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Anna Collyer
Chair
Australian Energy Market Commission

ERC0384

Dear Ms Collyer

Consultation Paper – Shortening the settlement cycle

This letter and attachment constitute AEMO's submission to the Consultation Paper, published 22 February 2024, on the rule change request to shorten the settlement cycle from 20 business days to 10 business days ("the proposal").

AEMO appreciates the opportunity to respond to the Consultation Paper. AEMO has included an initial assessment of this proposal and agrees that a shorter settlement cycle could reduce overall prudential risk and may provide credit relief to market participants.

This submission also presents the implementation considerations for a shorter settlement cycle. A shorter settlement cycle will require changes to the metering and settlements processes that enable the prudential framework and support the operations and financial resilience of the market. This will be required given the relationship between available metering data and the settlements handling processes. AEMO is mindful of the links between this rule change and the *Accelerating Smart Meter Rule change*, where increasing access to smart meters presents an opportunity to update settlement processes previously designed for legacy accumulation meters, such as the length of the settlement cycle.

AEMO acknowledges the role a shortened settlement cycle is likely to have in reducing participant Maximum Credit Limits (MCLs) and the forward settling of wholesale and derivative contracts. The effect and ability to implement this change is dependent on the broader prudential framework, including Credit Limit Procedures (CLPs), and metering data availability and settlements process. The timing of any decision to change the settlement cycle should therefore have a logical progression to allow for assessment of all issues and be sequenced to align with the evolving market.

If you have any questions regarding this submission please contact Kevin Ly, Group Manager – Reform Development & Insights on kevin.ly@aemo.com.au.

Yours sincerely,

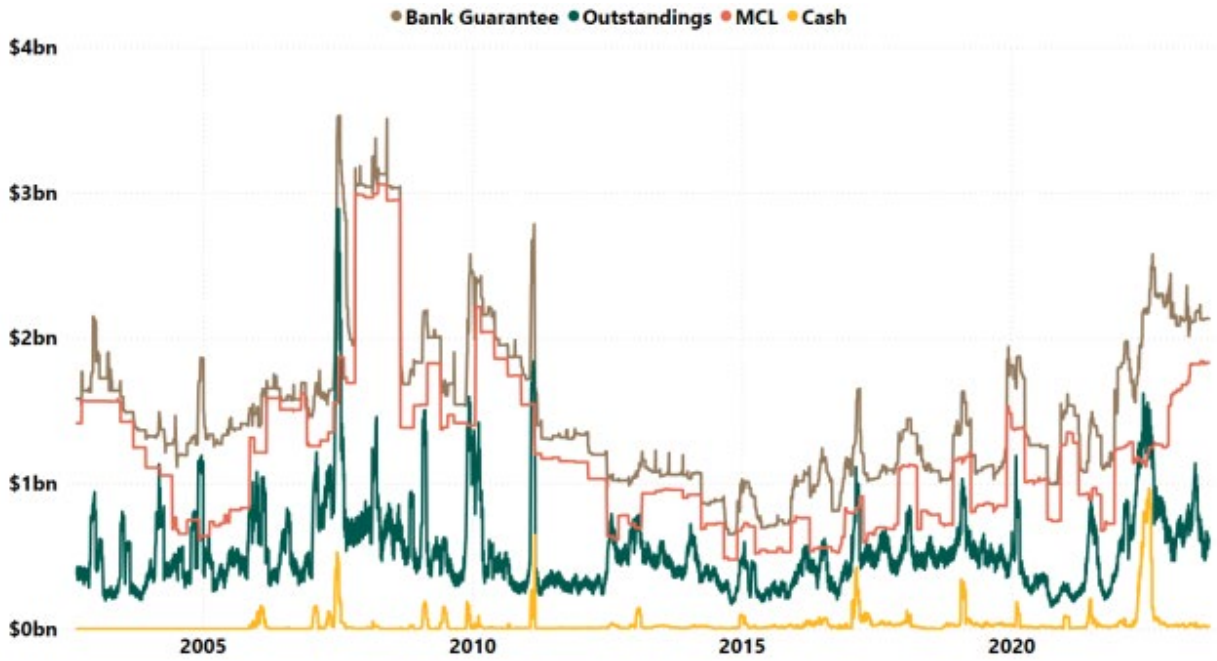
Violette Mouchaileh
Executive General Manager – Reform Delivery

ATTACHMENT – Assessment of prudential impact and implementation requirements

The NEM requires all settlements to be performed by AEMO, rather than bilaterally between participants. To ensure AEMO can pay creditors, AEMO requires potential debtors to provide credit support (bank guarantees, etc.) with the target of minimising the probability of loss, should a debtor default on its payments, to 2%.

