AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

Metering Services Review (MSR)

October 2025

Industry Test Strategy

Important notice

Purpose

The industry testing strategy sets out the high-level approach and principles associated with the National Electricity Market (NEM) testing activities that will support the NEM Reform October 2025 release which comprises the Metering Services review Release 1 initiative, work packages 1 and 2.

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Version control

Version	Release date	Changes
0.1	12/05/2025	Initial draft issued for internal discussion
0.2	21/05/2025	Draft version for Participant Review
1.0	6/06/2025	Final version following Participant review which includes confirmation of the procedure effective dates for the Industry Test

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1 Introduction

This chapter provides background information on AEMO's Metring Services Review October 2025 release, and sets out the purpose, scope, and approach to the development of this Industry testing strategy.

1.1 AEMO's Metering Service Review (MSR) Project

The Accelerating Smart Meter Deployment 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 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. 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 requires new processes for the management of site defects and metering installations that have shared points of isolation. The final rule requires a formal defect registration process which will require MCs to record a defect and type of defect. There is a new requirement on MCs, for the provision of a basic Power Quality Data (PQD) service to DNSPs, however this is not in scope for this Industry Test.

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.

Finally, the final 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.

Further to delivering changes to support the Accelerating Smart Meter Deployment Rule, the initial MSR software release will also contain the following changes:

- ICF-077 Auto population of the LCCD based on NMI status
- ICF-078, B004/22 & B002/22 Alignment of Addressing in B2M Procedures to AS4590.1.2017
- Embedded Settlement Network Anomalies
- Improved RoLR report functionality and standardisation of RoLR reports

* AEMC – Accelerating smart meter deployment – Rule Change

AEMO will deliver the MSR solution in 3 work packages. The scope of this Industry Test Strategy covers Packages 1 & 2. A separate Industry Test Strategy will be produced to support Package 3, the PQD implementation. Packages 1 and 2 will be delivered into pre-production on 2 September, in readiness for the commencement of Industry Test on 9 September 2025. The scope of each of the work packages is as follows:

- Package 1
    - Legacy Meter Replacement Plan (LMRP)
    - Metering Installation Defects
    - One-in-all-in processes
    - Industry requested changes: ICF-077 & ICF078, B004/22 & B002/22
    - Embedded Settlement Network Anomalies
    - RoLR Functionality.
- Package 2
    - Testing and inspection guidelines,
    - Metering installation malfunctions.
- Package 3
    - Power Quality Data (PQD).

Package 3, which is not in the scope of this document, has an effective date of 1 July 2026.

1.2 Purpose of the industry testing strategy

This document offers stakeholders, specifically NEM participants, who will be affected by the changes, a clear understanding of the industry testing for the October 2025 MSR release. This will be a coordinated Industry Test which will comprise a mix of designated test scenarios/cases for market participants to test as well as independent and bilateral testing by participants. Market participants will be requested to test the in-scope items and report defects, if any found, back to AEMO during their testing via the Practitest testing application, through the NEM Reform email NEMReform@aemo.com.au or via the Q&A sessions.

This Industry test strategy document will help participants understand and plan for system, process and operational changes that will commence when the MSR LMRP procedure comes into effect on 26 October 2025 and the remaining MSR Release 1 procedures come into effect in on 1 December 2025.

1.3 Reference documents

The related documents mentioned in Table 1 are relevant to the industry testing strategy.

Table 1 MSR reference documents and web sites

#	Document name
1	Metering Services Review Package 1 Consultation
2	Metering Services Review Package 2 Consultation
3	AEMO Metering Services Review - Accelerating Smart Meter Deployment Initiative Site

#	Document name
4	AEMO HLIA MSR High Level Implementation Assessment Final
5	AEMO Technical Specification MSR Oct 2025 Technical Specification
6	aseXML r46 Schema release notes

1.4 Audience

This Industry testing strategy is primarily intended for all NEM participants affected by the MSR Release 1 initiative, particularly their respective:

- Test managers
- Test leads
- Test analysts (system integration, UAT, industry testing)
- Project managers
- Developers and business and functional SMEs
- Market Participants

Secondary audiences within these businesses including:

- Development managers
- IT operations teams
- Change controllers
- Operations teams

2 Industry testing Framework

This section describes the framework that underpins the MSR industry testing strategy. It explains the industry test strategy's objective, scope, assumptions, communications, data refresh requirements, test environment and indicative timeline for the October 2025 release.

