

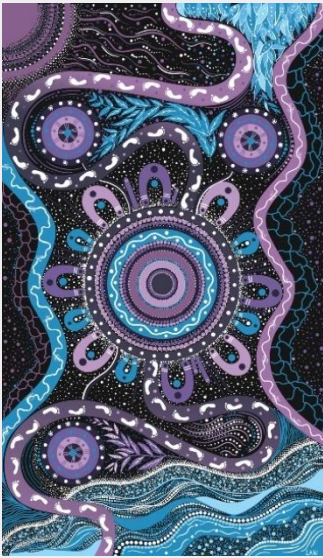
# Draft High Level Impact Assessment (HLIA)

## Project Energy Connect – Market Integration

December 2024

Wholesale Reform Delivery





We acknowledge the Traditional Custodians of the land, seas and waters across Australia. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.

We acknowledge that, wherever we work, we do so on Aboriginal and Torres Strait Islander lands. We pay respect to the world's oldest continuing culture and First Nations peoples' deep and continuing connection to Country; and hope that our work can benefit both people and Country.

'Journey of unity: AEMO's Reconciliation Path' by Lani Balzan

AEMO Group is proud to have launched its first [Reconciliation Action Plan](#) in May 2024. 'Journey of unity: AEMO's Reconciliation Path' was created by Wiradjuri artist Lani Balzan to visually narrate our ongoing journey towards reconciliation - a collaborative endeavour that honours First Nations cultures, fosters mutual understanding, and paves the way for a brighter, more inclusive future.

## Important notice

### Purpose

AEMO has prepared this document to provide an overview on how the changes to incorporate Project EnergyConnect into the market will be implemented.

### Disclaimer

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### Version control

Version	Release date	Changes
1	19/12/2024	Initial version for release

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# Contents

1	Introduction	4
1.1	Providing flexibility around the distribution of negative inter-regional settlements residue (IRSR)	4
1.2	Document background and context	5
1.3	High Level Impact Assessment (HLIA) overview	5
1.4	Key implementation dates	5
1.5	Stakeholder engagement and HLIA Feedback	6
2	AEMO summary of key impacts	7
3	AEMO procedure impacts	8
3.1	Modification of AEMO system requirements for NRM	8
3.2	Integration of changes to allocation and distribution of IRSR	11
3.3	Minor amendments to the Settlement Residue Auction to include PEC	12
4	System impacts	13
5	Participant impacts	14
5.1	Indicative industry readiness approach	14
5.2	Industry testing environments	16
6	Proposed implementation timeline	17
7	Delivery risks and issues	19
A1.	Description of AEMO's impact ratings	20

# 1 Introduction

## 1.1 Providing flexibility around the distribution of negative inter-regional settlements residue (IRSR)

Investment in low-cost renewable energy, firming resources and essential transmission remains the best strategy to deliver affordable and reliable energy, protected against international market shocks. AEMO supports Australia's complex and rapid energy transformation towards net zero emissions, enabling low-cost firming renewable energy and essential transmission to provide consumers in the National Electricity Market (**NEM**) with reliable, secure and affordable power.

A transmission loop will be formed in the NEM when Project EnergyConnect Stage 2 (**PEC**) becomes operational. PEC<sup>1</sup> is a new 330 kilovolts (**kV**) electricity interconnector between Robertstown in South Australia and Wagga Wagga in New South Wales, with a short 220 kV spur from Buronga in New South Wales to Red Cliffs in north-west Victoria. At completion, the project will provide approximately 800 megawatts (**MW**) of additional transmission capacity between New South Wales and South Australia.

In February 2024, AEMO proposed a rule change request that sought to address certain market integration issues that would otherwise arise on the commencement of PEC because of the creation of a parallel interconnector configuration<sup>2</sup> between three adjacent regions (**transmission loop**). The proposed change relates to amending the National Electricity Rules (**NER**) for inter-regional settlements residue (**IRSR**) arrangements for transmission loops.

The rule change consultation "Inter-regional settlement residue arrangements for transmission loops<sup>3</sup>" began on 25 July 2024 to assess these new settlement challenges for the NEM. The Australian Energy Market Commission (AEMC) published its Draft Determination on 12 December 2024 setting out the draft rule for allocation negative IRSR in transmission loops (**draft rule**).

The final determination and rule is expected on 27 March 2025 and is proposed to commence on 3 July 2025. However, it will not take effect until the capacity release commences on the transmission loop.

AEMO will consult on the relevant Procedures, including the Automative Negative Residue Management (**NRM**) which requires changes to incorporate a transmission loop.

This document sets out the high-level impact assessment implementation arrangements by detailing:

- What changes are required from the AEMC's Draft Determination and Draft Rule.
- Integration of changes to allow the changes to allocation and distribution of IRSR and incorporation of transmission loop into the NRM.

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<sup>1</sup> See Project EnergyConnect website, at <https://www.projectenergyconnect.com.au/>.

<sup>2</sup> Defined in the Draft Rule 3.18.1A, see <https://www.aemc.gov.au/rule-changes/interregional-settlement-residue-arrangements-transmission-loops>

<sup>3</sup> See <https://www.aemc.gov.au/rule-changes/interregional-settlement-residue-arrangements-transmission-loops>.

