

POWER OF CHOICE IMPLEMENTATION PROGRAM

MARKET READINESS STRATEGY (VERSION 2.0)

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VERSION RELEASE HISTORY

Version	Date	Summary of Changes
0.1	15/06/2016	First draft issued for discussion with industry at a Power of Choice workshop on 21/06/2016.
0.2	22/07/2016	Second draft issued, incorporating industry feedback received on Version 0.1, for discussion with the Power of Choice – Readiness Working Group (POC-RWG) at its meeting on 05/08/2016.
0.3	01/09/2016	Third draft issued, incorporating POC-RWG feedback received on Version 0.2, for discussion with the POC-RWG at its meeting on 08/09/2016.
1.0	15/09/2016	No comments on draft Version 0.3 by the POC-RWG at its meeting on 08/09/2016. Market Readiness Strategy finalised as Version 1.0 by AEMO and distributed to the POC-RWG for their information.
2.0	04/09/2017	Second version issued, incorporating minor updates to Version 1.0 and the industry contingency planning scenarios developed by the POC-CPWG (see Appendix B)

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EXECUTIVE SUMMARY

The Australian Energy Market Operator (AEMO) and industry are currently implementing a major electricity retail market reform package, commonly referred to as the Power of Choice (POC) reforms.¹

The POC reforms originate from the Australian Energy Market Commission's (AEMC) POC Review. Following publication of the Review's final report in November 2012, several related energy market rule changes, reviews and expert advice have been completed or are under development. The rule changes that AEMO is implementing, and which "go-live" on 1 December 2017, have amended and/or imposed new regulatory obligations on certain National Electricity Market (NEM) stakeholders.

For AEMO and NEM participants, this has prompted a major implementation work program to amend and/or create NEM procedures, business systems and supporting processes in preparation for the "go-live" date for the revised market arrangements. AEMO is playing a key coordination role in this work, in collaboration with its industry working groups, to ready industry and itself for the "go-live" date.

AEMO's POC Implementation Program covers procedural, technical and readiness work streams. This paper sets out AEMO's Market Readiness Strategy, incorporating feedback received from industry stakeholders, so as to inform industry stakeholders' organisational readiness programs.

Throughout this document, the term "market readiness" refers to the successful implementation of all necessary activities by AEMO and NEM participants required for a seamless transition to new procedural arrangements from the "go-live" date for the POC reforms. A key document for AEMO for engaging with NEM participants on market readiness matters is the Market Readiness Strategy.

The purpose of the Market Readiness Strategy is to set out a plan for managing, coordinating, informing, monitoring and reporting on AEMO and NEM participants' operational preparedness, particularly in relation to revised business systems and processes, for a seamless transition to new procedural arrangements starting on the "go-live" date for the POC reforms.

At a high level, the Market Readiness Strategy sets out:

- Market readiness phases the actions that AEMO and NEM participants plan to undertake to develop, test and prepare their interfacing business systems prior to the "go-live" date;
- Stakeholder engagement activities the forums, working groups and workshops that AEMO will
 utilise to give effect to the strategy, as well as the communication channels that are available to
 NEM participants for the discussion of matters directly with AEMO;
- Reporting and monitoring processes the process AEMO will use to collate NEM participants' readiness status reports and subsequently report on industry and AEMO's readiness; and
- Participant information sessions the knowledge support and improvement activities that AEMO intends to offer to NEM participants to facilitate their POC related business system preparedness, including testing, and more generally inform their organisational readiness programs.

This paper is structured as follows:

- Chapter 1 introduces the purpose and scope of the Market Readiness Strategy, as well as AEMO's
 collaborative approach to developing a detailed strategy that supports stakeholders' requirements;
- Chapter 2 presents background information on the POC package of reforms and the specific rule changes that are relevant to the Market Readiness Strategy;
- Chapter 3 outlines the components of the Market Readiness Strategy; and
- Chapters 4 to 7 detail each component of the Market Readiness Strategy.

¹ Specifically, four rule changes are being implemented under AEMO's POC Implementation Program: (1) expanding competition in metering and related services; (2) meter replacement processes; (3) embedded networks; and (4) updating the electricity B2B framework. The rule changes are overviewed in section 2.1 of this document.



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1. INTRODUCTION

This chapter presents background information on AEMO's POC Implementation Program, and sets out the objective, purpose, scope and principles of the Market Readiness Strategy.

1.1 AEMO's POC Implementation Program

The objective of AEMO's POC Implementation Program is to design, test and implement the required changes to electricity metering, retail market arrangements and infrastructure to give effect to rule changes arising from the POC Review.^{2, 3}

To facilitate implementation of the Program, AEMO has established three work streams:

- Procedure Development to define the required changes to electricity retail market procedures, including both MSATS and B2B;⁴
- Technical Development to design, develop, test and implement changes to AEMO's retail market systems;⁵ and
- Market Readiness to coordinate, assist and prepare NEM participants and AEMO for the start of the revised market arrangements, and to monitor and report on the preparation efforts.

This paper only considers matters that relate to Market Readiness. Further information on the Program, including past industry meeting papers, is available on the POC section of AEMO's website.⁶

1.2 Definition of market readiness

Throughout this document, "market readiness" refers to the successful implementation of all necessary activities by AEMO and NEM participants required for a seamless transition to new procedural arrangements and B2B communications starting on 1 December 2017 (i.e. the scheduled "go-live" date for the POC reforms).

1.3 Market Readiness Strategy

A key document for AEMO for engaging with NEM participants on market readiness matters is the Market Readiness Strategy. The objective, purpose and scope of the Strategy are set out below.

1.3.1 Objective of the Market Readiness Strategy

The objective of the Market Readiness Strategy is to facilitate uninterrupted market operations for AEMO and NEM participants and, as a consequence, continued service delivery to NEM end-use customers, prior to and effective from the "go-live" date for the POC reforms.

1.3.2 Purpose of the Market Readiness Strategy

The purpose of the Market Readiness Strategy is to set out a plan for managing, coordinating, informing, monitoring and reporting on AEMO and NEM participants' operational preparedness,

 ² Specifically, four rule changes are being implemented under AEMO's POC Implementation Program: (1) expanding competition in metering and related services; (2) meter replacement processes; (3) embedded networks; and (4) updating the electricity B2B framework.
 ³ See AEMC website, <u>http://www.aemc.gov.au/Major-Pages/Power-of-choice</u>.

⁴ AEMO has established a Power of Choice (POC) Procedures Working Group (POC-PWG) and a B2B Working Group to assist in progressing the POC program of work and deliverables. For the terms of references, see AEMO's website, <u>http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Power-of-Choice/Procedures-Work-Stream/Procedures-Working-Group and http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Power-of-Choice/B2B-Procedure-Working-Stream</u>

⁵ AEMO has established a Power of Choice Systems Working Group (POC-SWG) to facilitate industry engagement of a technical nature, see AEMO's website, http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Power-of-Choice/Systems-Work-Stream

⁶ See AEMO website, <u>http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Power-of-Choice.</u>



particularly in relation to revised business systems and processes, for a seamless transition to new procedural arrangements starting on the "go-live" date for the POC reforms.

1.3.3 Scope of the Market Readiness Strategy

Items inside scope

The following items are within the scope of the Market Readiness Strategy:

- Market readiness phases:
 - The actions AEMO plans to undertake, including development and testing, to be in a position where it can launch its market systems, and associated processes, on the scheduled "go-live" date for the POC reforms in order to comply with the new market arrangements.
 - The actions AEMO plans to undertake to facilitate NEM participants' testing of their market interfacing systems with AEMO's market systems and with other NEM participants within scheduled time periods.
 - The actions AEMO plans to undertake to help NEM participants complete any required accreditation and registration obligations.
- Stakeholder engagement activities:
 - The industry forums, working groups and workshops that AEMO intends to utilise to engage with NEM participants on market readiness activities, including facilitate discussion on matters that are relevant to participants' operational readiness.
 - The processes available to NEM participants for raising market readiness enquiries with AEMO.
 - How information obtained under this Strategy will be used to inform the AEMO Board, including other key stakeholders such as the Information Exchange Committee, to facilitate decision making in support of the scheduled "go-live" date for the POC reforms.
- Reporting and monitoring processes:
 - The AEMO process for requesting, accepting and collating regular status reports from NEM participants on the progress of their market readiness activities and arising risks and issues.
 - How AEMO will report to industry and other key stakeholders, such as government officials, on the progress of market readiness activities for industry as a whole compared to the scheduled "go-live" date.
- Participant information sessions:
 - Information and helpful guidance that AEMO intends to provide to NEM participants to promote a better understanding of the POC reforms and the potential changes participants may need to make to their systems and processes in order to comply with the new market arrangements.