2.1 Industry testing objective

Industry testing provides market participants the opportunity to test their updated systems and processes against AEMO's updated systems.

In relation to the October 2025 release, the overall objective of industry testing is: *To support industry readiness and confirm AEMO's and participants' preparedness for the respective MSR Release 1 go-live dates.*

2.2 Industry testing scope

The scope of this Coordinated Industry Test will be to enable participants to verify the impact of the MSR Release 1 changes on AEMO's Retail Systems. This functionality will be deployed into the pre-production environment for participants to integrate with their relevant systems.

The Technical Specification document AEMO Technical Specification MSR Oct 2025 Technical Specification should be considered as the source of truth and should be referred for the scope of the October 2025 release.

2.2.1 MSR Package 1 scope inclusions

The following functionality will be in scope for the MSR Package 1 areas:

- Legacy Meter Replacement Plan LMRP:
    1. DNSPs to submit LMRPs via the Blind Update Tool (BUT) and/or MSATS CRs 5050/5051.
    2. Entitled participant roles can verify LMRP attributes in MSATS and via: MSATS Reports (C1, C4, C7), MSATS Snapshot Report, MSATS Browser.
- Metering Installation Defects - Defect Flag, Defect Type and Originating MC
    1. MCs to be able to update Defect Flag, Defect Type and Originating MC value through new MSATS 5000 series CRs.
    2. View updates via MSATS Reports (C1, C4, C7), MSATS Snapshot Report, MSATS Browser.
    3. Test 3004/3005 (Exchange of Metering Information) or 3090/3091 (Advanced Meter Exchange) CRs.
    4. Test RM29 SDQ queries to enable MCs to identify standing data anomalies.
- Shared fuse meter replacement

1. Coordinated testing between DNSPs, FRMPs, and MCs to test processes for smart meter installations, where a NMI requires the isolation of more than one customer at that NMI due to a shared network fusing arrangement.
2. Tests include B2B transactions such as Service order Requests and One Way Notifications.

- ICF-077 LCCD Automation: FRMPs can observe the defaulting of the LCCD when they update a NMI status from Greenfield to Active.
- Embedded network settlement anomalies: Participants will be able to test changes to retrospective activation/deactivation of NMI datastreams in embedded networks.
- RoLR reporting changes: Participants will be able to request AEMO to run RoLR reports for an FRMP and will then be able to review the requested reports where access is permitted. RoLR reports that can be executed for the Industry Test will be identified in the MSR Test Plan. No updates will be made in MSATS to support RoLR testing.
- B2M Schema changes (in addition to the above changes)
    1. Participants can test their internal B2M schema update processes
    2. Participants will be able to test their systems with the new CATS NMI Standing Data for LMRP and Site Defects.
    3. Participants will be able to test B2M schema changes which include the updated address elements and enumerations associated with ICF-078 BuildingOrPropertyName2, Address Fields / B004/22 & B002/22.
- B2B Schema changes (in addition to the above changes)
    1. Participants can test their internal B2B schema update processes.
    2. Participants can test updates to B2B Service Order and One Way Notification Transactions to support Package 1, LMRP, Metering Installation Defect and One in All In, B2B Customer and Site Details Notification transactions, e.g. Site Access Notification, Life Support Notification and Customer Details Notification.
    3. Participants will be able to test B2B schema changes which include the updated address elements and enumerations associated with ICF-078 BuildingOrPropertyName2, Address Fields & B002/22.
    4. Participants can test new B2B values in the B2B validation module.

2.2.2 MSR Package 2 testing scope inclusions

The following functionality will be in scope for the MSR Package 2 areas:

- Metering Installation Exemptions. Participants, particularly MCs will be able to test the following functionality:
    1. 4 new exemption types - Whole Current Connected NMI, LV CT Connected NMI, HV connected NMI, Family Failure and associated nature values.
    2. MSATS Web Portal - The meter exemptions interface new configuration field and checkbox for MCs to populate when raising and exemption.