- Minor amendments to the Settlement Residue Auction (**SRA**) to include PEC (there are no changes to SRA arrangements or the allocation of positive IRSR from the draft Rule).
- System impacts to include PEC into AEMO's systems, and what will change for industry.

## 1.2 Document background and context

The approach taken in developing the High Level Impact Assessment (**HLIA**) is to outline the implementation of the rule change and the development of other changes from the incorporation of a transmission loop into the AEMO systems. This draft HLIA has been published to support stakeholders with their submissions to the AEMC's draft rule.

The purpose of this document is to provide information to participants on how the changes will be implemented by AEMO through the **Project EnergyConnect – Market Integration (PEC-MI) project**. This is intended to assist and inform participants in the development of their own implementation timelines and impact assessments as required.

## 1.3 High Level Impact Assessment (HLIA) overview

This draft HLIA is guiding AEMO's development of:

- Which procedures are impacted for change and what changes are required.
- How AEMO intends to change the NRM process, subject to an upcoming consultation on the Automation of Negative Residue Management.
- The impact from the new rule to AEMO's settlement processes.

This draft HLIA is an initial version to assist stakeholders with their submissions to the AEMC's draft Determination and draft rule, due to the AEMC by 30 January 2025.

This draft HLIA does not discuss constraint formulation associated with PEC.

## 1.4 Key implementation dates

The Draft Rule has the effective date for the commencement of the Amending Rule as 3 July 2025, which aligns with the commencement of the *Providing flexibility in the allocation of interconnector costs rule*<sup>4</sup>. However, the Draft Rule will come into practical effect when AEMO first reflects the transmission loop in dispatch, likely at the start of the commissioning process. The Final Rule is expected on 27 March 2025.

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<sup>4</sup> AEMC, Providing flexibility in the allocation of interconnector costs, at <https://www.aemc.gov.au/rule-changes/providing-flexibility-allocation-interconnector-costs>.

Therefore, AEMO must have these changes ready for a cut-over by the first energisation of PEC. To be ready for this milestone, AEMO will work towards a cut-over date of October 2026, with full interconnector testing of PEC expected to take approximately 15 months<sup>5</sup>.

## 1.5 Stakeholder engagement and HLIA Feedback

AEMO welcomes submissions to this draft HLIA, especially the questions raised in **Section 3**.

Any comments or feedback should be sent by email to [NEMReform@aemo.com.au](mailto:NEMReform@aemo.com.au) by **Friday February 14, 2025**.

AEMO intends to publish the final update to this HLIA in April 2025, which will consider feedback from stakeholders and will provide further information on the System Impacts and the Implementation pathway. The final HLIA will also incorporate any changes from the draft rule to the final rule.

AEMO intends to keep interested stakeholders up to date on the PEC-MI through the following ways:

- NEM Reform engagement will occur through the regular monthly forums that AEMO conducts as part of the NEM Reform Program, including:
  - The Program Consultative Forum (PCF).
  - The Electricity Wholesale Consultative Forum (EWCF).
  - The Implementation Forum.
- Initiative webpage: <https://www.aemo.com.au/initiatives/major-programs/project-energyconnect-market-integration-project>
- Mailbox: [NEMReform@aemo.com.au](mailto:NEMReform@aemo.com.au)

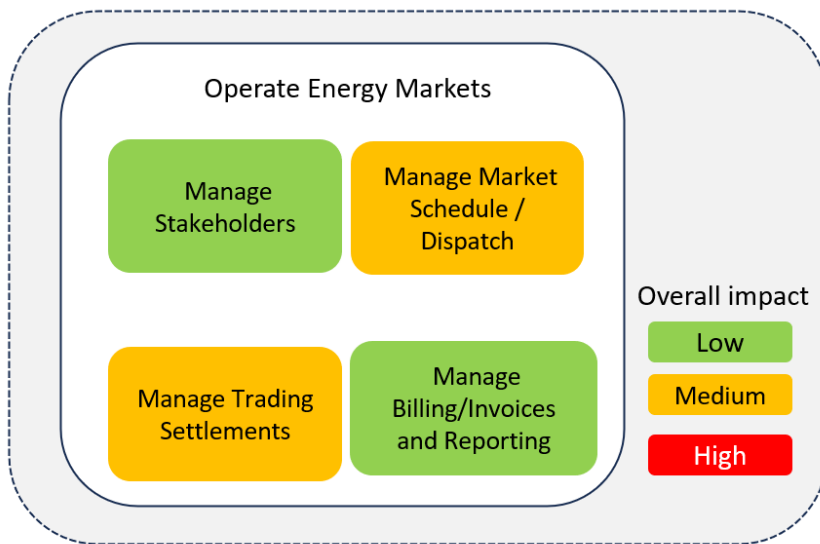
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<sup>5</sup> Project EnergyConnect System Integration – Industry Update, at <https://www.projectenergyconnect.com.au/moreInformation.php>.

