Shortening the Settlement Cycle



Final determination high level implementation assessment

February 2025

Preliminary view for participants on how the rule change may be implemented by AEMO



Important notice

Purpose

AEMO has prepared this document to provide information about the implementation design of the AEMC's *Shortening the settlement cycle* rule determined on 12 December 2024.

Disclaimer

This document or the information in it may be subsequently updated or amended. This document does not constitute legal, business, engineering or technical advice. It should not be relied on as a substitute for obtaining detailed advice about the National Electricity Law, the National Electricity Rules, or any other applicable laws, procedures or policies or the capability or performance of relevant equipment. AEMO has made reasonable efforts to ensure the quality of the information in this document but cannot guarantee its accuracy or completeness.

Accordingly, to the maximum extent permitted by law, AEMO and its officers, employees and consultants involved in the preparation of this document:

- make no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of the information in this document; and
- are not liable (whether by reason of negligence or otherwise) for any statements or representations in this document, or any omissions from it, or for any use or reliance on the information in it.

Copyright

© 2024 Australian Energy Market Operator Limited. The material in this publication may be used in accordance with the <u>copyright permissions on AEMO's website</u>.

Version control

Version	Release date	Changes
0.1	19 September 2024	Draft for industry comment
1.0	11 February 2025	Final based on final determination

Contents

1	Introduction	5
1.1	Rule change process	5
1.2	HLIA document purpose	6
1.3	Changes between the Draft and Final HLIA	6
1.4	Key dates	7
1.5	Stakeholder feedback invited	7
1.6	Stakeholder engagement	8
2	Market design	9
2.1	SSC rule: Adoption of a shorter settlement cycle	9
2.2	SSC rule: Adaption of the credit limit procedures	10
2.3	SSC draft rule: Transition to a shorter settlement cycle	11
3	AEMO key impacts	11
4	AEMO procedure impacts	15
5	AEMO system impacts	17
5.1	System and data exchange overview	17
5.2	Data model, schemas, and technical specification impacts	19
5.3	Data growth impacts on system capacity	20
6	Implementation pathway	20
6.1	Key delivery considerations	20
6.2	Proposed delivery timeline	21
6.3	Risks	22
7	Participant impact assessment	23
7.1	SSC high-level participant impact assessment	23
7.2	Indicative industry readiness approach	24
8	Related reforms	27
A1.	Impact ratings	29
A2.	Glossary	30

Tables

Table 1: SSC rule and HLIA timeline

Table 3: Indicative assessment of implementation impacts

Table 4: Tabular view of focus area impacts from the SSC rule	13
Table 5 Current relevant AEMO Wholesale market procedures and other documentation	15
Table 6 Current relevant AEMO Retail and Metering market procedures and other documentation	16
Table 7: AEMO System Impacts	18
Table 8: Potential changes to MMS Data Model	19
Table 9: Potential impacts to technical specifications	19
Table 10: Schema Impacts	20
Table 11: Initial assessment of the SSC implementation risks	22
Table 12: Resolved SSC implementation risks	22
Table 13: Indicative SSC high-level participant impact	23
Table 14: Indicative SCC industry readiness approach	25
Table 15: SSC project's relationship with other key initiatives	27
Figures	
igure 1: Current and shorter settlement cycle	9
igure 2: Current and shorter settlement cycle outstandings period timeframes	10
igure 3: Illustration of a transition from current to shorter settlement cycle	11
igure 4: Heat map of focus area impacts	13
igure 5: Participant Interaction Impacts	17
igure 6: Proposed delivery timeline	21
igure 7: Indicative readiness approach	25

7

12

1 Introduction

1.1 Rule change process

Background

In December 2023 Globird Energy submitted a <u>rule change request</u> to the Australian Energy Market Commission (AEMC) to shorten the settlement cycle under the National Electricity Rules (NER). The rule change request proposed to bring forward the posting of preliminary statements to 3 business days, and final statements to 8 business days, following each billing week in the National Electricity Market (NEM). Financial settlement would then occur on the 10th business day. Financial settlement of final statements is currently made on the 20th business day following a billing week.

Globird indicated the intent of the proposed change was to reduce the working capital needs of market participants (typically retailers) to meet AEMO's prudential collateral requirements to cover accrued liabilities in the NEM, primarily for settlement amounts.

Issue

The current 20 business day settlement cycle requires prudential collateral (credit support) that covers 35 days of accrued unpaid settlement amounts, plus a 7 day reaction period following any payment default. Each market participant's credit support is based on its typical daily accrual adjusted for volatility, established in accordance with the <u>credit limit procedures</u> (CLP). The credit support requirements can be significant, particularly for smaller retailers that are less likely to have a corporate generation portfolio to offset their prudential position, and may have greater financing costs for (or must cash back) bank guarantees.

Bilateral contracts between retailers and (typically) generators are usually only settled on the NEM final settlement date for the contract period. During high pricing periods, retailers must respond to an increase in accrued liabilities by providing cash security deposits or increased credit support to AEMO for an exposure which may well be fully hedged outside of the NEM. The additional amount of cover required by AEMO is a function of the credit support, number of unpaid days that have accrued and the distribution of high price events during those days.

Benefits

The AEMC's determination on the Shortening the Settlement Cycle (SSC) rule¹ noted that a shorter settlement cycle will reduce the amount of credit support that must be lodged with AEMO for most market participants and should reduce the amount of working capital held by a participant to manage its prudential position.

Among other benefits, final determination indicated that lower working capital requirements for small retailers in particular would lower barriers to market entry and support increased investment in service innovation and more competition. This should benefit consumers through access to more choice and better service offerings².

¹ AEMC, Shortening the settlement cycle, Final rule determination, 12 December 2024

² Ibid, at page iv

1.2 HLIA document purpose

This HLIA has been produced as a step in AEMO's SSC reform implementation process under the NEM Reform Program. It provides a view to participants on how AEMO plans to implement the SSC rule. It outlines the proposed system, data exchange, process and operational changes likely be required to give effect to the SSC rule, with an indicative timeline. This HLIA also provides a general assessment of what these changes may mean for NEM participants.