3. Automatic approval or rejection for some Whole Current Connected NMIs and Family Failure exemptions.
4. Validation to restrict continual exemption for same NMI and exclusion of non-conforming participants from automated processing

2.2.3 Scope exclusions

Industry testing scope exclusions:

- No settlement runs will be executed for this industry test. The Embedded Settlement Network Anomalies change has no direct impact on the settlements process.
- Testing of any functionality not mentioned in the respective scope sections of this document should be considered out of scope.
- Changes to NEM participants' supporting business systems that do not directly interact with AEMO's market systems (i.e. back-end systems). These are addressed by participants own test strategies.
- Downstream business procedures for each industry participant.
- Accreditation, as there are no accreditation requirements for the October 2025 release.

Each NEM participant is responsible for their own preparedness in respect of the above matters and should account for such items within their respective organisational testing programs.

2.3 Approach

The MSR Release 1 Industry Test will encompass a hybrid approach to Participant testing and will be comprised of: coordinated tests, bilateral tests and independent Participant tests.

The Industry Test will also be conducted in two phases which reflects the two production effective dates: the initial production procedure effective date, which is 26 October 2025, is the point at which DNSPs can commence loading LMRPs (subject to agreed timings) and the subsequent production procedure effective date of 1 December 2025 for the remaining MSR Release 1 procedural changes.

The preprod effective date for loading LMRPs will be 2 September 2025. The preprod effective date for the remaining MSR Release 1 procedural changes will be 30 September 2025.

The r46 schema deployment in preprod will also mirror production deployment. R46 will be deployed in preprod on 2 September 2025 with the other MSATS changes, which is a number of weeks ahead of the effective date for the majority of the procedure changes on 30 September (1 December 2025 in production).

The initial phase of the industry test will commence on 9 September and will encompass the following:

- Loading of LMRPs by DNSPs. This will be the main co-ordinated component of the industry test.
- Participants can commence testing the B2B changes in this phase by bilateral agreement with respective industry participants. Note: the B2B changes to Building Or Property Name cannot be tested until phase 2.
- Package 2, Metering installation malfunctions can be tested in this phase.

- Participants can also use this phase to confirm that their market systems function correctly in the period between the deployment date, when the r46 schema comes into effect, and the main procedure effective date (which excludes the LMRP effective date) which is several weeks later.

The second phase of the industry test, commencing 30 September, will encompass the following:

- Metering Installation Defects
- One-in-all-in processes
- ICF-077, ICF078 & B004/22 & B002/22
- Embedded Settlement Network Anomalies
- RoLR reports
- Building Or Property Name schema change tests
- Note: Tests of the LMRP load via the BUT cannot continue throughout the second phase of the Industry Test

The LMRP load schedule will be coordinated by the AEMO test team in Pre-production. The BUT has daily transaction limits and to manage this constraint, AEMO will work with DNSPs to schedule the submission of BUT files in pre-production via the LMRP Working Group. This approach reflects the production go-live process.

2.4 Assumptions

There are several key assumptions underpinning the industry testing strategy:

1. AEMO will provide and maintain the single Pre-Production environment which will be used for industry testing phases.
2. Any change that is linked to or deployed to support a procedural or technical specification change will ensure the procedure(s) or technical specification(s) are documented and approved prior to the commencement of industry testing.
3. As part of any changes to Pre-Production, AEMO will give notice to participants of outages or code changes and provide release notes for the changes.
4. LMRPs will only be loaded by DNSPs during their respective scheduled windows as agreed in the LMRP Working Group.
5. The next refresh of Pre-Production environments is scheduled for 25 August 2025 to 29 August 2025. The refresh will be sourced from production snapshots taken on the following dates:
    - Wholesale System Production snapshot date is to be confirmed.
    - Retail System Production snapshot date is also to be confirmed. This refresh will contain 6 months of meter data.
6. AEMO will perform all internal functional testing prior to the release of any changes into pre-production for all the October 2025 release operation changes that AEMO is coordinating.

