

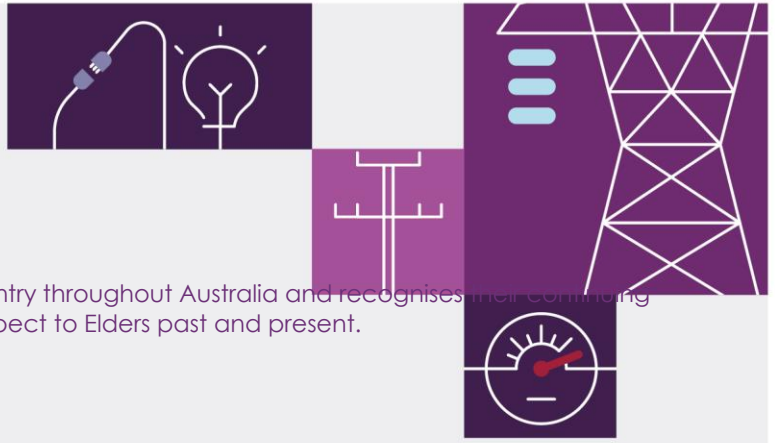
Metering Services Review

May 2024

Draft High Level Implementation Assessment

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





AEMO acknowledges the Traditional Owners of country throughout Australia and recognises their continuing connection to land, waters and culture. We pay respect to Elders past and present.

Important notice

Purpose

AEMO has prepared this document to provide preliminary information about the implementation approach for the Accelerated Smart Meter Deployment rule change before a final rule determination is made.

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Version control

Version	Release date	Changes
0.2	May 2024	Draft

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Definitions

Definition	Description
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
API	Application programming interface
B2B	Business-to-business
B2M	Business-to-market
BUT	Blind Update Tool
CATS	Consumer Administration and Transfer Solution
C1	Data Replication Resynchronisation Report
C4	NMI Master Report
C7	New Participant Data Access Report
CP	Connection Point
CR	Change request
DNSP	Distribution network service provider
FRMP	Financially responsible market participant
IEC	Information Exchange Committee
LMRP	Legacy Meter Replacement Plan
LNSP	Local network service provider (includes DNSP, TNSP and ENM)
LVI	Low Volume Interface, B2B browser
MC	Metering Coordinator
MDP	Metering Data Provider
MP	Metering provider
MSATS	Market Settlements and Transfer Solutions
MSR	Metering Services Review
NEM	National Energy Market
NER	National Electricity Rules
NERR	National Energy Retail Rules
NMI	National Metering Identifier



Definition	Description
SDQ	Standing Data Quality
UI	User Interface
WIGS	Wholesale, Interconnector, Generator and Sample

1 Introduction

1.1 Accelerating smart meter deployment – Draft Rule Change

The Accelerating Smart Meter Deployment Draft Rule* seeks to implement the recommendations of the AEMC’s review of the metering framework in 2023.

To enable an acceleration for the deployment of smart meters, the draft rule outlines a regulatory change that requires Distribution Network Service Providers (DNSPs) to create a Legacy Meter Replacement Plan (LMRP) to schedule the replacement of their type 5 and 6 (legacy) metering installations. DNSPs must prepare a schedule for each 12-month period, commencing July 2025 to June 2030. FRMPs will be responsible for engaging Metering Coordinators (MCs) to replace legacy metering installations with smart metering installations according to the schedule.

To facilitate the accelerated deployment, the AEMC require new processes for the management of site defects and metering installations that have shared points of isolation. The draft rule requires a formal defect tracking process which will require MCs to record a defect and for FRMPs to record customer notifications.

In addition, there will be new obligations for industry coordination between DNSPs, FRMPs and MCs for sites with shared points of isolation. Retailers are required to provide notifications to customers regarding the installation of a smart metering installation. The current ability of customer to opt-out of a metering installation change are proposed to be removed.

A new requirement is proposed to be placed on MCs and Metering Data Providers (MDPs), for the provision of a basic power quality data (PQD) service to DNSPs. AEMO is tasked with determining the specifications, formats and delivery mechanism for the basic PQD service.

Finally, the draft rule requires AEMO to develop a guideline to assist MCs in their development of asset management strategies for testing and inspecting metering installations and makes changes to the arrangements for the testing and inspection of legacy metering installations and the management of metering installation malfunctions.

* [AEMC – Accelerating smart meter deployment – Rule Change](#)

1.2 Document background and purpose

The purpose of this document is to provide a preliminary view to participants on how the Rule Change, may be implemented by AEMO. This is intended to assist and inform participants in developing their own implementation timelines and impact assessments. This document does not pre-empt the outcomes of the ongoing Rule Change process.

This document will provide an indicative and preliminary overview of:

- Likely impacted Market Procedures.
- High level system and data exchange impacts.

- Indicative timelines showing consultation period, industry testing, market trial and go-live timings.

1.2.1 Power Quality Data

The draft rule mandates that AEMO undertake procedure development and consultation to define essential components supporting the delivery of power quality data. This encompasses the publication of procedures specifying requirements for payload format, protocol, and delivery mechanism of power quality data.

AEMO will engage in consultation regarding these matters once the final rule and determination are published and prioritised considering other time-critical deliverables.

Consequently, this aspect of the rule change is not extensively addressed in this document due to insufficient information being available to the AEMO and the IEC to form reasonable opinions on the required implementation processes and system changes.

Instead, AEMO offers an estimate of the likely schedule and timeframes for procedure consultation and system change, based on feasible options that could facilitate delivery of the basic power quality data service outline in the draft determination and prioritisation with other work packages.

Regarding DNSP readiness to receive power quality data once supporting procedures and protocols are established, AEMO acknowledges significant variations in expectations across the NEM regions. AEMO suggests that enabling either the NER or AEMO procedures to include a mechanism for each DNSP to initiate data provision in its network region when ready would be beneficial, rather than imposing a fixed date for DNSP readiness NEM-wide.

1.3 HLIA Consultation process and key dates

Timetable for the rule change and points of stakeholder consultation.

Stage	Timeline
AEMC Draft Rule Determination	4 April 2024
AEMO to publish HLIA slide pack and v0.1 of HLIA	9 May 2024
AEMO to hold HLIA Webinar	16 May 2024
Participant feedback to AEMO on the draft HLIA	23 May 2024
AEMC Final Rule Determination expected	11 July 2024
AEMO to publish Final High Level Implementation Assessment	Approximately 4 weeks from AEMC final rule change determination

2 Market Design Overview

2.1 Summary

The following section provides a market design overview of the five reforms which will impact AEMO's Retail and Metering procedure and systems.

2.1.1 Legacy Meter Replacement Plan (LMRP)

The objective of the LMRP is for FRMPs and MCs to replace all existing type 5 and type 6 metering installations with type 4S or 4A metering installations by 30 June 2030. The LMRP applies to small customers in Queensland, New South Wales, Australian Capital Territory and South Australia which have a type 5 or type 6 metering installation.¹

The draft rule requires DNSPs to consult with FRMPs, MCs and the AER to communicate the schedule of NMIs with metering installations that will be replaced under the LRMP. The timeframe is outlined below.

No later than 30 September 2024

- DNSPs to:
 - provide a draft of their LMRP to affected FRMPs and MCs
 - Provide a schedule of NMIs targeted for metering installation replacement in each interim period (financial year) to FRMPs and MCs
 - Invite feedback on the draft LMRP

No later than 31 January 2025

- DNSPs to submit to the AER the LMRP to meet the LMRP guiding principles.

No later than 29 June 2025

- DNSPs to record the LMRP meter replacement schedule in MSATS

From 1 July 2025

- MCs to progressively replace Legacy Meters with smart meters as per the LMRP(s)

The draft Rule requires the approved LMRPs to be recorded in MSATS. The draft Rule and draft determination provide flexibility in AEMO's procedures to specify the information that must be recorded in MSATS for an approved LMRP, which will form part of AEMO's consultation process.

