Shortening the Settlement Cycle: DRAFT High-level implementation assessment

AEMO

AUSTRALIAN ENERGY MARKET OPERATOR

September 2024

Preliminary view for stakeholder feedback on the potential implementation approach by AEMO



Important notice

Purpose

AEMO has prepared this document as a draft, to provide preliminary information about the potential implementation design of the AEMC's draft *Shortening the settlement cycle* rule, in advance of a final rule determination.

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Version control

Version	Release date	Changes
0.1	19 September 2024	Draft for industry comment

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1 Introduction

This section explains:

- The background and high-level policy rationale for the shortening the settlement cycle (SSC) reform.
- The purpose of this Draft High-level Implementation Assessment (HLIA) document.
- How stakeholders can contribute to the development of the SSC reform.

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 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 draft determination on the SSC rule¹ noted that a shorter settlement cycle will reduce the amount of credit support that must be lodged with AEMO and should reduce the amount of working capital held by a participant to manage its prudential position during periods of sustained high pricing.

¹ AEMC, Shortening the settlement cycle, Draft rule determination, 8 August 2024

Among other benefits, the draft 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.

1.2 HLIA document purpose

This Draft HLIA has been produced as the first stage of AEMO's SSC reform implementation process under the NEM Reform Program. It provides an indicative and preliminary view to participants on how AEMO could implement the SSC rule (in its current draft form). It outlines the proposed system, data exchange, process and operational changes that would likely be required to give effect to the SSC draft rule, with an indicative timeline. This Draft HLIA also provides a general assessment of what these changes may mean for NEM participants.

The Draft HLIA is intended to:

- Facilitate stakeholder input on the early implementation design and timeframes, including whether AEMO's HLIA is consistent with the SSC draft 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.
- Inform further input by stakeholders and AEMO into the AEMC's SSC rule change process, including in relation to implementation impacts and timeframes.

This Draft HLIA does not pre-empt the outcomes of the AEMC's ongoing SSC rule change process. It is intended to provide an implementation assessment of the SSC outcome reflected in the AEMC's draft rule. In some instances, the Draft HLIA presents alternative implementation options (in addition to the approach in the draft rule); these have been described in detail to facilitate industry feedback on those features. AEMO will also provide further detail in its own submission to the AEMC process.

² Ibid, at page iv

1.3 Key dates

Table 1: Indicative SSC rule and HLIA timeline

Activity	Timeline
AEMC SSC Draft Rule and Determination published	Thu 8 Aug 2024
AEMO SSC Draft HLIA v0.1 published	Thu 19 Sep 2024
AEMO Industry briefing on SCC Draft HLIA	Mon 23 Sep 2024
Stakeholder feedback on SSC Draft HLIA due	Mon 14 Oct 2024
AEMO SSC Draft HLIA v0.2 published (as required)	ТВС
Stakeholder submissions on AEMC's Draft Determination due	Thu 3 Oct 2024
AEMC SSC Final Rule and Determination published	Thu 14 Nov 2024
AEMO SSC Final HLIA v1.0 published	Dec 2024 (TBC)

1.4 Stakeholder feedback invited

AEMO welcomes any stakeholder feedback on this SSC Draft HLIA by Monday 14 October 2024, feedback by Monday 30 September will be used to inform AEMO's submission to the AEMC rule change. Comments should be sent via email to NEMReform@aemo.com.au. A response template is available for stakeholders to use via AEMO | Shortening the Settlement Cycle (SSC).

AEMO intends to publish an updated HLIA in December 2024 (or later depending on publication of the AEMC's final determination) to:

- Align with the AEMC's final SSC rule.
- Accommodate industry feedback on implementation where appropriate and feasible.
- Provide further, more detailed information on the SSC implementation impacts, pathway and timelines.

Feedback on this Draft HLIA is separate from submissions to the AEMC's formal rule change process. AEMO is seeking feedback specifically on implementation matters based on the content of the draft rule. Any feedback or submissions related to the rule change or draft determination should be provided to the AEMC as part of its rule change process.

1.5 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

- NEM Reform newsletter
- Contact us directly at NEMReform@aemo.com.au

2 Market design

The SSC draft rule has three major implementation components:

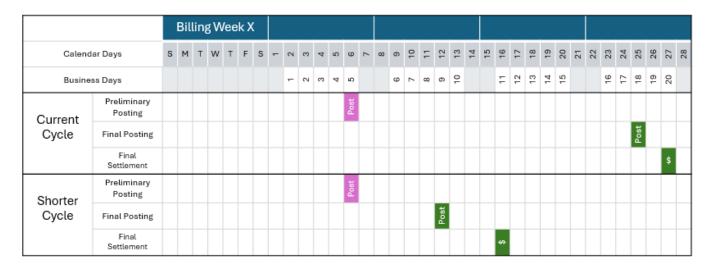
- Establish metering and settlement processes that support a new, shorter settlement cycle
- Adapt the credit limit procedures and supporting process to reflect the shorter settlement cycle.
- Transition metering, settlement and prudential processes from the current settlement cycle to the shorter settlement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

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

2.1 SSC draft rule: Adoption of a shorter settlement cycle

The draft rule establishes a new timeline for posting and financial settlement of the final statement to realise the benefits described in section 1.1.

