



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

Wholesale Electricity Market reform work program

Public Utilities Office /
Australian Energy Market Operator

Market Advisory Committee
13 June 2018

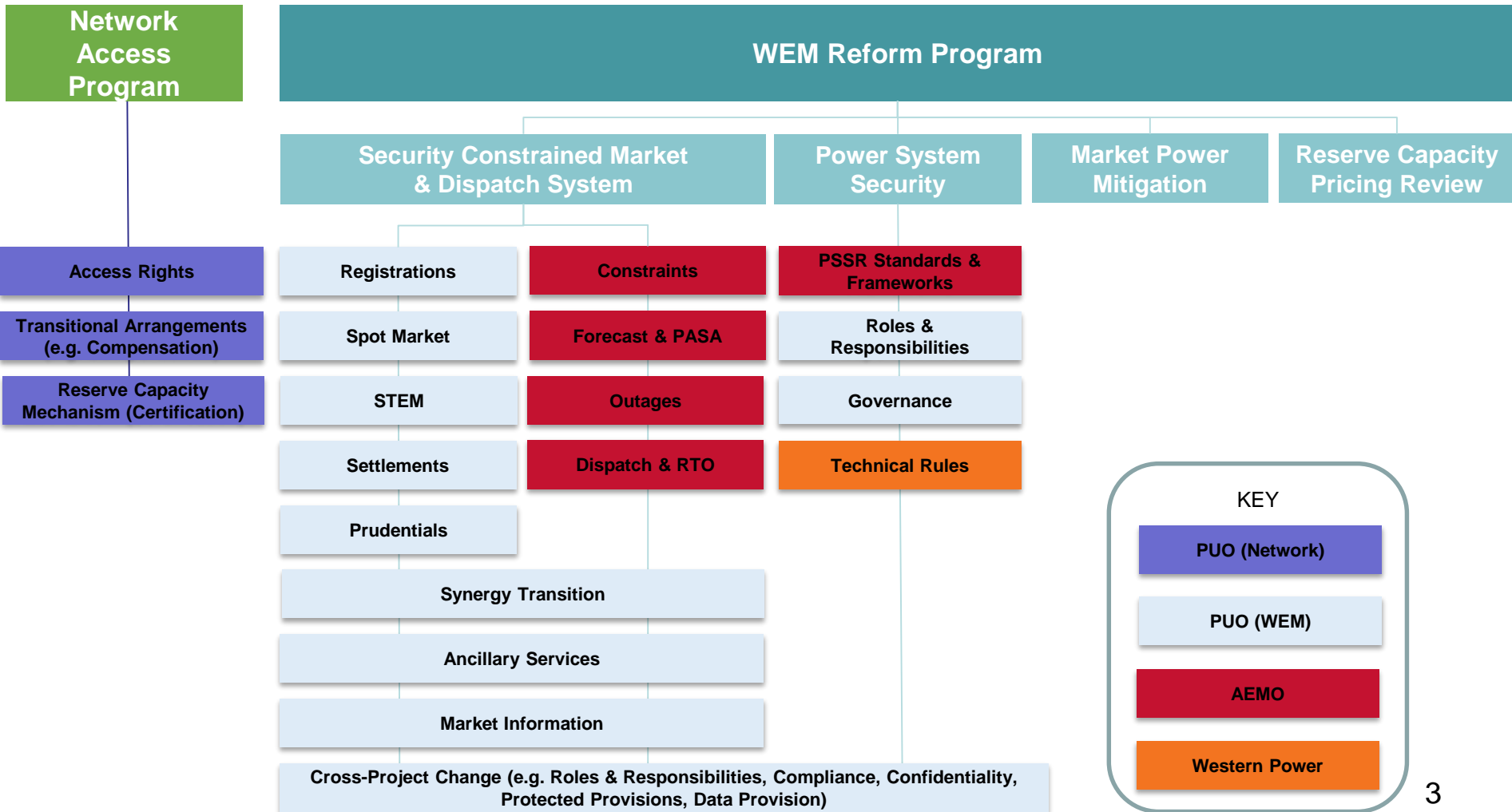


AGENDA FOR TODAY

- Discussion on scope of initial reform packages
- Discussion on MAC working groups
- Outcomes of first WEM Reform Co-ordination Committee meeting
- Next steps