¹ The expected volumes of NMIs and meters to be replaced in the relevant jurisdictions are approximately 4 million NMIs (6 million meters) by July 2025.

2.1.2 Site Defects

The draft rule introduces a new site defect notification and industry record-keeping process, which would be triggered when a technician encounters a “defect” (a reason that has prevented the metering installation process from being undertaken) at a NMI. The draft rule recommends a formal site defect notification and record-keeping process to:

- inform customers of the issue preventing the metering installation change and requesting it to be resolved;
- provide industry clear information that a site has a defect; and
- provide market participants visibility of the stages reached regarding the site defect notification tracking process.

The draft Rule prescribes a new process for MCs and FRMPs to record the defect and record the notifications to confirm if the defect has been remediated. The draft rule requires that MSATS include the site defect process and this process be an ongoing arrangement beyond the acceleration period for legacy meters.

The new process would require that:

- If a technician identifies a defect at site preventing a meter exchange, the associated MP must:
 - ensure that the technician leaves a defect notice with the customer; and
 - notify the MC of the defect.
- MCs notify the retailer of the defect and update MSATS to record a defect at the NMI.
- Within 5 days of being notified of a defect, FRMPs must send a notice to the customer informing them of the site defect and requesting the customer remediate the site. MSATS is to record the date the first notice is issued.
- If the retailer has not received confirmation from the customer of remediation of the defect, the retailer must issue a second notice, no less than 40 business days and no greater than 45 business days after the first notice. MSATS is to record the date the second notice is issued.
- If the retailer has not received confirmation after 40 business days from the customer of remediation of the defect after the second notice, the retailer is to use reasonable endeavours to confirm with the customer whether the site defect has been rectified.
- If the customer confirms remediation at any point in the process, the retailer must progress the meter exchange within 15 business days. If the site defect has not been rectified, or if the customer has not been able to be contacted, the process ends until the customer confirms remediation. MSATS is to record the outcome of the site defect remediation.

The draft rule requires that AEMO, by no later than May 30, 2025, update impacted MSATS procedures. This update must specify:

- the information an MC must record when they identify a defect upon attempting to replace a legacy metering installation;
- that only the current FRMP will have access to defect related data; and,
- the information that a FRMP must record when notifying customers to remediate a site defect.

2.1.3 Shared Fusing Meter Replacement Procedure

The draft rule introduces a ‘Shared Fusing Meter Replacement Procedure’ for meter upgrades on a shared fuse. When the installation of smart meter at a NMI requires the isolation of more than just the single customer at that

NMI due to a shared network fusing arrangement, DNSPs, FRMPs and MCs are required to coordinate efforts in order that any other legacy metering installations on the shared fuse are replaced at the same time.

The draft rule describes five steps to the Procedure:

1. **Discovery of shared fusing:** An MP is unable to proceed with metering installation work at a NMI as it is connected via a shared fuse servicing other NMIs. The MP advises the MC; the MC (identified in this Procedure as the Original MC) must contact the FRMP that authorised the site visit to trigger the Procedure.
2. **Raising a temporary isolation request:** The retailer must inform the DNSP of the shared fuse and raise a request for a Temporary Isolation Group Supply (TIGS) within five business days.
3. **DNSP visit and notification to FRMPs:** Within 20 business days of being notified by the retailer, the DNSP must:
 - a. Visit the site and identify all affected NMIs on the shared fuse.
 - b. Set a date and time for a supply outage and the length of time to install smart meters.
 - c. Issue a notice to the FRMPs of the respective NMIs. The notice must include:
 - i. the details of the Original MC, which enables the retailer to appoint them as their MC for the site, should the retailer wish to do so.
 - ii. the date and time of the scheduled outage, which must be between 25 and 45 business days after the notice is issued.
4. **Appointment of MCs:** Within 10 business days of receiving a notification from the DNSP, FRMPs must appoint an MC and raise a service order request for metering installation work to be undertaken at their affected NMI(s).
5. **Meter replacement:** On the date and time prescribed in the notice and service order request, the DNSP performs the outage and the metering party or parties visit the site and install the new metering installations.

To enable this Procedure, changes to the business-to-business procedures are required.

2.1.4 Testing and inspection

The draft rule includes a new obligation for AEMO to create Asset Management Strategy Guidelines to:

- Detail requirements for MCs to have a testing and inspection strategy that reliably test and inspect for metering installations having regards to the costs and benefits to consumers.
- Take into account new technologies and designs of metering installations and innovations to verify metering installation accuracy and condition.
- Potentially consider other matters that are relevant to the testing and inspection objective.

The draft rule would exempt MCs from testing and inspecting legacy meters during the LMRP period. The testing and inspection requirements for legacy meters would re-apply after the LMRP period ends.



2.1.5 Power Quality Data (PQD)

The draft rule requires MDPs to collect and deliver a basic PQD service to DNSPs. This basic PQD service will include the delivery of information at a NMI relating to the measurement of voltage, current and power factor.

AEMO is required to determine the exchange framework and service levels for power quality data. The Draft determination recommends the exchange framework should leverage the existing framework to the existing data delivery service.

3 Summary of key impacts

In this section, an indicative heatmap of key AEMO impacts resulting from the draft rule change is shown for Package 1 and Package 2. Note Power Quality Data impacts for Package 3 are not covered in this heatmap.

Package 1 is scoped as an enhancement to existing retail procedures and systems and new AEMO procedures or interfaces are anticipated. Package 2 will include a new guideline for testing and inspections; however, no system changes are anticipated.

