dynamic CALF GC/DC

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- Could update values automatically at any interval – daily/weekly/quarterly
  - Use Meter Read Data in BSC Settlement Systems – Settlement Administration Agent (SAA)/Central Data Collection Agent (CDCA)/ Supplier Volume Allocation Agent (SVAA) - to calculate average Meter Read
  - Could be subject to Lead Party and/or BSCCo review prior to implementation
  - Would mean that we wouldn't need CALF and GC as one value can be used to estimate volume attributable to that BM Unit
  - A single value for BMCAECi/BMCAICi rather than multiplying CALF by GC/DC
  - Alternately, could still have separate values for CALF and GC/DC based on last week/month/quarter rather than last season if required and plug into formulas
  - Essentially looking for average values over a given period
- **Alternative variation**
  - Lead BM Unit submits a value for each Period/Day/week etc.
  - Akin to Physical Notification, but **NOT** a Physical Notification as defined in the BSC and Grid Code
  - Could be manually inputted into CRA, but would be better to use API or similar
- **Points to note**
  - Still has different formulas for different Party Types
  - Could erase Technology specific issues if we go with alternative, main proposals could still cause technology specific issues as averages are not accurate proxies for behaviour

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**Any feedback for the potential  
Dynamic CALF, GC/DC solution?**

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**Do you agree with the Dynamic CALF,  
GC/DC solution?**

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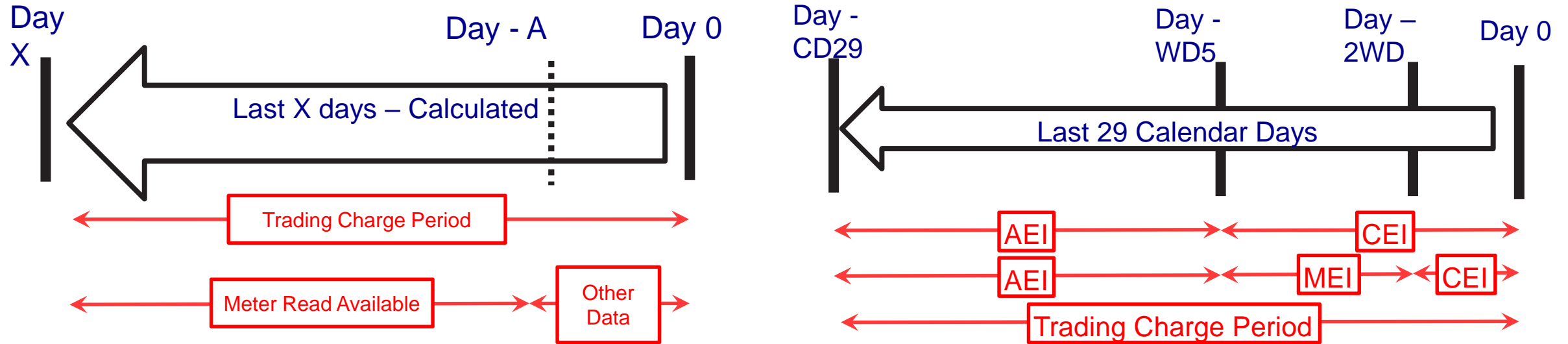
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**Do you prefer the alternative variation of Lead BM Units submitting a value for each period?**



## 'Then' and 'Now' Estimating Data Options



Solving 'Now' (on right) should answer 'Then' (on left) conundrum for estimated data before Meter reads are available

- Options:
- Dynamic GC/DC and/or CALF
- Maintain CEI/MEI for Credit Qualifying and Interconnector BM Units
- Estimated Trading Charges
  1. Average AEI on rolling basis
  2. Calculate AEI with estimated Meter Read
- Both Options could be used for 'Day - A' or MEI/CEI replacements