The HLIA is intended to:

- Facilitate stakeholder understanding of the early implementation design and timeframes consistent with the SSC rule.
- Assist affected participants in developing their own implementation timelines and impact assessments.
- Enable AEMO and participants to plan for the SSC initiative in the context of the broader <u>NEM Reform</u>
 <u>Implementation Roadmap</u>, specifically looking for bundling opportunities and efficient sequencing to reduce delivery congestion and cost.

1.3 Changes between the Draft and Final HLIA

To facilitate industry discussion AEMO presented three pathways in the draft HLIA that represented the draft rule as written (Pathway 1), the draft rule as written with additional scope to help speed the resolution of metering exceptions (Pathway 2), and a proposed alternative approach that included an additional 20 day revision (Pathway 3). The final HLIA presents a single pathway that represents the final rule determination which closely aligns with Pathway 3.

1.4 Key dates

Table 1: SSC rule and HLIA timeline

Activity	Timeline
AEMC SSC Draft Rule and Determination published	Thu 8 Aug 2024
EMO SSC Draft HLIA v0.1 published	Thu 19 Sep 2024
AEMO Industry briefing on SCC Draft HLIA	Mon 23 Sep 2024
takeholder submissions on AEMC's Draft Determination due	Thu 3 Oct 2024
takeholder feedback on SSC Draft HLIA due	Mon 14 Oct 2024
EMC SSC Final Rule and Determination published	Thu 12 Dec 2024
EMO SSC Final HLIA v1.0 published	11 Feb 2025

1.5 Stakeholder feedback invited

AEMO received eight responses from Stakeholders to the draft HLIA and significant attendance at their HLIA related workshops. AEMO thanks all stakeholders for their engagement in this HLIA process. Stakeholder feedback and AEMO's consideration is presented in Table 2.

Table 2: Summary of Stakeholder feedback to draft HLIA

Feedback area	Feedback	Discussion
Market Design	 Key issues captured appropriately Further clarity on transition plan required Opportunity to incorporate cash as collateral 	 AEMO plans, and is required, to consult on the transition plan with industry by Dec 2025. Cash as collateral is the subject of a current rule change project, AEMO will take this into account in the development of new systems as appropriate.
AEMO's impacts	 Useful assessment Difficult to compare pathways without costs Concerns about meter data exception enhancement Support for R0 to manage meter data exceptions 	 AEMO provides the AEMC indicative implementation costs for AEMO's part of the delivery solution. This provides some context on relative costs to inform the AEMC's decision making process. These costs do not consider participant costs as these are not known to AEMO. AEMO does not consider it appropriate to publish their costs because they do not provide a complete picture. The AEMC may publish the costs of the Rule implementation options at their discretion. The final rule has mitigated the issue of managing data exceptions.
AEMO procedure impacts	 List appears comprehensive More full review will be required once final rule is made Clarity on UFE data in MMS and RM reports incorporating R0 will be required 	 AEMO will conduct a comprehensive review of procedure impacts during the project planning phase in early 2025. AEMO notes the requirement for clarity on UFE data in reports and will consider during detailed design.

Feedback area	Feedback	Discussion
AEMO system impacts	 Impacts are appropriately captured Clarification required on RM28 report Clarification sought on meter data exception market portal 	 AEMO will address the RM28 report clarification during detailed design. There is currently no plan for a meter data exception portal for the SSC rule as made.
Implementation pathway	 Differing opinions on timelines Support alignment with scheduled releases Orderly transition during a shoulder period preferred Short transitions period supported 	 AEMO will plan to implement in accordance with rule timing. Transition will be consulted on and conducted in accordance with transitional rules. Transition is to occur during shoulder period.
Participant impact assessment and readiness	 Concerns about complexity but general support for the R0 Emphasis on participant readiness as key Metering exception enhancement not supported 	 AEMO will work closely with industry to ensure market preparedness for this change. Metering exception enhancement not mandatory under the rule as made.
Related Reforms	 Reforms like FTA and accelerated meter roll out not considered adequately R0 pathway preferred given no new portals for metering exceptions required to conflict with other reform work scope 	AEMO will seek to manage SSC implementation cognisant of other reform initiatives.
General comment	 Interaction during HLIA has been useful HLIA should be more risk focused Three pathways created challenges for reader Meter data settlement and financial settlement needs to be better clarified Include numbering on each question and separate row for each question for better alignment with answers 	 AEMO will share this feedback with other reform initiatives to consider. AEMO notes need to distinguish between metering and financial settlement processes. Single pathway only in this document.

1.6 Stakeholder engagement

The NEM Reform Program supports affected market participants in each reform phase from implementation design, procedures development, solution delivery and through to industry testing. In the mobilisation phase of AEMO's project, a stakeholder engagement plan will be developed in consultation with industry to identify the optimal touch points with participants affected by SSC. The plan will include NEM Reform forums and direct email communications, other related retail and wholesale forums, focus groups and one-to-one conversations if necessary.

For more information:

- NEM Reform Forums
- AEMO | NEM Reform Newsletters
- Contact us directly at NEMReform@aemo.com.au

2 Market design

The SSC rule has three major implementation components:

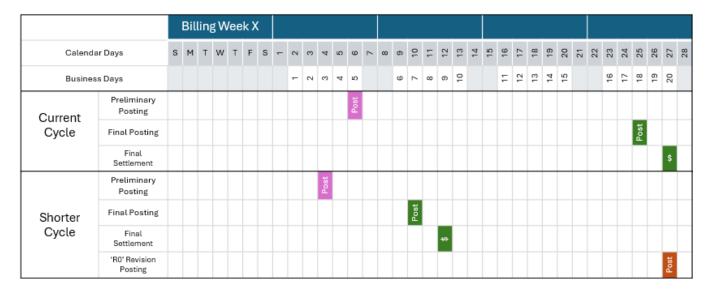
- Establish metering and settlement processes that support a new, shorter settlement cycle.
- Adapt the credit limit procedures and supporting process to reflect the shorter settlement cycle.
- Transition metering, settlement and prudential processes from the current settlement cycle to the shorter settlement cycle.

This section provides a high-level overview of each of these aspects of the SSC rule. Sections 3 to 6 provide a view on how the SSC rule will be implemented by AEMO, and section 7 provides a participant impact assessment.

2.1 SSC rule: Adoption of a shorter settlement cycle

The rule establishes a new timeline for posting of the preliminary statement, posting and financial settlement of the final statement, and an additional 20 day revision statement to realise the benefits described in section 1.1.