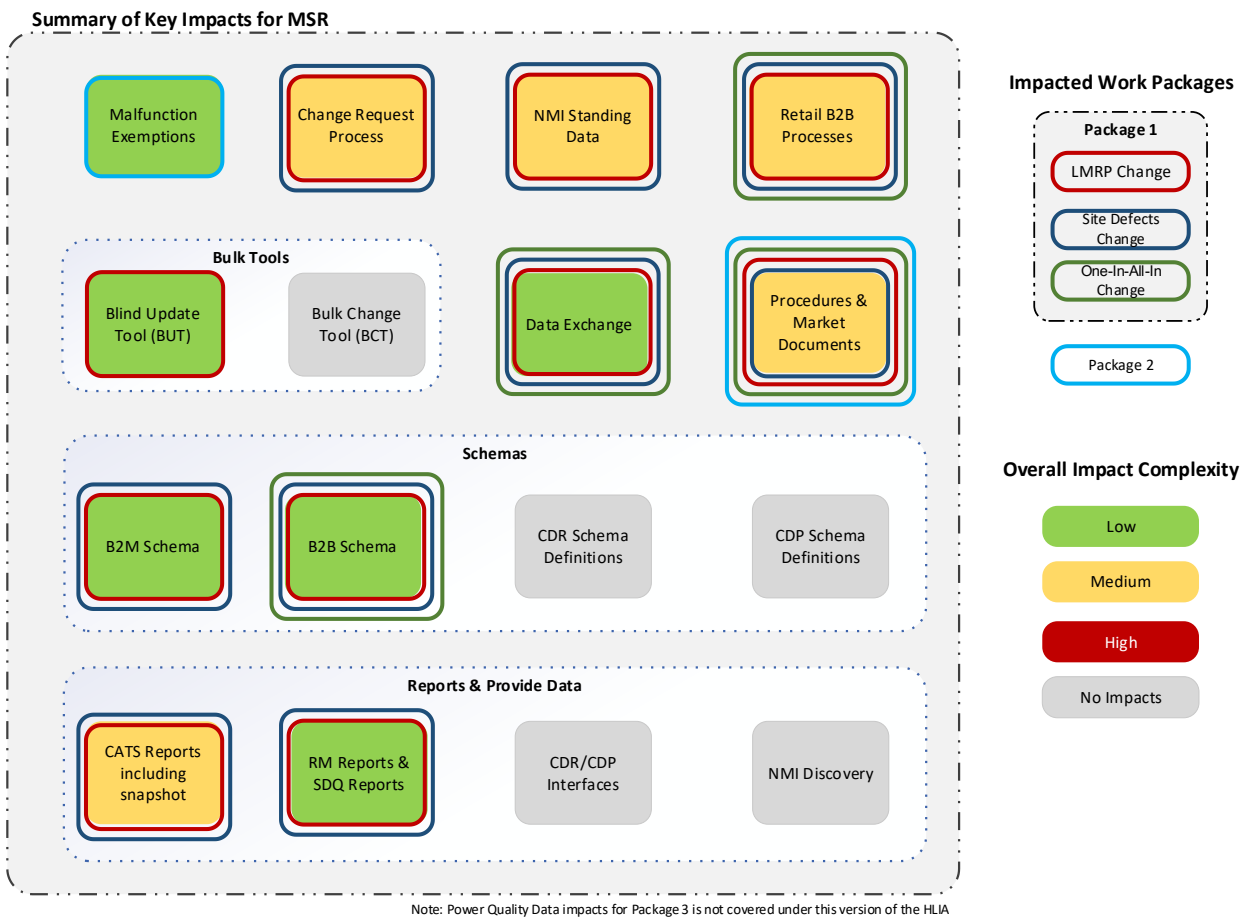


Figure 1 Heat Map view of key impacts of the rule change

Tabular view of key impacts of the rule change

Focus Area	Impact Heat Map	Impact Description
Malfunction Exemptions	Low	<ul style="list-style-type: none"> Package 2, there are no identified functional changes to meter exemptions however system impact if any will be determined through consultation on AEMO procedures.
Change Request Process	Medium	<ul style="list-style-type: none"> Changes to existing 5000 series CRs to set Package 1 LMRP attribute

Focus Area	Impact Heat Map	Impact Description
		<ul style="list-style-type: none"> • New 5000 series CRs to set Package 1 Site Defect attributes • Inclusion in CATS Notifications of Package 1 LMRP and Site Defect attributes • Changes to the processing of existing Exchange of Meter 3000 series CRs to set Package 1 Site Defect attributes to NULL upon replacement of a Basic Meter with a Smart Meter • Updates are needed throughout the MSATS Browser UI to reflect the additional fields added to CATS for Package 1 (LMRP and Site Defects)
NMI Standing Data	Medium	<ul style="list-style-type: none"> • New CATS NMI Standing data attributes to support Package 1, LMRP, Site Defects
Retail B2B Processes	Medium	<ul style="list-style-type: none"> • Updates to B2B Service Order and One Way Notification Transactions to support Package 1, LMRP, Site Defect and One-In-All-In • Changes to the Low Volume Interface (LVI) user interface (UI) to support B2B Transaction updates • Changes to the B2B Validation module to support B2B Transaction updates
Blind Update Tool (BUT)	Low	<ul style="list-style-type: none"> • Changes to Blind Update Tool (BUT) support to set Package 1 LMRP attribute
Bulk Change Tool (BCT)	N/A	<ul style="list-style-type: none"> • No impacts identified
Data Exchange	Low	<ul style="list-style-type: none"> • B2M aseXML changes, support for aseXML_r4(n) & aseXML_r4(n-1) and transformations • B2B aseXML changes, support for aseXML_r4(n) & aseXML_r4(n-1) • No new interfaces nor changes to data exchange protocols & B2B protocol interoperability
Procedures & Market Documents	Medium	<ul style="list-style-type: none"> • Refer to Section 4 for details
B2M Schema	Low	<ul style="list-style-type: none"> • Inclusion of new NMI Standing Data elements in the B2M schema to support Package 1, LMRP and Site Defect
B2B Schema	Low	<ul style="list-style-type: none"> • Inclusion of new enumerations to existing B2B schema enumerated lists to support Package 1, LMRP, Site Defect and One-In-All-In
CDR Schema Definitions	N/A	<ul style="list-style-type: none"> • No impacts identified
CDP Schema Definitions	N/A	<ul style="list-style-type: none"> • No impacts identified
CATS Reports	Medium	<ul style="list-style-type: none"> • Inclusion in CATS reports of new CATS NMI Standing data attributes to support Package 1, LMRP and Site Defect
RM Reports & SDQ Reports	Low	<ul style="list-style-type: none"> • Creation of new RM29 Standing Data Quality (SDQ) queries to support Package 1, LMRP and Site Defect
CDR/CDP Interfaces	N/A	<ul style="list-style-type: none"> • No impacts identified
NMI Discovery	N/A	<ul style="list-style-type: none"> • Package 1 attributes not available to the current or prospective FRMP or the DNSP
Power Quality Data	TBC	<ul style="list-style-type: none"> • Package 3, at the time of developing this version of the HLIA, AEMO has insufficient information available to define the system impacts for Package 3, Power Quality Data.



4 Procedure Impacts Review

Initial Assessment of the Procedures and Documents Impacted

Business-to-business (B2B) Procedures	Potential Impact
Service Order Process Procedure	<ul style="list-style-type: none"> • General: <ul style="list-style-type: none"> ○ New and amended enumerations: <ul style="list-style-type: none"> ▪ RegClassification ('LMRP') ▪ ExceptionCode (several updates) • Defects: <ul style="list-style-type: none"> ○ New enumerations: <ul style="list-style-type: none"> ▪ PurposeofRequest ('Defect Rectified') ▪ RecipientReference (Defect enumerations) ○ Amendments to Table 12 re Timing Period for completion of work • Shared Fuse: <ul style="list-style-type: none"> ○ Updates to Supply Service Works (SSW) subtypes: <ul style="list-style-type: none"> ▪ Temporary Isolation Group Supply - Scoping Request ▪ Temporary Isolation Group Supply - One In All In ○ Amendment to the usage of the: <ul style="list-style-type: none"> ▪ 'FormNumber' field, to contain the 'Coordinated Interruption ID' ▪ 'Co-ordinatingContactName' field, to contain the Original MC Participant ID ▪ 'CustomerPreferredDateAndTime field,' to contain the coordinated Interruption start and end date, and times.
One Way Notification Process Procedure	<ul style="list-style-type: none"> • Shared Fuse: <ul style="list-style-type: none"> ○ New 'ReasonForNotice' code of 'One In All In' ○ 'Coordinated Interruption ID' and Original MC to be provided in the 'Notes', for the retailer to use in the Metering Service Work (MSW) Meter Exchange Service Order ○ Use of subtype 'Distributor Works', to help suppress Retailer customer notifications and Planned Interruption Notifications (PINs) from the Retailer to the LNSP.
Customer and Site Details Notification Process	<ul style="list-style-type: none"> • Defects: <ul style="list-style-type: none"> ○ Site Access Request \ Notification to consider: <ul style="list-style-type: none"> ▪ New Reason 'Defect' to specifically request only the site defect information ▪ Standard values for Defects to support retailers clearly communicating the site defect to customers

Market Settlement and Transfer Solutions (MSATS)	Potential Impact
MSATS Procedures -CATS	<ul style="list-style-type: none"> • New and amended Change Request codes to support proposed LMRP, Defect, Site Remediation status, Site Remediation status Date fields • Changes to Blind Update Tool to support the population of the LMRP field • Potential automation changes, where a defect is resolved and a smart (COMMS) meter is successfully installed, set the Defect and Remediation status fields to NULL • Add a new obligation by Role for the DNSP to populate the LMRP field, where applicable, by 29 June 2025 • Add a new obligation by Role for the FRMP to update the Site Remediation Status and Site Defect Date within 5 business days of receipt of defect by the MC • Add new obligation by Role for the MC to update the Defect field as required in the NER.
Standing Data for MSATS	<ul style="list-style-type: none"> • Provide details associated to the following proposed data element fields: <ul style="list-style-type: none"> ○ LMRP ○ Defect ○ Site Remediation Status, proposed values are; First Notice, Second Notice, Successful and Unsuccessful ○ Site Remediation Status Date

Metering procedures, guidelines and processes	Impact
Service Level Procedure MDP Services	<ul style="list-style-type: none"> • Changes to accommodate the MDP to collect, process and deliver Power Quality Data from a small customer metering installation to the Local Network Service Provider • Specify the tolerances a Metering Data Provider is to apply for small customer metering installations recording Power Quality Data
Metering Installation Malfunction Exemption Procedure	<ul style="list-style-type: none"> • Modify the procedure to reflect the changes to the testing and inspection arrangements and the metering installation malfunction requirements in the rule.
Power Quality Data Format (New)	<ul style="list-style-type: none"> • Specify the data format for Power Quality Data
Asset Management Strategy Guideline (New)	<ul style="list-style-type: none"> • AEMO to develop an Asset Management Strategy Guideline to clarify the testing and inspection requirements for MCs.