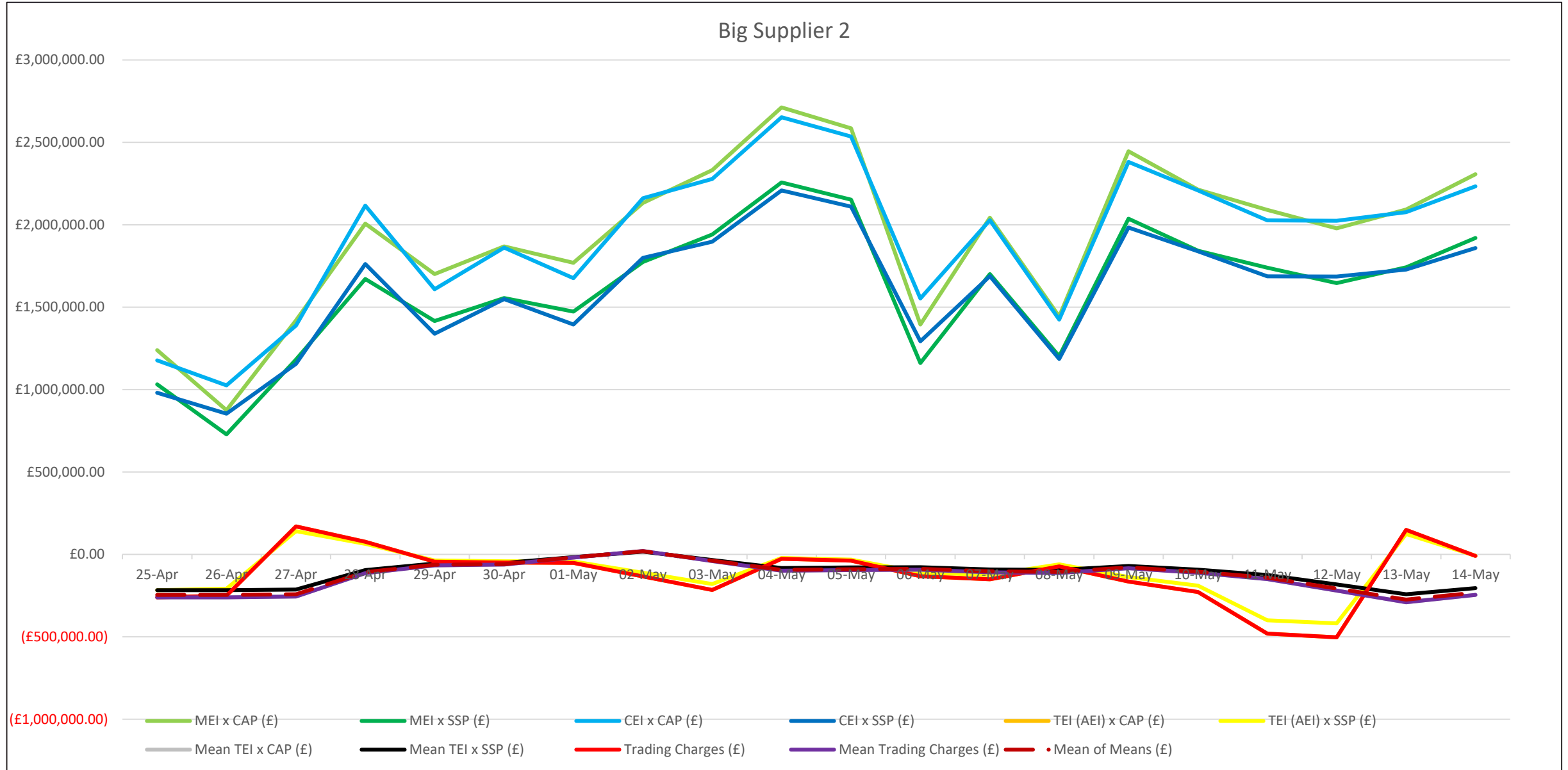
## Estimated Trading Charges

### Option One – Average Trading Charges

- Data used in Trading Charges is available same day except Meter Reads (+1WD/+4WD for now)
- Would need to use Indicative SSP (same day) rather than SSP (+4WD)
- Calculate on a rolling period for Calendar Day - A
- Period to mean over could be previous:
  - 5WD/ 29 Days/ Quarter – duration to be determined

