

NEM2025 Program Industry Readiness Approach

SCADA Lite
July 2024



Document contents and version control

#	Contents	Slide Number
1	Purpose of Initiative Readiness Approach	3
2	Participant Impact Assessment	4-5
3	NEM Reform Initiative Readiness Approach Framework	6
4	Readiness Approach for SCADA Lite	7
5	Initiative Readiness Criteria	8
6	Pilot Test	9
7	Participant Development Support	10
9	Transition and Go-live	11
10	Readiness Reporting	12

#	Version	Date	Comments
1	Final version 1.0	19 July 2024	
2			
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Purpose of Initiative Readiness Approach

- To define the criteria against which go-live decisions will be made.
- Aligns to and supports the implementation approach defined for SCADA Lite:
 - AEMO Proof-of-Concept (POC) to confirm technology requirements for cloud-hosted virtualised end-point solution option followed by
 - Pilot Test with a selected industry participant to prove the service option and develop ‘how-to’ guideline to assist eligible participants with their implementation activities once SCADA Lite service option is available in production
 - 29 Jan 2025 Go-live
- The Readiness Approach, once endorsed, will form the basis of participant readiness activities in line with the principles in the [NEM 2025 Industry and Business Readiness Strategy](#).

Participant Impact Assessment

The SCADA Lite initiative introduces a new capability and service that will enable NEM non-NSP participants to establish a bi-directional connection to exchange telemetry and control information with AEMO using the DNP3.0 protocol to establish this connection. Note: protocol ICCP is currently supported.

The solution will support both cloud-hosted (major Australian cloud providers) and physical infrastructure based non-NSP Participant Intervening Facilities (endpoints).

SCADA Lite will be available to eligible participants for:

- DRSPs seeking to register a WDR unit with >5MW of WDR from a single site/aggregation who do not provide telemetry via an NSP. Refer [WDR Guidelines](#)
- IRPs and Generators seeking a transitional connection where their NSP does not support the service.

SCADA Lite: High-level impacts

The information presented here is general in nature. AEMO encourages industry participants to undertake their own due diligence to assess energy market reform impacts on their respective organisations.

AFFECTED TECHNOLOGY & PROCESSES	INDICATIVE PARTICIPANT CHANGE IMPACTS	AFFECTED PARTICIPANTS				
		IRP	GEN	DRSP	TNSP	DNSP
REGISTRATION	<ul style="list-style-type: none"> Required: DRSPs seeking to register >5MW of WDR from a single site/aggregation who do not provide telemetry via an NSP will require a SCADA lite connection Optional. IRPs or Generators seeking a transitional SCADA Lite connection where the NSP does not support the service. <p>MEDIUM</p> <ul style="list-style-type: none"> Provide required data and undergo required certification Direct annual fees for a SCADA Lite connection 	0	0	✓		
DISPATCH	<p>MEDIUM:</p> <ul style="list-style-type: none"> Optional - Operational systems could be upgraded to receive/respond to instruction signals from a SCADA Lite feed. 	0	0	0		
TECHNOLOGY	<p>MEDIUM for non-NSP participants:</p> <ul style="list-style-type: none"> Potential for new technology and hardware that will be required to enable the bidirectional communication link with AEMO to provide telemetry and optionally receive instruction signals. 	0	0	✓		

* Refer to [SCADA Lite Stakeholder Workshop Presentation – 23 August 2023](#) for technical overview