Metrology Procedures and unmetered loads	Impact
Metrology Procedure Part A	<ul style="list-style-type: none"> • Include the definition of Power Quality Data and the units of measure to be recorded
Metrology Procedure Part B	<ul style="list-style-type: none"> • Provide details of the validation and substitution requirements for power quality data

Accreditation and Registration	Impact
Accreditation Checklists (Metering Providers, Metering Data Providers & Embedded Network Managers)	<ul style="list-style-type: none">• Changes required for Metering Data Providers regarding obligations to support the basic PQD service
Guide to the Role of the Metering Coordinator	<ul style="list-style-type: none">• Obligation of MCs to update MSATS with Defect(s)• MCs to comply with the Asset Management Strategy Requirements

5 AEMO System Impacts

This section summarises the participant interaction, system, interface, and schema impacts for Packages 1 and 2. It should be noted that, at the time of developing this version of the HLIA, AEMO has insufficient information available to define the system impacts for Package 3, Power Quality Data.

5.1 System and Data Exchange Overview

AEMO systems Heat Map

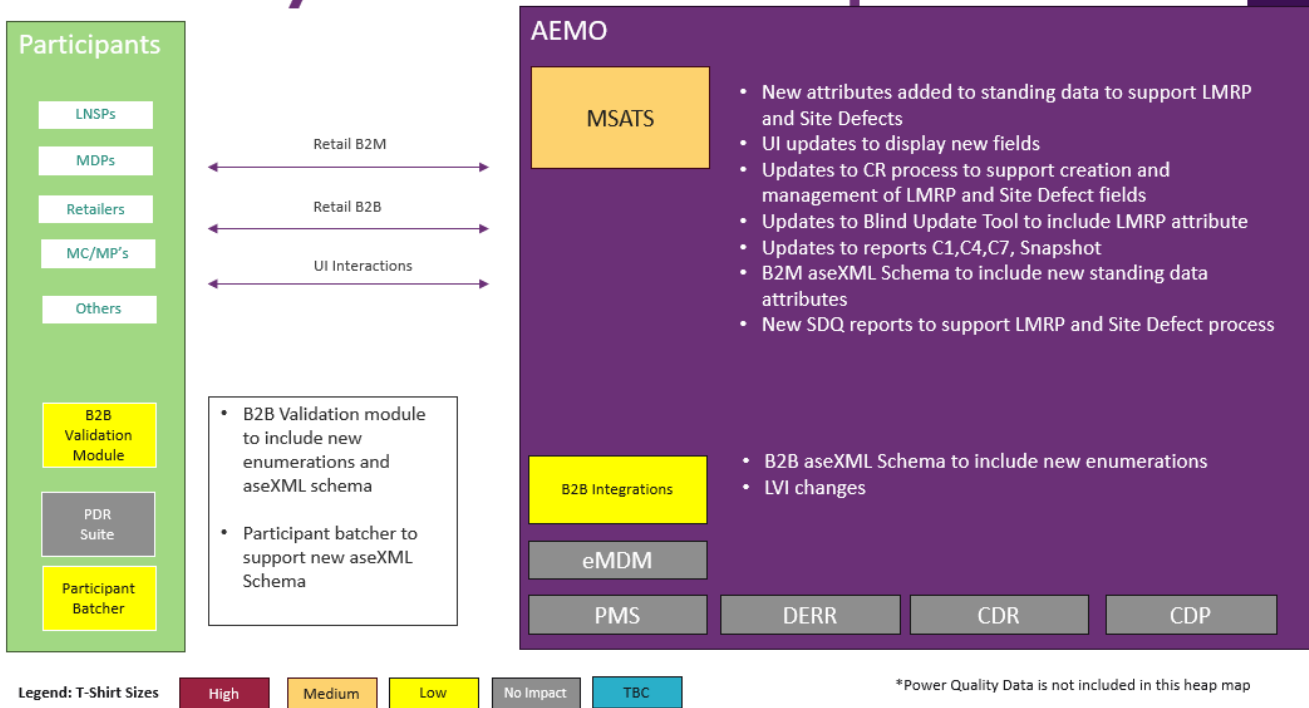


Figure 2 Participant Interaction Impacts

5.1.1 System Impacts

System Impacts

AEMO System	Summary
MSATS CATS	AEMO, with support from the MSR Working Group, has identified several updates to MSATS CATS to support Package 1 as described in the AEMC’s draft determination. To aid Industry in meeting the Rule effective date, the following design leverages the established MSATS CATS standing data, change request processing, data access, and data update frameworks.

AEMO System	Summary
	<p>MSATS - Package 1 - LMRP</p> <ul style="list-style-type: none"> • A new CATS NMI Standing Data (CATS_NMI_DATA) attribute to be created <ul style="list-style-type: none"> ○ Records the LMRP meter replacement schedule for the NMI in MSATS in accordance with relevant procedures ○ Format of the LMRP value is to be consulted on (e.g. yyyy or q#-yyyy or dd-mmm-yyyy) • DNSPs to update LMRP values using Blind Update Tool (BUT) and/or existing CATS CRs <ul style="list-style-type: none"> ○ BUT to support DNSP management of LMRP attribute for an NMI <ul style="list-style-type: none"> ▪ BUT to support the initial population of LMRP value by DNSPs between May 2025 to 29 June 2025 ▪ BUT to support the update of LMRP values by DNSPs where the AER has approved amendments to the LMRP schedule over the acceleration period (2025-2030) ▪ A daily limit/capacity of BUT updates to LMRP values is to be agreed with Industry ▪ AEMO to provide SDQ reports to DNSPs after BUT update(s) have occurred to identify potential standing data anomalies (e.g. an SDQ report on LMRP value set for ineligible meter types) ▪ Where the LMRP attribute is set via BUT, all entitled roles can request and receive the updated value via a C1 report ○ Update to CR Process to support DNSP management of LMRP attribute for an NMI <ul style="list-style-type: none"> ▪ CR to support updates to LMRP values by DNSPs over the acceleration period ▪ Utilise existing 5000 series CRs and validation rules for DNSP and AEMO staff ▪ Where the LMRP attribute is set via CR, all entitled roles are notified of the value via the CATS Notification or can request the updated value via the C1 report • LMRP value accessible to entitled participant roles (explicitly limited to the FRMP at the NMI in MSATS) via: <ul style="list-style-type: none"> ○ CATS Reports (C1, C4, C7) ○ MSATS Snapshot Report ○ MSATS Browser <p>MSATS - Package 1 - Site Defects - Defect Flag</p> <ul style="list-style-type: none"> • New CATS NMI Standing Data (CATS_NMI_DATA) attributes to be created: <ul style="list-style-type: none"> ○ Providing the MC with the ability to record a Defect in MSATS. <ul style="list-style-type: none"> ▪ Records the presence of a site defect ▪ Format of the MSATS Defect Flag is to be consulted on (e.g. 'Y' or NULL) • MC updates Defect Flag value through new CATS CRs <ul style="list-style-type: none"> ○ CR to support updates to the Defect Flag by an MC ○ Utilise new 5000 series CRs and validation rules for MC and AEMO staff ○ Where the Defect Flag attribute is set via CR, all entitled roles are notified of values via the CATS Notification or can request the updated value via the C1 report ○ MSATS Browser update to support new CR codes • Defect Flag value accessible to entitled participant roles via: <ul style="list-style-type: none"> ○ CATS Reports (C1, C4, C7) ○ MSATS Snapshot Report ○ MSATS Browser • Upon completion of a 3004/3005 (Exchange of Metering Information) or 3090/3091 (Advanced Meter Exchange) CR: <ul style="list-style-type: none"> ○ IF the decommissioned meter is coded as 'BASIC' or 'MRIM', AND the newly activated meter is coded as 'COMMS*' or 'MRAM', THEN the Defect Flag field for the NMI would be set to Null • Where required, AEMO to provide new RM29 SDQ queries to MCs to identify standing data anomalies related to their obligations on Defects <p>MSATS - Package 1 - Site Defects - Site Remediation Status and Date</p> <ul style="list-style-type: none"> • Two New CATS NMI Standing Data (CATS_NMI_DATA) attributes to be created:

AEMO System	Summary																
	<ul style="list-style-type: none"> ○ Providing the FRMP with the ability to record a Site Remediation Status in MSATS <ul style="list-style-type: none"> ▪ Tracks the notification status and the outcome of site defect remediation efforts ▪ Format of the Site Remediation status value to be consulted on. Potential Values: <ul style="list-style-type: none"> • “FirstNotice”: Specifies the date the initial notification was sent by the FRMP regarding a site defect • “SecondNotice”: Specifies the date the second notification was sent by the FRMP regarding a site defect • “RemediationSuccessful”: The FRMP has been advised that the defect has been remediated • “RemediationUnsuccessful”: Indicates that the site defect has not been resolved in the 40 days from the date of the “SecondNotice” ○ Providing the FRMP with the ability to record the Site Remediation Status Date <ul style="list-style-type: none"> ▪ Tracks the date the notice was issued by the FRMP or the latest remediation update date. ▪ Format of Site Remediation Status Date value to be consulted on (e.g. dd-mmm-yyyy) • FRMP updates Site Remediation Status and Date value using new CATS CRs <ul style="list-style-type: none"> ○ CR to support updates to Site Remediation Status and Date by FRMP ○ Utilise new 5000 series CRs and validation process for FRMP and AEMO staff where Site Remediation Status and Date would both be mandatory fields ○ Where the Site Remediation Status and Date attribute is set via CR, all entitled roles are notified of values via the CATS Notification or can request the updated value via the C1 report ○ MSATS Browser update to support new CR codes • Site Remediation Status and Date value accessible to entitled participant roles via: <ul style="list-style-type: none"> ○ CATS Reports (C1, C4, C7) ○ MSATS Snapshot Report ○ MSATS Browser • Upon completion of a 3004/3005 (Exchange of Metering Information) or 3090/3091 (Advanced Meter Exchange) CR: <ul style="list-style-type: none"> ○ IF the decommissioned meter is coded as ‘BASIC’ or ‘MRIM’, AND the newly activated meter is coded as ‘COMMS*’ or ‘MRAM’, THEN the Site Remediation Status and Date fields for the NMI would be set to Null. • Where required, AEMO to provide new RM29 SDQ queries to FRMPs to assist them in identifying potential standing data anomalies related to their Site Remediation Status obligations <p>MSATS - Package 1 - B2M Schema</p> <ul style="list-style-type: none"> • MSATS shall support the new B2M aseXML_r4(n) schema version as LATEST/CURRENT • MSATS shall support the previous B2M aseXML_r4(n-1) schema version as SUPERSEDED 																
<p>B2B Transactions</p>	<p>The B2B Working Group has identified changes to existing B2B Transactions to support Package 1 as described in the AEMCs draft determination. While AEMO systems face minimal impact as the message broker and host of the B2B Browser LVI, including additional enumerated values affects the aseXML schema and LVI UI managed by AEMO for Industry. The following impacted B2B Transactions, schema, and system impacts have been identified for each component of Package 1.</p> <p>B2B Transactions - Package 1 - LMRP</p> <ul style="list-style-type: none"> • To support FRMP-initiated ‘Metering Service Works’ Service Orders Requests for LMRP to MPs <table border="1" data-bbox="387 1787 1514 2004"> <thead> <tr> <th colspan="2">B2B Transaction Details</th> </tr> </thead> <tbody> <tr> <td>Transaction</td> <td>Service Order Request</td> </tr> <tr> <td>Transaction Type</td> <td>Metering Service Works</td> </tr> <tr> <td>Sub Type</td> <td>Exchange Meter</td> </tr> <tr> <td>Initiator</td> <td>FRMP</td> </tr> <tr> <td>Recipient</td> <td>MP</td> </tr> <tr> <td>Notified Parties</td> <td>DNSP and MDP</td> </tr> <tr> <td>Use Case</td> <td>Allow the FRMP to identify for the MP that the meter is to be swapped is part of an LMRP by setting RegClassification to ‘LMRP’</td> </tr> </tbody> </table> <p style="text-align: center;">System Impacts</p>	B2B Transaction Details		Transaction	Service Order Request	Transaction Type	Metering Service Works	Sub Type	Exchange Meter	Initiator	FRMP	Recipient	MP	Notified Parties	DNSP and MDP	Use Case	Allow the FRMP to identify for the MP that the meter is to be swapped is part of an LMRP by setting RegClassification to ‘LMRP’
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Use Case	Allow the DNSP to notify the FRMP of a NMI where an outage is scheduled as part of an LMRP One In All																																																												
System Impacts																																																													
Schema Impact	Add 'LMRP – One In All In' to the enumerated list of allowable items for ReasonForNotice in the ElectricityEnumerations.xsd Note, ElectricityEnumerations.xsd is a non-versioned enumeration file																																																												
B2B Browser Impact (LVI)	-																																																												
B2B Validation Module Impact	Add 'LMRP – One In All In' to the list of allowable items for ReasonForNotice in the B2B Validation Module																																																												
SMP eHub	<p>While there are no functional changes to SMP eHub's data exchange mechanisms to support Packages 1 or 2 as described in the AEMC's draft determination, changes to the B2B and B2M schema versions required under Package 1 have an indirect impact. At the time of this HLIA's development, AEMO lacks sufficient information to define the system impacts of Package 3 (Power Quality Data) on the SMP eHub.</p> <p>eHub - Package 1 - B2B Schema</p> <ul style="list-style-type: none"> A new schema version shall be available to support all B2B Transaction groups SMP eHub shall support a new B2B aseXML_r4(n) schema version as LATEST/CURRENT SMP eHub shall support the previous B2B aseXML_r4(n-1) schema version as SUPERSEDED SMP eHub shall support schema interoperability between r4(n) and r4(n-1) 																																																												

AEMO System	Summary
Capacity	Capacity uplifts may be required to manage additional volumes of data flow, and the details will be covered when the detailed requirements and volumetrics are available

5.1.2 Market system interfaces and interactions

- For Package 1, the B2B Validation Module shall be updated to account for the inclusion of additional enumerated values.
- For Package 1, the Participant Batchers shall be updated to account for B2M and B2B schema changes.
- For Package 3, AEMO shall, as part of the procedure development and consultation, specify requirements on the payload format, protocols, and channels by which Power Quality Data shall be exchanged in the market. Until this has been undertaken, AEMO has insufficient information to define the Market system interface impacts for this package in this version of the HLIA.

5.1.3 MSATS Browser

Updates are needed throughout the MSATS Browser UI to reflect the additional fields added to CATS for Package 1 (LMRP and Site Defects) and changes to introduce new CR codes. Additionally, the B2B Browser LVI requires new values to be added to existing dropdown lists in the 'Create New Transaction' screens to support Package 1 (LMRP, Site Defects, and One-in-All-In).

5.1.4 Reports

Reports

Report Name	Impact
MSATS Snapshot Report	For Package 1, the Snapshot shall be updated to include the attributes required for LMRP and Site Defect
CATS Reports	For Package 1, C1, C4, and C7 CATS reports shall be updated to include the attributes required for LMRP and Site Defect
RM Reports	New RM29 SDQ queries shall be created to support participants in meeting their procedural obligations under the Rule; the nature of these reports shall be defined during consultation.