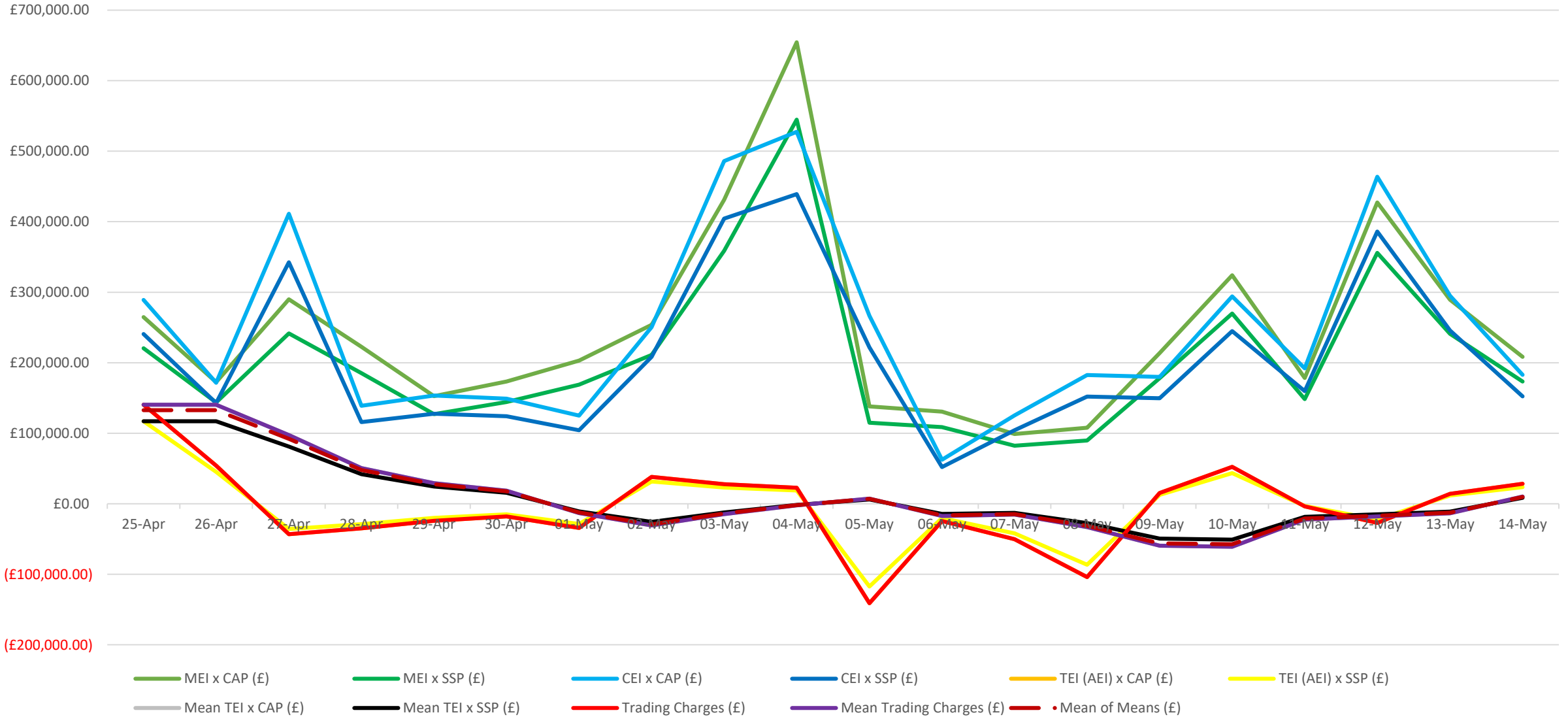
	9 Jun23	10 Jun 23	11 Jun 23	12 Jun 23	13 Jun 23	14 Jun 23	15 Jun 23
£90,000	£70,000	£100,000	£85,000	£90,000	£85,000	£90,000	No Data
		Mean Period – 5 Days					Mean = £90,000
	Mean Period – 5 Days					Mean = £86,000	N/A
	Mean Period – 5 Days				Mean = £87,000		

# Data Analysis – 5 Day Mean



# Data Analysis – 5 Day Mean

## Generation Business



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**Do you have any feedback on the proposed solution of using estimated Trading Charges?**

① Start presenting to display the poll results on this slide.