## 2 AEMO summary of key impacts

The diagram and table below depict the key impacts to AEMO’s systems and processes impacted.

**Figure 1** Summary of impacts for PEC-MI



**Table 1** View of key AEMO impacts

Focus area	Impact description	Description
Manage Market Schedule/Dispatch	Dispatch and Reports	<ul style="list-style-type: none"> <li>Incorporation of transmission loop in NRM process</li> <li>Incorporation of transmission loop in Price scaling function</li> <li>Calculation of interconnector import and export limits</li> </ul>
Manage Trading Settlements	Calculation of settlement residue amount and other related amount	<ul style="list-style-type: none"> <li>Calculate the amount corresponding to market transactions and issue billing/invoices based on the reconciliation of negative settlement residue amounts for TNSPs.</li> <li>Distribution of any settlement residue auction among the auction unit holders related to NSW-SA interconnector</li> </ul>
Manage Billing/Invoices and Reporting		<ul style="list-style-type: none"> <li>Issue billing/invoices based on the reconciliation of negative residue amounts and distribution of settlement residue surplus</li> <li>Update Dashboards, reports, notices, and Procedures/Guides to reflect changes.</li> </ul>
Manage Stakeholders	Consult and communication stakeholders	Consulting, communicating and reporting to the external stakeholder at different stages. External stakeholders include Coordinating Network Services Providers, Settlement Residue Committee (SRC), Energy Wholesale Consultative Forum, Industry Groups etc.

## 3 AEMO procedure impacts

To facilitate the implementation of PEC-MI and meet the requirements of the AEMC’s final rule for Inter-regional settlement residue arrangements for transmission loops, AEMO will be consulting on existing documents to be consistent with the changes to NER 3.6.5 and 3.18.3.

**Table 2** Overview of impacted procedures

Type of document	Title	Effort required	Content to be changed	Consultation type
Operating Procedure	Dispatch Procedure (SO_OP_3705)	Low	Updated to reflect new NRM process.	Standard
Guide	Automation of Negative Residue Management	High	Updated to reflect new NRM process.	Standard
NER Required document	Methodology for the allocation and distribution of settlements residues	Medium	Updated to reflect new Rule allocations of negative residues	Standard
NER Required document	NEM Transmission Network Service Provider Negative Settlements Residue Procedure	Medium	Updated to reflect new NRM process – updates to clauses 3.6.5(a)(4) and 3.6.5(a)(4A)	Standard
NER Required document	SRA Rules	Low	Inclusion of PEC into the SRA	Standard

### 3.1 Modification of AEMO system requirements for NRM

AEMO uses automated constraints to limit the accumulation of negative inter-regional settlement residues in the NEM when this accumulation reaches or exceeds the negative residue accumulation threshold of -\$100,000. The modification of the NRM process will include the following elements:

- Introduction of logic to permit the accumulation of negative inter-regional settlement residues in the Vic-SA, SA-Vic, SA-NSW, NSW-SA, NSW-Vic and Vic-NSW directional interconnectors when the net total of these residues remains positive.
- Changes to automated constraints to limit the accumulation of negative inter-regional settlement residues in the NEM when this accumulation reaches or exceeds the negative residue accumulation threshold.
- Possible changes to publication for the estimate of negative residues in real time.
- New NRM data items and new referenced relevant field names.
- Addition to NRM constraint equations to include PEC.
- Any other information, change or addition that AEMO considers reasonably necessary.

#### 3.1.1 Consultation considerations

AEMO will consult on key technical concepts and requirements to implement changes for a parallel interconnector configuration between the three adjacent regions.



The PEC-MI project proposes an approach which is represented here. The final design remains subject to consultation. The formal consultation on the Automation of Negative Residue Management will commence in Q2 2025, however AEMO welcomes stakeholder feedback on the design considerations outlined below as part of the HLIA.

AEMO intends to consult on and revise **SO\_OP\_3705 Dispatch Procedure** and the **Automation of Negative Residue Management** documents to be consistent with the AEMC’s Draft Determination<sup>6</sup> to allow the accumulation of negative settlement residues when the aggregate inter-regional settlement residue of all six directional interconnectors is not in deficit.

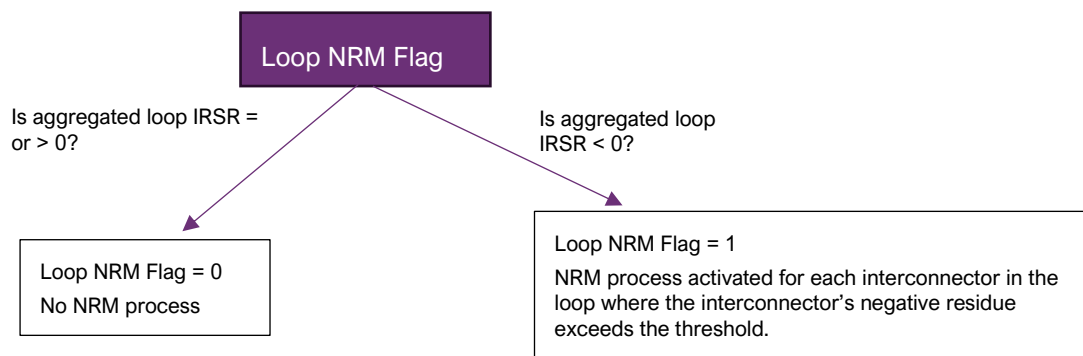
### How to include the new transmission loop interconnectors into NRM

Supporting the intent of the draft Rule and Determination, AEMO proposes to introduce logic that permits the accumulation of negative inter-regional settlement residues in the Vic-SA, SA-Vic, SA-NSW, NSW-SA, NSW-Vic and Vic-NSW directional interconnectors when the net total of these residues remains positive.