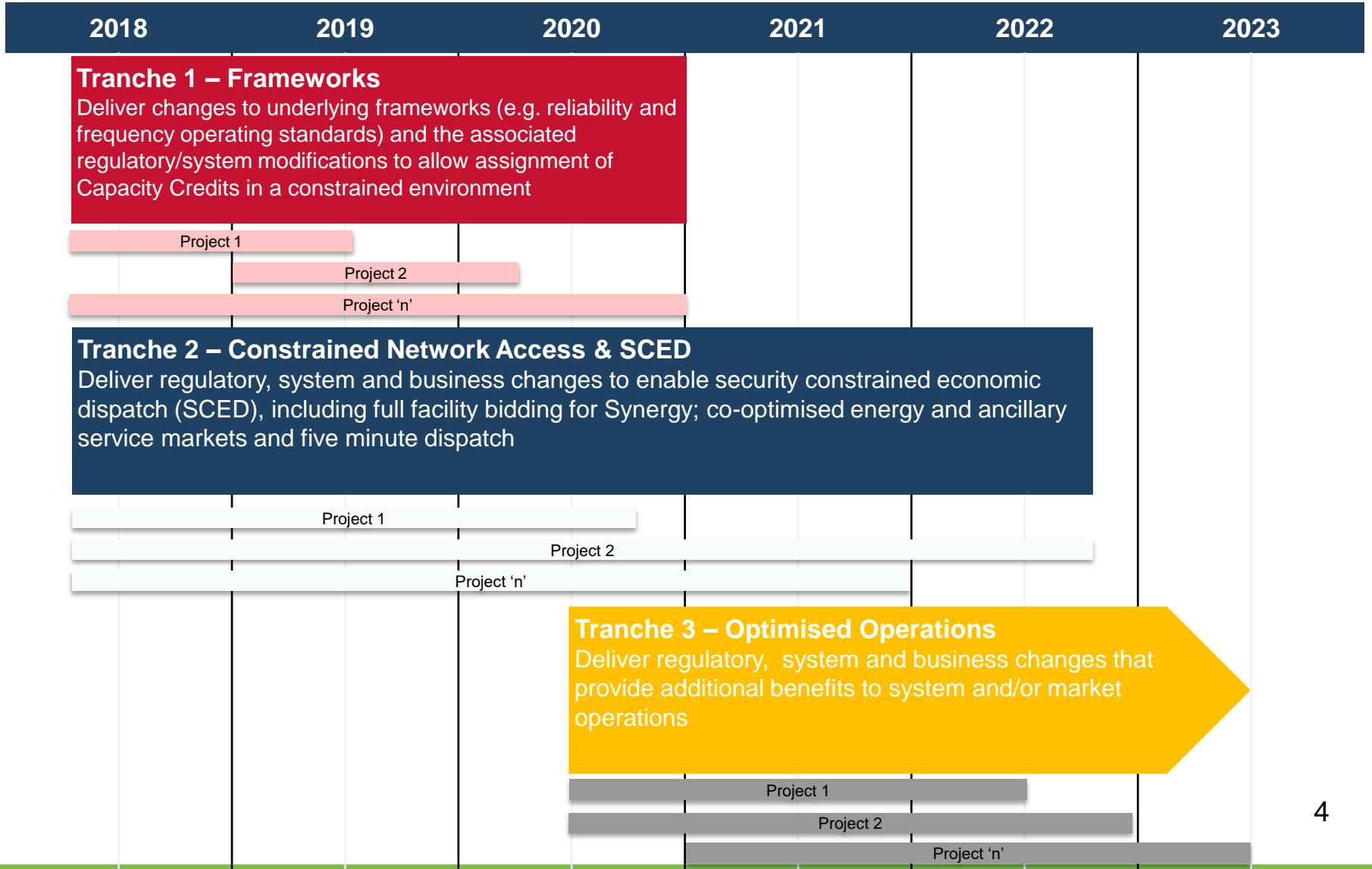
WEM AND NETWORK REFORM PROGRAM – DESIGN RESPONSIBILITIES

The diagram below sets out the initial allocation of responsibilities for leading design – overall responsibility for the Program reside with the PUO and ultimately the Minister for Energy.



WEM REFORM PROGRAM TRANCHES

The diagram below provide a high level view of the WEM Reform program tranches.