Figure 1: Current and shorter settlement cycle



In Figure 1:

- The current settlement calendar is illustrated, showing the preliminary and final statements posted on business days 5 and 18 respectively following billing week X. Final settlement occurs on business day 20.
- The shorter settlement calendar includes an earlier preliminary statement posting (business day 3) and brings the final posting forward to business day 7 with settlement at business day 9. The R0 revision is posted on business day 20 with the R0 adjustment amount included in a final statement posted not less

than 8 business days after R0 posting i.e., the final statement posted on business day 32 and settled on business day 34.

These changes involve an update to the metering, settlements and clearing calendars and a plan to transition from the current to the shorter settlement cycle.

2.2 SSC rule: Adaption of the credit limit procedures

The rule reduces the timeline between a billing week and its financial settlement which will result in a reduced outstandings period. The outstandings period and the reaction period define the timeframe that a participant's liabilities may accrue and form the basis for establishing credit support requirements. A reduced outstandings limit can be expected to lower the credit support and working capital requirements for participants, allowing for realisation of the potential benefits described in section 1.1.



Figure 2: Current and shorter settlement cycle outstandings period timeframes.

In Figure 2:

- The relationship of the current settlement cycle to the 35 day outstandings period and the reaction period is illustrated. The outstandings period represents the accrual of liabilities during normal operation. The reaction period is the time that may be required to stop a participant accruing liabilities should they fail to make final settlement, i.e. time to remove a defaulting participant from the market.
- The shorter settlement calendar is illustrated, highlighting the shortened outstandings period. The reaction period, which is a function of the default and suspension process, remains unchanged.

These changes involve an update to the CLP and a plan to transition to new credit support requirements. As the quality of estimated values will have a greater impact in a shorter outstandings period, opportunities to improve the estimation processes, in particular for generation, will also be considered.

2.3 SSC draft rule: Transition to a shorter settlement cycle

The rule identifies a transition from the current to the shorter settlement cycle between August and October. This plan must be established in consultation with industry by 5 December 2025. The plan will ensure:

- final statements and settlement are maintained in billing week order
- transitional and new calendars are well understood, and industry preparedness is high
- timing for new credit support requirements is clear.

Figure 3 is an example transition calendar from the current settlement cycle to a shortened settlement cycle. It includes the posting of preliminary, final and revision statements, the settlement of final statements and the metering data calendar that aligns with the preliminary and final settlement statement runs.



Figure 3: Illustration of a transition from current to shorter settlement cycle

An orderly transition will involve updating metering and settlement calendars and close collaboration with metering data providers (MDPs) and market participants to ensure a high-level of preparedness. AEMO will also consider opportunities to facilitate prudential collateral return as soon as practical as the time period between billing week and settlement is reduced.

3 AEMO key impacts

This section provides a high-level description and indicative heatmap of impacts to AEMO's processes from the SSC rule. In developing this assessment of impacts AEMO has taken into account the following outcomes delivered by the final rule:

- Maintains a preliminary statement that allows manifest errors to be identified through participant reconciliation
 processes in time for redress in the final statement and is a robust business continuity arrangement in the
 event of a material MMS failure.
- Maintains R1 and R2 revision statements that cater for three-month basic meter manual read processes (R1),
 resolution of any associated meter exceptions (R2), and facilitates retrospective transfer corrections.

- Allows metering exceptions in the preliminary and final meter runs to be resolved by R0 broadly aligning metering data quality with current final statement timeframes.
- Allows market intervention settlement amounts to be included in R0 broadly aligning with current settlement timelines for these amounts.
- Mitigates the increased risk of a special revision trigger event if a participant identifies a metering exception in their final statement that reflects greater than 5% their settlement amount³.
- Reduces the outstandings period that must be covered by credit support by approximately 14 days (the appropriate length of the outstandings period will be established during the CLP consultation).
- Is likely to introduce increased activity in participant prudential activity, for example security deposit provision, during sustained high price periods.
- Metering exceptions can be resolved at R0 revision, broadly aligning accuracy and settlement with current settlement timelines, and moderating the potential for increased participant activity and enquiries regarding settlement data by a focus on R0, rather than final, outcomes for metering data exception resolution.

Table 3 summarises the relative impacts of the rule on AEMO's people, processes, systems and settlement outcomes.

Table 3: Indicative assessment of implementation impacts

People	Process	System	Settlement outcome⁴
Low	Low	High	Good
No significant additional resources are required to manage exceptions and related queries from participants	New security deposit process	 New interface to manage security deposits Changes to billing to include R0 Uplift in generator estimation processes Improvements to credit limit procedure methodology 	 Exceptions managed at R0 Intervention settlements managed at R0

Figure 4 shows the impact complexity of the SSC rule for the key business areas (focus areas) and highlights those that need further assessment.

³ For further information see <u>NEM Settlements Revisions Policy</u>

⁴ Settlement outcomes reflect timeliness, efficiency and quality of settlement statement amounts. Good reflects little change to current settlement outcomes, poor means potentially material changes to current settlement outcomes, unfavourable means moderate changes to settlement outcomes. The impacts are time based. By 30 week revision all outcomes are identical.

Figure 4: Heat map of focus area impacts

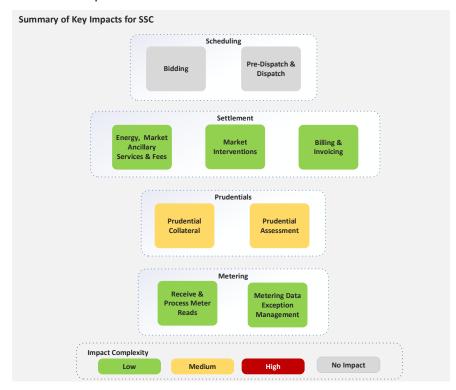


Table 4 lists the focus areas alongside descriptions of each impact from the SSC rule change.