Items outside scope

The following items are outside the scope of the Market Readiness Strategy:

- Consequential activities:
 - Any consequential changes and testing that NEM participants must perform on their supporting business systems and processes to give effect to the changes they have made to their market interfacing systems.
- Other regulatory obligations:
 - Any other regulatory obligations NEM participants may have as a result of the POC related rule changes, such as those relating to changes to jurisdictional safety regulations.



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

While these matters are outside the Strategy's scope for planning and coordinating purposes, it is expected that NEM participants will report all issues – whether inside or outside scope – impacting their operational readiness, as per the reporting and monitoring processes set out in Chapter 6. In addition, a participant may seek to lead a discussion in the appropriate readiness forum on external dependencies and other readiness related matters that are outside the Strategy's scope but relevant to their operational readiness, as per the process set out in section 5.1.

1.4 **Principles for market readiness**

These principles will guide the development and implementation of the Market Readiness Strategy.

- Readiness for "go-live" AEMO and NEM participants will perform all necessary activities such that each party will be in a position to comply with their respective obligations under the revised market arrangements from the "go-live" date. Accordingly, the focus of market readiness is to coordinate preparatory activities, provide visibility of readiness issues and to appropriately plan for contingencies.
- Collaborative approach to market readiness AEMO will develop the Market Readiness Strategy, including supporting plans, templates and materials, and discuss proposed approaches with NEM participants before finalising them.
- 3. Each party is responsible for their own readiness While AEMO will facilitate NEM participants' testing of their market interfacing systems and provide reasonable support to address issues, each NEM participant and AEMO is responsible for developing and implementing their own organisational readiness program, including having regard to the key activities and dates set out in the Market Readiness Strategy.
 - For AEMO, this includes: developing the systems and processes it is responsible for under regulatory instruments, and providing the necessary information, documentation and access to NEM participants to enable them to interact with these systems and processes; and coordinating and reporting on industry-wide preparations for "go-live".
 - For NEM participants⁷, this includes: developing their own systems and processes to comply with the new market arrangements, and ensuring they have the necessary commercial arrangements in place at "go-live"; and reporting on readiness matters that may impact them and/or other participants.
- 4. Report readiness issues and risks as early as possible Issues and risks that may affect the readiness of NEM participants and/or AEMO, are to be communicated to AEMO as early as possible in order to facilitate a prompt investigation into the significance of such matters. AEMO will subsequently communicate any industry relevant matters in the appropriate forum.
- 5. Communicate readiness issues and risks in writing When raising a readiness issue or risk with AEMO, NEM participants undertake to communicate the matter in writing using the template prepared by AEMO, including:⁸ a brief description of the matter; the likely consequences if the matter were to occur; the likely affected parties; materiality in terms of time and cost; criticality in terms of risk to "go-live" on the scheduled date; a description of the mitigation strategy that is in place; your contact details and organisation. In response, AEMO will contact the relevant NEM participant to discuss the matter, and communicate any industry relevant issues in the appropriate forum, subject to any confidentiality considerations.

⁷ NEM participants may include local network service providers (LNSPs), retailers, metering providers (MPs), metering data providers (MDPs), metering coordinators (new role), embedded network managers (new role) and embedded network operators.

A template for logging risks or issues in the POC Risk and Issues Register is available from the POC section on AEMO's website. For further information, see Chapter 6 (Risk & Issue Register) of AEMO document, "POC Implementation Program – Industry Plan: Risk & Issue Management".



- 6. True and honest readiness reporting When reporting on the progress of their organisation's readiness activities, each NEM participant and AEMO undertake to prepare their reports in a true and honest manner based on information that is current as at the time of reporting.
- 7. Handling of confidential and commercially sensitive information by AEMO AEMO will maintain the confidentiality of a NEM participant, where requested, on matters specific to that participant's readiness. AEMO will not disclose the identity of the participant without their consent where the matter, which concerns that participant, is discussed at industry forums or with other parties as a general industry readiness issue. Additionally, AEMO will handle commercially sensitive information responsibly.
- AEMO to explain readiness decisions to NEM participants When making decisions on market readiness related matters, AEMO will explain the decision making process and reasons for its decisions to NEM participants, subject to any confidentiality considerations.

1.5 About this paper

1.5.1 Market Readiness Strategy developed in collaboration with industry

In accordance with market readiness principle #2, AEMO has developed the Market Readiness Strategy in collaboration with NEM participants. Preliminary drafts were circulated and discussed with industry from mid-2016, prior to finalising the Strategy.9

The Strategy is intended to be a "living" strategy. That is, it may updated by AEMO over time, as and when circumstances may require, after discussion with NEM participants.¹⁰

1.5.2 Structure of this paper

This paper is structured as follows:

- Chapter 2 presents background information and industry links for the POC package of reforms, including the specific rule changes that are relevant to the Market Readiness Strategy;
- Chapter 3 outlines key milestones and components of the Market Readiness Strategy; and
- Chapters 4 to 7 detail each component of the Market Readiness Strategy. •

1.5.3 **Reference documents**

POC related documents that are relevant to the Market Readiness Strategy are listed in Table 1. Where documents do not currently exist, they will be developed by AEMO in due course and discussed with NEM participants.¹¹

Table 1 – Reference documents

#	Document Name	Link
1	POC Industry Readiness Reporting Plan ¹²	http://www.aemo.com.au/Electricity/National-Electricity- Market-NEM/Power-of-Choice/Readiness-Work- Stream/Industry-Readiness-Reporting
2	POC Industry Testing Strategy ¹³	http://www.aemo.com.au/Electricity/National-Electricity- Market-NEM/Power-of-Choice/Readiness-Work- Stream/Industry-Test-Work-Group

The Market Readiness Strategy was finalised by AEMO with feedback obtained from the POC Readiness Working Group.

¹⁰ AEMO will discuss any proposed future revisions to the Market Readiness Strategy with the POC Readiness Working Group.

¹¹ AEMO will utilise the POC Readiness Working Group for these discussions.

¹² Outlines how AEMO and NEM participants will report on market readiness and includes the templates they will use.
¹³ Outlines the strategy and key dates/milestones for industry testing.



#	Document Name	Link
3	POC Industry Accreditation and Registration Plan ¹⁴	http://www.aemo.com.au/Electricity/National-Electricity- Market-NEM/Power-of-Choice/Readiness-Work- Stream
4	POC Industry Transition and Cutover Plan ¹⁵	http://www.aemo.com.au/Electricity/National-Electricity- Market-NEM/Power-of-Choice/Readiness-Work- Stream/Industry-Transition-Cutover-Focus-Group
5	POC Risk and Issue Management Plan ¹⁶	http://www.aemo.com.au/Electricity/National-Electricity- Market-NEM/Power-of-Choice/Program-Management
6	 AEMO Procedures, as approved by AEMO under the following NER Consultations: POC Procedure Changes (Package 1) POC Procedure Changes (Package 2) POC Procedure Changes (Package 3) 	http://aemo.com.au/Stakeholder- Consultation/Consultations/Power-of-ChoiceAEMO- Procedure-Changes-Package-1 http://aemo.com.au/Stakeholder- Consultation/Consultations/Power-of-ChoiceAEMO- Procedure-Changes-Package-2 http://aemo.com.au/Stakeholder- Consultation/Consultations/Power-of-ChoiceAEMO- Procedure-Changes-Package-3
7	B2B Procedures, as approved by the IEC under the following NER Consultation: • POC - B2B Procedure Changes	http://aemo.com.au/Stakeholder- Consultation/Consultations/Power-of-choiceB2B- ProceduresFinal-Report-and-Determination

 ¹⁴ Outlines how the new participant roles, described in Chapter 2, will be accredited and registered by AEMO (e.g. Embedded Network Manager, Metering Coordinator, and users of the B2B e-Hub).
 ¹⁵ Outlines how existing AEMO and market participant systems will be managed during the transition and cutover period.
 ¹⁶ Outlines the process used for identifying, tracking and addressing risks and issues during the implementation and post-implementation phases of the POC program.



2. BACKGROUND ON POWER OF CHOICE REFORMS

The AEMC published the final report for its POC Review in November 2012, including several recommendations to the COAG Energy Council. Several rule changes, market reviews and expert advice followed – the majority of which have been completed. Provided below is an overview of the POC reforms, with a specific focus in section 2.1 on the four rule changes being implemented under AEMO's POC Implementation Program and, therefore, relevant to this Market Readiness Strategy.

2.1 POC reforms considered by the Market Readiness Strategy

The following POC related rule changes are relevant to this Market Readiness Strategy:17

- Expanding Competition in Metering and Related Services rule change;¹⁸
- Meter Replacement Processes rule change;¹⁹
- Embedded Networks rule change;²⁰ and
- Updating the Electricity B2B Framework rule change.²¹

Key regulatory obligations for AEMO and NEM participants under these rule changes is outlined below.