Figure 1: Current and shorter settlement cycle



In Figure 1:

• The settlement calendar is illustrated showing the preliminary and final statements are posted on business days 5 and 18 respectively following billing week X. Final settlement occurs on business day 20.

• The proposed shorter settlement calendar is illustrated with no change to preliminary statement posting and with final statements posted on business day 9 following billing week X. Final settlement occurs on business day 11.

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 draft rule: Adaption of the credit limit procedures

The draft 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 proposed shorter settlement calendar is illustrated, highlighting the potential to shorten the 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 draft rule identifies a commencement date of Sunday 26 April 2026, which is the first day of billing week 19 in 2026. A transition plan will be required, 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.

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

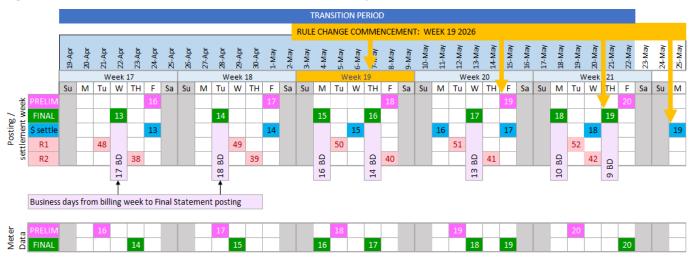


Figure 3 is an example transition calendar from the current settlement cycle to a shortened settlement cycle. It includes the posting of preliminary, final and revision statements, the settlement of final statements and the metering data calendar that aligns with the preliminary and final settlement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

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 draft rule. In assessing the key impacts AEMO has identified three pathways to implementation which result in material differences to the requirements for implementation. Broadly speaking, the pathways can be characterised as follows:

Pathway 1

• AEMO implements the draft rule shorter settlement cycle and adopts an approach that seeks to maintain the level of metering data quality at final settlement and assumes that the market intervention settlement calendar is modified to allow calculations to be included by the 20-week revision (R1) adjustment when necessary to do so.

Table 2: Indicative assessment of implementation impacts of Pathway 1

Impact	People	Process	System	Settlement outcome ³
	High	High	High	Unfavourable
Pathway 1	Additional resources to manage tighter timelines for exceptions	 New processes to manage exceptions, assumes tighter MDP timelines New security deposit process 	 New interface to manage exceptions New interface to manage security deposits Uplift in generator estimation processes 	Intervention settlements not achievable by final assumes move to R1

Pathway 2

AEMO implements the draft rule shorter settlement cycle and adopts an approach that allows the metering data
quality at final to reduce, with exceptions that are currently resolved by final settlement more likely to be resolved
by the R1 adjustment. It is assumed the market intervention settlement calendar is modified to allow calculations
to be included by the R1 adjustment date when necessary to do so.

Table 3: Indicative assessment of implementation impacts of Pathway 2

Impact	People	Process	System	Settlement outcome ¹
	High	Low	Medium	Poor
Pathway 2	Additional resources to manage exception related queries from participants	 No change to exceptions process, resolved by R1 New security deposit process 	 New interface to manage security deposits Uplift in generator estimation processes 	 Exceptions managed at R1 (with risk of material financial adjustments during high price periods) Intervention settlements not achievable by final assumes move to R1

³ 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.

Pathway 3

AEMO implements an alternative shorter settlement cycle which includes an additional 4-week revision (R0). This
allows the metering data quality to be maintained in broad alignment with the current timelines without the need
for enhanced processes. The market intervention settlement calendar is modified to require calculations to be
included by the new R0 revision adjustment which similarly allows a broad alignment with the current timelines for
these settlement amounts.

Table 4: Indicative assessment of implementation impacts of Pathway 3

Impact	People	Process	System	Settlement outcome ⁴
	Low	Low	High	Good
	Additional resources not required to manage	 No change to exceptions process, resolved by R0 	 New interface to manage security deposits 	 Exceptions managed at RO
Pathway 3	exceptions and related queries from participants	 New security deposit process 	 Changes to billing to include R0 	• Intervention settlements occur at R0
			 Uplift in generator estimation processes 	

In this section Pathway 1 is treated as the baseline implementation pathway and incremental (or reduced) impacts are described for Pathway 2 and Pathway 3. A summary of the relative impacts for each pathway in terms of people, process, system, settlement outcomes and delivery date are provided in Section 6, Table 15.

3.1 Key impacts of implementation of draft rule: Pathway 1

This preliminary impact assessment is based on the following assumptions for Pathway 1:

- The level of metering exceptions at final settlement is maintained at the current level and automation is adopted to facilitate reporting, monitoring and management of exceptions to achieve this goal.
- Increased activity in participant prudential activity, for example security deposit provision, is managed through automation wherever practical and estimation processes are uplifted where feasible.
- The market intervention timetable is amended in the final SSC rule to allow for intervention settlement in line with the R1 timelines as required. Many of these processes, for example compensation recovery payments for market suspension, directions, administered pricing and reliability and emergency reserve trader (RERT) contracts, cannot be managed by final posting under a shorter settlement cycle without high cost automation (or in some circumstances not at all).