Table 4: Tabular view of focus area impacts from the SSC rule

Focus area	Impact	Impact change
Settlement – energy, market ancillary services and fees	Low	 Increased settlement enquiry management, because of increased metering exceptions in posted final statements.
		 Metering data quality maintained in current final timeframe with R0 mitigating issues with lower quality data in final statement.
Settlement – market intervention	Low	Market intervention aligned with R0 timeframe.
Settlement – billing and invoicing	Low	 The fundamental billing and invoicing processes are unchanged once adoption of the new calendar has occurred and is uploaded into systems.
Prudential collateral	Medium	Analysis to ensure that the CLP are fit for purpose and subsequent implementation of required methodology changes.
		 The treatment of reallocations as ex ante and ex post will need to be updated in AEMO systems.

Focus area	Impact	Impact change
Prudential assessment	Medium	 Reduction in the outstandings period will increase the impact of negative pricing and generator outages on net energy producers increasing the potential for trading limit breaches. An interface to manage security deposits, enhanced estimation calculations, additional alerts and visibility of PASA inputs to the prudentials team is required (without which an increase in resources will be needed for day-to-day management of participant prudentials). Minor system changes to ensure prudential dashboards and alerts for participants align with SSC.
Metering – receive and process meter reads	Low	 MSATS transaction timeframes may need to be truncated to meet final statement timelines. Metering processes need to align with new R0 settlement run.
Metering – data exception management	Low	New MDP interfaces not mandatory as metering data quality is maintained in final timeframe with R0.

4 AEMO procedure impacts

This section indicates the high-level impact on AEMO's procedures and guidelines, based on the changes that AEMO anticipates are required to implement the SSC rule. The due dates are indicative and will be refined and communicated through AEMOs planning phase.

Table 5 lists AEMO's existing NEM wholesale procedures and other external documentation that would likely need updating. Table 6 lists the impacted NEM retail procedures and external documentation.

Table 5 Current relevant AEMO Wholesale market procedures and other documentation

Type of Document	Document Name	Effort required	Consultatio n Required	Content to be changed	Due Date
Procedure	 Credit Limit Procedures Reallocations timetable NEM settlement estimation guide NEM Settlement Estimates Policy 	High Low Medium Medium	Yes	 The CLP and supporting information will be high impact if analysis shows that material changes to the methodology are required to maintain a 2% standard under a shorter settlement cycle. Changes will include updates to the MCL calculator and consequential updates to the reallocation timetable. Enhanced estimation processes will require consultation. 	9 Aug 2026
Guides	 Guide to prudential margin offsets Guide to NEM prudential dashboard Credit limit procedures supporting information 	Medium	No	Administrative updates to the reallocations timetable and supporting information on the AEMO website including the timing for ex ante reallocations and prudential margin offsets.	9 Aug 2026
Guides	Intervention settlement timetable Settlement calendars	Medium	No	Intervention calendar will need to reflect the ability of AEMO to manage manual compensation processes under the new R0 statement posting timeline.	9 Aug 2026
Guides	NEM TNSP negative settlement residue procedure NEM settlement revisions policy Guide to market clearing Early payment procedure Application of the bank bill rate to settlement dispute adjustments AEMO market clearing Guide to electricity reallocations NEM Settlement Process	Low	No	Administrative changes to reflect new timing of final.	9 Aug 2026

Type of Document	Document Name	Effort required	Consultatio n Required	Content to be changed	Due Date
Procedure	Spot Market Operations Timetable	Low	Yes	 The SSC draft rule requires changes to the spot market operations timetable for final statement posting and settlement. 	9 Aug 2026
Contracts	NMAS contracts	Low	No	 Align existing contracts with new settlement cycle (to be agreed with service provider). 	9 Aug 2026

Table 6 Current relevant AEMO Retail and Metering market procedures and other documentation

Retail and metering procedures	Effort Required	Consultation Required	Content to be changed	Due Date
Metering data delivery calendar	Medium	Yes	 Update of the metering data calendar to align with final statement posting timelines and new R0 statement. 	Q4 2025
 Service level procedure (SLP) MDP services MSATS procedures 	Medium	Yes	Potential changes to metering data and data stream timing to align with new final posting timelines and new R0 statement. Any changes will involve a consultation process.	9 Aug 2026
 MDM procedures Metrology procedure Part A⁵ Metrology procedure Part B 	Low	Yes	 Potential changes may be required to align transaction timeframes with new final statement posting timelines. Note: This should not require system changes in MSATS. 	9 Aug 2026
B2B procedures (maintained by the Information Exchange Committee (IEC))	TBD by IEC	TBD by IEC	B2B working group and IEC to assess if any changes are required to the B2B procedures.	9 Aug 2026
Guide to enterprise metering data management	Low	No	 Potential changes may be required to align transaction timeframes with new final statement posting timelines. 	9 Aug 2026

For all procedures, AEMO will look for opportunities to prioritise and/or bundle procedure consultations, including discussion of critical path consultations that may have dependencies with AEMO's and industry's development and testing.

Section 6 sets out AEMO's view of the SSC implementation, which indicates that the CLP are the critical procedures to be consulted on and published in advance of the requirements definition to support AEMO's and industry's implementation. The implementation plan provided in this HLIA assumes that no wholesale change is required to the current CLP methodology, allowing consultation followed by system implementation to be completed by the rule effective date of 9 August 2026. A further detailed review of SSC procedure impacts will be undertaken during the project planning phase.

⁵ Consultation on metrology procedures must be completed at least 3 months prior to the effective date under the NER.

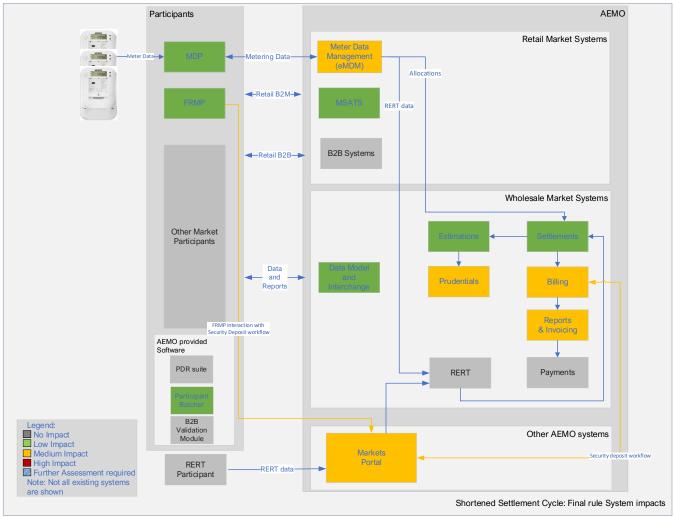
5 AEMO system impacts

This section focuses on the system impacts associated with the SSC final rule.