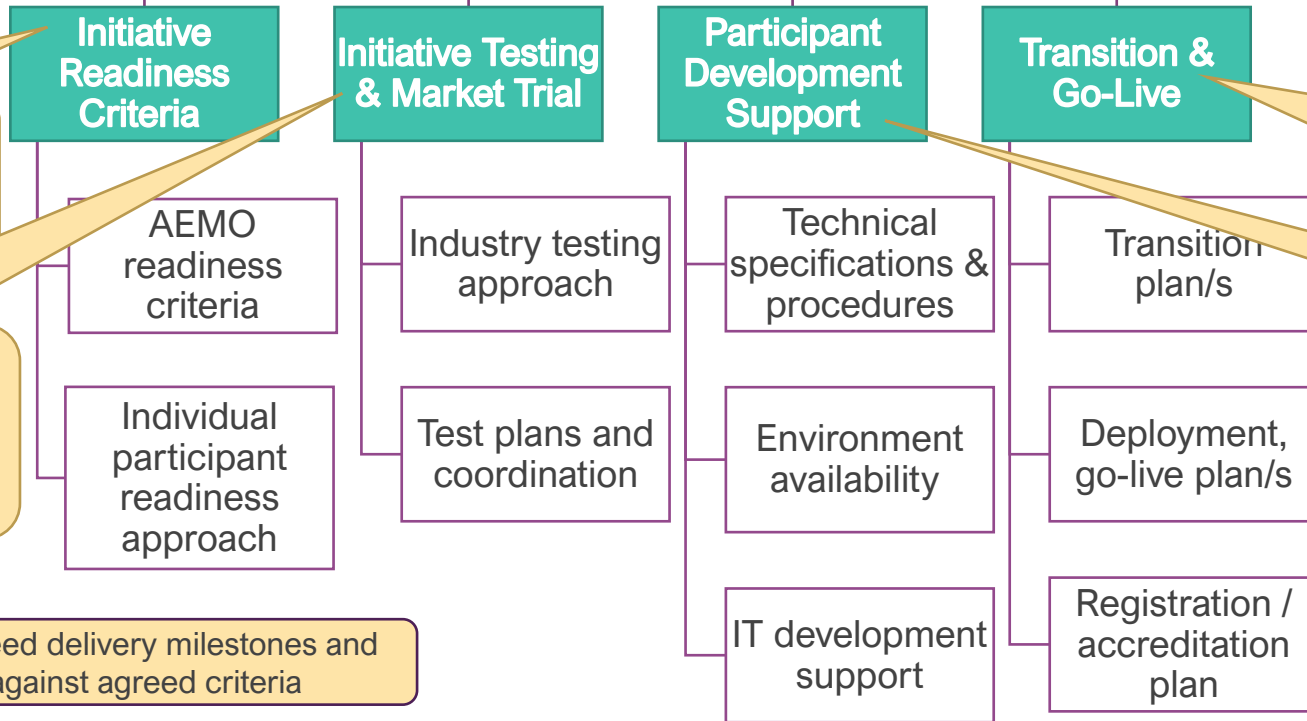
DRSP	Demand Response Service Provider
GEN	Scheduled Generators
IRP	Integrated Resource Providers

TNSP	Transmission network service provider
DNSP	Distribution network service provider

Context: NEM Reform program industry strategy

NEM REFORM READINESS STRATEGY (ALL INITIATIVES)

READINESS APPROACH FRAMEWORK



Readiness Criteria: Criteria against which the decision to implement the initiative will be made. Includes impact on ongoing NEM operation

Industry Test/Market Trial/Pilot: Agreed approach to support Participant testing of market processes impacted by initiative

Progressive management of agreed delivery milestones and checkpoints for evaluation against agreed criteria

Transition & Go-Live: Approach and management of transitional activities and Go-Live timings, dependencies and communication approaches

Participant Development Support: Approaches to provide impacted participants the information required for successful development and implantation of their required changes

Identification and management of Implementation risks and Agreed contingencies for the initiative

