



Government of **Western Australia**
Department of **Treasury**

Wholesale Electricity Market reform work program

Public Utilities Office /
Australian Energy Market Operator

Market Advisory Committee -
9 May 2018



AGENDA FOR TODAY

- Update on WEM Reform work program
- Discuss stakeholder engagement approach
- Discuss indicative timelines and milestones
- Discuss scope of priority areas

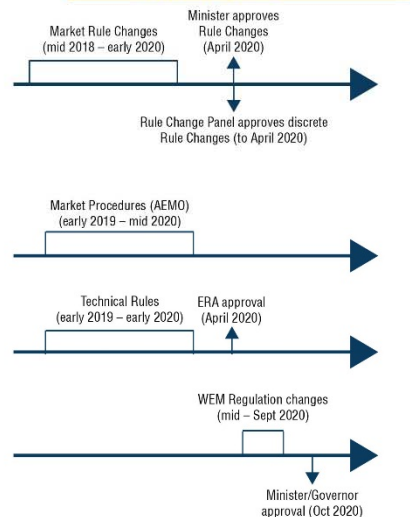
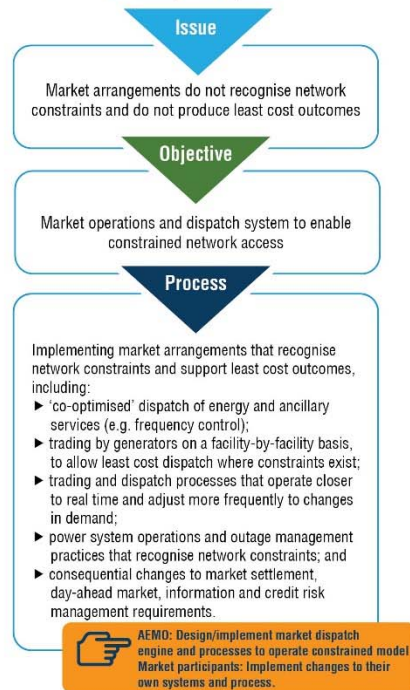
WEM REFORM PROGRAM

- The Minister for Energy has endorsed a work program for improvements to WEM operations to ensure:
 - efficient dispatch of energy and ancillary services, delivering least-cost electricity to customers;
 - system security and reliability arrangements can accommodate increased renewable energy generation and changes to electricity demand;
 - a more responsive capacity pricing regime, with clear signals for efficient entry and exit of capacity; and
 - an effective market power mitigation regime, limiting the potential for distortion of market outcomes to the detriment of electricity consumers.

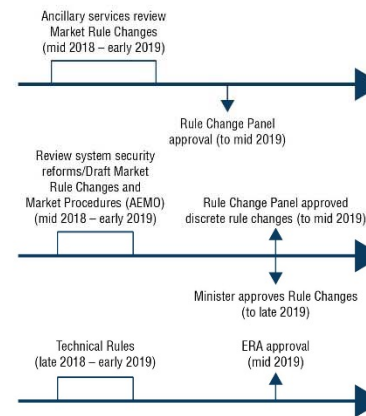
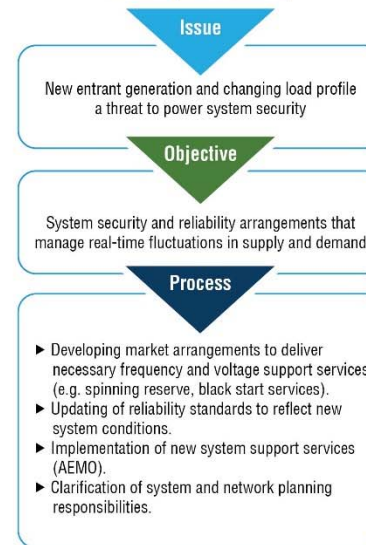
Reserve Capacity Pricing Review



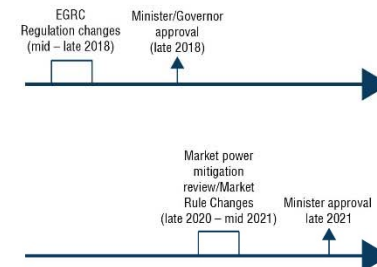
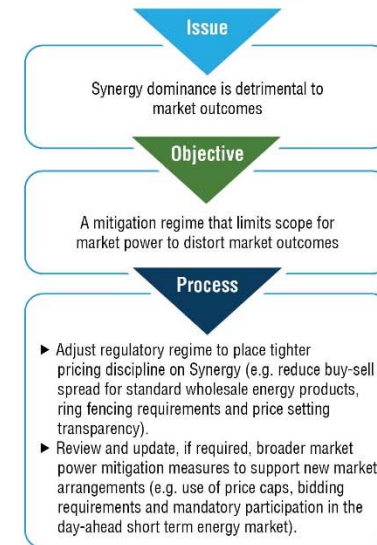
Security Constrained Market and Dispatch System