5.1 System and data exchange overview

Figure 5 illustrates the AEMO system impacts associated with implementation of the SSC final rule. Table 7 provides a summary of the identified impacts.

Figure 5: Participant Interaction Impacts



5.1.1 System Impacts

Table 7: AEMO System Impacts

AEMO System	Summary of impact			
Meter Data Management (eMDM)	 Scheduling of MDP Settlement Performance Snapshot Report (RM28) to align to the new settlement timetable. Changes to the 15-week cutoff for the settlement run types and NSLP freezing timings. Changes to the settlement auto scheduler for INITIAL type settlement runs. Change in the logic for MDP Settlement Performance Snapshot Report (RM28) to include new revision (R0). 			
MSATS	 Change in the logic and output for the RM30 to incorporate R0 captured in amended RM28 from eMDM. A new B2M schema update to allow for Revision 0 (RREV0) settlement type. MSATS shall support the new B2M aseXML_r4(n) schema version as LATEST/CURRENT. MSATS shall support the previous B2M aseXML_r4(n-1) schema version as SUPERSEDED. 			
B2B Systems	AEMO will refer the SSC final rule to the <u>B2B Working Group</u> to seek its view on any B2B impacts, particularly regarding whether there are any scenarios that would need a new transaction type.			
Settlements	 Configuration updates to include the new settlement calendar. Changes to the settlement auto scheduler for INITIAL allocations received. Configuration updates to include the R0. 			
Estimations	Changes to generation estimation if data is not available for Prudential calculations.			
Prudentials	 Prudential Engine – change to the calculation of accruals (days outstanding). Calculation to MCL – to be confirmed following analysis. Reallocations Change to the reallocations timetable. Change to reallocations to be completed no later than final. Impacts to reallocations ex ante and ex post dates. Prudential code changes required to include R0 adjustments in outstandings rather than waiting for next final bill which includes R0 adjustment. 			
Billing	 Configuration changes to include the changes in the Billing calendar. Development and integration of new Security Deposit Management functionality. Interest calculation changes. 			
Reports and Invoicing	 Additional reports will be issued for R0 revision. Potential logic changes to include the Prelim case and additional information that has been used in the Final. 			
Payments	No impacts identified.			
Data Model and Interchange	 Data model changes to incorporate new Settlement Revision R0 and associated posting timings in the billing calendar. Potential changes to the Billing Data model to incorporate Security Deposit Model changes. 			
Markets Portal	 A new screen and workflow for Security Deposit Management This will be used for FRMPs to identify the provision, application and rollover of security deposit amounts (and replaces current excel and email based processes) This would input into the billing systems. 			

AEMO System	Summary of impact	
	Workflows to be defined in detailed design.	
AEMO Provided Software	 MSATS Participant Batcher – New aseXML schema for B2M. B2B Validation Module and Wholesale PDR Suite (Batcher, Monitor, Loader) – No Impact identified. 	

5.1.2 Market system interfaces and interactions

- A new screen in the Markets portal for Security Deposit Management
- The Participant Batcher shall be updated to account for B2M schema changes.

5.1.3 APIs

- No changes to any API or FTP protocols.
- No changes to Settlements Direct interface.

5.2 Data model, schemas, and technical specification impacts

Potential impacts to the participant data model, schemas, and technical specifications are described in the tables below.

Table 8: Potential changes to MMS Data Model

PACKAGE NAME	SSC Final Rule changes	
SETTLEMENT_DATA	No changes to the data model expected. Participants can expect to receive additional data with the R0 revision.	
BILLING_RUN	 No changes to the data model expected. Participants can expect to receive additional data with the R0 revision. 	
BILLING_CONFIG	Changes to the BILLINGCALENDAR to publish the R0 settlement dates.	

Table 9: Potential impacts to technical specifications

TECHNICAL SPECIFICATION NAME	SSC Final Rule changes	
EMMS Technical Specification	Information and usage on the new Security Deposit Management in the Market Portal.	
EMMS Data Model technical specification	 Inclusion of R0 settlement dates changes to BILLINGCALENDAR. Potential changes to the Billing Data model to incorporate Security Deposit Model changes. 	
MSATS technical specification	 Changes to Performance Monitoring Reports (RM30) and inclusion of R0 Revision. Changes to MDP Settlement Performance Snapshot Report (RM28). Changes to B2M schema update to allow for Revision 0 (RREV0) settlement type. 	

TECHNICAL SPECIFICATION NAME	SSC Final Rule changes	
	Further assessment required should there be changes to customer churn processes.	

Table 10: Schema Impacts

SCHEMA	SSC Final Rule changes	
aseXML (B2M)	 New B2M aseXML_r4(n) schema version to support Revision 0 (RREV0) settlement type and transformations between aseXML_r4(n) and aseXML_r4(n-1). 	
aseXML (B2B)	AEMO will refer the SSC final rule to the <u>B2B Working Group</u> to seek its view on any B2B impacts, particularly regarding whether there are any scenarios that would need a new transaction type.	
Bidding JSON Schema	No identified impact.	
CDR/CDP JSON Schema	No identified impact.	

5.3 Data growth impacts on system capacity

Under the final SSC rule, additional settlement related data for R0 will contribute to system capacity growth. This equates to approximately 60 additional settlement runs per year. Systems will be assessed further for scalability limitations during the detailed design phases of implementation.

6 Implementation pathway

6.1 Key delivery considerations

The SSC final determination states a rule commencement date of Sunday 9 August 2026. Given the outcome of the determination is closely aligned to AEMO's preferred pathway 3, the implementation date is achievable. Whilst there may be some delivery complexity for AEMO in the development of the new prudential security deposit interface and process, the Settlement and Billing system changes are considered low complexity at this stage.

AEMO project team mobilisation will commence Q1 2025 with procedure change preparation activities and solution design commencing through Q1 and Q2 2025. It is likely that SSC changes will be included in Data Model 5.7 release, tentatively scheduled for production deployment in April 2026. Indicatively, technical specifications for EMMS and MSATS will be made available to Participants from late Q3 2025 and EMMS Data Model 5.7 technical specifications from mid Q4 2025, with specific timeframes for publication to be communicated once AEMO has completed planning and design, approximately mid-late Q3.