It should be noted that RERT contract payments do not align with this revision timeline and a process to manage this misalignment would be required.

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.

An alternative is to include intervention settlement payment and recovery amounts in a different billing week's final. However, this is considered a retrograde step from the changes made in a 2019 rule⁵ to align compensation payments with the billing week in which the market intervention occurs. For this reason, AEMO has not considered the impact of any billing engine changes that would be required to make this possible in this Draft HLIA.

Figure 4 shows the impact complexity of the SSC draft rule Pathway 1 for the key business areas (focus areas) and highlights those that need further assessment.

Summary of Key Impacts for SSC Scheduling Pre-Dispatch & Bidding Dispatch . Settlement Energy, Market Market Interventions Services & Fees Prudentials Prudential Collateral Receive & Metering Data Process Meter Exception Management Impact Complexity No Impact Medium

Figure 4: Heat map of focus area impacts from the SSC draft rule (Pathway 1)

Error! Not a valid bookmark self-reference. lists the focus areas alongside descriptions of each impact from the SSC rule change.

Table 5: Tabular view of focus area impacts from the SSC draft rule (Pathway 1)

Focus area	Impact	Impact description
Settlement – energy, market ancillary services and fees	Low	 Exception management with the metering team during processing of settlement runs may increase if metering data quality erodes
		 Increased settlement enquiry management, because of increased metering exceptions in posted final statements.

⁵ https://www.aemc.gov.au/rule-changes/intervention-compensation-and-settlement-processes

Focus area	Impact	Impact description
Settlement – market intervention	Low	 Assumes changes to the rules to allow AEMO to calculate intervention settlement amounts for inclusion in R1.
		 A process to manage payment versus recovery timeframes for RERT is implemented
		 Non market ancillary services (NMAS) contracts are amended to align with new settlement cycle.
		Update Market Interventions Settlement Timetable
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
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 – data exception	Medium	New interface between AEMO and MDPs for exception management.
management		Enhanced metering data compliance reports functionality in the new interface
		 Increased customer enquiries regarding data in the final statements may occur

3.2 Alternative pathway to implementation of draft rule: Pathway 2

An alternative lower capital cost and lower impact implementation pathway to a shortened settlement cycle with a final posting on day 9 is possible if the following assumptions are made:

- The metering data includes an increased level of unresolved exceptions which result in a moderate decrease in overall data quality due to the reduced timelines between the billing week and the final statement posting. For further information on the expected reduction in data quality please refer to AEMO's submission⁶ to the first round of SSC rule consultation.
- The market intervention timetable is amended to align with the R1 timelines.
- Increased participant activity in metering and settlement queries is managed with increased resources.

Error! Reference source not found. lists the focus areas that change from Pathway 1 to Pathway 2, the new impact and description of the change in impact.

⁶ https://www.aemc.gov.au/sites/default/files/2024-04/Submission%20-%20ERC0384%20-%20Consultation%20Paper%20-%20AEMO%20-%2020240405.PDF

Table 6: Tabular view of focus area impacts from the SSC draft rule (Pathway 2)

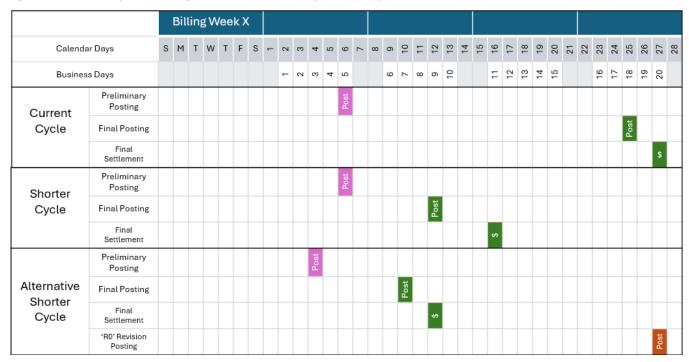
Focus area	Impact	Impact change		
Settlement – energy, market ancillary services and fees	Medium	 Increased operational resource impact from Pathway 1 due to greater participant enquiries 		
		 Exception management with the metering team during processing of settlement runs will increase due to erosion of metering data quality erodes 		
		 Increased settlement enquiry management, because of increased metering exceptions in posted final statements. 		
Settlement – market intervention	Medium	Impacts as for Pathway 1		
Settlement – billing and invoicing	Low	Impacts as for Pathway 1		
Prudential collateral Medium		Impacts as for Pathway 1		
Prudential assessment	Medium	Impacts as for Pathway 1		
Metering – receive and process meter reads	Low	Impacts as for Pathway 1		
Metering – data exception	Medium	Overall impact as for Pathway 1		
management		 Reduced impact from Pathway 1 as new interfaces are not required 		
		 Increased operational resource impacts from Pathway 1 as increased customer enquiries regarding data in the final statements will occur. 		