RISK & CONTINGENCY MANAGEMENT

INITIATIVE READINESS REPORTING & GO-LIVE CRITERIA MANAGEMENT

Context: NEM Reform program industry strategy

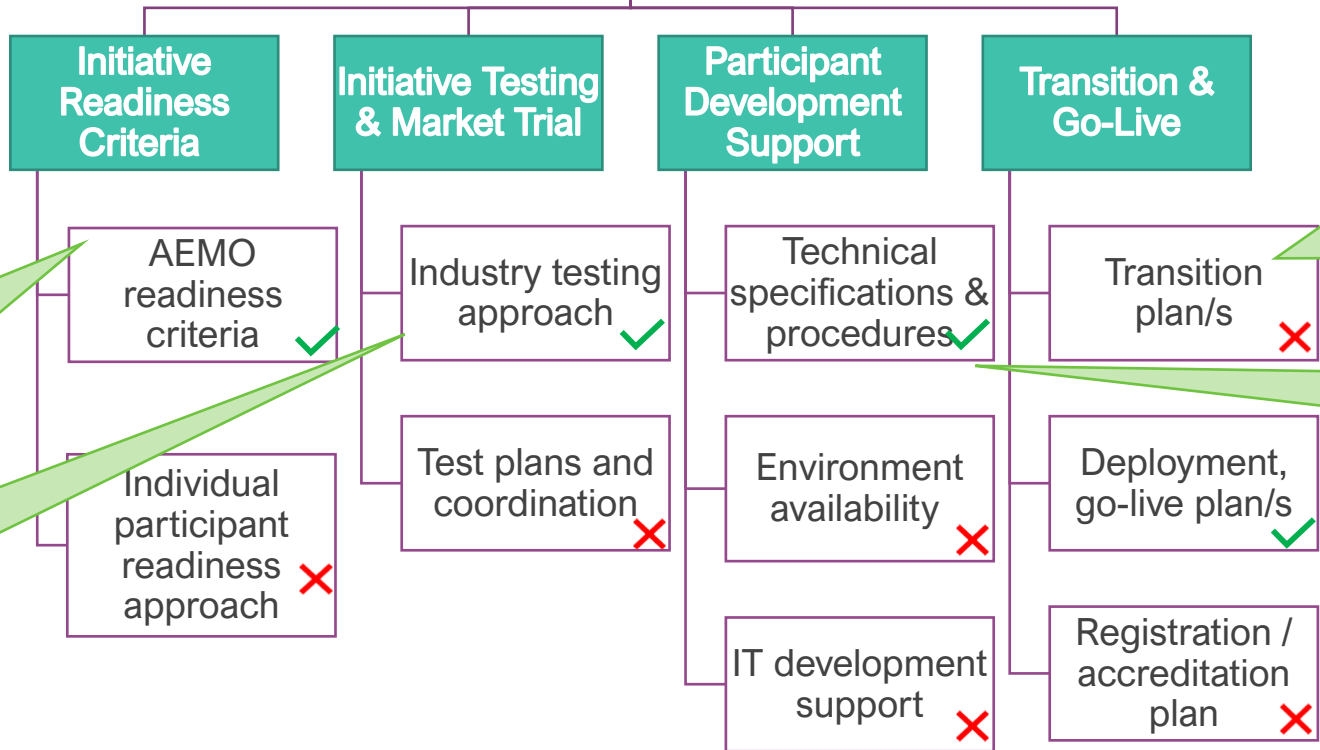
NEM REFORM READINESS STRATEGY (ALL INITIATIVES)

READINESS APPROACH for SCADA Lite

SCADA Lite readiness approach adopts the standard NEM Reform program framework

AEMO solution and business must be ready.