7. Participants will perform testing on any internal application changes prior to connecting to the AEMO pre-production environment.
8. Participants will have appropriately skilled resource capability for execution and support requirements during industry testing.
9. AEMO will provide support to investigate and resolve defects identified during industry test. All participants engaging in industry testing will report any defects to AEMO by sending an email to NEM Reform inbox: NEMReform@aemo.com.au
10. Results from industry testing may be used by participants for their own assessment of go-live criteria.
11. AEMO will support participants to resolve any connectivity issues within the pre-production environment.

2.5 Communication and Q&A session approach

Commencement of Q&A sessions will be aligned with the test execution for industry testing. These Q&A sessions will be in the form of meetings with below details:

- Scheduled twice weekly for 30 minutes in duration for Participants who seek clarifications or discussions related to industry testing for the duration of the industry test.
- Meetings will be recorded for action taking purposes.
- Questions not answered during the meeting will be taken away and answered following the meeting.
- Ad hoc meetings can be organised between 09:00 and 17:00 Hrs (AEST) on business days, for any defects which needs prioritized attention.
- Latest defect updates, if any, will be sent out after the sessions as part of defect reporting.

2 describes how the progress of industry testing will be monitored and reported. Communications and defect reporting will involve both AEMO and participants.

Table 2 Communications and Q&A session approach

Frequency	Type	Responsible
Twice weekly	• MSR Release 1 Q&A sessions – 4 Sept 2025 to 27 Nov 2025 • Defect reporting via email	AEMO and Participants
Ad hoc	• Defect related meetings will be organised for the defects which needs prioritized attention • Issues in accessing Pre-Production environment	AEMO and Participants
Monthly (TBC)	• LMRP Working Group, coordinating the LMRP load in pre-production.	AEMO and DNSPs

2.6 Data refresh

AEMO's Pre-Production retail and wholesale environments will be refreshed between 25 August 2025 and 29 August 2025. The wholesale data will be taken from a copy of Production on 14 February 2025. The Retail data will be taken from a copy of Production with 6 month's meter data.

2.7 Test environment: AEMO pre-production

AEMO will prepare and maintain the single pre-production environment prior to the commencement of Industry testing. Any testing related support for the October 2025 Release in the pre-production environment will be provided between 09:00 and 17:00 Hrs (AEST) on business days by sending an email to NEM Reform inbox: NEMReform@aemo.com.au and via the scheduled Q&A sessions. Pre-production environment and access issues can be raised directly via the AEMO support hub.

2.8 Timeline

The Timelines for the industry testing of the MSR Release 1 project are shown in Figure 1. Key milestones for the projects are shown on Table 3, below.