3.3 Alternative shorter settlement cycle: Pathway 3

An alternative settlement cycle that introduces an additional settlement revision, R0, at approximately the same time that the current final statement is posted, could meet the AEMC's policy objectives and reduce the implementation impacts. An R0 revision could be attached to the next billing week's final statement so that the financial position of the participant closely aligns from a timing perspective with that at the current final settlement.

The proposed approach, illustrated in Figure 5, includes an earlier preliminary statement posting 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 the next final statement i.e., the final statement posted on business day 22 and settled on business day 24.

Figure 5: Settlement cycles including alternative settlement cycle (Pathway 3)



AEMO has identified the following benefits of this alternative cycle:

- 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 aligning metering data quality with current final statement timeframes.
- Allows market intervention settlement amounts to be included in R0, which would otherwise need to be included in R1 as it is not possible to include them by the final under the draft rule.
- 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 amount7.
- Reduces the outstandings period that must be covered by credit support by an additional 4 days (the appropriate length of the outstandings period will be established during the CLP consultation).

The alternative shorter cycle would allow the following assumptions to be made in implementation:

• Metering exceptions currently resolved at final are resolved at R0 revision removing the need for enhanced exceptions management to maintain the same service level for the earlier final.

⁷ For further information see <u>NEM Settlements Revisions Policy</u>

- The market intervention timetable is aligned with the 4 week R0 revision timelines ensuring settlement of these amounts occurs in a similar timeframe to now.
- Increased participant activity and enquiries regarding settlement data is moderated by a focus on R0, rather than final, outcomes for metering data exception resolution.

Table 7 lists the focus areas that change from Pathway 1 to Pathway 3, the new impact and description of the change in impact.

Table 7: Tabular view of focus area impacts from the SSC draft rule (Pathway 3)

Focus area	Impact	Impact change	
Settlement – energy, market ancillary services and fees	Low	 Reduced impact from Pathway 1 as metering quality maintained in final timeframe with R0 	
Settlement – market intervention	Low	 Reduced impact from Pathway 1 as market intervention aligned with R0 timeframe 	
Settlement – billing and invoicing	Low	Impacts as for Pathway 1	
Prudential collateral	Medium	• Impacts as for Pathway 1	
Prudential assessment	Medium	Impacts as for Pathway 1	
Metering – receive and process meter reads	Low	Impacts as for Pathway 1	
Metering – data exception management	Low	Reduced impact from Pathway 1 as new MDP interfaces not required and metering data quality is maintained in final timeframe with R0	

4 AEMO procedure impacts

This section indicates the high-level impact of Pathway 1 on AEMO's procedures and guidelines, based on the changes that AEMO anticipates are required to implement the SSC draft rule.

Table 8 lists AEMO's existing NEM wholesale procedures and other external documentation that would likely need updating. Table 9 lists the impacted NEM retail procedures and external documentation.

Table 8 Current relevant AEMO Wholesale market procedures and other documentation

Type of Document	Document Name	Effort required	Consultation Required	Content to be changed	Due Date
Procedure	Credit Limit Procedures Reallocations timetable NEM settlement estimation guide	High Low 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	TBC 2025
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.	Q2 2026
Guides	Settlement interventions timetable Settlement calendars	Medium	No	 Intervention calendar will need to reflect the ability of AEMO to manage manual compensation processes under the new final statement posting timeline. 	Q4 2025
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 	Low	No	Administrative changes to reflect new timing of final.	Q1 2026
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. 	Q4 2025

Type of Document	Document Name	Effort required	Consultation Required	Content to be changed	Due Date
Contracts	NMAS contracts	Low	No	 Align existing contracts with new settlement cycle (to be agreed with service provider) 	Q2 2024

Table 9 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 calendarService level procedure (SLP) MDP services	Medium	Yes	 MDP SLP changes could include performance for meter exception management 	Q4 2025
			 Update of the metering data calendar to align with final statement posting timelines. 	
			 Potential changes to metering data and data stream timing to align with new final posting timelines. Any changes will involve a consultation process 	
 MSATS procedures MDM procedures Metrology procedure Part A⁸ 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. 	Q4 2025
B2B procedures (maintained by the <u>Information</u> 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. 	Q4 2025

Pathway 2 and Pathway 3 are unlikely to materially change the impacts outlined in Table 8 and Table 9 as the effort primarily reflects the requirements of a changed settlement cycle. The notable exception to this is the 'Service level procedure MDP services', whose effort rating is expected to reduce to low as material changes to MDP exception management processes are only required under Pathway 1.

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 initial 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. AEMO will conduct analysis to understand the impact of the SSC on the ability to meet the NEM prudential standard based on the current CLP, and is currently aiming to complete this and provide it to the AEMC in November 2024. The implementation plan provided in this Draft HLIA assumes that no wholesale change is required to the current CLP methodology, allowing consultation followed by system implementation to be completed by mid-2026. However, if a more fundamental change is required, the timeline for implementation may need to be extended to allow for adequate industry consultation on the CLP. A further detailed review of SSC procedure impacts will be required when the final rule is made.