MARKET AND DISPATCH ARRANGEMENTS/POWER SYSTEM SECURITY - SCOPE OF PROPOSED TRANCHEs

Project	Tranche 1 – Frameworks (mid 2018 - 2020)	Tranche 2 – Full SCED (by 2022)
Certification of Reserve Capacity *	<ul style="list-style-type: none"> ‘New’ RCM approach to enable assignment of capacity in a constrained access market 	
Registrations	<ul style="list-style-type: none"> Initial changes to improve current registration classes and framework (including removing barriers for energy storage and revision of dispatchable loads construct) 	<ul style="list-style-type: none"> Potential further changes (if required) to amend the registration classes and framework to support constrained access arrangements
Spot Market	<ul style="list-style-type: none"> Move reference node to Southern Terminal (for planning purposes with activation date to align with SCED go live date) Determine approach to, and responsibilities for, calculation of Marginal Loss Factors (MLFs) 	<ul style="list-style-type: none"> Introduce new spot market with co-optimised energy and ancillary service dispatch on least-cost methodology
Short Term Energy Market (STEM)		<ul style="list-style-type: none"> Consequential changes to reflect broader SCED changes
Settlements		<ul style="list-style-type: none"> Consequential (and not minor) changes proposed.
Prudential arrangements		<ul style="list-style-type: none"> Consequential changes to reflect broader SCED changes
Synergy Transition		<ul style="list-style-type: none"> Full facility bidding and dispatch for Synergy portfolio
Ancillary Services	<ul style="list-style-type: none"> Model volume requirements for ancillary services in constrained access market Consider introduction of new ancillary service(s) to support system operations in advance of SCED (e.g. fast frequency response or inertia) 	<ul style="list-style-type: none"> Introduce new ancillary services and (where appropriate) markets for those services to meet requirements of new constrained access market model (e.g. meeting new PSSR standards)

* RCM changes form part of the Network Access Reform program

MARKET AND DISPATCH ARRANGEMENTS/POWER SYSTEM SECURITY - SCOPE OF PROPOSED TRANCHEs

Project	Tranche 1 – Frameworks (mid 2018 - 2020)	Tranche 2 – Full SCED (by 2022)
Power System Security & Reliability (PSSR)	<ul style="list-style-type: none"> Introduce new frameworks for security and reliability, including design of the operating states framework, management of contingency events, power system reliability, and draft system standards, settings and definitions, governance arrangements and roles and responsibilities 	<ul style="list-style-type: none"> Option to amend Lack-Of-Reserve and Low-Reserve conditions using statistically developed margins
Constraints	<ul style="list-style-type: none"> Introduce right, obligations and definitions to support the development of a new system normal constraints library Develop a new system normal constraint library to facilitate Reserve Capacity certification; forecasting/planning; and outage management 	<ul style="list-style-type: none"> Develop the full constraint library and mechanisms to publish constraint information to market
Forecast & PASA	<ul style="list-style-type: none"> Improvements to forecast and PASA systems to reflect move to constrained access model 	<ul style="list-style-type: none"> Consequential changes to support full SCED implementation (e.g. reflecting 5 min dispatch) and introduce publicised pre-dispatch information
Outage Management	<ul style="list-style-type: none"> Introduce changes to frameworks that are consistent with and allow participants to start planning for a constrained dispatch environment 	<ul style="list-style-type: none"> Implement changes to power system and market operations to reflect 'new' constrained access arrangements for outage planning, notification, management and settlement
Dispatch		<ul style="list-style-type: none"> Introduce 5-min dispatch with high degree of automation to lock-in/lock-out where non-compliance occurs. Integrate fast-start capabilities.

MAC WORKING GROUPS

	Power Systems Operations Working Group	Market Design and Operations Working Group
Role	<ol style="list-style-type: none"> 1. Consider and advise on all matters related to power system operations in the context of adopting SCED 2. Consider and advise on current and emerging challenges in power system security and reliability 3. Advise on sequencing of work packages and benefits from adopting specific reform items early 4. Consider and assess market rule and procedure changes, and changes to other regulatory instruments as required, to support efficient operations of power system into the future 5. Be aware of and advise on interdependencies with other workstreams 	<ol style="list-style-type: none"> 1. Consider and advise on design and operation of the new spot market, including providing advice on impacts to different market participant classes 2. Advise on sequencing of work packages and benefits from adopting specific reform items early 3. Consider and assess Market Rule and procedure changes, and changes to other regulatory instruments as required, to support transitioning to the new spot market 4. Be aware of and advise on interdependencies with other workstreams
Tenure	Initial period of 12 months	Initial period of 12 months
Chair	AEMO	PUO
Membership	Open to industry	Open to industry
Secretariat	AEMO	PUO

WORKING GROUP MEMBERSHIP - PROPOSED SELECTION CRITERIA

- Members will possess sufficient knowledge and expertise to discuss the subject matter
- Members will be able to provide general sector-wide representation
- Members will be available to provide continuity of participation
- Members will be able to carry out impact analysis, etc if necessary