From a whole of NEM perspective credit support requirements are at the highest levels since 2011 (as shown in Figure 1 below), primarily driven by higher prices and price volatility. Reducing the settlement cycle is likely to reduce the overall value of prudential risk in the NEM via smaller accumulation of outstanding amounts, the size of any possible prudential shortfalls is reduced. While this is a reduction in the overall potential quantum of potential prudential shortfalls, the value of this should be considered within the context of the increased complexity in managing prudential requirements for a range of market participants. Prudential risk is driven not just by the potential quantum of shortfall given default, but challenges of managing prudential risk within an increasingly complex market and with an increasingly diverse range of retailers.

Figure 1 Key prudential indicators (1999 to 2023)[1]



For retailers, and as identified in the proposal, derivative contracts that are used to negate exposure to high electricity prices do not reduce the gross outstandings (debts) to AEMO unless they are submitted to AEMO as reallocations. This means a debtor is required to provide credit support for the full value of AEMO debts, by providing ex-ante credit support through the MCL, voluntary credit support, or payment of an AEMO Call Notice, irrespective of whether a derivative contract exists where the participant is the creditor to an offsetting cashflow. For a debtor, this may tie up cash or increase bank liabilities which limits availability to use capital in other parts of the business.

[1] AEMO, 2023 Report on effectiveness of the NEM prudential settings methodology, page 9 - https://aemo.com.au/-/media/files/electricity/nem/settlements_and_payments/prudentials/2023/report-on-effectiveness-of-the-nem-prudential-settings-methodology-2023.pdf?la=en

Reallocation instruments[2] allow market participants to request AEMO to make matching debit and credits to reflect the "net" position of market participants in settlement. The simplest form is a MWh reallocation of energy from one participant to another, thus allowing automatic inter-company transfer of settlement amounts. These reallocations can be performed ex-ante and be accounted for in AEMO's seasonal calculation of MCL, reducing requirements for credit support, or after the trading day - to simply transfer volumes, or cash amounts from one participant ID to another.

AEMO has undertaken an initial assessment of reallocation data that is visible to AEMO. The significant majority (more than 80%) of reallocations in the NEM are intra-company reallocations where, typically larger, participants transfer liability between their corporate entities. If only energy (MWh) inter-company reallocations are considered, smaller retailers make up 20 to 30% of inter-company MWh reallocated. Swap reallocations are currently not widely used. AEMO acknowledges that for smaller retailers, reallocations may be more difficult or costly to access and if so, may be limited in their function of reducing net participant outstandings to AEMO.

1 Prudential impacts

1.1 The effect of a shorter settlement cycle on credit support requirements

AEMO agrees that shortening the settlement period would likely result in a reduction in participant MCLs and the quantum of credit support required for participants. However, the size of the reduction is non-linear and not proportional to the number of settlement days reduced. The reduction in MCL must be considered in the context MCL methodology as described in the Credit Limit Procedures.[3]

The minimum amount each participant must provide in credit support to AEMO is equivalent to its Maximum Credit Limit (MCL). The MCL is made up of the Outstandings Limit (OSL) and the Prudential Margin (PM).[4] The OSL component is the value of a trading day average over 35 days. That is, the 7-day billing period and the 20-business day (or 28-day) settlement period. Shifting the settlement cycle to 10 business days reduces the OSL time period to 21 days.

At a high level, the OSL is calculated as a function of a participants' estimated load and reallocations, as well as regional calculations including estimated regional reference price (RRP) and volatility factor (VF_{OSL}). While a shorter settlement cycle would reduce number of days in the calculation, it is likely that VF_{OSL} would increase as it is calculated over a shorter number of days. This is particularly likely for regions with higher price volatility.

AEMO has completed a preliminary assessment of the impacts of a 10 day settlement cycle (i.e. 21-day OSL time period), with the table below showing possible MCL reductions and changes in VF_{OSL} over the past three MCL seasons.[5] Overall, the MCL reductions are estimated in the vicinity of 10-20%. The total MCL over 2023 was $1.4 billion, so estimated credit support reductions from MCL requirements equate to $140 million to $280 million.