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**Do you agree with the proposed solution of using estimated Trading Charges?**

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## Estimated Trading Charges

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### Option Two - Proxy for Meter Read and use Trading Charges Calculation

- A. Supplier input akin to PN – as discussed previously
- B. Use BMCAICi/ BMCAECi – either existing values or extension of previously discussed option
- C. Use Estimated Meter Data calculations elsewhere in the BSC
  - i. BSCP03 – for CVA – carried out by CDCA
  - ii. BSCP 502 for SVA HH Data – carried out by HHDC
  - iii. BSCP 504 for SVA NHH Data – carried out by NHHDC
  - iv. Data Service and/or LSS post MHHS Implementation

### Points to consider

- Based on debt incurred, rather than estimated energy volumes
- Larger estimation periods flattens out irregularities, but need to consider seasonal variation and WD/NWD
- Still an estimate, but could be as little as 1 Calendar Day rather than 5WD
- Still have potential Party specific issues, but could be mitigated by Option 2a
- Option 2B is transferring existing issues but only one Calendar Day
- Option 2C – relies on Agents submitting estimates daily to ECVAA (directly or via other Systems depending on time line)

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**Do you have any feedback about using a Proxy for Meter Read?**

① Start presenting to display the poll results on this slide.



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**Do you prefer the option 2.a or 2.b?**

① Start presenting to display the poll results on this slide.

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**Do you prefer the alternative proposed solution of using a proxy for Meter Reads to using an Average of Trading Charges?**

① Start presenting to display the poll results on this slide.

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**Which of the presented options shall we put forward?**

① Start presenting to display the poll results on this slide.

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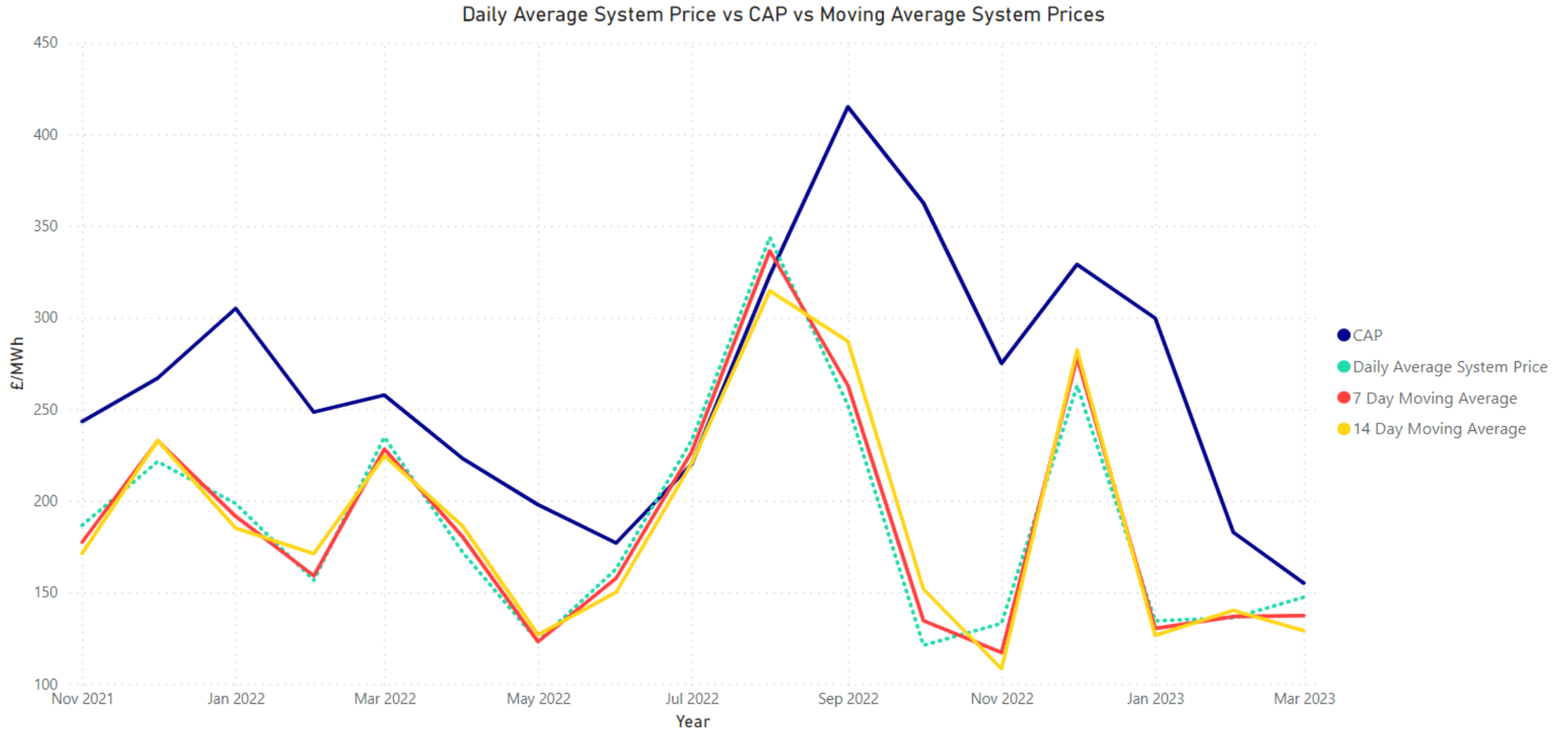
**Which of the presented options shall we rule out?**