⁸ 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 draft rule. It summarises system impacts with reference to Pathway 1 and describes how Pathway 2 and Pathway 3 could change the impacts.

5.1 System and data exchange overview

Figure 6 illustrates the AEMO system impacts of Pathway 1, i.e., implementation of the SSC draft rule with an uplift in metering data management exception capability. Table 10 provides a summary of the identified impacts.

Participants AEMO Retail Market Systems Retail B2M-▶ MSATS RERT data B2B Systems Retail B2B Wholesale Market Systems Other Market **Participants** Data and Data Model and & Invoicing AEMO provided RFRT Payments PDR suite Legend:
No Impact
Low Impact Other AEMO systems Medium Impact High Impact Portal RERT Further Assessment required Participant Note: Not all existing systems are shown Shortened Settlement Cycle: Draft rule System impacts

Figure 6: Participant Interaction Impacts (Pathway 1)

5.1.1 System Impacts for Pathway 1

Table 10: AEMO System Impacts (Pathway 1)

AEMO System	Summary of impact
Meter Data Management (eMDM)	 Changes to the Standing Data Quality – (RM28) reports scheduling 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
MSATS	No impacts identified.
B2B Systems	No impacts identified.
Settlements	Configuration updates to include the new settlement calendar
Settlements	Changes to the settlement auto scheduler for INITIAL allocations received
Estimations	Changes to generation estimation if data is not available for Prudential calculations
	 Prudential Engine – change to the calculation of accruals (days outstanding) Calculation to MCL – to be confirmed following analysis
Pour de cette le	Reallocations
Prudentials	 Change to the reallocations timetable.
	 Change to reallocations to be completed no later than final.
	Impacts to reallocations ex ante and ex post dates
Billing	Configuration changes to include the changes in the Billing calendar.
Dilling	Development and integration of new Security Deposit Management functionality.
Reports and Invoicing	No impacts identified.
Payments	No impacts identified.
Data Model and Interchange	No impacts identified.
	A new screen in the Markets Portal for Meter Data Exception Management
	 This will be used between Settlements, Metering and MDPs to manage settlement related exceptions that need investigation and rectification (and replaces current email based processes).
Manhata Dantal	 Workflows to be defined in detailed design.
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.
	Workflows to be defined in detailed design.
AEMO Software PDR Suite	No impacts identified.

5.1.2 System Impacts changes associated with Pathway 2 and Pathway 3.

As described in this Draft HLIA, AEMO has identified two alternative pathways to Pathway 1. Pathway 2 reflects the SSC draft rule without addressing the potential for more metering exceptions in the final statement, Pathway 3 is an alternative settlement cycle with an additional revision R0 that allows metering exceptions and market intervention settlement to be

addressed in similar timeframes to the current settlement cycle. Table 11 outlines the difference in systems impact of Pathway 2 and 3 to Pathway 1 (Section 5.1.1).

Table 11: AEMO System impact changes of Pathway 2 and Pathway 3 relative to Pathway 1

AEMO System	Pathway 2	Pathway 3
Meter Data	Impacts as for Pathway 1	Pathway 1 impacts
Management (eMDM)		 Change in the logic for MDP Settlement Performance Snapshot Report (RM28) to include new revision (R0)
		Change in the impact level from Green to Amber
MSATS	No impacts identified (as for Pathway 1)	 Change in the logic and output for the RM30 to incorporate R0 captured in amended RM28 from eMDM
		Change in the impact level from Grey to Green
B2B Systems	• No impacts identified (as for Pathway 1)	 No impacts identified (as for Pathway 1)
Cattlemente	Impacts as for Pathway 1	Impacts as for Pathway 1
Settlements		 Configuration updates to include the R0.
Estimations	Impacts as for Pathway 1	Impacts as for Pathway 1
	Impacts as for Pathway 1	Pathway 1 impacts
Prudentials		 Prudential code changes required to include R0 adjustments in outstandings rather than waiting for next final bill which includes R0 adjustment
	Impacts as for Pathway 1	Impacts as for Pathway 1
Billing		 Changes for additional revision R0 to settle on next available Final statement.
		Interest calculation changes
	No impacts identified (as for Pathway 1)	Additional reports will be issued for R0 revision.
Reports and Invoicing		 Logic changes to include the Prelim caseld and additional information that has been used in the Final
		• Change in the impact level from Grey to Amber
Payments	No impacts identified (as for Pathway 1)	No impacts identified (as for Pathway 1)
Data Model and Interchange	No impacts identified (as for Pathway 1)	 Data model changes to incorporate new Settlement Revision RO and associated posting timings in the billing calendar.
		Change in the impact level from Grey to Green
Markets Portal	As for Pathway 1 except <u>No</u> new screen in the Markets Portal for meter data exception management	 As for Pathway 1 except No new screen in the Markets Portal for meter data exception management
AEMO Software PDR Suite	No impacts identified (as for Pathway 1)	 No impacts identified (as for Pathway 1)

Comparing the above pathways, Pathway 3 (AEMO's alternative shorter settlement cycle) has a higher AEMO systems impact but is expected to have substantially lower operational impacts, which would result in overall improved efficiency and settlement outcomes for the market.