Figure 1 MSR project timeline

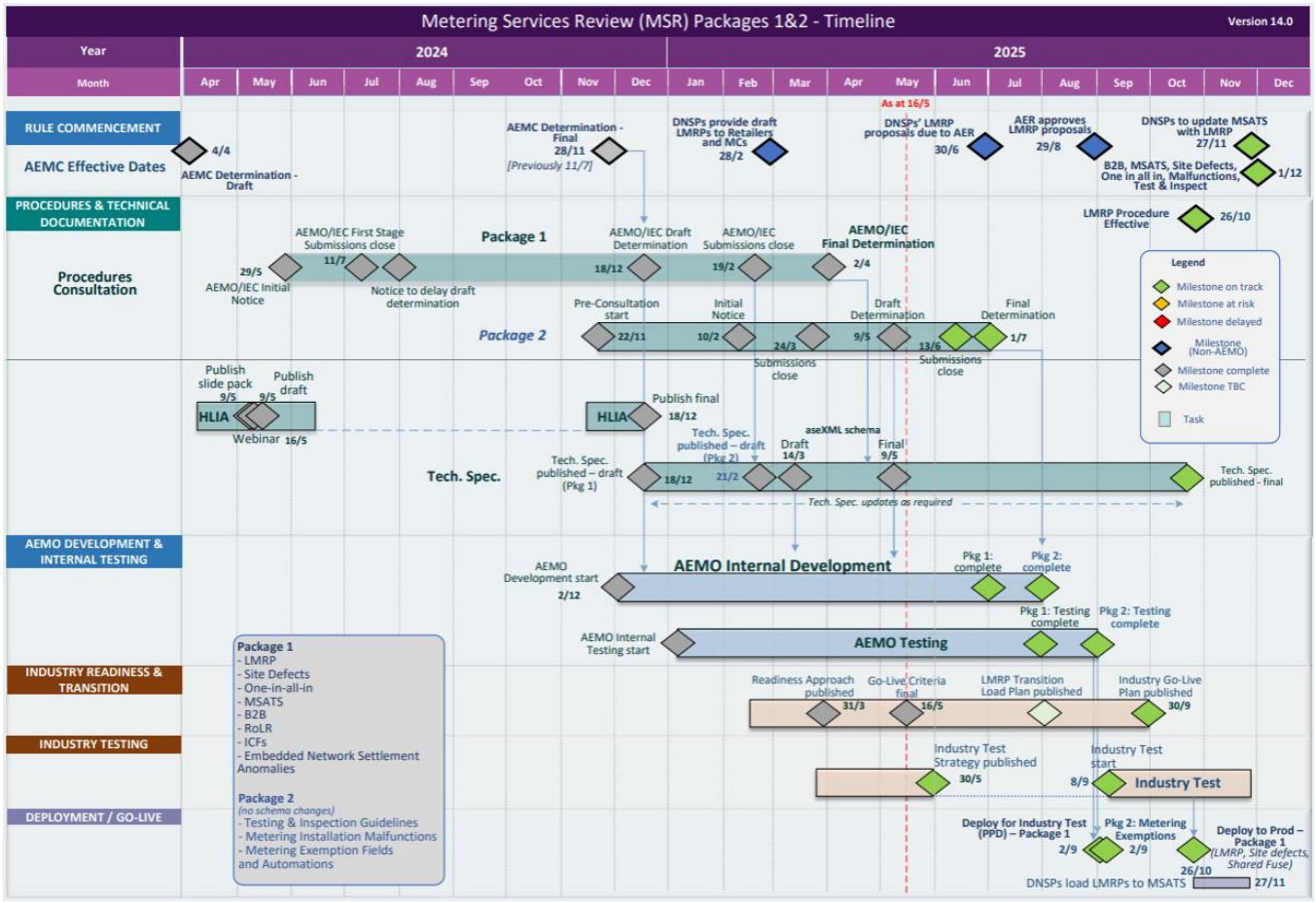


Table 3 MSR project milestones

Milestone	Date
aseXML Schema published (final)	9-May-2025
MSR Release 1 Industry Test Strategy published (Final)	30-May-2025
LMRP Transition Load Plan published	1-Aug-2025
Industry Test Plan published	22-Aug-2025
MSR Release 1 Pre-Production Release	2-Sept-2025
Industry Go-Live Plan published (Release 1)	30-Sept-2025
Industry Test start	8-Sept-2025
Industry Test finish	28-Nov-2025
MSR Release 1 Production Release	26-Oct-2025
LMRP procedure effective date	26-Oct-2025
B2B, Site Defects, One in all in, Malfunctions and Test and Inspections procedure effective date	1-Dec-2025

3 Defect management

Industry testing defect management will be a collaborative effort, principally involving AEMO's and participants' testing teams, development teams and business analysis teams.

The objective of defect management is to resolve all defects within the project lifecycle. However, this objective must be balanced against other project objectives, such as achieving the schedule and the system impact and priority of the defect.

Participants can report the defects to AEMO by sending an email to NEM Reform inbox NEMReform@aemo.com.au and AEMO will manage all the defects that were identified during test execution. Ad hoc meetings can be organised between 09:00 and 17:00 Hrs (AEST) on business days, for any defects which need prioritized attention for resolution. Defects identified by Participants that are not a result of the July 2025 Release changes will be raised with the relevant AEMO BAU support team for prioritisation and action. Where it is determined that it is not an AEMO defect, AEMO will coordinate with market participants to obtain the status of the defect.