To implement this, a new Loop NRM flag field is proposed to act as an indicator of the status of the aggregate residue, with a value of either 0 or 1 (see Figure 2). The Loop NRM flag process is only activated (for each interconnector in the loop) to determine if aggregated loop IRSR is negative.

Where aggregated loop IRSR remains positive, the accumulation of negative IRSR occurs for each of the directional interconnectors within the loop, without activating the NRM process as described in proceeding sections.

**Figure 2 Proposed Loop NRM flag process**



### Consideration of pre-dispatch and aggregated negative residues

As per the current procedure, the pre-dispatch residues for each 30-minute period would be assessed using 30-minute pre-dispatch for each interconnector in the loop. The total aggregated loop IRSR from pre-dispatch would then be combined with accumulated dispatch IRSR as a part of the aggregate IRSR. The Loop NRM flag will be 1 once the aggregated loop IRSR becomes negative.

<sup>6</sup> AEMC’s Draft Determination, at <https://www.aemc.gov.au/sites/default/files/2024-12/ERC0386%20IRSR%20arrangements%20for%20transmission%20loops%20-%20Draft%20determination.pdf>.



### NRM Process: Application of threshold

In the current NRM process, when the accumulation of negative IRSR on one interconnector reaches or exceeds the threshold of \$100,000, the NRM constraints are automatically activated. The existing threshold is not the intended subject of the upcoming consultation.

As explained above, AEMO is proposing a NRM Loop Flag as an indicator of the aggregate loop negative IRSR which would trigger at any loop residue below zero. The current threshold of \$100,000 is then used as a trigger for the individual interconnector in the loop when a negative residue constraint is required to be activated as outlined in Figure 2.

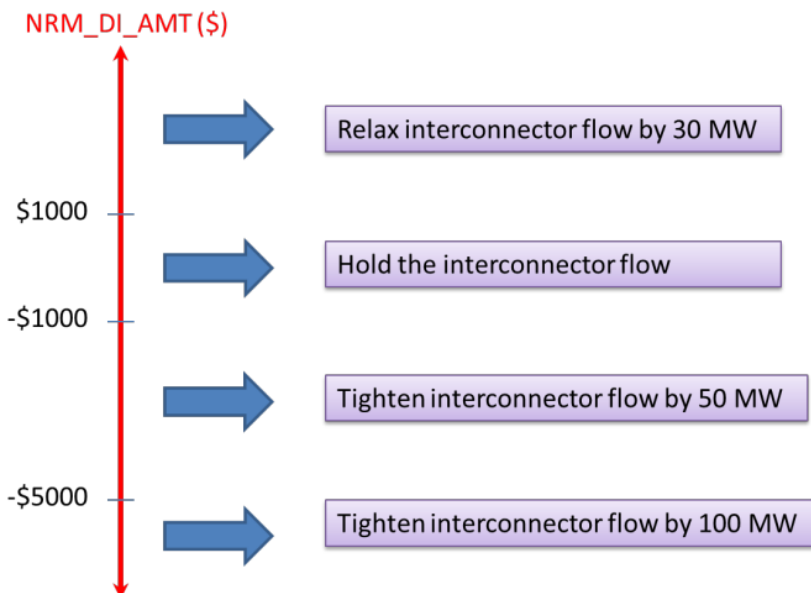
The upcoming consultation also needs to consider when to “reset” the accumulation amount on the individual interconnectors following the loop net residue becoming positive again. That is, how many dispatch intervals are required before the loop NRM flag is switched to zero.

Do stakeholders agree with the broad approach outlined above, and that a threshold should apply only to individual interconnectors and not the aggregated loop negative residue?

### A larger accumulation of negative residue – on one arm of the interconnector

The NRM constraint equation tightens or relaxes the flow on the interconnector by the step size (in MW) as per the current NRM Procedure. An example is shown in Figure 3.

**Figure 3** Example of negative residue management process



Source: Page 6, AEMO, Automation of Negative Residue Management.

Currently, the largest clamping increment is -\$5,000 for each directional interconnector.

The current negative residue constraint equations, once invoked, constrain the directional interconnector with either a more aggressive or a more conservative step change, depending on the value of the estimated residue for the current TI.

AEMO does not intend to change the current clamping increment and step size structures, for system security reasons. For any changes, participants would need to provide sufficient evidence to AEMO. During consultation of the NRM procedure, AEMO would consider the step size values for the new interconnector between New South Wales and South Australia.