5.1.3 Market system interfaces and interactions

- A new screen in the Markets portal for Meter Data Exception Management (Pathway 1 only)
- A new screen in the Markets portal for Security Deposit Management (all Pathways)

5.1.4 APIs

Under all Pathways:

- 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 12: Potential changes to MMS Data Model

PACKAGE NAME	Pathway 1	Pathway 2	Pathway 3
SETTLEMENT_DATA	No changes to the data model expected.	 No changes to the data model expected. 	 No changes to the data model expected. Participants can expect to receive additional data with the RO revision.
BILLING_RUN	No changes to the data model expected.	 No changes to the data model expected. 	 No changes to the data model expected. Participants can expect to receive additional data with the RO revision.
BILLING_CONFIG	No changes to the data model expected.	 No changes to the data model expected. 	Changes to the BILLINGCALENDAR to publish the R0 settlement dates

Table 13: Potential impacts to technical specifications

TECHNICAL SPECIFICATION NAME	Pathway 1	Pathway 2	Pathway 3
EMMS Technical Specification	 Information and usage on the new Security Deposit Management in the Market Portal 	 Information and usage on the new Security Deposit Management in the Market Portal 	 Information and usage on the new Security Deposit Management in the Market Portal
EMMS Data Model technical specification	No changes expected to the Data Model specification	 No changes expected to the Data Model specification 	 Inclusion of R0 settlement dates changes to BILLINGCALENDAR
MSATS technical specification	 No changes expected. Further assessment required should there be changes to customer churn processes. 	 No changes expected. Further assessment required should there be changes to customer churn processes. 	 Changes to Performance Monitoring Reports (RM30) and inclusion of R0 Revision. Further assessment required should there be changes to customer churn processes.

Table 14: Schema Impacts

SCHEMA	All Pathways
aseXML (B2M)	No identified impact.
aseXML (B2B)	 AEMO will refer the SSC draft 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 Pathway 3 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 in subsequent versions of this document.

6 Implementation pathway

6.1 Key delivery considerations

The SSC draft rule identifies a commencement date of Sunday 26 April 2026. Based on analysis to date, AEMO will propose a revised commencement date at the end of June 2026 to meet the SSC rule change requirements and align with the twice yearly release schedule.

Implementation by end June 2026 should be achievable for Pathways 2 and 3. For Pathway 1, the additional automation of the exception management processes will require consultation and a more complex system development, lending to a longer implementation timeframe. However, on current indications the SSC rule obligations could still be met for all pathways as a phase 1 delivery by end June 2026. Implementation of the new system interfaces required for exception management under Pathway 1 could then be delivered as phase 2, estimated by end May 2027.

In AEMO's assessment of the relative impacts of each pathway, a rating has been applied to indicate, at a high-level, the anticipated outcome of each pathway across a range of impact areas. Table 15 summarises the estimated delivery timeframes and relative impacts for each pathway.

Table 15: Relative impact of each pathway in terms of people, process, systems, settlement outcomes and delivery

Impact		Pathway 1		Pathway 2		Pathway 3
People	High	Additional resources to manage tighter timelines for exceptions	High	 Additional resources to manage exception related queries from participants 	Low	 Additional resources not required to manage exceptions and additional participant queries
Process	High	New processes to manage exceptions,	Low	No change to exceptions process, resolved by R1	Low	No change to exceptions process, resolved by R0

Impact	Pathway 1			Pathway 2		Pathway 3	
		assumes tighter MDP timelines New security deposit process		 New security deposit process 		 New security deposit process 	
System	High	 New interface to manage exceptions New interface to manage security deposits Uplift in generator estimation processes 	Medium	 New interface to manage security deposits Uplift in generator estimation processes 	High	 Changes to billing to include R0 New interface to manage security deposits Uplift in generator estimation processes 	
Settlement outcome ⁹	Unfavou rable	 Intervention settlements not achievable by final assumes move to R1 	Poor	 Exceptions managed at R1 (with risk of material financial adjustments during high price periods) Intervention settlements not achievable by final assumes move to R1 	Good	 Exceptions managed at R0 Intervention settlements occur at R0 	
Delivery date (est.)		End June 2026 & End May 2027 Phased approach to delivery: Phase 1 – Deliver rule change Phase 2 – Deliver new system interfaces		• End June 2026		• End June 2026	

⁹ 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.