3.1 Defect management approach

3.1.1 Raising defects

Defects reported by participants during industry testing will be captured by AEMO's test team in Jira, with the following information:

- Description of defect
- Who detected it and the date it was detected
- Defect owner (entered after gaining agreement as to who owns the defect)
- Target fix date (entered by defect owner)
- Defect severity
- Defect priority
- Defect status
- Defect root cause (entered by defect owner).

3.1.2 Defect escalation and triage

All open defects will be discussed in the weekly meeting. If a critical/high priority defect can't be resolved within the agreed timeframes, it can be escalated in the same meeting.

Defect triage meetings will be held internally in AEMO to discuss the status of any reported defects. Defects report will be shared with participants prior to the weekly meeting.

3.1.3 Defect severity and prioritisation

Defects will be classified according to severity and where there are multiple within a severity, they will be address based on priority by the participant test leads in consultation with other affected participants, as described in Table 4. Priority will indicate the degree to which the defect affects both the system capability, testing execution and the overall project. Priority is determined by assessing probability of system and the business impacts, as described in Table 5.

Table 4 Defect severity classification

Severity	Definition
1- Showstopper	Defect is considered critical to business operations and/or testing. Core business and project impact.
2-Major	Defect is considered high impact to the business operations and/or testing. However, core business processes are still able to be completed (possibly via workarounds, etc.) and some testing is still able to continue.
3-Moderate	Defect is considered moderate impact to the business operations and/or testing. Core business processes are unaffected, and workarounds available, with testing still able to continue.
4-Minor	Defect is considered low impact to the business operations and/or testing. Core business processes are unaffected, and testing is still able to continue.

Table 5 Defect priority classification

Priority	Definition
1- Blocker	Entire functionality is blocked, and no testing can be conducted. Fix/resolution turnaround time best endeavour effort in first 4 hours or provide update on impact.
2-Highest	Defect is considered high impact to testing; multiple tests are blocked/failed due to the defect and no workaround is available
3-High	Defect is considered high impact to testing one or more tests can be linked to the defect, but workaround is available, and testing is still able to continue.
4-Medium	Defect is considered moderate impact to testing with one or more tests can be linked to the defect, but workaround is available and none of these tests are currently a priority.
5-Low	Defect is considered low impact to testing, no tests are failed or blocked due to this defect.

Post acceptance of a defect, a resolution date will be added and published in the weekly defect report for all identified defects.

3.1.4 Defect cause

Defect root cause of a valid defect will be updated in Practitest by AEMO's test team once the defect cause is identified. Table 6 shows the available defect causes and their descriptions.