5.1.5 APIs

- There are no additional API endpoints, API resources or protocol changes identified under Package 1 or 2.
- For Package 1 and 2, B2M Payload schema changes are required to include the necessary attributes for LMRP and Site Defects.

- For Package 1 and 2, B2B Payload schema changes are required to include the necessary attributes for LMRP, Site Defects and One-In-All-In.

5.2 Data Model and Schema Impacts

5.2.1 MSATS Data Model Impacts

- B2M CATS_NMI_DATA support for the following new attributes
 - LMRP
 - Defect Flag
 - Site Remediation Status
 - Site Remediation Date

5.2.2 Schema Impacts

Schema Impacts

Schema	Impact
aseXML (B2M)	<ul style="list-style-type: none"> • New B2M aseXML_r4(n) schema version to support the following new attributes for Package 1, LMRP and Site Defects: <ul style="list-style-type: none"> ○ LMRP ○ Defect Flag ○ Site Remediation Status ○ Site Remediation Date
aseXML (B2B)	<ul style="list-style-type: none"> • New Electricity_r4(n).xsd version to support the inclusion of new allowable items into the following enumerated lists for Package 1, LMRP, Site Defects and One-In-All-In: <ul style="list-style-type: none"> ○ For Service Order Request transactions <ul style="list-style-type: none"> ▪ ServiceOrderSubType ○ New Service Order Response transactions <ul style="list-style-type: none"> ▪ SORDResponseCode • The version update to Electricity_r4(n).xsd triggers a required new B2B aseXML_r4(n) schema version • New ElectricityEnumerations.xsd version to support the inclusion of new allowable items into the following enumerated lists: <ul style="list-style-type: none"> ○ For Service Order Request transactions <ul style="list-style-type: none"> ▪ RegClassification ▪ PurposeOfRequest ○ For One Way Notifications transactions <ul style="list-style-type: none"> ▪ ReasonForNotice

6 Implementation Pathway

Considering the potential scale of change for AEMO and participants based on this impact assessment of the draft rule change determination, AEMO seeks changes in the final rule and determination that aligns effective dates with AEMO's high-level assessment recommendations.

6.1 Key Implementation Considerations

AEMO believes there are benefits in separating the deliverables into three packages to be developed and deployed to a schedule (package 1, 2 and 3) with a specific goal of enabling the successful commencement of the acceleration work on the planned go live date of 1 July 2025.

6.1.1 Rule commencement timeline

AEMO has considered the draft rule commencement timelines and:

- In relation to the one-in-all-in / shared fuse obligation effective date in the draft rule determination of January 2025 which is for a process that starts on 1 July 2025; AEMO has assessed that a January 2025 effective date may not be sufficient lead time for industry readiness (Risk ID R_0002) and therefore AEMO seeks an effective date of mid-2025 aligned with the acceleration commencement date.
- In relation to the test and inspect framework and metering installation malfunction effective date in the draft rule determination of January 2025 which is for a process that starts on 1 July 2025; AEMO has assessed that a January 2025 effective date may not be sufficient lead time for industry readiness (Risk ID R_0004) and therefore AEMO seeks an effective date of mid-2025 aligned with the acceleration commencement date.
- In relation to Power Quality Data (PQD) the draft rule effective date of mid-2025 is not able to be collectively supported (Risk ID R_0001) and therefore AEMO seeks an effective date of mid-2026.

6.1.2 Procedure consultation considerations

AEMO considered the timing of procedure consultations and has made an assessment that the procedure consultation for PQD should not commence until the procedure consultations for packages 1 and 2 are complete (i.e. LMRP, site defects, one-in-all-in / shared fuse, test and inspect guidelines, metering insulation malfunctions).

This is so as not to distract from the goal of enabling the acceleration planned go live of 1 July 2025.

- This approach to the consultation timing and approach is a partial risk mitigation to AEMO being required to run the procedure consultation/s for LMRP, site defects, one-in-all-in / shared fuse in parallel with the AEMC draft rule determination (R_0004). The risk being that the final rule determination may require material changes to the planned consultation resulting in rework and an extension to procedure consultation/s.
- Postponing the procedure consultation commencement for PQD to approximately April 2025 provides the opportunity for AEMO to consider in consultation with interested parties the use of the Industry Data Exchange (IDX) platform*.

* <https://aemo.com.au/en/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/nem-reform-foundational-and-strategic-initiatives-focus-group>

6.1.3 Industry Test Considerations

AEMO have considered that industry testing should not occur or be planned over periods where there are organisational shutdowns, change freeze periods and over the summer period from an operational perspective.

For the Package 1 schedule, AEMO have allowed for 8 weeks of industry testing prior to production deployment on 4 May 2025. However, AEMO will support industry testing post the production deployment up until the point that DNSPs are required to record LMRP schedules in MSATS allowing for a total industry test window of approximately 12-14 weeks.

6.2 Proposed work package implementation sequencing

Package 1

- Content - LMRP, Defects, one-in-all-in processes and matters critical to the go-live commencement.
- Procedure consultation commencement (planned) – Late May 2024 (i.e. following the draft rule).
- Procedure publication (target) – Late November 2024 (with effective dates aligned with the requirements of the rule).
- System changes – May 2025.