Power System Security



Market Power Mitigation



REFORM PROGRAM COORDINATION

WEM Reform Co-ordination Committee

- Executive Director, PUO (Chair)
 - AEMO Program Sponsor
- Executive Officer, Rule Change Panel
- Representative, Office of the Minister for Energy

- Role of the Committee:
 - monitor progress of reforms;
 - review release of design proposals and draft rules for consultation and provide guidance to enable design/drafting of new market arrangements
 - ensure co-ordination of amendments to Market Rules and other instruments; and
 - act as an escalation point for issues that cannot be resolved between PUO and AEMO.

STAKEHOLDER ENGAGEMENT

- Intention that there will be stakeholder engagement with WEM Reform Coordination Committee; these arrangements are to be determined
- Other stakeholder engagement and input will occur through:
 - Market Advisory Committee and associated working groups
 - AEMO Electricity Consultative Forum
 - release of design proposals, concept papers and exposure drafts
 - stakeholder meetings, forums and workshops as required

ESTABLISHMENT OF MAC WORKING GROUPS

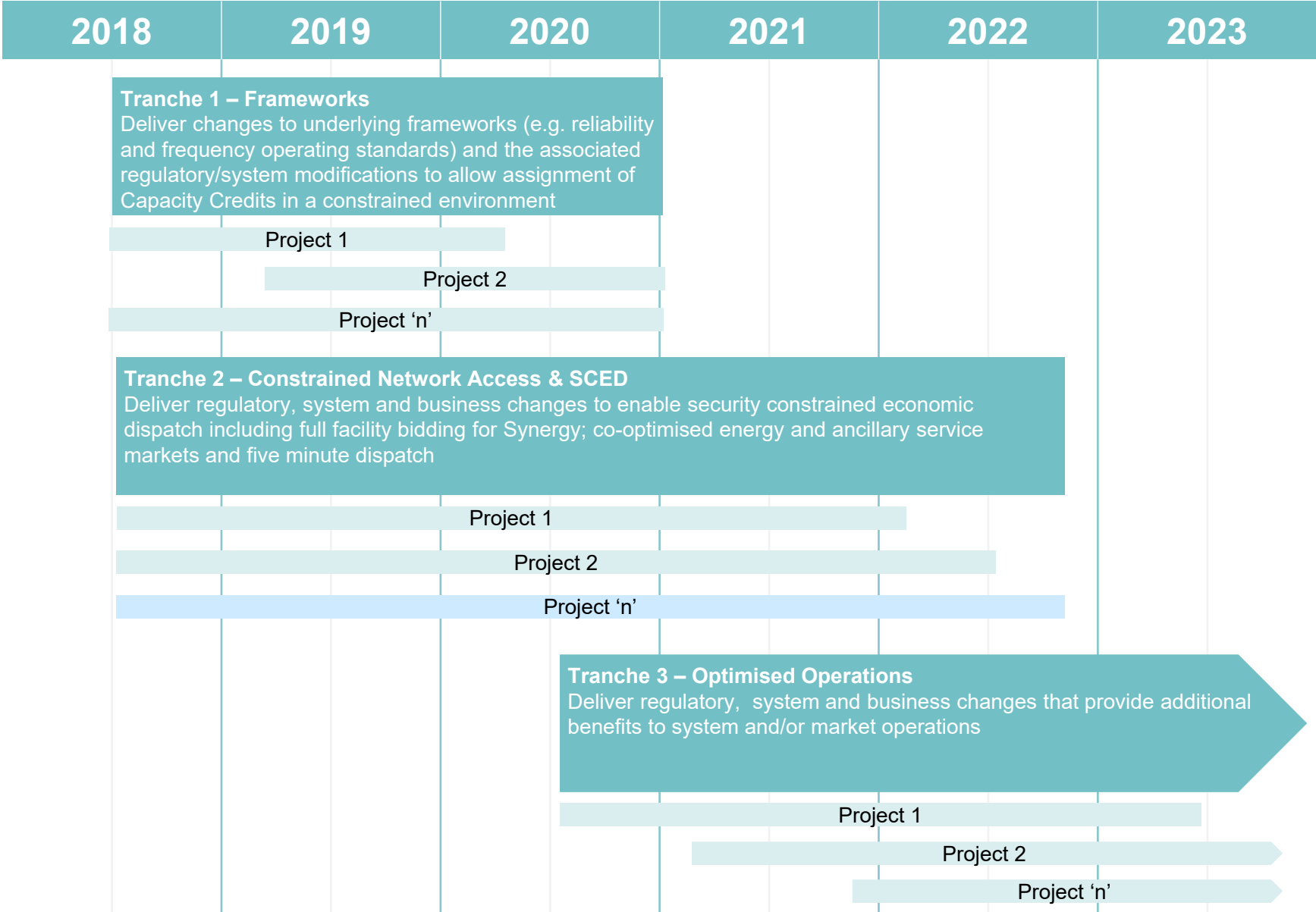
- PUO-AEMO propose two working groups (other suggestions are invited):
 - Market design;
 - Power system operations
- Each working group will have a terms of reference, scope of work, and timeline
- Working groups to assist with detailed design and technical matters
- Participation in working groups open to broader industry (not limited to MAC members)
- ToR to be circulated out of session for comment with plan for first workshops to take place in July 2018