Pilot Testing with Individual Participant



Eligible participant engagement once service is live

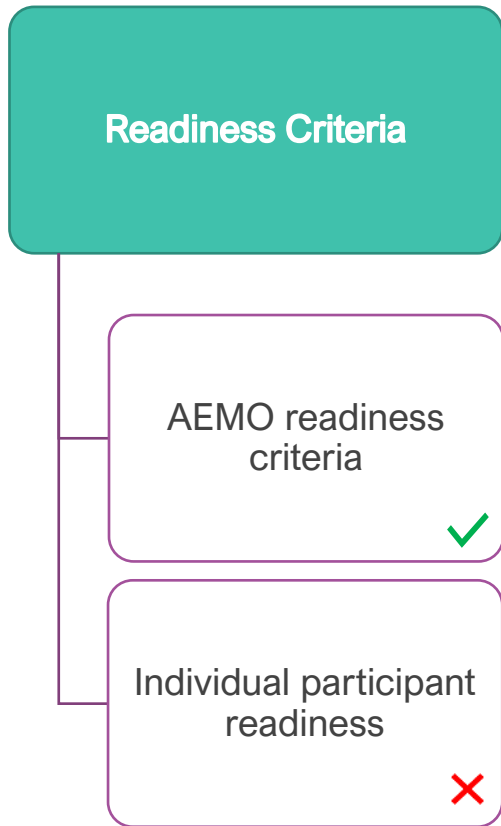
Technical "How-To" Guideline

Progress against milestones & checkpoints

RISK & CONTINGENCY MANAGEMENT ✓

INITIATIVE READINESS REPORTING & GO-LIVE CRITERIA MANAGEMENT ✓

SCADA Lite readiness approach: Initiative readiness criteria



INITIATIVE	<p>SCADA Lite Operations from 29 Jan 2025</p> <ul style="list-style-type: none"> • SCADA Lite go-live criteria will reflect Technical Readiness for go-live and AEMO preparedness to support the new service. • Participant readiness is not a criteria for go-live • Go-live criteria management will involve updates on progress of pilot to industry via PCF and Implementation Forums
AEMO READINESS	<p>AEMO technology and systems tested in-line with requirement to:</p> <ul style="list-style-type: none"> • Provide bi-directional telemetry and control signals between AEMO and Non-NSPs using DNP3.0 protocol for both physical and virtualised endpoint. <p>AEMO business operations and processes in place to support:</p> <ul style="list-style-type: none"> • Registration eligibility assessment • Invoicing of one-off and annual payment • New cloud-type network connectivity configuration <p>AEMO IT Operations ready to:</p> <ul style="list-style-type: none"> • Provide technical support for new service and connection type.
PARTICIPANT READINESS	<p>Participant readiness activity is not a dependency for go-live.</p> <ul style="list-style-type: none"> • AEMO does not propose to monitor participant readiness.
CONTINGENCY	Contingency approaches to be developed during implementation

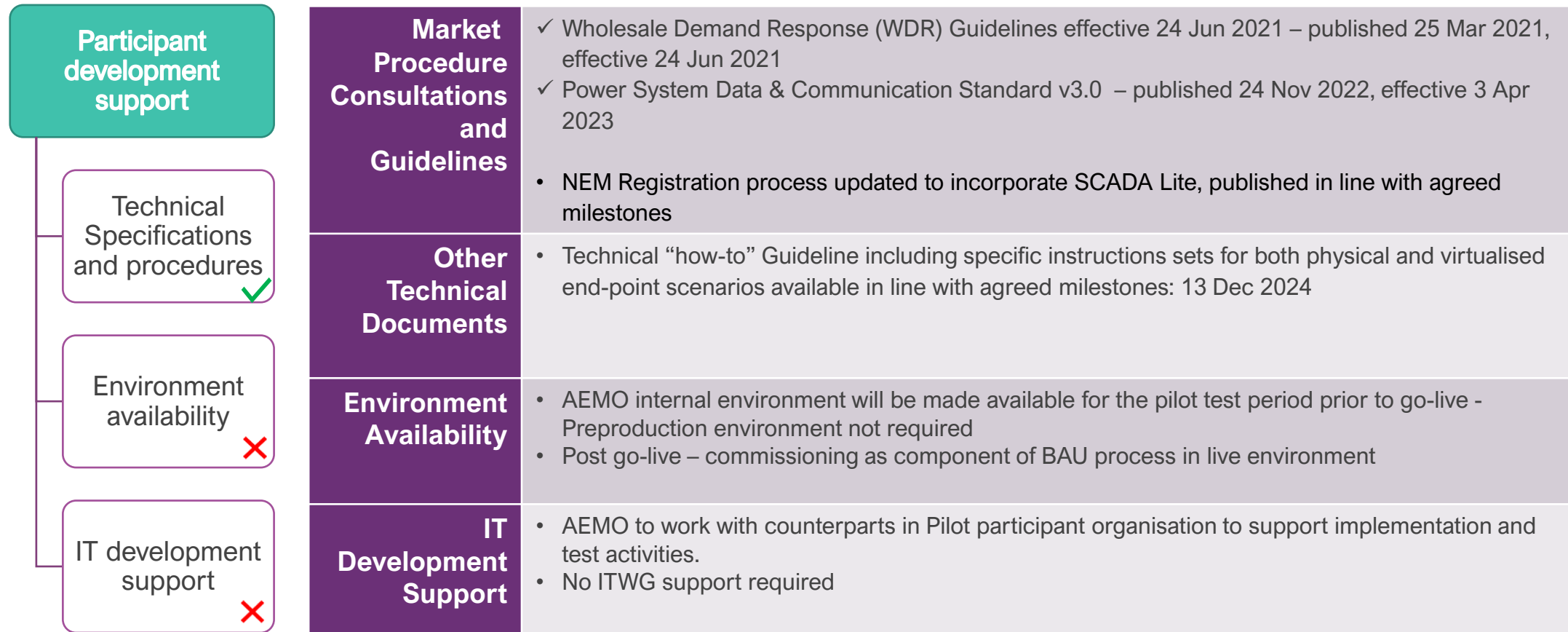
BAU / Registration process will manage applications and eligibility for service