In consultation with interested parties, AEMO to further consider the bundling of the B2M schema changes for the SSC and Unlocking benefits of CER through flexible trading initiatives with a view to time, effort and cost savings.

AEMO is also cognisant of a number of projects utilising the pre-production environment for their industry testing during the same or similar periods that SSC has indicated for market trials/industry testing. AEMO will identify if there are any dependencies or considerations that impact the SSC market trials and seek to develop a plan that mitigates any participant or schedule impact during the planning phase of the SSC project.

AEMO is required to publish a plan for transitioning the market to a 9-business day cycle with publication of a Transitional Settlement Calendar by 5 December 2025. Development of the transition plan and calendar will involve consultation with industry to ensure market alignment and readiness for all proposed changes ahead of the rule commencement date.

6.2 Proposed delivery timeline

Figure 6 shows the proposed implementation timeline to deliver a solution in accordance with the rule effective date of Sunday 9 August 2026.

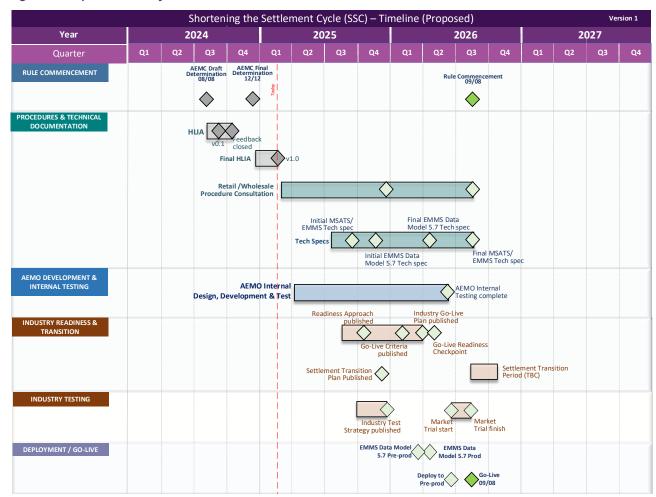


Figure 6: Proposed delivery timeline

6.3 Risks

Table 11 considers the risks associated with the proposed SSC implementation approach discussed above.

Table 11: Initial assessment of the SSC implementation risks

IDENTIFIED RISK	CURRENT RATING	MITIGATION STRATEGIES	RESIDUAL RATING (AFTER MITIGATION)
Scope, complexity and timing of SSC final rule could affect AEMO's and industry's ability to meet the rule commencement date	Medium	 Continued engagement between AEMC, AEMO and industry. Adoption of AEMO delivery timeline proposal aligned with release schedule. 	Low
Contention and priority of SSC amongst other reform initiatives affecting common capability areas	Medium	NEM Reform program governance to manage priority and contention.	Low
Any change and potential instability (particularly across summer periods) requires focus on operations rather than reform change	Medium	 Timeframes consider summer operations to support successful delivery. 	Low
AEMO support for participant development timeframes.	Medium	AEMO to publish comprehensive specifications in a timeframe that supports participant development being ready for the Market Trial.	Low
Insufficient participant involvement during the Market Trial	Medium	Engagement with intending and existing Participants to understand test requirements, support, and impact.	Low
Project activities affecting stakeholder resourcing over Christmas owing to organisational shutdown periods	Low	 Timeframes consider holiday closure periods to support successful delivery. 	No impact

Risks identified in the draft HLIA and now resolved are presented in Table 12

Table 12: Resolved SSC implementation risks

IDENTIFIED RISK	Comment
Compensation calculations cannot be completed within the final timing in accordance with the market intervention settlement timetable	The rules allow for market intervention settlements to be aligned with the additional 20 business day R0 revision.
Analysis identifies significant changes required to the CLP that cannot be managed by go live date	AEMO analysis of required CLP changes has provided confidence that the required changes can be implemented in the required rule timeframe.
The transitional rules do not allow for an orderly transition from the current to the shortened settlement cycle creating system and operational issues	The transitional rules contain principles which AEMO is confident can be met in the required timelines.

7 Participant impact assessment

This section provides AEMO's high-level view of the SSC rule's potential impact on different participant types and outlines an early, generic view of industry readiness for the SSC reform. **AEMO strongly recommends that each participant perform their own detailed impact analysis of the SSC final rule on their own business and operations**. AEMO cannot predict the exact scale or nature of impacts for individual participants.

The final rule will create material impacts on certain industry participants, in particular net consumers of energy. The rule requires a transition from the current settlement cycle to a shorter one. This transition will require a high-level of awareness and preparedness from all financially responsible market participants and MDPs.

7.1 SSC high-level participant impact assessment

Table 13 considers the likely direct SSC impacts of the SSC rule on participants generally, as well as the flow-on impacts associated with SSC changes that AEMO would be required to make to its processes, procedures, and systems.

Table 13: Indicative SSC high-level participant impact

STAKEHOLDER TYPE	INDICATIVE HIGH-LEVEL IMPACT	COMMENT
Financially Responsible Market Participant	Medium impact expected	 Understand new settlement calendars and market intervention settlement timeframes, including the additional 20 business day R0 revision.
		 Amend internal settlement reconciliation processes to align with new calendar and additional revision runs.
		 Understand new prudential calculations for daily assessment and maximum credit limit requirements.
		 Modify security deposit process to use interface for security deposit provision, application and rollover instructions to AEMO.
		 Update/renegotiate reallocations and other bilateral energy contracts to reflect the new settlement calendar.
		 Updates to the data model to incorporate an additional revision in the billing calendar.
Distribution/Transmission Network Service Providers	No impact expected	
Metering Coordinators	No impact expected	
Metering data providers	Medium impact expected	 Increased AEMO and participant enquiries on metering data exceptions in final statement.
Metering providers	No impact expected	

STAKEHOLDER TYPE	INDICATIVE HIGH-LEVEL IMPACT	COMMENT
Embedded network managers	No impact expected	

7.2 Indicative industry readiness approach

Industry readiness activities for SSC are expected to include:

- Engagement in procedure consultations to understand and provide feedback on changes, for example, credit limit procedures, MDP service level procedures
- Educational sessions to understand changes to settlement cycle and additional data if extra revisions are adopted
- Technical Specification updates to support the SSC initiative, to be released, indicatively, from end Q3 2025 including:
 - EMMS Technical Specification to support information and usage on the new Security Deposit Management in the Market Portal.
 - MMS Data Model Technical Specification to support the inclusion of R0 settlement dates changes to BILLINGCALENDAR.
 - MSATS technical specification to support changes to MDP Settlement Performance Snapshot Report (RM28) and Performance Monitoring Reports (RM30).
- Market Systems User Group (MSUG) sessions for additional Technical Specification support: <u>MSUG sign</u> up details
- Testing and development support for changes to industry systems, e.g. for billing configuration changes to include an additional R0 settlement run, transitional settlement calendars and metering data delivery calendars.
- Educational sessions to provide an understanding of, and ensure access to, the new security deposit
- Engagement in development and implementation of a transitional plan to move from current to shorter settlement cycle.