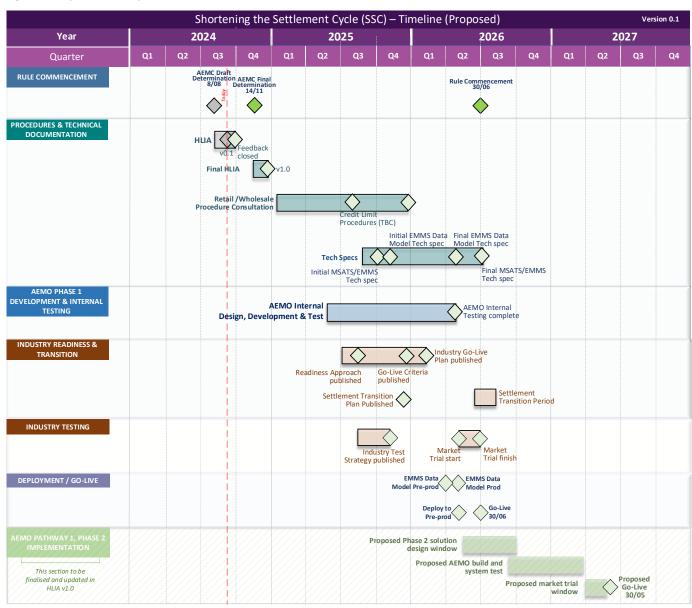
The impacts are time based. By 20 week revision all outcomes are identical.

The impacts are time based. By 30 week revision all outcomes are identical.

6.2 Proposed delivery timeline

Figure 7 shows the proposed implementation timeline common to each pathway with a proposed commencement of end June 2026, noting the exception of Pathway 1 which would require additional time to deliver new proposed interfaces.

Figure 7: Proposed delivery timeline



6.3 Risks

Table 16 considers the risks associated with the proposed SSC implementation approach discussed above.

Table 16: 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
Compensation calculations cannot be completed within the final timing in accordance with the market intervention settlement timetable.	High	 Continued engagement between AEMC, AEMO and industry on final rule drafting for intervention settlements timetable. 	Low
Analysis identifies significant changes required to the CLP that cannot be managed by go live date	High	 Assess changes required as a direct impact of SSC. Consult with AEMC on findings of CLP assessment and ability to meet proposed go live date Implement changes required as a direct impact of SSC by go live. Deliver subsequent changes to meet requirements that support the prudential standard over time will in a further stage. 	Medium
The transitional rules do not allow for an orderly transition from the current to the shortened settlement cycle creating system and operational issues.	High	 Continued engagement between AEMC, AEMO and industry on transitional rules drafting. 	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 industry testing. 	Low
Insufficient participant involvement during industry testing	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

7 Participant impact assessment

This section provides AEMO's high-level view of the SSC draft 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 draft rule** on their own business and operations. **AEMO cannot predict the exact scale or nature of impacts for individual participants**.

Depending on the pathway for implementation and the determination of the final rule, a shorter settlement cycle may create material impacts on certain industry participants, in particular MDPs and net consumers of energy.

In all three pathways described in this Draft HLIA, there will be 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 17 considers the likely direct SSC impacts of the SSC draft 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 17: 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 change in timings and potential variations between final and R1 (Pathway 1 and 2)
		 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 (Pathway 3 only)
Distribution/Transmission Network Service Providers	No impact expected	
Metering data providers	Medium impact expected	Increased exception management capability and reduced exception resolution timeframes (Pathway 1 only)
		 Increased AEMO and participant enquiries on metering exceptions (Pathway 2)
		 Modified processes to receive automated exception reporting and update exception status through a new interface with AEMO (Pathway 1 only)
Metering providers	No impact expected	
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 from early 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 (Pathway 3 Only).
 - MSATS technical specification to support changes to Performance Monitoring Reports (RM30) (Pathway 3 Only).
- Market Systems User Group (MSUG) sessions for additional Technical Specification support: MSUG sign up details
- Testing and development support for changes to industry systems, e.g. for billing configuration changes to include an additional RO settlement run and transitional settlement calendars.
- MDP collaboration on system and process related changes for management of metering exceptions through an interface
- Educational sessions to provide an understanding of, and ensure access to, the new security deposit interface.
- 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 8 and an indicative SSC industry readiness approach is outline in Table 18.