This is compared at a high-level (noting this is an incomplete assessment of a participant position) to the cost reductions included in the proposal.

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[2] AEMO, Reallocation procedure – swap and option reallocations, https://www.aemo.com.au/-/media/files/electricity/nem/settlements_and_payments/prudentials/2024/reallocation-procedure-swap-and-option-offset-reallocations.pdf?la=en

[3] AEMO, Credit Limit Procedures - https://aemo.com.au/-/media/files/electricity/nem/settlements_and_payments/prudentials/credit-limit-procedures.pdf?la=en

[4] MCL = OSL + PM

[5] This preliminary analysis calculates the VF_{OSL} for 21 days by assuming a linear relationship between the current VF_{OSL} for 35 days and current VF_{PM} for 7 days. In practice, the VF_{OSL} would be recalculated for a 21 day time period in AEMO's prudential model.

- Large participants – assuming 90% of load coverage and 2% per year cost of finance
    - Potential total savings from MCL reduction = $2.5 m to $5 million.
- Smaller participants – assuming 10% load coverage and 10% per year cost of finance
    - Potential total savings from MCL reduction = $1.4 m to $2.8 million.
- Total costs savings = $3.9 million to $7.8 million per year. This is compared to the proposal estimated savings of $9.6 million to $12 million per year.

Table 1 Estimated volatility factors and MCL reductions

	Shoulder 2023			Summer 2024			Winter 2024		
	VF_{OSL} (20-day sett cycle)	VF_{OSL} (10-day sett cycle)	Change in MCL	VF_{OSL} (20-day sett cycle)	VF_{OSL} (10-day sett cycle)	Change in MCL	VF_{OSL} (20-day sett cycle)	VF_{OSL} (10-day sett cycle)	Change in MCL
NSW	1.3	1.6	22%	1.5	2.2	9%	1.5	1.9	19%
QLD	1.4	1.6	23%	1.5	2.2	10%	1.5	1.9	20%
SA	1.4	1.7	21%	1.8	3.0	-2%	1.6	2.1	15%
TAS	1.5	1.7	26%	1.4	1.5	29%	1.8	2.0	27%
VIC	1.4	1.6	26%	1.6	2.7	1%	1.6	1.9	21%

1.2 Call notices are unlikely to be affected by a change in settlement cycle

As set out in 2.3 of the Consultation Paper, participant outstandings are consistently compared to their Trading Limit (TL) through each business day. A participant's TL is the amount of credit support provided by the participant less their PM[6]. Outstandings are the value of net trading liability to AEMO. Call notices typically occur during periods of price volatility or when market prices are greater than those accounted for in the MCL calculations. Participants may hold cash reserves or lodge additional bank guarantees to cover the potential payment of a call notice, prior to the settlement of derivative contracts.

While AEMO agrees that reducing the settlement cycle may reduce the amount of working capital a participant needs to hold to respond to call notices, at this stage, AEMO considers there is no indication that trading limit breaches would be reduced under a shorter settlement cycle. The occurrence of call notices is primarily dictated by market conditions and the level of credit support provided by each participant.

1.3 Prudential standard

The CLP sets out the methodology to calculate inputs, including volatility factors, that are used to set MCLs to the prudential standard of 2% prudential probability of exceedance. The purpose of the prudential standard is to provide a target for each region, within which AEMO seeks to maintain the risk of loss in the event of participant default. While the statistical modelling underpinning the prudential standard calculation would need to be updated to account for a shorter settlement cycle, AEMO does not consider a change in the settlement cycle itself would impact the ability to achieve the prudential standard.

The *2023 Report on the effectiveness of the NEM prudential settings methodology*[7], sets out recent trends on MCL levels and if the prudential standard has been met[8]. The report shows the prudential probability of

[6] Where a participant has provided to AEMO the minimum credit support (their MCL), the participant trading limit is their OSL.

[7] AEMO, 2023 Report on effectiveness of the NEM prudential settings methodology, https://aemo.com.au/-/media/files/electricity/nem/settlements_and_payments/prudentials/2023/report-on-effectiveness-of-the-nem-prudential-settings-methodology-2023.pdf?la=en

[8] Not meeting the prudential standard does not mean there has been any shortfall within a given year

exceedance (POE) above the prudential standard in all NEM regions except SA. As the POE is additive, exceedances from previous years caused by changing price dynamics over the lifetime of the NEM are retained in current POE calculations. As identified in the report, AEMO will continue to explore ways the Rules, regional model and/ or CLP could be updated to ensure MCLs are set appropriately, and the prudential standard is met in the future. AEMO considers a shortened settlement cycle could be a further opportunity to consider what changes may be required.