No need has been identified for AEMO to provide a participant development support environment

AEMO's holistic approach to industry readiness is illustrated in Figure 7 and an indicative SSC industry readiness approach is outlined in Table 14.

Figure 7: Indicative readiness approach

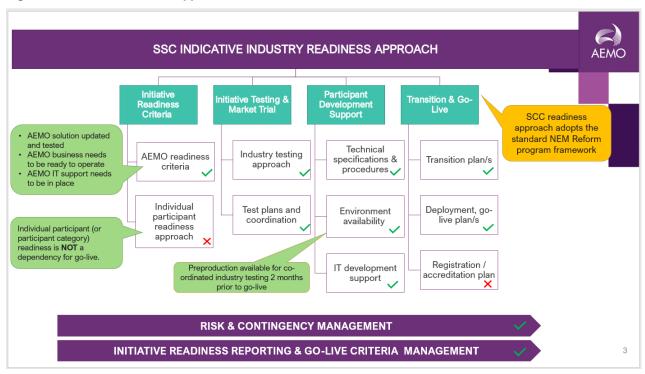


Table 14: Indicative SCC industry readiness approach

READINESS AREA		INITIAL VIEW OF INDUSTRY READINESS APPROACH	
Initiative readiness criteria	Individual participant readiness approach	Individual participant (or participant category) readiness is not a dependency for go-live. However, rule commencement may require impacted participants to make timely system/process changes to comply with SSC commencement.	
	AEMO readiness criteria	By the SSC rule commencement date, AEMO's: • Solution needs to be updated and tested (Meter Data Management, Prudentials, Billing, MMS Data Model and Markets Portal). • Business needs to be ready to operate. • IT support needs to be in place.	
Initiative testing and market trial	Market Trial strategy	 Scoping and planning will occur in collaboration with industry. Market Trial approach along with detailed timings will be confirmed with the issue of the Market Trial Strategy (December 2025). AEMO has indicated a 2-month period to conduct the market trial prior to the SSC commencement date. The Market Trial will run from June 2026 to August 2026. 	
	Test plans and coordination	 AEMO will provide a test plan outlining the proposed Settlement schedule. Participant test plans are to be developed independently by impacted participants appropriate to own requirements. Industry Test Working Group (ITWG) Q&A sessions available for updates on testing progress and for additional support. Sign up here. 	

READINESS AREA		INITIAL VIEW OF INDUSTRY READINESS APPROACH
Participant development support	Procedures	Procedure consultations are required for the following: Credit Limit Procedure NEM Settlement Estimates Policy Service Level Procedure MDP Services Spot Market Operations Timetable MSATS procedures MDM procedures Metrology procedure Part A Metrology procedure Part B B2B procedures Updates will be made to the following procedures, however consultation will not be required NEM TNSP negative settlement residue procedure.
	Technical specifications	 EMMS Technical Specification to support information and usage on the new Security Deposit Management in the Market Portal. MMS Data Model Technical Specification to support the inclusion of R0 settlement dates changes to BILLINGCALENDAR (Pathway 3 Only). MSATS technical specification to support changes to RM Reports: MDP Settlement Performance Snapshot Report (RM28), Performance Monitoring Reports (RM30). A new B2M schema update to allow for Revision 0 (RREV0) settlement type. Technical Specification availability from December 2025. Market Systems User Group (MSUG) sessions will provide additional support. MSUG Sign up details.
	Environment availability	 AEMO's Preproduction environment will be available to support industry testing 2 months prior to the SCC rule commencement date. No additional development support environment has been deemed necessary for early testing.
	IT development support	 As required, AEMO will provide industry support via NEM Reform forums, information sessions, focus groups and regular stand-ups for affected participants. These engagements will be scheduled as the IT design and approach is formalised to support participants development.
Transition and go-live	Transition plans	 The SSC transition approach is outlined in section 2.3 of this document. A transition plan will be developed, in consultation with industry, to ensure: final statements and settlement are maintained in billing week order. transitional and new calendars are well understood, and industry preparedness is high. timing for new credit support requirements is clear. The SSC Transition Plan will be published in December 2025.
	Go-live plan	 Go-live plan for the production release covering key cutover timeframes, communications and participant co-ordinated activity (where required) will be needed for: Data model and report changes (if required). Alignment of participant and AEMO system deployments. Post go-live support. Draft/Final go-live plan to be published Q1 2026.
	Registration or accreditation plans	The SSC draft rule does not indicate changes to registration or accreditation frameworks.

READINESS AREA	INITIAL VIEW OF INDUSTRY READINESS APPROACH
Risk & contingency management	Will be developed in consultation with industry.
Initiative readiness reporting & golive criteria management	 AEMO will report to industry, progress against confirmed L1/L2 industry readiness milestones on a regular basis through NEM Reform forums. AEMO will confirm the go-live criteria and approach with Participants in February 2026. AEMO will also provide formal checkpoints against go-live criteria to provide assurance of implementation preparations ahead of industry test period and go-live, allowing time for finalising AEMO's and participants business preparations: Readiness approach – October 2025 Readiness Checkpoint prior to Market Trial – May 2026 Go-live readiness checkpoint – July 2026 Formalised participant readiness reporting is not required on the basis that there are no mandatory participant transition or preparation activities that if not performed will impact technical readiness for market or other participants.