2.1.1 Expanding Competition in Metering and Related Services rule change

The rule change aims to open up competition in metering services and give consumers more opportunities to access a wider range of services. Key features include:

- Changes to overall responsibility for metering services under the National Electricity Rules (Rules):
 - Role and responsibilities of the existing Responsible Person are to be provided by a new type of Registered Participant – a "Metering Coordinator" (MC).
 - Any person can become a MC, subject to meeting registration requirements, other than at transmission connection points²² and type 7 metering installations.²³
 - Large customers and (non-market and exempt) Generators²⁴ can appoint their own MC at distribution connection points.
 - Retailers are responsible for appointing the MC, except where another party has appointed its own MC as provided for in the Rules.
- MC to take on additional roles to those of the Responsible Person so the security of, and access to, advanced meters and the services provided by those meters are appropriately managed.
- Specification of the minimum services that new/replacement meters installed at small customer premises must be capable of providing.
- Provisions that allow small customers to opt-out of having an advanced meter installed.
- Clarification of the entitlement of parties to access energy and metering data in order to reflect the changes to roles and responsibilities of parties providing metering services.

¹⁷ See AEMC website, Power of Choice overview page, <u>http://www.aemc.gov.au/Major-Pages/Power-of-choice</u>.

¹⁸ Rule made; AEMC final rule determination published 26 November 2015.

¹⁹ Rule made; AEMC final rule determination published 10 March 2016.

 ²⁰ Rule made; AEMC final rule determination published 17 December 2015.
 ²¹ Rule made; AEMC final rule determination published 30 June 2016.

²² As per existing arrangements, only the LNSP or the FRMP can be appointed as the Metering Coordinator.

²³ Type 7 metering installations apply, for example, public lighting and traffic lights, and does not involve a physical metering installation. Instead,

there is a reconciliation between the distribution network service provider and user of the service using an algorithm to determine energy usage. ²⁴ Where there is a retail customer at the connection point of a Non-Market or exempt Generator, only the FRMP or the large customer is permitted to appoint the Metering Coordinator.



- Provision for Local Network Services Providers (LNSPs) to continue to benefit from network devices installed at customers' premises that allow them to monitor, operate or control their networks, provided there is space for both the metering installation and network device.
- Allowing the Retailer to arrange for a MC to remotely disconnect/reconnect small customer premises in specific circumstances.
- Allowing the Retailer to arrange for a supply interruption at its customers' premises for the purposes of installing, maintaining, repairing or replacing an electricity meter.
- Allowing the Retailer to arrange de-energisation of a premises if the customer fails to give safe, unhindered access for the Retailer to carry out its metering responsibilities, subject to certain requirements.
- Amends the model terms and conditions of "standard retail" and "deemed standard connection" contracts, to reflect changes to roles and responsibilities of parties providing metering services.

2.1.2 Meter Replacement Processes rule change

The rule change clarifies rights and obligations on certain parties at a connection point in respect of replacing a meter during the retail transfer process, and introduces requirements with respect to AEMO's MSATS Procedures to support a reduction in time in the period between completion of the customer transfer process and installation of a new meter at a connection point. Key features include:

- Requires AEMO's MSATS Procedures to include provisions that enable:
 - The Incoming Retailer to nominate a MC, Metering Provider (MP) or Metering Data Provider (MDP) to be appointed at a connection point in respect of which it is the Incoming Retailer, and for those appointments to be recorded as being effective on or, where requested by an Incoming Retailer, after the day that the market load at the connection point transfers to the Incoming Retailer as the new Financially Responsible Market Participant (FRMP).
 - Installation of a new/replacement metering installation at a connection point as soon as practicable after transfer of a market load at that connection point has been effected by AEMO.
- Clarifies that where a MC change at a connection point is effected due to a retail transfer, the new MC becomes responsible for the metering installation at that point the day the transfer completes.
- Introduces transitional arrangements requiring AEMO to amend Procedures (i.e. MSATS; Meter Churn; Metrology; Service Level) by 1 September 2016 to take into account the Rules changes.

2.1.3 Embedded Networks rule change

Embedded networks are private electricity networks which serve multiple premises and are located within, and connected to, a distribution or transmission system through a 'parent' connection point in the NEM (e.g. shopping centres). The rule change aims to reduce barriers to embedded network customers accessing retail market offers. Key features include:

- Introduction of a definition for "Embedded Network" (EN) in the Rules.
- Creation of a new accredited provider role the "Embedded Network Manager" (ENM) to perform the market interface functions for EN customers to facilitate their access to retail offers.
- Detailed functions, procedures, governance arrangements and criteria for when ENMs must be appointed to be set out in AEMO Procedures and Australian Energy Regulator (AER) Guidelines:
 - AEMO Procedures will specify how ENs and ENMs operate in NEM systems.
 - AEMO to create ENM accreditation procedures to ensure capability to perform functions.





AER Network Exemption Guideline will specify which EN Operators must appoint an ENM.²⁵

Other changes recommended by the AEMC to enhance the final rule include:

- Changes to regulations in several jurisdictions to remove barriers and/or align the regulations that allow EN customers access to retail market offers.
- Changes to the AER's Network Exemption Guideline to reduce barriers to customers accessing retail market offers by aligning meter reading, testing and inspection standards within and outside ENs and allowing EN customers to compare offers from EN Operators to authorised retailers.
- AEMC to review of the National Energy Retail Law and National Energy Retail Rules to identify and assess the issues regarding the regulatory arrangements for EN customers.²⁶

2.1.4 Updating the Electricity B2B Framework rule change

The rule change aims to update B2B arrangements in the Rules to provide for parties using advanced metering services. AEMO makes B2B Procedures on recommendation from the Information Exchange Committee (IEC). AEMO is facilitating the rule change by implementing a new system/communications protocol ("Shared Market Protocol") for B2B service requests. Key features include:

- Amending IEC membership to include: an AEMO member (Chair); a single representative from each of distribution, retail, metering and third party B2B participants; a consumer member (AEMO appointed); and two to four discretionary members (AEMO appointed). Certain election, appointment and qualification requirements have also been elevated to the Rules.
- Any party (other than the IEC) may initiate a proposed change to B2B Procedures. IEC must have regard to the National Electricity Objective and new B2B factors, and seek to give effect to the B2B principles, when considering a proposed change to B2B Procedures. AEMO must approve an IEC recommendation to change B2B Procedures unless it is inconsistent with the MSATS Procedures.
- B2B Procedures must provide for B2B communications that support the services in the metering minimum services specification, and must provide for a free form method of B2B communication.
- The B2B e-hub must have capability to facilitate B2B communications in accordance with the B2B Procedures and meet any performance requirements specified in B2B Procedures.
- Parties that are required to comply with B2B Procedures are: AEMO; LNSPs; local Retailers; Retailers; MCs; MPs; MDPs; ENMs; and third party B2B participants.
- Parties that are required to use the B2B e-hub for B2B communications, unless the parties making the communications mutually agree otherwise, are: LNSPs; local Retailers; Retailers; MCs; MPs; MDPs; ENMs; and third party B2B participants.
- Any party wishing to use the B2B e-hub must be accredited with AEMO. AEMO would have discretion to apply suitable IT, security and credit support requirements as it considers necessary.
- Costs associated with developing B2B Procedures, establishing and operating the IEC and services provided by AEMO to facilitate B2B communications (including B2B e-hub operation) are to be paid by AEMO and may be recouped through participant fees. Third party B2B participants are deemed as Registered Participants for the purposes of participant fees (rule 2.11 of the Rules).

Previous AEMC work related to Shared Market Protocol

 Framework for Open Access and Common Communication Standards for Smart Meters review²⁷ – Recommendations were made to the COAG Energy Council on how to establish a competitive

²⁵ An EN Operator must appoint an ENM unless: all of the EN customers will not be able to gain access to a retail market offer even if an ENM is appointed; or the AER considers the costs of appointing an ENM are likely to outweigh the benefits. If an EN Operator is not initially required to appoint an ENM, it will be required to do so if a customer within the network exercises its right to access an offer by forming a retail contract.

²⁶ For example, currently a tripartite relationship exists between a customer, Retailer and LNSP; however, this does not exist for an EN customer as there is no LNSP, but an EN Operator.

²⁷ AEMC final advice published 10 April 2014. Subsequent final advice published 8 October 2015 (see "Implementation advice on the SMP").



market for services enabled by smart meters. The AEMC recommended that: a Shared Market Protocol (SMP) be adopted (defining the communications format between authorised parties and parties who are managing access to a smart meter's functionality); no regulation of access to smart meter functionality or charges for such access; and for the AEMC to undertake a competition review of the energy services market three years after the start of any rules made under the Expanding Competition in Metering and Related Services rule change.

Implementation of SMP advice²⁸ – Building on its previous advice (above), AEMC recommended SMP implementation would require updating the B2B framework in the Rules, including: revising governance arrangements for B2B Procedures; expanding/updating content requirements for B2B Procedures to provide for new B2B communications that support advanced metering services; introducing an accredited party role for B2B e-hub users; and redeveloping the B2B e-hub to support changes to B2B Procedures.