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# CAP PROPOSAL

# Credit Assessment Price (CAP) – Analysis of CAP V System Prices



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## Credit Assessment Price (CAP)

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### What does the Analysis show?

- Historic CAP is consistently greater than daily system prices. There is a disconnect between the CAP and the Imbalance Price. In general the CAP value set has been higher than the average Imbalance Price.
- There is little difference between 7 & 14 day moving average of system prices. 14 day would be slow to react to price changes and wouldn't be as reflective as smaller day moving average prices.
- Using either the 7 or 14 day moving average of system prices is more representative of final out turn prices.
- All methods are unable to account for sudden spikes/dips in system prices.

### Current Process & Historic CAP Values

- Alternative CAP process allows Credit Committee to decide on which pricing data sources to use. Weather to use Imbalance Price or Forward Market Prices.
- Credit Committee have greater input on setting the CAP value through meetings and consultations.
- There are few responses from industry to CAP consultations.
- Greater focus on historic CAP changes due to extreme system prices.
  - CAP increased to record highs which greatly impacted customers and the required level of credit collateral.
  - As market conditions have improved, CAP has decreased, along with significant administrative efforts.

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# Credit Assessment Price (CAP) - Proposal of Changes & Considerations

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## Solution Proposals

- Make the CAP change process mechanistic/automated
  - CAP change would occur based on an automated process calculated within ECVA.
- CAP change could be based on average system prices instead of forward market prices
  - An average of the System Price going back X number of days could be used as the new CAP value. Could use the 7 day moving average price?
  - If aim is to get closer to System Prices this would allow CAP to be more aligned.
- Changes to the current process
  - As CAP process would become automated and set using average Imbalance Prices, potential for Credit Committee to no longer consult on a new CAP value.
  - Would potentially no longer have a say on which pricing data to use.
  - As CAP change would occur more frequently, are Parties comfortable with this in respect of their Credit requirements?
- Should there be wholesale changes to the current process?
  - Frequent CAP changes follow extreme changes in System Prices and hence CAP process can be intensive. During periods of stable prices, less frequent CAP changes
  - Ultimately, do we believe the last 2 years of Imbalance Prices will be the new normal?



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**Do you have any feedback about the proposed CAP solution?**

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**Do you agree with the proposed CAP solution?**

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# CREDIT DEFAULT PROPOSAL

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## Credit Default Proposal

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- Elxon received a proposal to modify the Credit Default Refusal/Rejection Periods in relation to Energy Contract Volume Notifications (ECVN) and Metered Volume Reallocation Notifications (MVRN) after a Party goes into Level 2 Credit Default.
- The Refusal & Rejection of ECVNs and MVRNs would only be notifications which increase the Energy Indebtedness of a Party.
- The proposal is based on the feedback received and the discussions held during Issue Group Meeting 2.
- It does not fundamentally change the Credit Default process, instead modifies the timings to mitigate the impacts of Level 2 Credit Default.