While AEMO is not intending to change the current clamping increments and step size structures, AEMO welcomes evidence and feedback from participants for AEMO to consider.

Notwithstanding the comments on system security above, following implementation of PEC, it is possible that a larger accumulation of negative residue may occur at some stage in a shorter period. If this becomes a regular occurrence in practice, AEMO might consider whether introducing new clamping increments, for example, \$-20,000 and larger step values for each directional interconnector is feasible. AEMO is aware that any changes to clamping increments/step size might impact the power flow of a single interconnector in the loop. This would have broader implications for the power flow distribution around the loop in a short period.

## 3.2 Integration of changes to allocation and distribution of IRSR

As outlined in AEMO's PEC Market Integration Directions Paper<sup>7</sup>, positive IRSR occurs where power travels from a low to a high-priced region and is calculated as the difference between the RRP in the importing and exporting region, multiplied by the interconnector flow. Negative IRSR occurs where power travels counter-priced, importing electricity to lower priced regions.

AEMO will be consulting on the **Methodology for the allocation and distribution of settlement residues** and **NEM TNSP Negative Settlements Residue Procedure** to reflect the changes to the NER from the Final Rule. The premise of those changes is outlined in the Draft Determination and Draft Rule and will include the following changes to these documents:

- Allocate negative IRSR by 'regional demand', which is the share of electrical energy used in each region over the prior year<sup>8</sup>. This would apply for the allocation of negative IRSR in both positive and negative 'net' loop IRSR scenarios.
- All positive IRSR as per current arrangements – positive IRSR allocated to settlements residue distribution (SRD) unit holders, with the proceeds of SRAs to the transmission network service provider (TNSP) of the importing region.

<sup>7</sup> At [https://www.aemo.com.au/-/media/files/stakeholder\\_consultation/consultations/nem-consultations/2022/pec-market-integration-paper/directions-paper-for-consultation/pec-market-integration---directions-paper-for-consultation.pdf?la=en](https://www.aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/pec-market-integration-paper/directions-paper-for-consultation/pec-market-integration---directions-paper-for-consultation.pdf?la=en).

<sup>8</sup> The ratio is calculated as ACE (adjusted consumed energy) for the region for the past 52 weeks on a rolling basis (refer AEMC Draft Determination Section 3.2.1).

While this approach is different to AEMO's rule change proposal<sup>9</sup>, it will be of a similar implementation complexity.

The AEMC approach will affect all negative IRSR on the six directional interconnectors in the parallel transmission configuration, including those that arise due to intra-regional constraints unrelated to the loop.

Radial interconnectors between Queensland/New South Wales and Tasmania/Victoria (if regulated) will be unaffected by the rule change and will continue to be allocated to the importing TNSP.

### 3.3 Minor amendments to the Settlement Residue Auction to include PEC

Under NER 3.18.3, AEMO must develop the rules which govern the SRA. These rules include the instruments released in respect of each directional interconnector for each auction. For this to include PEC, AEMO needs to include the new Unit Category "SANSW" for directional interconnector South Australia to New South Wales and "NSWSA" for directional interconnector New South Wales to South Australia.

Units for SRA can be made available for New South Wales – South Australia (PEC interconnector), with the number of units available closely aligning with the capacity of the interconnector<sup>10</sup>. The release of these instruments will be determined through consultation with the Settlement Residue Committee. Fees will be calculated and applied using the existing methodology.

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<sup>9</sup> AEMO's rule change Proposal, at [https://www.aemo.com.au/-/media/files/stakeholder\\_consultation/consultations/nem-consultations/2022/pec-market-integration-paper/february-2024/20240223-integration-of-project-energyconnect-into-the-national-electricity-market.pdf?la=en](https://www.aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/pec-market-integration-paper/february-2024/20240223-integration-of-project-energyconnect-into-the-national-electricity-market.pdf?la=en).

<sup>10</sup> Refer to SRA Rules, section 4.3(b), at [https://aemo.com.au/-/media/files/electricity/nem/settlements\\_and\\_payments/settlements/2020/sra\\_settlements\\_residue\\_auction\\_rules\\_13\\_03\\_20-final.pdf?la=en](https://aemo.com.au/-/media/files/electricity/nem/settlements_and_payments/settlements/2020/sra_settlements_residue_auction_rules_13_03_20-final.pdf?la=en).

## 4 System impacts

This section focuses on the system impacts associated with the cut-over for PEC into AEMO's systems by October 2026. The AEMC Rule provides AEMO with methodology regarding the enablement approach, in recognition of the need to balance solution and implementation complexity alongside the requirement to commence the scheduling function in time for PEC to be connected.

AEMO's impacted systems are settlement systems and the dispatch system. From our initial assessment, the impacts to these systems are low. AEMO plans to build a solution in time for the commencement date and deliver new requirements for operations, specifically the NRM. AEMO is also undertaking a proof of concept on its price scaling functionality to determine whether under the transmission loop there will be any system impacts. AEMO will inform stakeholders about this analysis and will provide further information on the System Impacts in the final HLIA in April 2025.