2.2 POC reforms not considered by the Market Readiness Strategy

For context and completeness, outlined below are the remaining POC related rule changes, reviews and advice progressed by the AEMC under its POC package of reforms, but which are not being implemented under AEMO's POC Implementation Program.²⁹

- Rule Distribution Network Pricing Arrangements rule change³⁰ Requires network businesses to set prices that reflect the efficient cost of providing network services to individual consumers.
- Customer Access to Information about their Energy Consumption rule change³¹ Aims to make it • easier for consumers to obtain information about their electricity consumption from distribution network companies and retailers, in an easy to understand, affordable and timely way.
- Improving Demand Side Participation (DSP) Information provided to AEMO by Registered Participants rule change³² – Provides a process by which AEMO may obtain DSP information from NEM Registered Participants.
- Demand Management and Embedded Generation Connection Incentive Scheme rule change³³ Aims to help balance the incentives on distribution businesses to make efficient decisions in relation to network expenditure, including investment and demand management.
- Multiple Trading Relationships rule change³⁴ AEMC determined to not make this proposed rule • change as customers can already engage with multiple retailers at their premises by establishing a second connection point, and implementation costs may exceed likely benefits.
- Demand Response Mechanism and Ancillary Services Unbundling rule change³⁵ The proposed mechanism would allow DSP in the wholesale spot market without requiring customers to become wholesale market participants or otherwise bid into the central dispatch system, and would allow newly established "Demand Response Aggregators" to aggregate and offer load into the ancillary services market.
- Electricity Customer Switching review³⁶ Recommendations were made to the COAG Energy • Council on how the customer transfer process could be made more timely and accurate.

²⁸ AEMC final advice published 8 October 2015.

See AEMC website, Power of Choice overview page, <u>http://www.aemc.gov.au/Major-Pages/Power-of-choice</u>.
 Rule made; AEMC final rule determination published 27 November 2014.

³¹

Rule made; AEMC final rule determination published 6 November 2014.

³² Rule made; AEMC final rule determination published 26 March 2015.

³³ Rule made; AEMC final rule determination published 20 August 2015. 34

Rule not made; AEMC final rule determination published 25 February 2016.

AEMC draft rule determination due to be published by 1 September 2016.

AEMC final report published 10 April 2014. Subsequent rule change proposals and actions ensued. See rule changes proposed to the AEMC, as proposed by the COAG Energy Council: "Improving the accuracy of the customer transfer process" and "Using estimated reads for customer transfers". Also, relating to two of the AEMC's final report recommendations, the COAG Energy council wrote to AEMO (March 2015) tasking it to develop an approach for cleansing NMI data and reviewing the MSATS framework to improve its effectiveness.



3. OVERVIEW OF MARKET READINESS STRATEGY

This chapter overviews the Market Readiness Strategy, including key milestones, and the process to measure, analyse and report on AEMO and NEM participants' readiness against pre-defined milestones.

3.1 Key milestones for POC Program and Market Readiness

Key milestones for the POC Implementation Program and Market Readiness work stream are presented in Table 2. Also, a POC Program Overview is presented in Appendix A.

In terms of the Market Readiness work stream, planned AEMO activities include:

- Develop and test its market systems to enable a successful launch on the scheduled "go-live" date for the POC reforms in order to comply with the new market arrangements;
- Facilitate NEM participants' testing of their market interfacing systems with AEMO's market systems within scheduled time periods;
- · Facilitate planning of transition and cutover to new market systems and processes;
- · Facilitate the accreditation and registration of NEM participants, as required; and
- Coordinate industry transition and cutover around the "go-live" date, including provision for a period of post "go-live" heightened support.

The six phases of market readiness are detailed in Chapter 4.





Table 2 – Key milestones for POC Implementation Program and Market Readiness work stream

Month	POC Program milestone	Indicative date	Market Readiness milestone	Indicative date
Jun 2016	-	-	Planning – Market Readiness Strategy (draft) ¹	Jun – Aug
Jul 2016	-	-	Planning – Establish POC Readiness Working Group (ToR) ¹	Jul
			Planning – Industry Readiness Reporting Plan (draft) ¹	Jul – Sep
Aug 2016	Procedure consultation – Pack 1 (MC, EN) ¹	Apr – Aug	Meeting – POC Readiness Working Group ¹	5 Aug
	Procedure consultation – Meter Churn (MRP) ¹			
Sep 2016	Procedures published (MC, EN, MRP) ¹	1 Sep	Meeting – POC Readiness Working Group ¹	8 Sep
			Planning – Market Readiness Strategy (final) ¹	
Oct 2016	Procedure consultation – Pack 2 (MC, EN) ¹	Oct – Mar	Meeting – POC Readiness Working Group ¹	13/14 Oct
	Procedure consultation – B2B (SMP, MC, EN) ^{1,5}		Planning – Industry Readiness Reporting Plan (final) ¹	
Nov 2016	-	-	Meeting – POC Readiness Working Group ¹	14/15 Nov
			Participant information sessions #1 and #2 – Overview of POC key obligations ¹ and Detailed walk-through of POC key obligations (MC; MRP) ¹	
			Reporting – Monthly readiness reporting commences ²	
Dec 2016	Guidelines published – Ring-fencing (MC) and Network Exemption (EN) ⁶	1 Dec	Meeting – POC Readiness Working Group ¹	12/13 Dec
	AEMO system development (MC, EN, SMP) ¹	Dec – Aug		
Jan 2017	-	-	-	-
Feb 2017	-	-	Meeting – POC Readiness Working Group / POC Industry Test Working Group ¹	Feb
			Planning – Industry Test Strategy (draft) ¹	
Mar 2017	Documentation published – Accreditation (EN), Registration (MC), Minimum Services Level (EN) ¹	1 Mar	Meeting – POC Readiness Working Group / POC Industry Test Working Group ¹	Mar





Month	POC Program milestone	Indicative date	Market Readiness milestone	Indicative date
Apr 2017	Process finalised – Accreditation process (B2B e-Hub) ¹	Apr	Meeting – POC Readiness Working Group ¹ / POC Industry Test Working Group	Apr
	Procedures finalised – B2B (SMP) ^{1,5}		Participant information session $#3 - Detailed$ walk-through of POC key obligations (EN) ¹	
			Participant information session #4 – Detailed walk-through of POC key obligations (B2B framework / SMP) ¹	
			Accreditation and registration – Period opens ^{1,3}	
			Planning – Industry Testing Plan (draft) ¹	
			Planning – Industry Transition and Cutover Plan – principles and approach ¹	
May 2017	Industry testing (Phase 1) – Conducted ²	May – Jul	Participant information session #5 – Overview of AEMO accreditation and registration process ¹	Мау
			Meeting – POC Industry Test Working Group ¹	
			Meeting – Industry Transition and Cutover Focus Group ¹	
			Planning – Industry Test Strategy (final) ¹	
			Planning – Industry Test Plan – Phase 1 (final) ¹	
			Planning – Industry Test Plan – Phase 2 (final) ¹	
Jun 2017	Industry testing (Phase 2) – Conducted ²	Jun – Jul	Meeting – POC Industry Test Working Group ¹	Jun
			Meeting – Industry Transition and Cutover Focus Group ¹	
			Planning – Market Trial Plan – Phase 3 (final) ¹	
Jul 2017	Procedure consultation – Pack 3 (MC), "as built" ¹	Jul – Nov	Meeting – POC Industry Test Working Group ¹	Jul
			Meeting – Industry Transition and Cutover Focus Group ¹	
			Participant information session #6 – Overview of AEMO industry testing process ¹	
Aug 2017	Industry testing (Phase 3) – Conducted ²	Aug – 3 Nov	Meeting – POC Industry Test Working Group ¹	Aug
	Market Trial: Cycle 1 – conducted from 21 August to 8 September ²		Meeting – Industry Transition and Cutover Focus Group ¹	





			AUSTRALIAN ENERGY MARKET OPERATOR	
Month	POC Program milestone	Indicative date	Market Readiness milestone	Indicative date
Sep 2017	Standard terms and conditions published – On which distributors will act as the initial MC ⁴	1 Sep		
	Market Trial: Cycle 2 – conducted from 18 September to 6 October ²			
Oct 2017	Market Trial: Cycle 3 – conducted from 16	-	Accreditation and registration – Completed ^{1,3}	Oct – Nov
	October to 3 November ²		Planning – Industry Transition and Cutover Plan (final) ¹	Oct
			Participant information session #7 – Overview of Industry Transition and Cutover Plan ¹	Oct
			AEMO confirms operational preparedness for "go-live" ¹	Oct – Nov
Nov 2017	-	-	Meeting – POC Readiness Working Group ¹	Nov
			Industry transition and cutover – Conducted ²	Nov
Dec 2017	"Go-live" date for POC reforms ²	1 Dec	"Go-live" date for POC reforms ²	1 Dec
			Post "go-live" heightened support period ¹	Until 28 Feb

Responsible for delivery: 1=AEMO; 2=All parties; 3=Relevant participants; 4=DNSPs; 5=IEC; 6=AER



3.2 Overview of stakeholder engagement activities

Stakeholder engagement activities for market readiness comprises:

- Industry forums, working groups and workshops that AEMO intends to utilise to engage with NEM participants on market readiness activities;
- Processes available to NEM participants for raising market readiness enquiries with AEMO; and
- How information obtained under the Market Readiness Strategy will be used to inform the AEMO Board, Information Exchange Committee and other key stakeholders, to facilitate decision making in support of the scheduled "go-live" date for the POC reforms.