### Proposed change to Section M 3.3.3 a (i)

#### From:

- '(i) the "Credit Default **Refusal** Period" is the period from the Submission Deadline for **Settlement Period J** until the Submission Deadline for the Settlement Period after the first subsequent Settlement Period in relation to which the Credit Cover Percentage for the Imbalance Party becomes not greater than ninety (90) per cent (%)'

#### To:

- '(i) the "Credit Default **Refusal** Period" is the period from the Submission Deadline for **Settlement Period J+4** until the Submission Deadline for the Settlement Period after the first subsequent Settlement Period in relation to which the Credit Cover Percentage for the Imbalance Party becomes not greater than ninety (90) per cent (%)'
- The proposal delays the refusal of any new ECVN's & MVRN's which is submitted during the Credit Default Refusal Period by a further 90 minutes (3 Settlement Periods) from the current process.

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## Credit Default Proposal - Changes to Refusal/Rejection of ECVNs/MVRNs

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### Proposed change to Section M 3.3.3 a (ii)

From:

- '(ii) the "Credit Default **Rejection Period**" is the period from the Submission Deadline for **Settlement Period J+3** until the Submission Deadline for the third Settlement Period after the first subsequent Settlement Period in relation to which the Credit Cover Percentage for the Imbalance Party becomes not greater than ninety (90) per cent (%)'

To:

- '(ii) the "Credit Default **Rejection Period**" is the period from the Submission Deadline for **Settlement Period J+4** until the Submission Deadline for the third Settlement Period after the first subsequent Settlement Period in relation to which the Credit Cover Percentage for the Imbalance Party becomes not greater than ninety (90) per cent (%)'
- The proposal delays the rejection of any upcoming previously accepted ECVN's & MVRN's which falls within the Credit Default Rejection Period by a further 30 minutes (1 Settlement Periods) from the current process.

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## Option 1 – Changes to Refusal/Rejection of ECVNs/MVRNs

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- The proposal is a simple relaxation of the current rules and process in place within the system.
- By delaying the refusal/rejection period, it reduces the impact to counterparties as allows time to take action and cover their position with any Party that is currently in Default.
- The additional risk to the Market is a Defaulting Party could continue trading for a further X Settlement Periods. However with the large majority of previous Defaults, particularly Suppliers, this would not have affected the outcome.
- There is a small increase in risk, however has significant benefits to help counterparties resolve forced imbalance contract positions.
- Would require a modification to be raised to change. Could be included as a much wider mod.

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**Do you have any feedback on the Credit Default proposal of changing the Refusal/Rejection Period of ECVNs/MVRNs?**

① Start presenting to display the poll results on this slide.

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**Do you agree with the Credit Default proposal of changing the Refusal/Rejection Period of ECVNs/MVRNs?**

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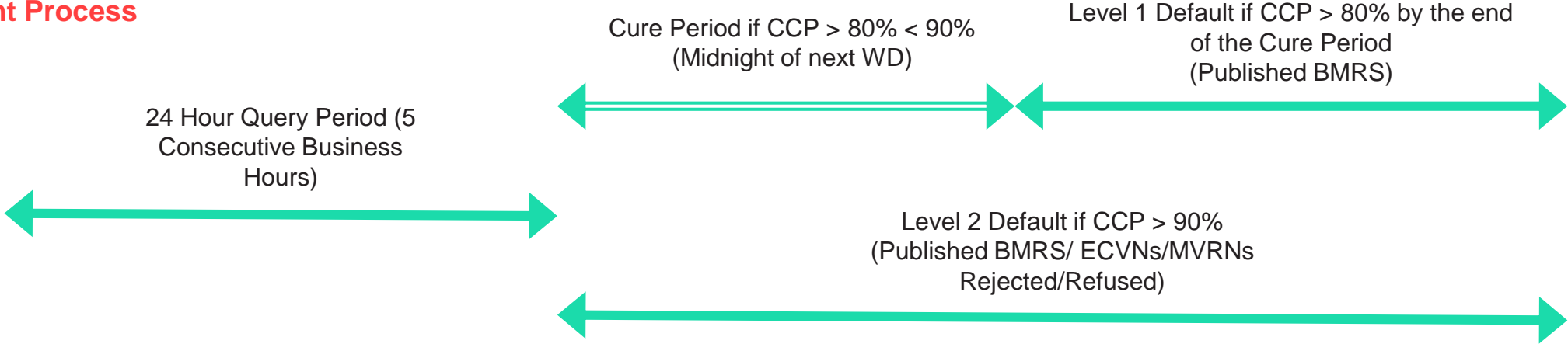
## Option 2 – Changes to Cure Period