INDUSTRY FEEDBACK ON WEM REFORM PROPOSALS

Reform proposal	Feedback
Security-constrained dispatch engine	General support; choice of dispatch engine should be dictated by policy design, not otherwise; should cater for future technologies and markets; consider replacing dispatch engine sooner
Competitive Ancillary Services markets	General support, consider transitional arrangements
Co-optimisation of energy and ancillary services	General support; more detail needed on how this works
Facility bidding	General support; costs and benefits should be examined; time required for implementation should be considered
Shorter dispatch intervals	Support; costs and implementation time for participants to be examined
Shorter gate closure	Support
Change to reference node	Some support; costs and benefits to various parties should be examined
Market power mitigation measures	Necessary to retain appropriate measures; examine if competition law provides adequate protection; more detail needed on SRMC
Improvements to power system security and reliability	Mentioned as important by some submitters

Detailed stakeholder consultation will take place on market design and technical operations₆

PHASED DELIVERY APPROACH



HIGH LEVEL TIMELINE

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Q3 2018
 Network access legislation tabled

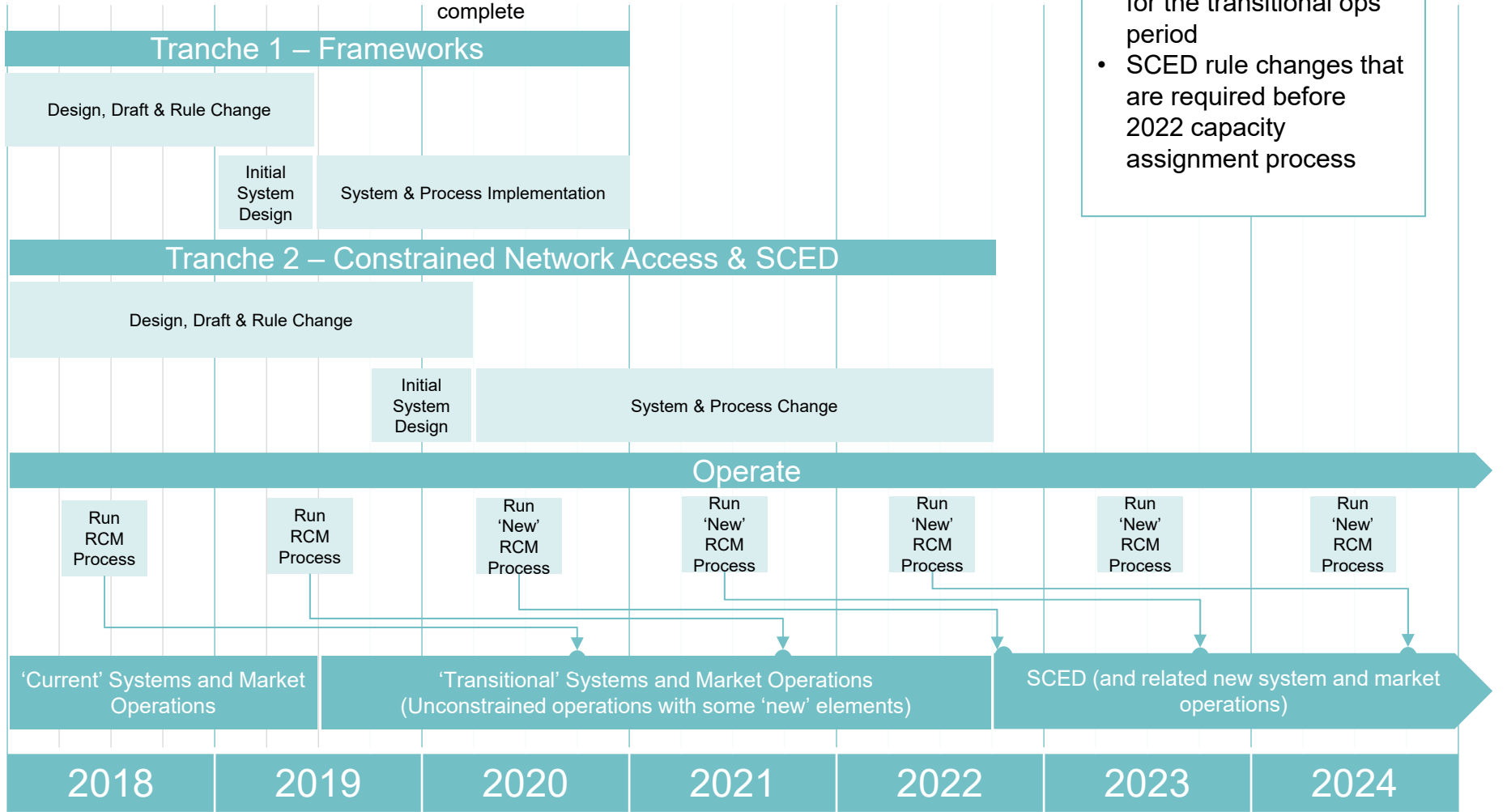
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Mid 2019
 Approved rule changes for RCM

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Q1 2020
 'Initial' RCM implementation and all SCED rule changes complete

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End 2020
 Foundation implementation completed

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Oct 2022
 Go Live - First interval of SCED

- For discussion**
- Rule changes that must be approved at the mid 2019 milestone
 - Changes that can/should be activated for the transitional ops period
 - SCED rule changes that are required before 2022 capacity assignment process



ANCILLARY SERVICES REVIEW

Issue and Case for Change

- Current framework cannot meet emerging challenges of changing load profile, asynchronous generation displacing synchronous generation