Stakeholder engagement activities are detailed in Chapter 5.

3.3 Overview of reporting and monitoring processes

Reporting and monitoring processes for market readiness comprises:

- The AEMO process for requesting, accepting and collating regular status reports from NEM
 participants on the progress of their market readiness activities and arising risks and issues; and
- How AEMO will report to, including discuss with, industry and other key stakeholders, such as government officials, on the progress of market readiness activities for industry as a whole.

Reporting and monitoring processes are detailed in Chapter 6.

3.4 Overview of participant information sessions

Participant information sessions for market readiness comprises:

• Information and helpful guidance that AEMO intends to provide to NEM participants to promote a better understanding of the POC reforms and the potential changes participants may need to make to their systems and processes in order to comply with the new market arrangements.

Planned participant information sessions are detailed in Chapter 7.



4. MARKET READINESS PHASES

This chapter provides information on the six phases of market readiness that are considered under the Market Readiness Strategy.

4.1 Phase 1 – Planning

The planning phase refers to the period where AEMO, in collaboration with NEM participants, will develop the Market Readiness Strategy, including associated plans, checklists and reporting templates.

Market readiness planning commenced in June 2016, with AEMO and industry discussion of the draft Strategy, including consideration of scope, principles, key milestones, communications and reporting processes, and high level content of associated plans.

This phase will run concurrently with the procedure consultation periods and system requirements, design and development (build) stages.

An essential development task of each plan will be to define the timeframes associated with developing the plan itself, as well as the timeframes for the market readiness activities detailed within the plan. The broad timeframes included in this Strategy are indicative only.

4.2 Phase 2 – Industry testing

The industry testing phase refers to the period where AEMO and NEM participants will test their systems against the updated procedures and their ability to communicate with each other.

4.2.1 Industry Testing Strategy

The Industry Testing Strategy will outline the strategy and key dates/milestones for the industry testing period, including:

- The approach and timeframe to develop the Industry Testing Strategy and associated Test Plans;
- The overall purpose and scope of the industry testing, and the three phases of industry testing;
- The detailed scope of AEMO and NEM participants' testing requirements (i.e. B2M, B2B, M2B);
- The pre-requisite activities to be completed before the start of testing, including having the appropriately skilled resources in place to execute and support testing, having the appropriate test environments in place to support testing requirements and connectivity testing;
- The test execution approach, including real-time test execution, number of test cycles, scheduled tests, use of a "sandpit" environment for defect investigations and test analysis;
- Proving external connectivity, including gateway communications, network infrastructure, high-level functionality and schemas;
- Test preparation activities, including test standards and tools, scenarios and scripts, and data management;
- Entry and exit criteria for testing;
- · Key dates and milestones for testing; and
- Reporting and monitoring of testing outcomes.

4.2.2 Industry testing

The purpose of industry testing is confirm industry's market systems operational preparedness for the "go-live" date by providing market participants with access, processes and tools to verify:

• Technical compliance against the updated retail market procedures; and



Communication flows between NEM participants' (B2B) and AEMO's (B2M and M2B) market systems.

Industry testing will consist of multiple phases, including:

- Phase 1: Industry Testing (EN/MC): Testing of the MSATS B2M changes due to the Embedded Network and Metering Competition rule changes.
- Phase 2: Industry Testing (B2B): Connectivity testing of the new B2B e-hub and B2B R36 schema validation; and
- Phase 3: Market Trial, involving coordinated testing between multiple parties of B2B and B2B • system changes under all POC-related rule and procedure changes and end-to-end testing of the new B2B e-hub.

Market trial

The purpose of a market trial is to provide:

- A period of "as-real" operational trialling during which AEMO and NEM participants can freely test their systems and business processes; and
- An opportunity for NEM participants to conduct end-to-end testing of their systems against pre-defined test scenarios.

4.3 Phase 3 – Accreditation and registration

4.3.1 Accreditation

Accreditation is the qualification process through which AEMO and Registered Participants gain assurance that Metering Service Providers (MPs and MDPs) wishing to operate in the NEM have adequate systems and procedures to comply with their obligations.

Accreditation of Metering Service Providers (MPs and MDPs) involves an assessment process, an assessment review, followed by registration by AEMO:37

- Assessment process Applicants provide detailed responses to accreditation checklist questions, • as well as providing evidence to support their responses.
- Assessment review AEMO (and its independent reviewer) reviews the responses provided by the applicant, supplemented by on-site visits to verify responses and supporting evidence.
- Registration – Is the status granted by AEMO to the applicant at the successful completion of the accreditation process.

Under the POC rule changes that are relevant to this Market Readiness Strategy, Embedded Network Managers and B2B e-hub Participants will also be required to undertake accreditation - the process for which is to be established by AEMO in Procedures³⁸ or process guides³⁹ – but these parties will not become Registered Participants as defined under the Rules as a result of becoming accredited in those capacities with AEMO. Although Metering Services Providers (MPs and MDPs) are registered by AEMO, and are deemed to be Registered Participants for some clauses of the Rules, they are not classed as Registered Participants under the Rules. Note also the accreditation processes for MPs and MDPs may change as a result of the POC rule changes.

³⁷ Registration is the status granted by AEMO to a Metering Service Provider at the completion of the accreditation process, as per National Electricity Rules clauses 7.4.2 (Qualifications and registration of Metering Providers) and 7.4.2A (Qualifications and registration of Metering Data Providers). Metering Providers and Metering Data Providers must apply and be accredited and registered by AEMO in those capacities in accordance with the qualification process established under clauses S7.4.1(b) and S7.6.1(b) of the National Electricity Rules, respectively.

³⁸ See Qualification Procedure (MP, MDP and ENM). <u>http://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail_and_Metering/Metering-</u> Procedures/2017/Qualification-Procedure-MP-MDP-ENM.pdf ³⁹ See E-Hub Participant Accreditation and Revocation Process, <u>http://www.aemo.com.au/-</u>

[/]media/Files/Electricity/NEM/Retail_and_Metering/B2B/B2B-eHub-Accreditation.pdf



B2B e-Hub accreditation

All parties that wish to use the B2B e-Hub must become accredited as a B2B e-Hub Participant.

Part of the e-Hub accreditation process involves a self-certification process that is used to provide assurance to NEM participants that messages/transactions will be correctly created, prepared, sent and received, to and from the B2B e-hub.

The B2B e-Hub Accreditation and Revocation Process details the B2B e-Hub communication options and the accreditation process applicants must follow to become accredited. ⁴⁰

4.3.2 Registration

To participate in the NEM, applicants must register as a NEM participant with AEMO. To maintain the integrity and security of the markets that it operates, AEMO undertakes a comprehensive registration process, requiring applicants to familiarise themselves with the applicable rules and procedures and provide adequate information and documentation.

Under the POC rule changes that are relevant to this Market Readiness Strategy, a Metering Coordinator will be required to register with AEMO and will become a Registered Participant as defined under the Rules upon the successful completion of the registration process. As noted in section 4.3.1, Embedded Network Managers and B2B e-Hub Participants, on the other hand, will need to undergo accreditation in accordance with a process to be established by AEMO – which will result in them being registered with AEMO and deemed to be Registered Participants for some clauses of the Rules (e.g. third party B2B participants will be deemed to be Registered Participants for the purpose of recovering B2B related participant fees).

4.3.3 Industry Accreditation and Registration Plan

AEMO will develop an Accreditation and Registration Plan that will outline the process and timelines for how NEM participants will undertake accreditation and registration activities, including:

- Approach and timeline to develop the Industry Accreditation and Registration Plan;
- A summary of accreditation and registration requirements for each NEM participant;
- · Key dates and milestones during the accreditation and registration phase; and
- Reporting and monitoring during the accreditation and registration phase.

4.4 Phase 4 – Industry transition and cutover

4.4.1 Industry transition and cutover

Industry transition and cutover refers to how AEMO and NEM participants' existing systems will be managed during the transition and cutover period for the POC Implementation Program, including:

- The transition approach and timelines;
- The cutover process and timelines;
- Contingency planning activities;
- Post "go-live" transition to business-as-usual operations; and
- Reporting and communication processes.