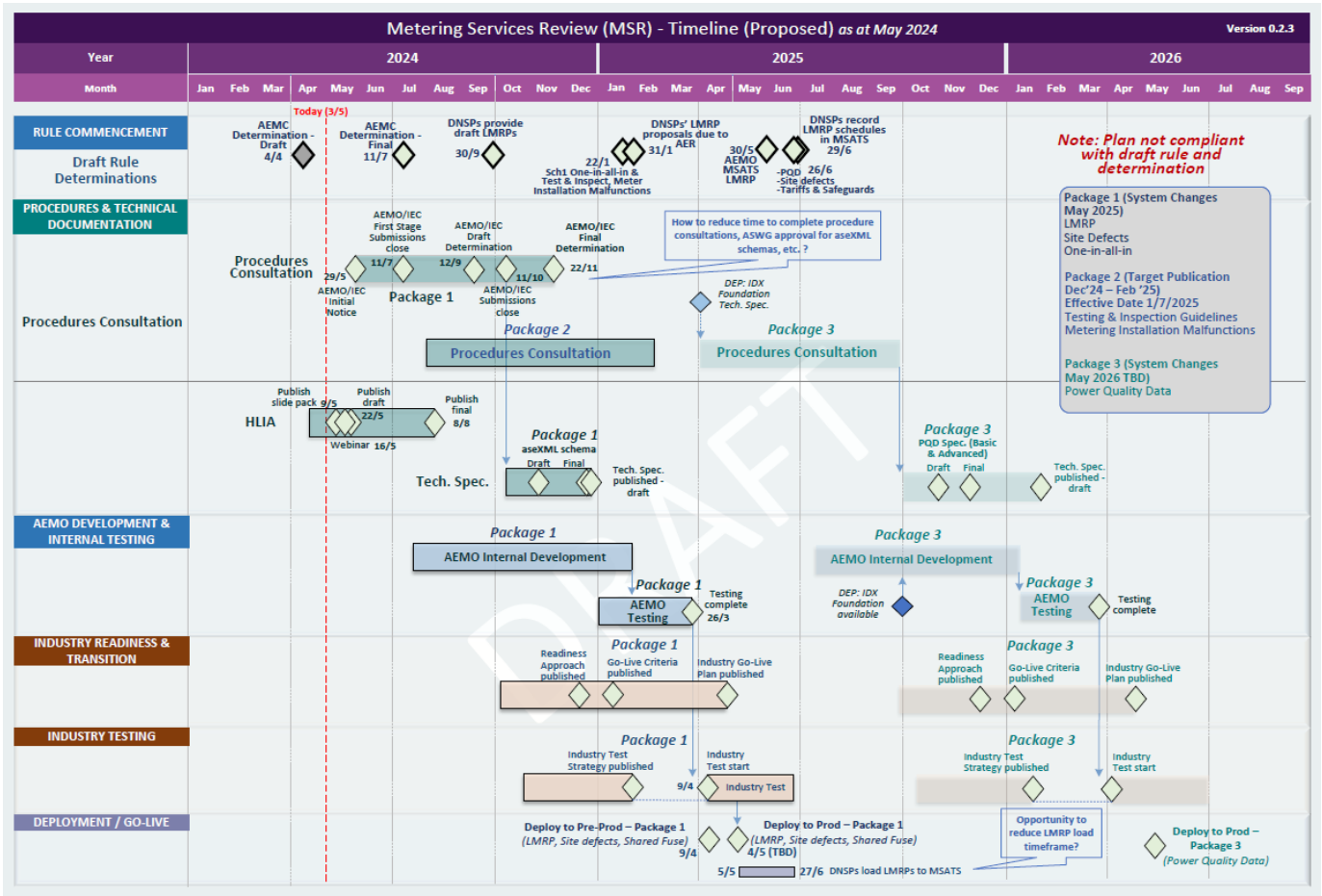
Package 2

- Content – Testing and inspection guidelines, Metering installation malfunctions.
- Procedure consultation commencement (target) – July to August 2024 (i.e. following the final rule).
- Procedure publication (target) – December 2024 to February 2025 (with an effective date of 1 July 2025, accommodating the 3-month delay post publication required for the Metrology Procedures in the NER).
- System changes – none identified to date.

Package 3

- Content - Power Quality Data.
- Procedure consultation commencement – post conclusion of the procedure development in packages 1 and 2 – approximately April 2025
- Procedure publication – approximately September 2025 (effective date TBD i.e. July 2025).
- System changes – July 2025 to March 2026
 - AEMO to consider in consultation with interested parties the use of the Industry Data Exchange (IDX) platform
 - IDX Foundation tech spec to be available approximately April 2025 so that participant development could commence ahead of procedures being finalised
 - PQD Tech specs available from approximately October 2025

Figure 3 AEMO’s Proposed Indicative Overall Timeline



6.2.1 Relationships to other initiatives

Regarding initiative specific relationships AEMO considers:

- Staggering the consultation timeframes where possible to minimise consultation/s running in parallel with other retail reform initiatives, or where practical leveraging synergies (e.g. including changes proposed in the Unlocking CER benefits through flexible trading arrangements rule change in the proposed Asset Management Strategy Guidelines consultation).
- Time, effort and cost savings by bundling ICFs and RoLR changes into the Package 1 release for May.
- For PQD, AEMO to consider in consultation with interested parties the use of the Industry Data Exchange (IDX) platform
 - IDX foundation tech spec to be made available in approximately April 2025
 - PQD specific tech specs be made available from approximately October 2025

For a ‘macro’ view of the NEM Reform Implementation Roadmap please refer to:

- <https://aemo.com.au/en/initiatives/major-programs/nem-reform-implementation-roadmap>

6.2.2 Risks and Issues

Initial Assessment of the risks

Risk ID	Identified Risk	Current Rating	Mitigation strategies	Residual Rating after mitigation
R_0001	<p>Power Quality Data (PQD) - collectively unable to support the effective date of mid-2025.</p> <ul style="list-style-type: none"> Focus on effective date for PQD of mid 2025 could distract from the critical work of the accelerated smart meter deployment. Procedure publication is to be determined. DNSPs readiness to receive PQD is likely to vary considerably. System changes is to be determined. Does not allow time for PQD to be built on an extensible strategic platform. 	High	<ul style="list-style-type: none"> Seek a change in the final rule and determination that aligns effective dates with the high-level assessment recommendations i.e. AEMO systems could be ready by approximately mid-2026. AEMO procedures consultation could include a mechanism to enable DNSPs 'go live' based on their readiness i.e. no earlier than mid 2026 based on notice of readiness provided by a DNSP. Procedure consultation to commence post the conclusion of the procedure consultation in packages 1 and 2 (i.e. no earlier than April 2025). PQD to have the option to leverage the extensible strategic platform known as Industry Data Exchange (IDX) 	Medium
R_0002	<p>One-in-all-in process / shared fuse – obligations effective January 2025 for a process that starts on 1 July 2025.</p> <ul style="list-style-type: none"> Although existing B2B fields may be used, there is still a possibility that schema changes may be required (subject to final rule determination and IEC/B2B working group consultation). Timing issues and industry test support resourcing issues due to an effective date over organisational shutdown periods, leave periods and summer period from an operational perspective. 	Medium	<ul style="list-style-type: none"> Seek a change to the final rule and determination that aligns effective dates with the high-level assessment recommendations i.e. mid 2025 aligned with acceleration commencement date. 	Low
R_0003	<p>Data Risk – lack of clarity regarding the data that AEMO is required to store and make available e.g. defect information.</p> <ul style="list-style-type: none"> Non-compliance with the NEL regarding protected information and the NER in the development of procedures and system to support the rule. 	Medium	<ul style="list-style-type: none"> Seek clarity in the final rule and determination regarding the treatment of all data introduced by the rule. 	Low
R_0004	<p>Metering installation malfunction procedure and NER misalignment if the procedure effective date comes prior to the commencement of the acceleration period and the embargo on testing and inspection of type 5 and 6 metering installations</p>	Medium	<ul style="list-style-type: none"> Whilst AEMO is to target procedure publication December 2024 to February 2025, accommodate a ~3 month effective date delay to 	Low

Risk ID	Identified Risk	Current Rating	Mitigation strategies	Residual Rating after mitigation
	<p>and the revised treatment for individual and family failures in the final rule.</p> <p>Prioritisation of this work may distract from matters that are critical for acceleration commencement.</p>		<p>accommodate the Metrology Procedures in the NER.</p> <ul style="list-style-type: none"> Request effective date of mid 2025 i.e. 1 July 2025. 	
R_0005	<p>Package 1 procedure consultation (LMRP, Defects, One-in-all-in / shared fuse) running in parallel with the AEMC of the final rule determination.</p> <ul style="list-style-type: none"> Risk that final determination may require material changes to the planned consultation resulting in rework and an extension to procedure consultation. 	High	<ul style="list-style-type: none"> Acceptance of risk due to accelerated smart meter deployment rollout timeframe. Overlapping completion of procedure consultation after final rule determination date. Engagement with interested parties has been extensive. Not commencing consultation on package 3 (PQD) until this package 1 consultation is completed. 	Medium

7 Participant Impact Assessment

AEMO recognises the significant system and process changes needed by participants to meet the obligations of the rule, including developing interfaces for B2M and B2B data exchanges with the Market (B2M) and other participants (B2B). This section focuses solely on the latter and does not address the updates participants must make within their systems to support their business processes. Given the diverse levels of system maturity and automation across participants, AEMO cannot predict the exact scale or nature of these impacts for each participant. However, AEMO can highlight common areas likely to be involved in most participants’ impact analyses to achieve the rule outcomes.

7.1.1 Change Request Process

Focus Area	Impact Heat Map	Impact Description
Change Request Process	Medium	<ul style="list-style-type: none"> Changes to existing 5000 series CRs to set Package 1 LMRP attribute New 5000 series CRs to set Package 1 Site Defect attributes Inclusion in CATS Notifications of Package 1 LMRP and Site Defect attributes Changes to the processing of existing Exchange of Meter 3000 series CRs to set Package 1 Site Defect attributes to NULL upon replacement of a Basic Meter with a Smart Meter Updates are needed throughout the MSATS Browser UI to reflect the additional fields added to CATS for Package 1 (LMRP and Site Defects)

Participant Impacts

Package 1 – LMRP

- DNSPs are required to maintain the LMRP attribute for nominated NMIs via CATSChangeRequest
 - DNSPs should be able to set the LMRP attribute for nominated NMIs using the CR5000 series ChangeReasonCode through CATSChangeRequest

Package 1 – Site Defects – Defect Flag

- MPs should be capable of setting the Defect Flag for nominated NMIs through CATSChangeRequest using the CR5000 series ChangeReasonCode when a defect has been identified.
- All participants entitled to access the Defect Flag value should be capable of receiving the new CATS_NMI_DATA attributes via:
 - CATSNotifications
 - CATS C1 ReportResponse

Package 1 – Site Remediation Status and Date

- FRMPs are required to update the CATS CR 5000 series Request to set the Site Remediation Status and Date attributes for Package 1. This reflects communications with customers related to a site defect.