Table 6 Defect cause

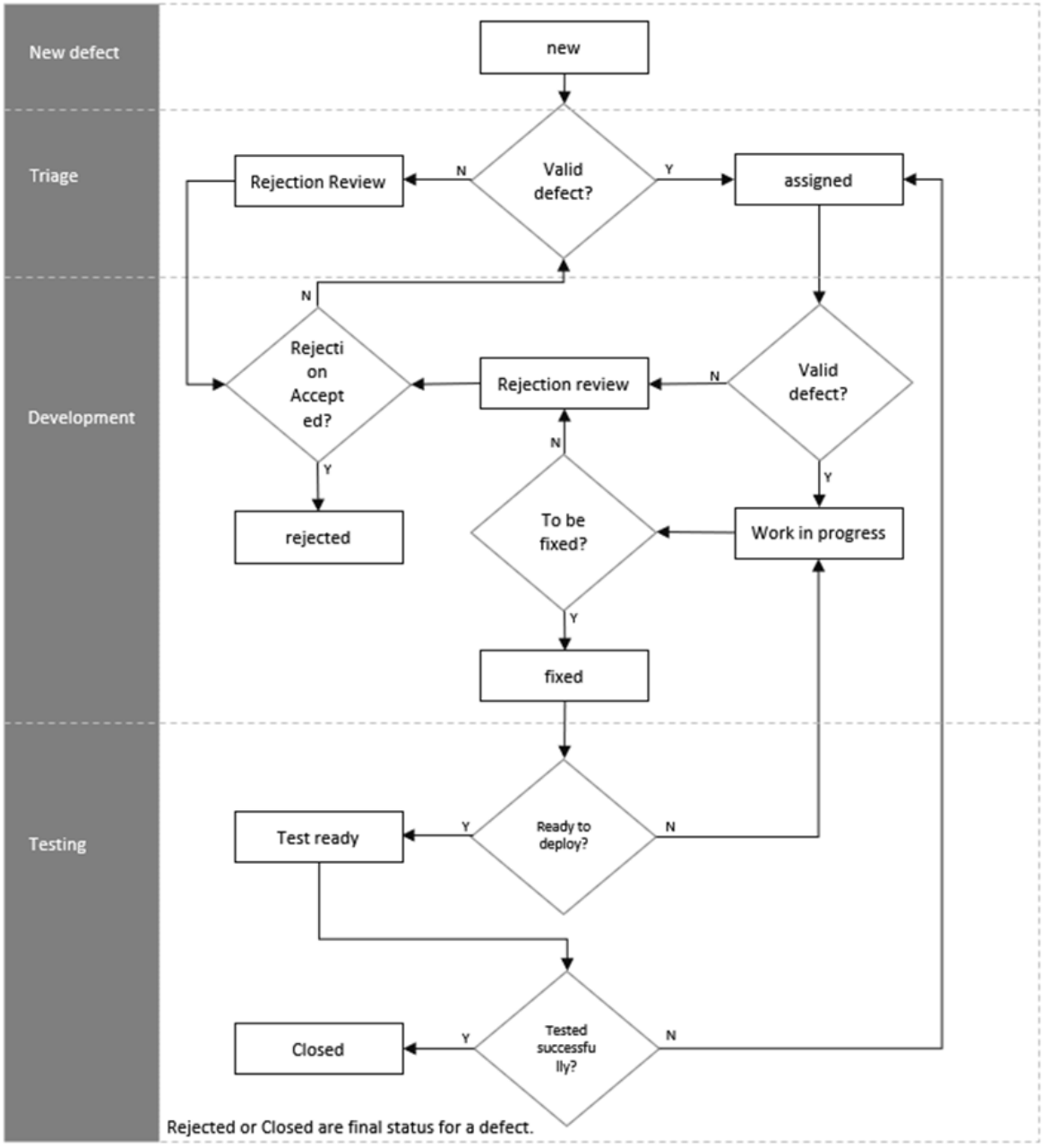
Defect Cause	Definition
Design	The design of the process does not meet the requirements specified. Defect may include examples, algorithm (incorrect calculation), error handling, creation/release of object or memory, decision logic error, loop control, procedure call, failing to validate data values before being used.
Configuration	The intended outcome of the configuration is not meet.

Defect Cause	Definition
Data	There are system data issues for the process that may prevent test completion.
Requirements	Unclear or incorrect requirement, Functional and Business specification documentation.
Infrastructure/Hardware	Defect is not in the object being tested but, in the test, set up, for example the wrong configuration or version control of platform, operating system, browser, hardware or networking, system is down, or the environment is down.

3.1.5 Defect process flow

Figure 2 shows the defect management process throughout the various defect management statuses of the defect lifecycle from its inception through to its closure.

Figure 2 Defect management cycle



GLOSSARY

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

Term	Definition
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
API	Application programming interface
B2B	Business to Business
B2M	Business to Market
BCM	Business Capability Model
BUT	Blind Update Tool
CATS	Consumer Administration and Transfer Solution
DNSP	Distribution Network Service Provider
FRMP	Financially Responsible Market Participant
ITWG	Industry Test Working Group
LCCD	Last Consumer Change Date
LMRP	Legacy Meter Replacement Plan
MC	Metering Coordinator
MDP	Meter Data Provider
MP	Meter Provider
NEM	National Electricity Market
NER	National Electricity Rules
MSR	Metering Services Review
PQD	Power Quality Data
RoLR	Retailer of Last Resort
SNOW	Service Now