To progress the above matters, including developing the Transition and Cutover Plan described below, AEMO may establish a Transition and Cutover Working Group. Subject to the transition approach that is developed, transition and cutover may occur in the four weeks leading up to the "go-live" date.

⁴⁰ See AEMO website: http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Business-to-business-procedures



4.4.2 Industry Transition and Cutover Plan

The Industry Transition and Cutover Plan for AEMO and NEM participants will include:

- Approach and timeframe to develop the Transition and Cutover Plan;
- Transition principles and approach (e.g. management of inflight transactions at transition date);
- Key activities and timelines;
- Communication processes and protocols;
- Cutover process and timelines; and
- Detail on activities that will occur in the post "go-live" heightened support period (see Phase 6).

Refer to the Industry Transition and Cutover Plan for full details on the process and timelines for how the industry will undertake transition and cutover activities.⁴¹

4.4.3 Industry Contingency Plan

The Industry Contingency Plan is detailed in Appendix B. This plan was developed by the POC Contingency Planning Working Group (POC-CPWG) and outlines a list of scenarios, including triggers and actions, that may occur prior to and during the transition and cutover period. Importantly, this covers only industry contingency planning scenarios, and does not remove the necessity for individual organisations to develop and maintain their own internal contingency plans.

4.5 Phase 5 – Confirmation of operational preparedness for "go-live"

4.5.1 AEMO to confirm its operational readiness for "go-live"

The scheduled "go-live" date for the POC reforms is 1 December 2017. This date is written into the Rules as a result of rule changes made by the AEMC. Currently, AEMO, the Information Exchange Committee (IEC) and industry are developing and amending procedures and systems to support the new market arrangements.

AEMO is expected to confirm its operational preparedness for "go-live" on the start date for the new procedural arrangements in late-October / early-November 2017. This conformation will be informed by a variety of information sources, including but not limited to, AEMO and NEM participants' readiness status reports and the IEC's updated B2B Procedures.

4.5.2 Readiness criteria for "go-live"

AEMO will employ a risk-based assessment process to ascertain whether AEMO and NEM participants are ready to "go-live" on 1 December 2017. Readiness criteria, along with reporting metrics and target levels, will be used to provide a standardised basis for monitoring the overall state of industry readiness.

These readiness criteria will cover the following areas:

- Assessment and preparation (e.g. implementation plans in place);
- Legal, regulatory, contractual and policy (e.g. updated procedures published, registration and accreditation activities completed);
- People (e.g. operational roles identified and staff trained);

⁴¹ Refer the POC-ITCFG section on the AEMO website for a copy of the plan: http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Power-of-Choice/Readiness-Work-Stream/Industry-Transition-Cutover-Focus-Group



- Business processes (e.g. business processes updated and validated in industry testing);
- Market systems (e.g. market systems developed and tested); and
- Transition planning (e.g. transition and cutover plans in place).

The readiness criteria and associated metrics and targets will be finalised by AEMO, in collaboration with industry, in the Industry Readiness Reporting Plan by October 2016.

The assessment process will include consideration of the risk posed to the market as a whole, if any of the readiness criteria remain incomplete, and the mitigation strategies that are in place to limit such risk. In assessing the above readiness criteria, AEMO will be informed by a variety of information, including:

- Industry testing reports;
- Advice from other POC working groups / work streams (e.g. POC Procedures Working Group);
- Readiness assessment reports of AEMO and NEM participants;
- Other readiness reports, including current issues and risks and forecast expected state at "go-live";
- · Expected risks after "go-live" and associated mitigation strategies; and
- Expected risks associated with contingency plans where "go-live" on the scheduled date is at risk.

4.6 Phase 6 – Post "go-live" heightened support

Post "go-live", AEMO will provide NEM participants with a period of heightened support as the market transitions to business-as-usual operations.

Initially, this is likely to entail daily meetings with AEMO immediately after "go-live", after which meetings would taper-off (weekly, fortnightly) until NEM participants agree they are no longer required. The support period is expected to last up to three months, after which support will return to baseline levels.

The Transition and Cutover Plan, which AEMO will develop in collaboration with industry, will detail how the post "go-live" heightened support period will operate, and how the transition to business-as-usual operations will occur.



5. STAKEHOLDER ENGAGEMENT ACTIVITIES

This chapter overviews how AEMO and NEM participants will engage on market readiness matters throughout the POC Implementation Program.

5.1 POC Readiness Working Group

Throughout the POC Implementation Program, AEMO will facilitate working groups and workshops, as required. For example, AEMO's POC Procedures Working Group exists for matters considered under the Procedure Development work stream. The same approach will be taken for the Market Readiness work stream. That is, AEMO will facilitate market readiness working groups and workshops, as required, to discuss matters such as industry testing, transition and cutover, and post "go-live" support. AEMO will chair these groups, which are expected to comprise coordination leads and subject matter experts from AEMO and NEM participants.

The overarching working group for market readiness matters is AEMO's POC Readiness Working Group (POC-RWG). Comprising one representative from AEMO (Chair), each registered market participant, and any interested POC stakeholders, the POC-RWG provides an opportunity for all impacted participants to contribute to the development, planning and conduct of key market readiness related activities and deliverables, including those set out in the Market Readiness Strategy (such as industry testing). The POC-RWG held its first meeting on 5 August 2016.⁴²

The POC-RWG is a project-specific working group under the management oversight of AEMO's POC Program Consultative Forum (see section 5.2.4). The POC-RWG's terms of reference require it to:

- Contribute to the development of key market readiness planning deliverables, including the:
 - Market Readiness Strategy.
 - Industry Readiness Reporting Plan.
 - Industry Testing Strategy and associated Test Plans.
 - Industry Transition and Cutover Plan.
 - Industry Accreditation and Registration Plan.
- Contribute to the coordination of detailed activities to be delivered and set out in the above plans.
- Review periodic reports on the progress of market readiness activities for industry as a whole.
- Identification of market readiness related risks and issues in the lead up to the POC "go-live" date and developing mitigation strategies, as appropriate.

The POC-RWG also provides an opportunity for industry to discuss external dependencies and other readiness related matters that are outside the scope of the Market Readiness Strategy, but relevant to one or more participants' operational readiness for the POC "go-live" date. On such matters, it is expected that the affected participant(s) will lead the discussion and highlight issues using specific examples. With prior notification to AEMO, discussion items can be added to meeting agendas and discussion time allocated. It is noted that while discussion may serve to highlight issues, it is likely that the POC-RWG will not be the appropriate forum in which these issues can be resolved (e.g. the post-discussion action may be for the affected participant(s) to further engage on the matter in the appropriate forum or process external to AEMO).

5.2 Engaging with other forums and committees

POC program stakeholder interactions are represented schematically in Figure 1, and include:

⁴² The terms of reference for the POC Readiness Working Group was emailed by AEMO to its POC stakeholder distribution list on 15 July 2016, and will also be made available from the POC section of AEMO's websitehttp://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Power-of-Choice/Readiness-Work-Stream/Power-of-Choice-Readiness-Working-Group.



- A decision layer Under the Rules, the Information Exchange Committee (see section 5.2.1) is responsible for making recommendations to AEMO on changes to the B2B Procedures, and AEMO is responsible for making decisions on the B2M Procedures, following industry consultation.
- An information layer This comprises the POC Executive Forum (see section 5.2.2) and Retail Market Consultative Forum (see section 5.2.3).
- A management layer This comprises the POC Program Consultative Forum (see section 5.2.4).
- An implementation layer This comprises multiple POC working groups (such as those created for the Procedural, Technical and Market Readiness work streams (see section 5.1)), and IEC working groups (such as the POC B2B Working Group (see section 5.2.5)).

High-level information on some of the above forums and committees is provided below.

5.2.1 Information Exchange Committee

The Information Exchange Committee (IEC) is the decision making body responsible for B2B NEM retail market procedures and transactions. It has responsibilities specifically defined in the Rules related to the approval of B2B procedures. AEMO will work with the IEC to obtain its formal endorsement of any changes to B2B Procedures, and relay any relevant issues and comments back to the POC-RWG, as required.

5.2.2 POC Executive Forum

AEMO has established a POC Executive Forum to provide information updates and to facilitate discussion among executive-level representatives of interested organisations during the POC Implementation Program. The Forum complements existing forums and working groups, including the Retail Market Consultative Forum (see below), and operates in parallel with the IEC (see above). To ensure a coordinated approach to market readiness planning, AEMO will engage with the POC Executive Forum, providing regular updates on market readiness matters and input to discussions, as well as relay any relevant issues and comments back to the POC-RWG, as required.

5.2.3 Retail Market Consultative Forum

The Retail Market Consultative Forum (RMCF), while not a decision making body, exists to enable effective and efficient information sharing between AEMO, interested and affected organisations and stakeholders on the development and operation of retail markets. AEMO will provide regular updates to the RMCF on readiness matters, as well as relay any relevant issues and comments back to the POC-RWG, as required.