## 5 Participant impacts

This section identifies a list of proposed changes and AEMO’s view of the impact on different participant types, based on the overall design (Table 3). It does not address updates that participants may make within their systems to support business processes and given the diverse levels of system maturity and automation across participants, AEMO cannot predict the exact scale or nature of impacts for each participant. AEMO recommends that each participant perform their own detailed analysis based on the information in this HLIA.

**Table 3** *Indicative participant change impacts*

Impacted participant type	Proposed change
Generators (Scheduled and Semi-Scheduled); Integrated Resource Providers	Changes to publication of inputs for NRM constraint equations
Coordinating Network Service Providers	AEMO will allocate negative IRSR that accrues on interconnectors in transmission loops to all looped regions in proportion to regional demand (electrical energy consumption). AEMO will implement its proposed approach to clamping for the transmission loop, which is to clamp only when net IRSR for the loop is negative.
SRA participants	Inclusion of PEC into the SRA

### 5.1 Indicative industry readiness approach

This section shows AEMO’s early view of the PEC-MI readiness approach based on information available from Project EnergyConnect and based on the draft AEMC rule for “Inter-regional settlements residue arrangements for transmission loops”.

The readiness approach and milestone dates will be confirmed in consultation with participants based on the final rule. Figure 4 provides the indicative view of the PEC-MI readiness approach, consistent with NEM reform readiness strategy. Table 5 provides commentary on each of the readiness elements.

Note that ‘go-live’ represents when PEC is first reflected in dispatch and the transmission loop has been incorporated into NEMDE by AEMO. ‘Go-live’ will be communicated to participants through the stakeholder engagement strategy (see Table 3) and Readiness plan (see Table 4).