Figure 8: Indicative readiness approach

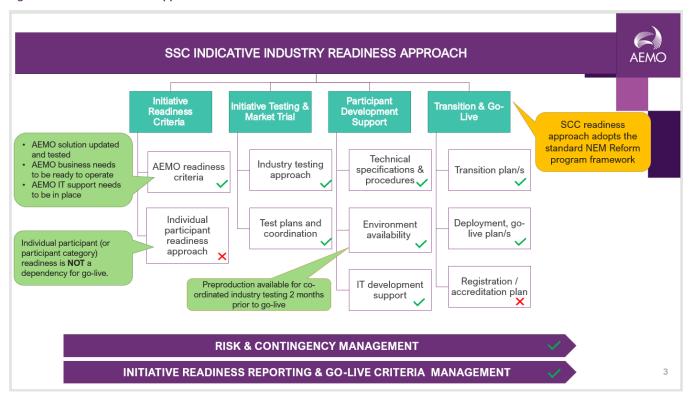


Table 18: Indicative SCC industry readiness approach

READINESS AREA		INITIAL VIEW OF INDUSTRY READINESS APPROACH
Initiative readiness 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. The extent of Participant system/process impact will be impacted by the chosen implementation pathway and the final rule commencement date.
	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 potentially Markets Portal) • business needs to be ready to operate • IT support needs to be in place.
Initiative testing and market trial	Industry test strategy	 Scoping and planning will occur in collaboration with industry. Industry test approach along with detailed timings will be confirmed with the issue of the Industry Test Strategy (Q4 2025*) AEMO has indicated a 2-month period to conduct industry testing prior to the SSC commencement date. Timing and scope of the industry test will be dependent on the selected pathway
	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) 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:	
	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 Performance Monitoring Reports (RM30) (Pathway 3 Only). Technical Specification availability from Early Q3 2025* Market Systems User Group (MSUG) sessions for 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. No additional development support environment 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 would 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.	
	Go-live plan	 Go-live plans for 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 plan to be published Q1 2026* 	
	Registration or accreditation plans	 The SSC draft rule does not indicate changes to registration or accreditation frameworks 	
Risk & contingency management		Will be developed in consultation with industry	
Initiative readiness reporting & go-live 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 during 2025 	

READINESS AREA	INITIAL VIEW OF INDUSTRY READINESS APPROACH
	 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: Prior to Industry Test start – Q3 2025*
	 Readiness approach – March 2026* Go-live readiness – June 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 19 sets out the interrelationship between the SSC reform and key, select NEM reform initiatives with settlement content.¹⁰ At this time no direct impact on the delivery of SSC from these reforms is anticipated. However, if the go live date for SSC moves to late 2026, material challenges in shared preproduction and market trial environments will arise.

Table 19: 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:
	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 be a new interconnector linking South Australia and NSW and will be fully operational in early 2027. PEC will create the first interregional 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	<u>Unlocking benefits of CER through flexible trading</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

 $^{^{10}}$ The <u>NEM reform implementation roadmap</u> provides stakeholders with the complete list of reform initiatives.

NEM REFORMS	RELATIONSHIP TO SSC	
	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.	
	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.	

9 Seeking feedback

AEMO welcomes any stakeholder feedback on this SSC Draft HLIA by Monday, 14 October 2024, feedback by Monday 30 September will be used to inform AEMO's submission to the AEMC rule change. Comments should be sent via email to NEMReform@aemo.com.au. A response template is available for stakeholders to use AEMO | Shortening the Settlement Cycle (SSC). AEMO is particularly seeking feedback on matters set out in Table 20 to:

- Help shape its SSC implementation approach
- Inform its submission to the AEMC in relation to the SSC draft determination and rule.

Table 20: Key areas for feedback on Draft HLIA

HLIA SECTION	KEY FEEDBACK AREAS
1. Market design	To what extent has AEMO appropriately captured the SSC market design based on the AEMC's SSC draft rule? What changes do you propose and why?
	 AEMO considers that a relatively short transition period would be preferable. Do you agree and why?
3. Key AEMO impacts	To what extent have the key impacts to AEMO's processes from the SSC draft rule been appropriately captured? What changes do you propose and why?
	 What are your views on the importance of maintaining the same level of exceptions in an earlier final statement under the SSC draft rule and of allowing market intervention settlement to wait until a 20 week revision?
	• Do you agree that an additional 'R0' revision at business day 20 (Pathway 3) will alleviate the need to enhance metering data exception processes and represents a suitable timeframe for inclusion of market intervention settlement amounts.
4. AEMO procedure impacts	To what extent have the impacts to new and existing market procedures from the SSC draft rule been appropriately captured? What changes do you propose and why?
5. AEMO system impacts	To what extent have the potential impacts to AEMO systems from the SSC draft rule been appropriately described? What changes do you propose and why?
6. Implementation pathway	To what extent have the key SSC implementation considerations been appropriately described?
	In Section 6, AEMO has proposed alternative timing for two implementation components if pathway 1 is adopted- the metering exception management interface and security deposit interface. Do you agree with AEMO's suggested timeframes for these components, and are there any other relevant considerations for the timing of the incentive mechanism?
7. Participant impact assessment and readiness	To what extent do you agree with the impacts AEMO has identified for each stakeholder type? What changes do you propose and why?

HLIA SECTION	KEY FEEDBACK AREAS	
	 What is the extent of the operational impacts to MDPs if tighter exception resolution timeframes are implemented under Pathway 1? What risk or other factors should be included? 	
	 What impacts do market participants identify under Pathway 2 if exceptions and market intervention settlements are not resolved until R1? What is the change to these impacts under Pathway 1 and Pathway 3? 	
	 What are your views on each of the elements of the indicative readiness approach and their timings? 	
8. Related reforms	 To what extent have the related reforms and their interaction with SSC been appropriately identified? What changes do you propose and why? 	
General	AEMO would appreciate feedback on the structure and content of this Draft HLIA, to help inform the next version.	

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
B2B	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
RO	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
твс	To be confirmed
TBD	To be determined