5.2.4 POC Program Consultative Forum

AEMO has established a POC Program Consultative Forum.⁴³ The Forum is expected to support the planning and mobilisation of all delivery stages of the POC Implementation Program, as well as quality-assuring relevant documentation, monitoring "go-live" risks and issues, and resolving any issues escalated from the supporting POC work stream working groups. To ensure a coordinated approach to market readiness planning, AEMO will engage with the POC Program Consultative Forum, providing regular updates on market readiness matters and input to discussions, as well as relay any relevant issues and comments back to the POC-RWG, as required.

⁴³ A terms of reference for the POC Program Consultative Forum was emailed to the POC stakeholder distribution list on 6 July 2016, and will also be made available from the POC section of AEMO's website, <u>http://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/Power-of-Choice</u>.



5.2.5 POC Business-to-Business Working Group

AEMO established a POC Business-to-Business Working Group (B2B-WG) in August 2016.⁴⁴ To support the development of necessary revisions to the B2B Procedures prior to establishment of the reconstituted IEC, AEMO and industry will develop draft B2B Procedures by 31 December 2016 for public consultation, with a view to finalising the B2B Procedures by 1 March 2017. This work is being led by the POC B2B-WG, which will become a formal working group of the new IEC once established. To ensure a coordinated approach to market readiness planning, the POC-RWG will be kept informed of key developments arising from B2B-WG meetings.

⁴⁴ A terms of reference for the POC Business-to-Business Working Group was emailed to the POC stakeholder distribution list on 11 July 2016, and will also be made available from the POC section of AEMO's website, <u>http://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-andworking-groups/Retail-meetings/Power-of-Choice.</u>





Figure 1 – Program Stakeholder Interactions (as at 1 June 2016)





5.3 How to raise readiness matters with AEMO

In accordance with market readiness principle #5, when raising a readiness issue or risk with AEMO, NEM participants are requested to communicate the matter in writing using the template developed by AEMO, via email to the PoC inbox (poc@aemo.com.au).⁴⁵ An overview of the risk and issue management process is set out in Figure 2 below.

The following information is to be included in the email:

- A brief description of the matter;
- The likely consequences if the matter were to occur;
- The likely affected parties;
- Materiality of the matter in terms of time and cost;
- Criticality of the matter in terms of risk to "go-live" occurring on the scheduled date;
- A description of the mitigation strategy that is in place; and
- Your contact details and organisation.

In response, AEMO will contact the relevant NEM participant to discuss the matter. Additionally, AEMO will communicate any industry relevant issues in the appropriate forum, subject to any confidentiality considerations.

Figure 2 – Overview of Risk and Issue Management Process



Industry Risk and Issue Management

⁴⁵ A template for logging risks or issues in the POC Risk and Issues Register will be made available from the POC section on AEMO's website, <u>http://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/Power-of-Choice</u>. For further information, see Chapter 6 (Risk & Issue Register) of AEMO document, "POC Implementation Program – Industry Plan: Risk & Issue Management".



6. REPORTING AND MONITORING PROCESSES

AEMO and NEM participants will be expected to prepare regular reports on the status of their market readiness activities. These reports are described below. Reporting is expected to commence from November 2016.

6.1 Reporting by NEM participants and AEMO

6.1.1 Readiness Assessment Report

AEMO will provide each NEM participant with a common template to facilitate the preparation of their own Readiness Assessment Report. The Readiness Assessment Report will be finalised by AEMO, in collaboration with industry, in the Industry Readiness Reporting Plan by October 2016.

Each NEM participant, as well as AEMO, will be expected to prepare their own Readiness Assessment Report on a monthly frequency.

The first report, to be emailed to AEMO via the POC mailbox (poc@aemo.com.au), is expected to be due around mid-November 2016. AEMO will then aggregate the information contained in all Readiness Assessment Reports to produce a single Market Readiness Report (as described in section 6.2) which, in turn, can be discussed in industry forums, as appropriate.

Reporting will rely on a self-assessment of readiness by each NEM participant. That is, AEMO will not be validating the accuracy of information submitted in participants' Readiness Assessment Reports prior to the creation of the aggregated Market Readiness Report.

Both "traffic light" and "percentage-based" progress reporting against each key readiness criteria will be used in the Readiness Assessment Reports, as per below:

- Green Activity is within schedule / is meeting deliverable requirements;
- Amber Activity is at risk of not being within schedule / not meeting deliverable requirements, and therefore corrective action may be required (n.b. in your report, please include an explanation of the variance and any mitigating actions that are required to return the activity to schedule);
- Red Activity is not within schedule / is not meeting deliverable requirements, and therefore immediate corrective action is required (n.b. in your report, please include an explanation of the variance and any mitigating actions that are required to return the activity to schedule); and
- Progress 0% (not started), 25% complete, 50% complete, 75% complete, 100% (completed).

The Readiness Assessment Report will also be used to report on NEM participants' open risks and issues, including overall project risk rating, risk status, and mitigating actions.

Please note that as NEM participants' Readiness Assessment Reports will be aggregated into AEMO's Market Readiness Report and made available to other working groups/forums and key stakeholders via AEMO's website, NEM participants should not include confidential information in their reports. Any confidential information should be provided to AEMO as per the process detailed in section 5.3.

6.1.2 Other reporting

Overall market readiness will also be informed by the progress and outcomes of industry testing, providing insights into the performance of industry-wide systems and cross-industry processes. The Industry Testing Strategy and associated Test Plans will detail the reports that AEMO will provide during the industry testing period.

At nominated times, AEMO may also request NEM participants to provide additional information on their readiness, such as their predicted readiness status on a future date.



6.2 Aggregated reporting by AEMO

6.2.1 Market Readiness Report

Aggregated reporting of market readiness will take place via AEMO's Market Readiness Report. This report will summarise overall industry progress (i.e. AEMO and NEM participants) against key project readiness criteria, in an easy-to-read dashboard format, using visual keys such as those shown below.

Current progress		Current readiness status					
100% (completed)		Harvey balls (left) represent progress towards achieving the criteric Colour (below right) indicates the readiness status.					
~75%	θ						
~50%	\bigcirc	Criterion is within agreed schedule and deliverable requirements (green).					
~25%	٢	Criterion is at risk of not meeting requirements and corrective action may be required (amber).	\bigcirc				
0% (not started)	0	Criterion not meeting requirements. Immediate corrective action required (red).					

Table 3 – Readiness indicator key

AEMO will create the Market Readiness Report on a monthly frequency, with the first report expected to be created in late November 2016, after receipt of NEM participants' and AEMO's organisational level Readiness Assessment Reports.

AEMO will distribute the Market Readiness Reports to the POC Readiness Working Group as part of the meeting pack for review and discussion with industry at its next scheduled meeting.

As noted in the previous section, AEMO's Market Readiness Report will also be made available to other working groups/forums and key stakeholders via AEMO's website. Accordingly, NEM participants should not include confidential information in their Readiness Assessment Reports. Any confidential information should be provided to AEMO as per the process detailed in section 5.3.

6.2.2 Readiness metrics

AEMO will report on several industry-wide readiness criteria in the Market Readiness Report. The Report will detail the current status of these readiness criteria, together with an analysis of:

- Actual and potential gaps;
- Remedial action being taken to address these gaps;
- Risks to market operation if the gap is not remedied; and
- Potential mitigation of these risks.

6.2.3 Reporting to the AEMO Board

AEMO will utilise the Market Readiness Reports, among other information, to provide regular updates to the AEMO Board on the progress of market readiness activities and industry's readiness for "go-live" on 1 December 2017.



7. PARTICIPANT INFORMATION SESSIONS

Provided below is an overview of the information sessions that AEMO has planned for NEM participants under this Market Readiness Strategy.

AEMO will develop the contents and specific timing of the information sessions with NEM participants after discussions have taken place regarding their needs. Further, AEMO will facilitate the delivery of any additional information sessions where identified during the course of the implementation program.

Key activities to be performed by AEMO include:

- Scope information sessions with NEM participants' based on their needs;
- Develop presentation materials for the information sessions;
- Deliver the information sessions to NEM participants; and
- Develop and disseminate supporting industry publications to NEM participants.

7.1 Overview of POC key obligations

With general expertise staff in mind, AEMO will host one (1) half-day information session for interested NEM participants on the new and revised regulatory obligations under the POC Rules, Procedures and Guidelines. The aim of the presentation would be to increase participants' general awareness of their obligations under the POC reforms. AEMO will also make the presentation slides available to NEM participants should they wish to incorporate them as part of their own in-house training program.

7.2 Detailed walk-throughs of POC key obligations

With technical/subject matter experts in mind, AEMO will host three (3) half-day information sessions to walk through the POC rule and procedure changes for:

- Expanding competition in metering, including meter replacement processes;
- Embedded networks; and
- Updating the electricity B2B framework / Shared Market Protocol.