Figure 4 Industry implementation approach PEC-MI

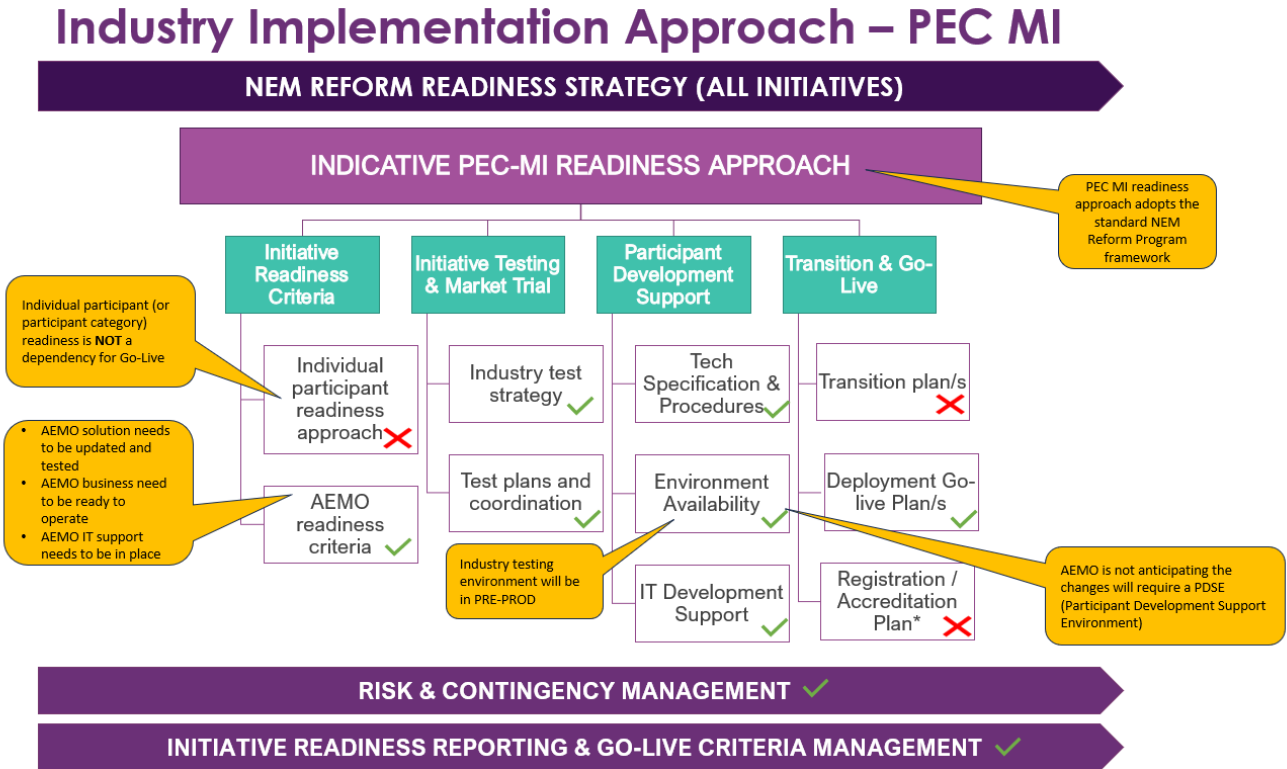


Table 4 Readiness element commentary

Readiness area	Readiness element	Indicative assessment
<b>Initiative readiness criteria</b>	Individual participant readiness approach	Individual participant readiness is not considered essential for the market commencement of PEC-MI.
	AEMO readiness criteria	By the PEC-MI commencement date, AEMO's: <ul style="list-style-type: none"> <li>Solution needs to be updated and tested.</li> <li>Business needs to be ready to operate.</li> <li>IT support needs to be in place.</li> </ul>
<b>Industry testing</b>	Industry test strategy	At this stage AEMO proposes to support an Industry test window of indicatively 2 months in the pre-production environment.
	Test plans and coordination	Test plans, if required, to support the agreed Industry test strategy will be developed in consultation with the Industry Test Working Group
<b>Participant development support</b>	Procedures	AEMO's relevant procedures will need to be updated to reflect the Rule and any changes to NRM.  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.  Changes to Procedures will be published along with the Technical Specification document.
	Technical specifications	AEMO will plan to publish technical specifications and the EMMS Data Model with dates to be confirmed in the final HLIA, to support a suitable timeframe for participant development
	Environment availability	At this stage AEMO proposes that Pre-Production will be available to support industry testing for 2-months prior to the go-live.  Existing TNSPs already have access to pre-production for testing.
	IT development support	As required, AEMO will provide industry support via NEM Reform forums. AEMO will call out any individual participant activities if required, through the

Readiness area	Readiness element	Indicative assessment
		Implementation Forum. These engagements would be scheduled as the IT design and approach is formalised.
<b>Transition and go-live</b>	Transitions plans	No transitional plans for industry are required. Throughout the project AEMO will communicate project activities and project milestones.
	Go-live plan	Will be communicated with industry to confirm detailed deployment and capability availability timeframes in the lead up to go-live.
	Registration or accreditation plans	There are no changes to registration or accreditation frameworks.
<b>Risk and contingency management</b>		Will be developed in consultation with industry
<b>Initiative readiness reporting &amp; go-live criteria management</b>		Will be developed in consultation with industry. Readiness reporting will be consistent with the go-live criteria. Readiness checkpoints will be scheduled for 6, 3 and 2-months prior to go-live. Progress reporting against established milestones will be provided on a regular basis through NEM Reform forums.

## 5.2 Industry testing environments

AEMO provides a pre-production (preprod) environment for industry tests, market trials and general participant testing. Key features of the preprod environment are:

- All AEMO Market Systems can be tested in preprod. This includes test versions of AEMO’s Retail and Wholesale IT Systems.
- Participants can interact with preprod via a test version of the Markets Portal and via AEMO’s various interfaces.
  - The Market Systems applications in preprod are generally maintained to a high level. Generally, preprod is used as the final step for system changes for both BAU and projects prior to promotion to Production. Preprod is regarded as a production-like system, and any issues with preprod can be reported to the AEMO Support Hub.
- Data in preprod is a complete copy of the production Market Systems and is normally refreshed annually and is driven by project requirements.
  - Access to production and pre-prod is managed via the Participant Administrator (PA) role.



## 6 Proposed implementation timeline

The Draft rule has the effective date for the commencement of the Amending Rule as 3 July 2025, with the Rules to have the practical effect of inclusion of the transmission loop in dispatch. To be ready for this milestone, AEMO will work towards a cut-over date of October 2026, with full inter-connector testing of PEC expected to take approximately 15 months<sup>11</sup> (keeping in mind that the timeline is running alongside that of PEC).

AEMO intends that all systems, including NRM and negative settlement residue allocation, are developed well in advance and ready to be implemented from the first date that a loop flow is represented. AEMO would publish this date close to the event.