SCADA Lite readiness approach: Pilot Test

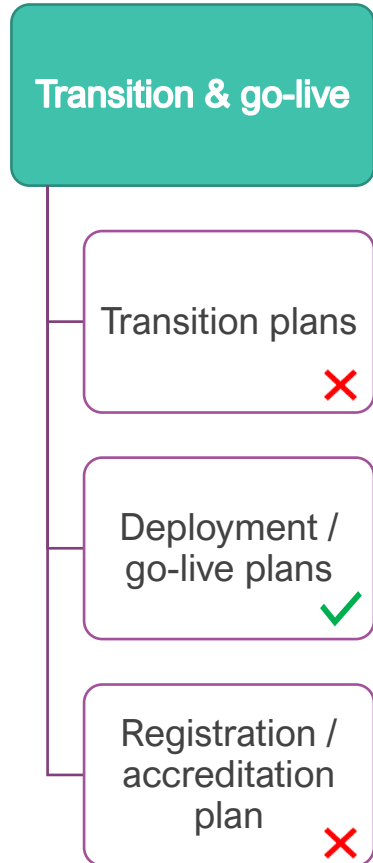


PILOT Testing prior to Production Release	
Pilot Test Period	<ul style="list-style-type: none"> • 14 Nov to 4 Dec 2024 • Duration 1 month
Industry Test Approach	<p>AEMO Industry test approach to partner with a selected participant to run a Pilot Test - post successful pilot, service will be available for commissioning:</p> <ul style="list-style-type: none"> • To prove successful exchange of telemetry data and control signals via cloud-hosted network connection • Specialist AEMO resources will interact with Pilot participant equivalent counterparts to facilitate implementation and testing • Approach and outcomes will be shared via Implementation forum • AEMO to make available to all eligible market participants after go-live
Test Plan	<ul style="list-style-type: none"> • Will be developed for pilot testing with individual participant

SCADA Lite readiness approach: Participant development support



FPP readiness approach: Transition and go-live



Transition Plans	<ul style="list-style-type: none"> No obligated transitional requirements. Establishment of SCADA Lite connection will become part of business-as-usual process.
Deployment / Go-live Plan	<p>Deployment / go-live plan for production release covering key cutover timeframes and communications will be needed for AEMO system deployment. Note, no real 'hypercare' as support will be provided via BAU process.</p> <p>Target publish date: 13 Dec 2024</p>
Registration	<ul style="list-style-type: none"> Eligible participants can register for the new service, for consideration by AEMO, after go-live as BAU process. Registration process will capture the additional data required to establish and commission the new connection.

SCADA Lite readiness approach: Readiness reporting etc

SCADA LITE READINESS REPORTING & GO-LIVE CRITERIA MANAGEMENT

Market readiness activities are intended to:

- 1) address readiness challenges and support the prudent implementation of NEM changes
- 2) safeguard the integrity of NEM processes across the various IT system go-lives or market starts, given the market's size, value, complexity and need for continuous operation.

Readiness reporting is used when there is a need for AEMO and industry to have an accurate assessment of industry's readiness for:

- system deployments,
- transitional activities, and/or
- rule commencements.

Propose that formalised Participant Readiness Reporting is not required.

Rationale:

- SCADA Lite service available to eligible participants post go-live

AEMO will report to industry:

- Progress against agreed L1/L2 milestones
- Checkpoints on go-live criteria:
 - prior to Pilot Test period – 29 Oct 2024
 - lead-up to implementation – 13 Dec 2024 1 month before go-live