1.4 NEM financial exposure and systemic risk

As shown in Figure 1, there have been periods where the total amount of collateral held by AEMO has increased significantly, for example during 2007-2008 this amount was approximately $3.5 billion. This collateral, along with other lines of credit being held to manage spot price and volume risk can create a large financial exposure from the NEM. This exposure is ultimately borne by the financial sector, including large financial institutions and other parties. The ability for the financial sector to absorb extended periods of large financial exposure may give rise to systemic risks, as has been identified in previous reviews conducted by AEMO[9] and the AEMC[10].

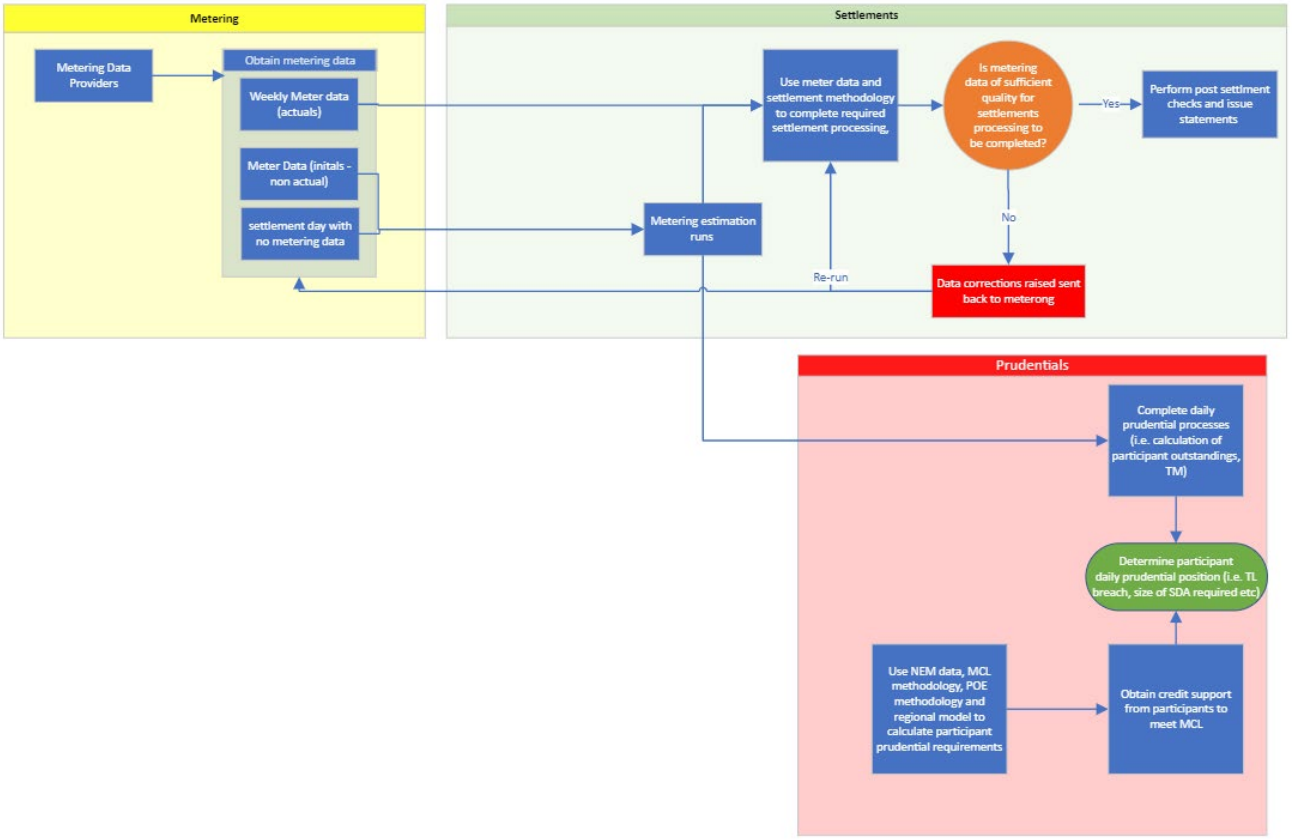
2. Settlements, metering and prudentials landscape

The below diagram sets out the high-level processes embedded within the settlement cycle, including daily processes required to determine the prudential position and the checks required to issue settlement statements. This shows the dependencies and relationship between metering, settlements and prudentials requirements.