WORKING GROUP MEETING ADMINISTRATION

- The Chairs will accept/decline nominations based on selection criteria
- No more than two representatives from any one organisation in each Working Group
- Record of main discussion items and actions will be maintained
- Publication of meeting papers and record of actions etc to be maintained on Rule Change Panel website
- PUO-AEMO will manage updates to MAC and WEMRCC

NEXT STEPS ON MAC WORKING GROUPS

- Rule Change Panel Support team to circulate ToRs for Working Groups (once received from PUO) for out-of-session MAC approval
- RCP Support team to administer nomination process for Working Groups, supported by PUO and AEMO
- AEMO to establish Power System Operations Working Group by end June, supported by PUO
- PUO to work with RCP Support team for publication of required information

ANCILLARY SERVICES REVIEW

Current status

- GHD has been appointed to undertake the engineering study (economic assessment postponed)
- Scope and approach being finalised
- Expected to be the first reform item to be considered by PSO Working Group and MAC

Objective

- Identify the types of technologies WEM requires, and when, to address known issues and emerging challenges (e.g. deepening duck curve, unmanageable Rate of Change of Frequency, ambiguity in standards and linkages)
- Propose appropriate arrangements within the current market design for early implementation, and arrangements for future complete set of reforms

High level issues

- Poorly defined AS standards with unclear linkages to Frequency Operating Standard
- Definition and role of Ready Reserve Standard
- Boundaries between different AS are unclear and overlap
- Potential scarcity of service provision for frequency control, particularly following a large contingency event
- Poorly defined processes for identifying and specifying the need for DSS arrangements
- Potential lack of certain types of ancillary services crucial to maintaining secure and stable power system

POWER SYSTEM SECURITY & RELIABILITY IMPROVEMENTS

Current status

- Agreeing scope and responsibilities for specific work between PUO, AEMO and Western Power
- AEMO and Western Power to provide technical expertise into the PSSR policy framework review led by PUO
- MAC will be consulted through Power System Operations Working Group

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

High level issues

- Requirements for operating states framework and contingency event definitions
- Dedicated reliability standard and metrics
- Roles and responsibilities of AEMO and other relevant parties
- Appropriateness of the current legislative architecture
- Performance standards for equipment connected to, and connecting to, the network

RESERVE CAPACITY PRICING AND MARKET POWER MITIGATION

- PUO has developed proposed alternative pricing model for consultation through Reserve Capacity Pricing Stakeholder Reference Group
- PUO is working with Synergy to consider implementation of some ERA recommendations from the 2016 EGRC Regulatory Scheme review

WEM REFORM COORDINATION COMMITTEE MEETING 1 – 31 MAY 2018

- The Committee agreed to the following:
 - primary responsibility is to monitor progress and provide guidance to the WEM Reform program;
 - advisory role only and policy decisions will be made by the Minister;
 - Terms of Reference will be published on the Department of Treasury website shortly;
 - meeting monthly and more frequently if required;
 - a record of items discussed at meetings will be published on Department of Treasury website; and
 - it will invite nominees for a Strategic Consultative Group to advise on strategic matters pertaining to the WEM reform program.

STRATEGIC CONSULTATIVE GROUP

- PUO will assist the WEMRCC in forming the Strategic Consultative Group
- Synergy and Western Power to be standing members
- Up to six other industry participants to be represented from across large-scale generators, retailers, demand side providers, large-use customers and renewables.
- Main role is to provide strategic advice
- PUO will invite and determine the final representation on the Group
- The Group is to meet with the WEMRCC every two months

NEXT STEPS ON WEMRCC

- PUO to publish WEMRCC ToR and record of items discussed on 31 May
- PUO to invite nominations for Strategic Consultative Group to be established around end June

AEMO FUNDING RULE CHANGE

Current status

- PUO has worked with AEMO and ERA to finalise text of rule change.
- Draft rule change text and schedule of AEMO activities for 2018-19 will be circulated for industry review of proposed Rule Change to be made by the Minister.

Objective

- To reduce risks and minimise costs to market around AEMO funding and cost recovery for contributing to design and implementation of constrained network access and market reforms.

Approach

- Market Rule 1.20 amended to change reference from “EMR” to ongoing reforms to the market and constrained network access as endorsed by the Minister, and extend timeframe to new market implementation date.
- Allow AEMO to delay its AR5 submission from November 2018 to March 2019, to enable better visibility of AEMO’s anticipated costs to undertake the reform work across the period, and for those costs being included in the AR5 budget.
- ERA determination date to be similarly delayed, but publication of AEMO budget remains 30 June 2019.