7.1.2 NMI Standing Data

Focus Area	Impact Heat Map	Impact Description
NMI Standing Data	Medium	<ul style="list-style-type: none"> New CATS NMI Standing data attributes to support Package 1, LMRP and Site Defect

Participant Impacts

- Participants to update their Market Data repositories to reflect the new Package 1 CATS_NMI_DATA standing data attributes

7.1.3 Retail B2B Processes

Focus Area	Impact Heat Map	Impact Description
7.1.4 Retail B2B Processes	Medium	<ul style="list-style-type: none"> Updates to B2B Service Order and One Way Notification Transactions to support Package 1, LMRP, Site Defect and One-In-All-In Changes to the Low Volume Interface (LVI) user interface (UI) to support B2B Transaction updates Changes to the B2B Validation module to support B2B Transaction updates

Participant Impacts

- Participants acting as Initiators, Recipients, or Notified Parties must be able to submit or receive the following:
 - Service Order Requests (SOR):
 - Supply Service Works include new subtypes 'Temporary Isolation - Scoping Request' and 'Temporary Isolation - One In All In'
 - For the new Supply Service Works 'Temporary Isolation - One In All In' subtype, use FormNumber to carry a One-In-All-In reference number
 - Metering Service Works for 'Exchange Meter' with a new RegClassification 'LMRP' and a new Purpose of Request 'Defect Resolved'
 - Service Order Responses (SOR):
 - Introduces a new 'Defect' Exception Code
 - When 'Defect' is the Exception Code, standard values for RecipientReference are updated
 - Request and Notification transaction, details to be finalised by B2B-WG
 - Transaction to support FRMPs seeking defect information by sending a Request to the MP for site defect information and an MP Notification response.
 - One Way Notifications, Meter Fault And Issue Notification (OWN):
 - Adds a new enumerated value 'LMRP – One In All In' for ReasonForNotice
- FRMPs using the LVI for creating B2B Transactions will need to adapt to updates in the B2B Browser's 'Create New Transaction' UI
- Participants relying on the B2B Validation module for transaction validations must upgrade to the new version published by AEMO

7.1.4 Blind Update Tool

Focus Area	Impact Heat Map	Impact Description
Blind Update Tool	Low	<ul style="list-style-type: none"> Changes to Blind Update Tool (BUT) support to set Package 1 LMRP attribute

Participant Impacts

- DNSPs may maintain the Package 1 LMRP attribute for nominated NMIs via the BUT
 - DNSPs to develop BUT payloads to set the LMRP attribute for nominated NMIs
 - DNSPs to use the MSATS Browser BUT UI and/or BUT APIs to submit these BUT payloads
- All participants entitled to access the Package 1 LMRP value must be capable of receiving the new CATS_NMI_DATA attribute through both:
 - CATSNotifications
 - BUT updates via the CATS C1 ReportResponse³

³ The BUT allows standing data updates that don't generate (a) MSATS 2D history model updates and (b) CATS Notification. For participants to pick up and ingest BUT updates into their Market System standing data repositories, they need to be able to identify BUT updates via the CATS C1 report

7.1.5 Data Exchange

Focus Area	Impact Heat Map	Impact Description
Data Exchange	Low	<ul style="list-style-type: none"> B2M aseXML changes, support for aseXML_r4(n) & aseXML_r4(n-1) and transformations B2B aseXML changes, support for aseXML_r4(n) & aseXML_r4(n-1) No new interfaces nor changes to data exchange protocols & B2B protocol interoperability

Participant Impacts

B2M

- Participants required to set or access Package 1 attributes must transition to the new (to-be) version of B2M aseXML_r4(n) LATEST
- Other participants have the option to transition to the new (to-be) version of B2M aseXML_r4(n) LATEST or remain on the SUPERSEDED (to-be) B2M aseXML_r4(n-1)
- Participants currently using the existing (as-is) version B2M aseXML_r4(n-2) SUPERSEDED must transition to either the upcoming (to-be) B2M aseXML_r4(n-1) SUPERSEDED or the new (to-be) version of B2M aseXML_r4(n) LATEST

B2B

- Participants acting as Initiators, Recipients, or Notified Parties for the following B2B Transactions must transition to the new (to-be) version of B2B aseXML_r4(n) LATEST:
 - new Service Order Request, Supply Service Works subtypes 'Temporary Isolation - Scoping Request' and 'Temporary Isolation - One In All In'
 - Service Order Request, Metering Service Works for 'Exchange Meter'
 - Service Order Responses
 - One Way Notifications, Meter Fault And Issue Notification
- Other participants have the option to transition to the new (to-be) version of B2B aseXML_r4(n) LATEST or remain on the SUPERSEDED (to-be) B2B aseXML_r4(n-1)
- Participants currently using the existing (as-is) version B2B aseXML_r4(n-2) SUPERSEDED must transition to either the upcoming (to-be) B2B aseXML_r4(n-1) SUPERSEDED or the new (to-be) version of B2B aseXML_r4(n) LATEST

7.1.6 B2M Schema

Focus Area	Impact Heat Map	Impact Description
B2M Schema	Low	<ul style="list-style-type: none"> Inclusion of new NMI Standing Data elements in the B2M schema to support Package 1, LMRP and Site Defect

Participant Impacts

- Participants required to interact with Package 1 attributes must be able to read and write values to the new aseXML elements, and effectively map these elements to the aseXML_r4(n) NMISstandingData defined as MasterData.

7.1.7 B2B Schema

Focus Area	Impact Heat Map	Impact Description
B2B Schema	Low	<ul style="list-style-type: none"> Inclusion of new enumerations to existing B2B schema enumerated lists to support Package 1, LMRP, Site Defect and One-In-All-In

Participant Impacts

- Participants serving as Initiators, Recipients, or Notified Parties for the new SORD Metering Service Works, subtypes 'Temporary Isolation - Scoping Request' and 'Temporary Isolation - One In All In,' must possess the capability to generate aseXML transaction messages for these subtypes.
- Participants acting as Initiators, Recipients, or Notified Parties for Package 1 attributes in SORD Metering Service Works, Exchange Meter, and OWN Meter Fault and Issue Notification are required to map to new enumerations within the existing ElectricityEnumerations.xsd enumerated lists.

7.1.8 CATS Reports

Focus Area	Impact Heat Map	Impact Description
CATS Reports	Medium	<ul style="list-style-type: none"> • Inclusion in CATS reports of new CATS NMI Standing data attributes to support Package 1, LMRP and Site Defect

Participant Impacts

- All participants entitled to access values for Package 1 should be capable of receiving new CATS_NMI_DATA attributes through:
 - CATS ReportResponse for C1, C4, C7 reports.
 - MSATS Snapshots

7.1.9 RM Reports & SDQ Reports

Focus Area	Impact Heat Map	Impact Description
RM Reports & SDQ Reports	Low	<ul style="list-style-type: none"> • Creation of new RM29 Standing Data Quality (SDQ) queries to support Package 1, LMRP and Site Defect

Participant Impacts

- All participant roles set to receive MDMT ReportResponse for RM29 should be capable of receiving new SDQ queries as defined through consultation

7.1.10 NMI Discovery

Focus Area	Impact Heat Map	Impact Description
NMI Discovery	N/A	<ul style="list-style-type: none"> • Package 1 attributes not available to the current or prospective FRMP or the DNSP

Participant Impacts

- After winning a customer, the current FRMP must use the CATS C4 report to retrieve CATS_NMI_DATA values for Package 1 attributes