Changing the settlement cycle should be made with regard to the metering data requirements and settlements processes that underpin and enable the prudential framework.

[9] AEMO, Energy Market Prudential Readiness Review, 2011
[10] AEMC, Review into the role of hedging contracts in the existing NEM prudential framework, 2010

Figure 2 High-level summary of processes within the settlement cycle[11]



2.1 The metering landscape

Settlements processes and prudential requirements are a function of the underlying and available meter data. There are different types of metering data in the NEM and different ways of collecting, processing, and delivering that metering data to AEMO and other market participants. Settlements processes in the NEM where originally designed for Type 6, **manually read metering installations** that record accumulated metering data over the reading period. In contrast, r**emotely read metering installations** (smart meters), record energy flows precisely for each 5-minute interval in a trading day.

Shortening the settlement cycle decreases the timeframe for AEMO to receive and collate metering data and undertake any required metering estimations or resolve any metering exceptions. This would need to be worked through as part of implementation including assessment of the data delivery calendar, MDP requirements and metering SLAs.

In addition, while remotely read metering installations are progressively increasing in volume, the currently active rule change consultation for *accelerating smart meter deployment*[12] further signals a change in the metering installations that support settlement.[13] This presents an opportunity to consider and structure end-to-end settlements processes, including a shorter settlement cycle, for a widespread remotely read interval metering data market. This includes developing systems and processes to manage and resolve meter data exceptions and corrections. AEMO is mindful that the timing of any adjustments should have a logical

[11] This is a high-level, summary diagram and does not include all steps or processes.

[12] AEMC, Accelerating the deployment of smart meters and unlocking their benefits – https://www.aemc.gov.au/rule-changes/accelerating-smart-meter-deployment

[13] The penetration of smart metering (at a high level) is publicly available info via our data dashboard AEMO | Data (NEM)

progression and should be staged to develop settlements and metering processes in the context of increased remotely read interval meters.

3 Implementation considerations

Shortening the settlement cycle requires assessment and consideration of all current settlements processes as well as future opportunities enabled by greater coverage of smart meter data.

This would include broad consideration of changes required to settlements processes and systems including, MDP service level requirements, compliance management processes and obligations and improvements to the exception-handling process including tooling.

Key issues that would need to be worked through as part of implementation are included below, noting this is a non-exhaustive list. AEMO considers defining a specific length of the settlement cycle in isolation of these processes, does not fully capture the scope of the required change. AEMO welcomes the opportunity to further discuss this with the AEMC and industry stakeholders.

- Settlements processing time – Although coverage of manually read meter data is decreasing, if a shorter settlement cycle is progressed with current levels and required estimations, there may be increased risks or issues associated with a greater volume of estimations, further substitutions and less time to resolve any communication or data issues.
- Data corrections - The implementation of a shorter settlement cycle may increase the potential inability to address data corrections and re-runs within required timelines, ultimately resulting in the correction of data being shifted from the Final statement to the first revision at 20 weeks.
- Resolving metering data issues – timing of the settlement cycle and the process for resolving metering data issues, including engagement and requirements for MDPs. Processing and resolving metering data issues is required to minimise variation between Final and Revision. An increase in variation between Final and Revision may create risks for participants who manage their cash flow tightly based on Final.
- Systems for processing settlements data and associated re-runs – Posting Final statements on lower quality data, could lead to increased utilisation of systems for processing settlement data and associated costs due to re-runs, potential disputes, special revisions, and participant requests.
- Consequential effects on compensation payments -
    - A shorter settlement cycle requires shorter processing times for provisional compensation (e.g. a reduction from 12 to 4 business days when preliminary settlement statements are available). While acknowledging this may be achievable for BAU directions (e.g., system security), consideration should be given to the changes required to process other compensation such as reliability directions, secondary compensation resulting from intervention pricing events and market suspension compensation.
    - AEMO's current practice involves assessing directions that span across two billing weeks as a single assessment. This would require update under a shortened settlement cycle, with consideration of how billing weeks may be split into two assessments.