8 Related reforms

Table 15 sets out the interrelationship between the SSC reform and key, select NEM reform initiatives with settlement content.⁶

Table 15: SSC project's relationship with other key initiatives

NEM REFORMS	RELATIONSHIP TO SSC
AEMC review into electricity compensation frameworks	The AEMC is currently reviewing the NEM's compensation framework. It is possible that following completion of this review and any subsequent rule change process the requirement to manage administered pricing compensation (APC) may fall to AEMO. Currently there are no defined changes and therefore no interdependencies between this area of work and SSC. However, compensation framework changes may lead to opportunities for complementary implementation or settlement arrangements with SSC.
Reforms with a settlement component	The following reforms are not a dependency for the SSC reform, however, opportunities for complementary implementation with SSC will be considered should timing of these reforms allow it:
	<u>Unlocking benefits of CER through flexible trading (FTA)</u> will create a mechanism that facilitates consumers and their agents (i.e. retailers, FRMPs and aggregators) to identify and manage flexible CER separately from inflexible or passive energy use and for that flexible CER to be better recognised in the energy market and used in the power system. This reform has retail impacts only, the settlement systems will be unaffected as secondary settlement points will be settled using existing functionality. AEMO to consider the bundling of the B2M schema changes for the SSC and FTA initiatives with a view to time, effort and cost savings.
	Interregional settlement residue (IRSR) arrangements for transmission loops is an AEMO proposal to reallocate negative IRSR to regions receiving positive IRSR in a transmission loop. In inter-regional transmission loops, IRSR is expected to arise more frequently than it does across 'radial' interconnectors due to the way that power flows in a transmission loop, and how this interacts with the NEM's regional pricing model. Project EnergyConnect Stage 2 (PEC) will

 $^{^{6}}$ The $\underline{\text{NEM reform implementation roadmap}}$ provides stakeholders with the complete list of reform initiatives.

NEM REFORMS	RELATIONSHIP TO SSC
	be a new interconnector linking South Australia and NSW and will be fully operational in early 2027. PEC will create the first inter-regional transmission loop in the NEM, along with the existing Heywood (VIC-SA) and VNI (NSWVIC) interconnectors.
	Improving security frameworks for the energy transition addresses system security challenges during the transition by reducing reliance on directions and providing better incentives for participants to invest in providing system security in the longer-term. It also increases transparency on system security needs and understanding, and how AEMO plans to manage system security as we transition to a secure net-zero emissions power system.
	<u>Primary frequency response incentive arrangements</u> is intended to promote the provision of good frequency control in the NEM at the lowest cost to consumers. This is achieved by more clearly pricing the impact of helpful and unhelpful behaviour by facilities and providing information about performance in a timeframe that allows for plant operators to respond to these price signals.
Other reforms – no material impact on SSC implementation	Accelerating smart meter deployment rule change proposal seeks to deploy smart meters to all customers quickly and efficiently, achieving universal uptake by 2030. This change will result in remotely read metering data that can be more efficiently uploaded into AEMO systems by MDPs. It will not remove the requirement for metering data exception management but should allow further changes to the settlement and prudential processes to be considered at that time.

A1. Impact ratings

Description of AEMO's reform impact ratings for industry systems, processes and documentation

Impact rating	Description	Comments
No impact	 No change's to AEMO or industry systems, processes, guidelines, or procedures Stakeholder consultation not required 	No changes.
Immaterial	Immaterial impact to AEMO or industry systems, process, guidelines, or procedures Stakeholder feedback sought	 Immaterial administrative changes to AEMO procedures and/or guidelines, purposes of consistency. Immaterial changes or additions to existing business processes and/or technology systems. Stakeholder consultation not required.
Low	 Low impact to AEMO or industry systems, processes, guidelines, or procedures Stakeholder consultation may be required or feedback sought 	 Minor changes, additions, or updates to AEMO procedures and/or guidelines, purposes of consistency. Minor changes, additions, or updates to existing business processes and/or technology systems. Stakeholder consultation not anticipated but may be required.
Medium	Medium impact to AEMO or industry systems, processes, guidelines, or procedures Stakeholder consultation required	 Material changes or additions to AEMO procedures and/or guidelines. Significant changes or additions to existing business processes and/or technology systems. Stakeholder consultation required.
High	High impact to AEMO or industry systems, processes, guidelines, or procedures Stakeholder consultation required	 Significant changes, additions, or creation of new AEMO procedures, and/or guidelines. Significant changes, additions, or the creation of new business processes and/or technology systems. Stakeholder consultation required.
Very High	 Large impacts to AEMO or industry systems, processes, guidelines or procedures Stakeholder consultation required 	 Large changes, additions or creation of new AEMO procedures and/pr guidelines. Major changes, additions or creation of new business processes and/or technology systems. Stakeholder consultation required.

A2. Glossary

This document uses many terms that have meanings defined in the National Electricity Rules (NER). The NER meanings are adopted unless otherwise specified.

Please also see AEMO's industry terminology web page to complement the table below.

TERM	DEFINITION	
AEMC	Australian Energy Market Commission	
AEMO	Australian Energy Market Operator	
APC	Administered price compensation	
API	Application programming interface	
aseXML	A Standard for Energy Transactions in Extensible Markup Language	
В2В	Business-to-business	
B2M	Business-to-market	
CLP	Credit Limit Procedures	
CER	Consumer energy resources	
eMDM	Enterprise Meter Data Management	
EMMS	Electricity Market Management System	
FRMP	Financially Responsible Market Participant	
FTP	File Transfer Protocol	
HLIA	High-level Implementation Assessment	
IEC	Information Exchange Committee	
JSON	JavaScript Object Notation	
MDP	Metering Data Provider	
MMS	Market Management System	
MSATS	Market Settlement and Transfer Solution	
NEM	National Electricity Market	
NER	National Electricity Rules	
NMAS	Non market ancillary service	
NSLP	Net system load profile	
PASA	Projected Assessment of System Adequacy (Short Term and Medium Term)	
PDR	Participant Data Replication	
R0	A settlement revision statement proposed to be posted 20 BD following the billing week	
R1	A settlement revision statement posted approximately 20 weeks following the billing week	
RERT	Reliability and Emergency Reserve Trader	
SLP	Service Level Procedures	
SSC	Shortening the settlement cycle	
TBC	To be confirmed	
TBD	To be determined	