- Standards and requirements are poorly defined; which entity should procure which service is unclear

Objective

- Determine a fit-for-purpose Ancillary Services framework for WEM
- Identify the types of technologies WEM needs, and when, to address known issues and emerging challenges
- Recommend procurement strategies for the identified types of Ancillary Services (e.g. market and/or non-market) and who should procure them (e.g AEMO and/or network operator)

Scope and Approach

- An engineering approach to types of ancillary services required
- An economic approach to determine how best to procure these services
- Cost benefit analysis for proposed changes
- Transitional arrangements as required

POWER SYSTEM SECURITY & RELIABILITY IMPROVEMENTS

Issue and Case for Change

- The current framework for reliability and security were designed for a different system and market (e.g. Synergy portfolio, synchronous plant and unconstrained access)
- The current framework and role responsibilities are inconsistent and unclear in some areas – it is also spread across a number of regulatory instruments that don't always link well

Objective

- To revise the framework so that it provides clarity on the underlying requirements on relevant parties for secure and reliable operation of the system
- Provide the basis for broader market design including spot market and ancillary services, constraint definition, dispatch and interventions

Scope and Approach

- Review known issues (and outcomes of previous reform work) to consider what is required for a fit-for-purpose WEM approach
- Consider requirements for operating states framework; contingency event definitions; dedicated reliability standard and metrics; responsibilities of AEMO and other relevant parties
- Potential to implement some changes in advance of constrained access

NEXT STEPS

- WEM Reform Coordination Committee inaugural meeting (by early June)
- Stakeholder engagement plan; working group ToR; EOI for membership by early June
- Rule Change consultation for AEMO cost recovery
- Monthly status updates to MAC (incl indicative schedule of work packages)

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