The emphasis will be on NEM participants' regulatory obligations (e.g. what currently happens; what is changing; what stays the same; where to get more information).

As technical/subject matter experts are likely to have some knowledge of the POC changes, the aim of the information sessions would be to refresh NEM participants' knowledge of their obligations under the new market arrangements, as well as to confirm/clarify the operational details of high-level processes that have not been defined previously.

7.3 Overview of industry testing processes

With technical/subject matter experts in mind, AEMO will host one (1) half-day information session to overview its processes for industry testing, providing NEM participants with a forum in which to ask questions in preparation for the start of these processes.

7.4 **Overview of accreditation and registration processes**

With operational/subject matter experts in mind, AEMO will host one (1) half-day information session to overview its processes for accreditation and registration, providing NEM participants with a forum in which to ask questions in preparation for the start of these processes.



7.5 Overview of industry transition and cutover plan

With operational/subject matter experts in mind, AEMO will host one (1) half-day information session in October 2017 to outline key details in the final version of the POC Industry Transition and Cutover Plan.











APPENDIX B. INDUSTRY CONTINGENCY PLAN

Ref#	Scenario Description	Likelihood (High/Med/Low)	Impact (High/Med/Low)	Priority	Theme	Trigger(s)	Action(s)	Accountability	Notes
S01	RoLR event occurs during systems cutover period (30 Nov – 4 Dec)	Low	Low	Low	Market Settlements	AER declares RoLR event between 30 Nov to 4 Dec	 RoLR communications will follow standard protocols and will also be sent to nominated industry contacts as per the Industry Transition and Cutover Plan. AEMO to perform AEMO NEM RoLR processes when AEMO systems are implemented and all AEMO transition and cutover activities have been completed. Participants to perform participant RoLR processes once they have completed all participant BCT and participant transition and cutover activities and are ready to operate as BAU. 	AER/AEMO/ Retailers/MDPs	Reference: NEM RoLR Processes: Part A and Part B (version 1.4), published on 6 March 2017, as part of the final determination for the NER consultation relating to B2B Procedure Changes
S02	RoLR event occurs during the transition period 14 business days prior to commencement of systems cutover	Low	Medium – will affect preparation activities for systems cutover	Medium	Market Settlements	AER declares RoLR event 14 business days prior to the commencement of cutover.	 AEMO to undertake heighted prudential checks at least 14 days prior to the commencement of systems cutover activities. AEMO and Participants follow existing NEM RoLR processes. RoLR communications will follow standard protocols and will also be sent to nominated industry contacts as per the Industry Transition and Cutover Plan. Participants to assess whether all of their tasks will be completed by timeframes stipulated in the RoLR procedures, taking into account that they may have to stop and start a process during cutover. 	AER/AEMO/ Retailers/MDPs	References: NEM RoLR Processes: Part A and Part B (version 1.4) POC Industry Transition and Cutover Plan





Ref#	Scenario Description	Likelihood	Impact	Priority	Theme	Trigger(s)	Action(s)	Accountability	Notes
		(High/Med/Low)	(High/Med/Low)						
							8. If participants believe that they can't meet prescribed timeframes then they will need to make a decision to self-report to the AER and apply for a letter of no action.		
S03	Natural disaster or emergency event occurs during the transition and cutover period (e.g. flood, bushfire, cyclone, system black event) Refer to scenario 6 if Distributor systems are not available after cutover.	Low	Medium/High – higher likelihood in QLD as cutover occurs during to storm/cyclone season	Medium	Emergency Management	Emergency event declared by Government Emergency or risk of a potential emergency declared by LNSP	 Distributors to monitor weather reports and make an impact assessment prior to the commencement of system cutover activities. Distributors to escalate concerns to ITCFG if they believe system cutover activities are at risk of being impacted by a pending weather event. If necessary, AEMO to convene an ITCFG meeting to discuss impact on industry transition and systems cutover plans. Participants to follow directions from AEMO and the NEM Emergency Management Forum in the event of a system black event. Distributors to confirm whether they will still be participating in the system cutover as per the current cutover schedule or advise of a new cutover schedule. Participants to follow relevant distributor's emergency management protocols. Participants to assess their own business impact of a Distributer not being available for a period of time and implement necessary measures. 	Distributors	The QLD Government may impose a mandatory systems freeze from 1 December onwards over the storm/cyclone period. This is not expected to impact Industry Transition and Cutover Plans Decision by the distributor may lead to scenario 8.





Ref#	Scenario Description	Likelihood (High/Med/Low)	Impact (High/Med/Low)	Priority	Theme	Trigger(s)	Action(s)	Accountability	Notes
S04	AEMO's systems fail to come back within the system cutover timeframe. AEMO systems may include: • MSATS – CATS • B2B • e-Hub • Data centres	Low	High	Medium	IT Systems	AEMO announces issue with a system and a delay will be required.	 AEMO implements contingency measures to bring system online as quickly as possible. AEMO communications will be in the form of Market Notices sent via email and SMS to previously nominated recipients. During the cutover period these communications will also be sent to nominated industry contacts nominated via the Industry Transition and Cutover Plan. AEMO initial communication will include a description of the issue, impact to participants and cutover schedule and estimated time of rectification. Participants to continue internal implementation and cutover activities, up until the point of establishing connection with AEMO's systems. AEMO to provide notification that participants can now connect to AEMO systems. 	AEMO	Reference: B2B Procedures Technical Delivery Specification, refer to contingency processes and steps
S05	One or more Retailers systems fail to come back within the cutover timeframe.	Medium	Low/Medium – impact will be greater if a tier 1 retailer's system can't cutover in time	Medium	IT Systems	Retailer(s) advise AEMO of issue with cutover and there will be a delay of implementation on their end.	 Retailer(s) sends Market Notice advising of systems failure and estimated timeframe of rectification Communication from Retailer/s to poc@aemo.com.au and AEMO's central coordination point as per the Industry Transition and Cutover Plan Assessment to be made around when/if Retailer needs to implement contingency measures. Retailer(s) implements their contingency measures 	Retailers	Reference: B2B Procedures Technical Delivery Specification, refer to contingency processes and steps





Ref#	Scenario Description	Likelihood (High/Med/Low)	Impact (High/Med/Low)	Priority	Theme	Trigger(s)	Action(s)	Accountability	Notes
							 5. Notifications required at actions 2 and 4. 6. Participants to assess their own business impact of a Retailer not being available for a period of time and implement necessary measures 		
S06	One or more Distributors systems fail to come back within the cutover timeframe	Medium	Medium/High	Medium	IT Systems	Distributor(s) advise AEMO of issue with cutover and there will be a delay of implementation on their end.	 Distributor(s) sends Market Notice advising of systems failure and estimated timeframe of rectification. Communication from Distributor(s) to poc@aemo.com.au and AEMO's central coordination point as per the Industry Transition and Cutover Plan. Assessment to be made around when/if Distributor needs to implement contingency measures. Distributor(s) implements their contingency measures Notifications required at actions 1, 2 and 4. Participants to assess their own business impact of a Distributer not being available for a period of time and implement necessary measures 	Distributors	Reference: B2B Procedures Technical Delivery Specification, refer to contingency processes and steps
S07	One or more Metering Coordinators' systems fail to come back within the cutover timeframe	Low/Medium	Low/Medium	Medium	IT Systems	MC advises AEMO of issue with cutover and there will be a delay of implementation on their end	 MC(s) sends Market Notice advising of systems failure and estimated timeframe of rectification. Communication from MC(s) to poc@aemo.com.au and AEMO's central coordination point as per the Industry Transition and Cutover Plan. 	MCs	Reference: B2B Procedures Technical Delivery Specification, refer to contingency processes and steps





Ref#	Scenario Description	Likelihood (High/Med/Low)	Impact (High/Med/Low)	Priority	Theme	Trigger(s)	Action(s)	Accountability	Notes
							 Assessment to be made around when/if MC needs to implement contingency measures. 		
							 MC(s) implements their contingency measures 		
							5. Notification required actions 1, 2 and 4.		
							 Participants to assess their own business impact of a MC not being available for a period of time and implement necessary measures 		
S08	One or more Metering Data Providers' systems fail to come back within the cutover timeframe	Low	High	Medium	IT Systems	MDP advises AEMO of issue with cutover and there will be a delay of implementation on their end	1. MDP sends Market Notice advising of systems failure and estimated timeframe of rectification	MDPs	Reference: B2B Procedures Technical Delivery Specification, refer to contingency processes and steps
							 Communication from MDP(s) to poc@aemo.com.au and AEMO's central coordination point as per the Industry Transition and Cutover Plan 		
							 Assessment to be made around when/if MDP needs to implement contingency measures. 		
							 MDP(s) implement their contingency measures 		
							5. Notifications required at actions 1, 2 and 4.		
							 Participants to assess their own business impact of a MDP not being available for a period of time and implement necessary measures 		