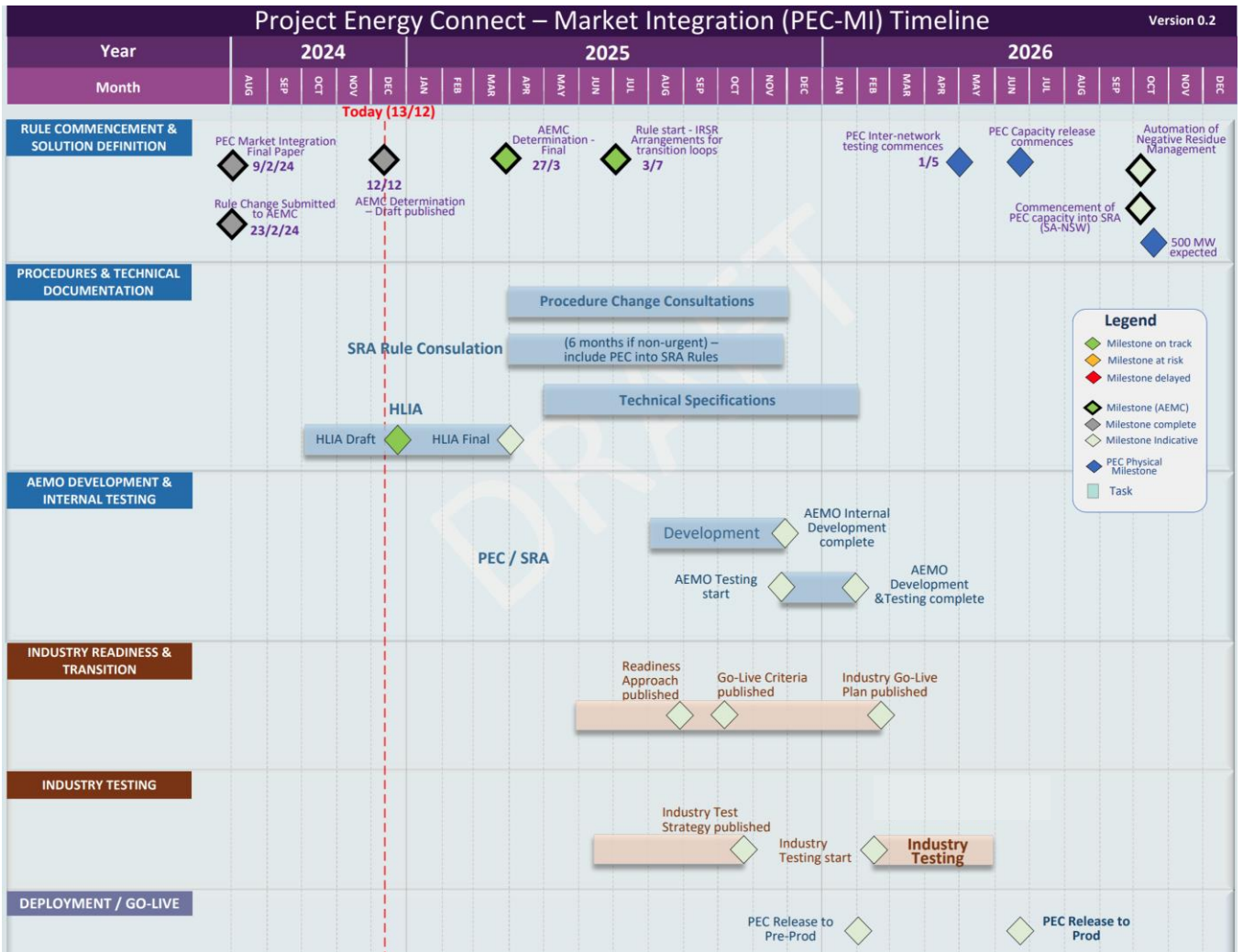
Units for SRA can be made available for New South Wales – South Australia (PEC interconnector) with the number of units available closely aligning with the capacity of the interconnector<sup>12</sup>. The release of these instruments will be determined through consultation with the Settlement Residue Committee.

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<sup>11</sup> Project EnergyConnect System Integration – Industry Update, at <https://www.projectenergyconnect.com.au/moreInformation.php>.

<sup>12</sup> Refer to SRA Rules, section 4.3(b), at [https://aemo.com.au/-/media/files/electricity/nem/settlements\\_and\\_payments/settlements/2020/sra\\_settlements\\_residue\\_auction\\_rules\\_13\\_03\\_20-final.pdf?la=en](https://aemo.com.au/-/media/files/electricity/nem/settlements_and_payments/settlements/2020/sra_settlements_residue_auction_rules_13_03_20-final.pdf?la=en).

Figure 5 PEC-MI indicative activity timeline



## 7 Delivery risks and issues

AEMO will identify, monitor and manage risks as the project progresses, and proposes to report these via the Implementation Forum.

**Table 5** Indicative assessment of delivery risk and issues

Identified risk	Current risk rating	Mitigation strategy	Residual rating
Contention of AEMC rule change – from stakeholders	<b>Medium</b>	Engage with stakeholders via AEMO forums Engage with and consult with participants through AEMO's forums on the AEMC's proposal if different to AEMO's proposal.	<b>Low</b>
Compressed timelines to meeting inter-network testing dates	<b>High</b>	Commence Procedure consultation in Q2 2025	<b>Low</b>
Changes to price scaling function are more involved than expected	<b>Medium</b>	Commence investigations in Q4 2024	<b>Low</b>

# A1. Description of AEMO's impact ratings

Impact rating	Description
<b>No impact</b>	No change's to AEMO or industry systems, processes, guidelines, or procedures. Stakeholder consultation not required.
<b>Immaterial</b>	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.
<b>Low</b>	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.
<b>Medium</b>	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.
<b>High</b>	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.

# A2. Glossary

Term or acronym	Meaning
<b>AEMC</b>	Australian Energy Market Commission
<b>AEMO</b>	Australian Energy Market Operator Limited
<b>Draft Rule</b>	<i>Inter-regional settlement residue arrangements for transmission loops</i>
<b>NRM</b>	Negative Residue Management
<b>NEO</b>	National Electricity Objective
<b>NER</b>	National Electricity Rules <sup>13</sup>
<b>PEC</b>	Project EnergyConnect
<b>SRC</b>	Settlement Residue Committee
<b>SRA</b>	Settlement Residue Auction
<b>TI</b>	Trading Interval

<sup>13</sup> NER followed by a number refers to a rule or clause of the National Electricity Rules