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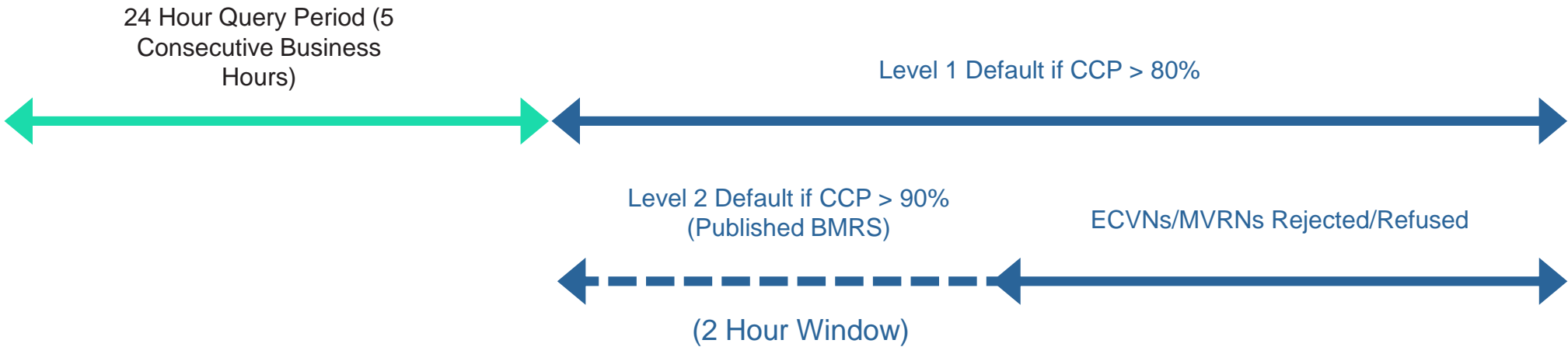
- Proposal to remove the Cure Period altogether.
- The 24 Hour Query Period remains. No change to this part of process.
- By removing the Cure Period, simplification of the process and enables parties to better understand their credit position.

# Credit Default - Proposal of Changes/Improvements

## Current Process



## Proposed Process



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**Do you have any feedback on the proposal of removing the Cure Period?**

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**Do you agree with the Credit Default proposal of removing the Cure Period?**

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# NEXT STEPS



# FURTHER DEVELOPMENT

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## Next Steps

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- Further data analysis if required
- Request T-Shirt estimates of system changes
  - Develop requirements
  - Draft Change Request
- High Level Cost-Benefit Analysis of Options
- Review estimates and CBA with Issue Group
- Outcome of above could help determine forward looking part of calculation i.e. most efficient way to estimate values

## What is still on the agenda?

- According to the discussion plan presented, and the feedback gathered, the Issue Group should discuss the following topics during the next meetings:

Topic	Issues	WS	Meeting	Outcome
Mutualisation	Is it fair for everyone to pay one's debts? 'Looking forward' part of new Credit Cover calculation	WS 3	4	The Issue Group should discuss a risk-based approach to mutualisation
Enforcement	What's the Elexon-Ofgem handover?	WS 5	5	Are current enforcement mechanisms enough? Could the SoLR be appointed sooner?



## Progression plan

Event	Date
Issue Group meeting 1	22 February 2023
Issue Group meeting 2	23 March 2023
<b>Issue Group meeting 3</b>	<b>15 June 2023</b>
Issue Group meeting 4	July/August 2023
Issue Group meeting 5	August/September 2023
Issue Group meeting 6	TBC
Issue Final Modification Report to Authority	TBC



ANY OTHER  
BUSINESS

MEETING CLOSE

# ELEXON

THANK YOU

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**Cecilia Portabales**

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