

WEM Reform Program

AR6 CAPEX Overview

Presented to WA Electricity Consultative Forum

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8 December 2021



WEM Reform – revised forecast

- In October, AEMO provided WAECF with a revised WEM Reform Forecast.
- The forecast reflected AEMO's understanding of the scope and scale of implementation efforts following completion of the majority of the market design.
- While good progress has been made in AR5 there is a large amount of effort required in AR6 to meet the revised Go Live now planned for October 2023

Project	Actuals (\$m)	ETC (\$m)	Contingency (\$m)	Total (\$m)
Constraints Management	1.3	0.1	-	1.4
WEMDE	2.2	10.7	2.7	15.6
Integration & Market Trial	-	3.9	1.5	5.4
Hypercare & Support	-	1.4	0.6	2.0
Generator Performance Standards	0.9	-	-	0.9
Digital Platform	1.8	7.8	2.7	12.3
System Planning Reform	0.7	6.8	1.9	9.4
Settlements Enhancements	2.5	0.0	-	2.5
Settlements Reform	0.1	3.8	0.7	4.5
Registrations Reform	0.0	1.8	0.4	2.2
RCM Reform	1.1	6.5	1.6	9.2
STEM Reform	0.0	0.6	0.6	1.2
Compliance Reporting	-	2.0	0.6	2.6
<i>Sub-total</i>	<i>10.7</i>	<i>45.3</i>	<i>13.2</i>	<i>69.2</i>
Core (e.g. Program Management, Assurance)	3.6	8.3	3.1	15.0
Market and Regulatory Design	5.1	0.3	-	5.4
Technical & Process Design	1.6	0.0	-	1.6
TOTAL CAPEX	21.0	53.9	16.4	91.2

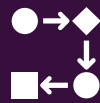
WEM Reform – change impacts

Types of Change



Systems (technology)

- New and modified internal systems, tools and how employees use them
- Modifications to, or development of, new B2B interfaces for Market Participants.



Process

- ~24 new and ~26 modified WEM Procedures which will change how the business operates
- Changes to how internal teams need to interact or pass information
- Changes to how external participants interact with AEMO and the market.



People

- Different/new functions, roles and responsibilities associated with running the new market
- Potential impacts to employment conditions (e.g. shift requirements) and team structures.

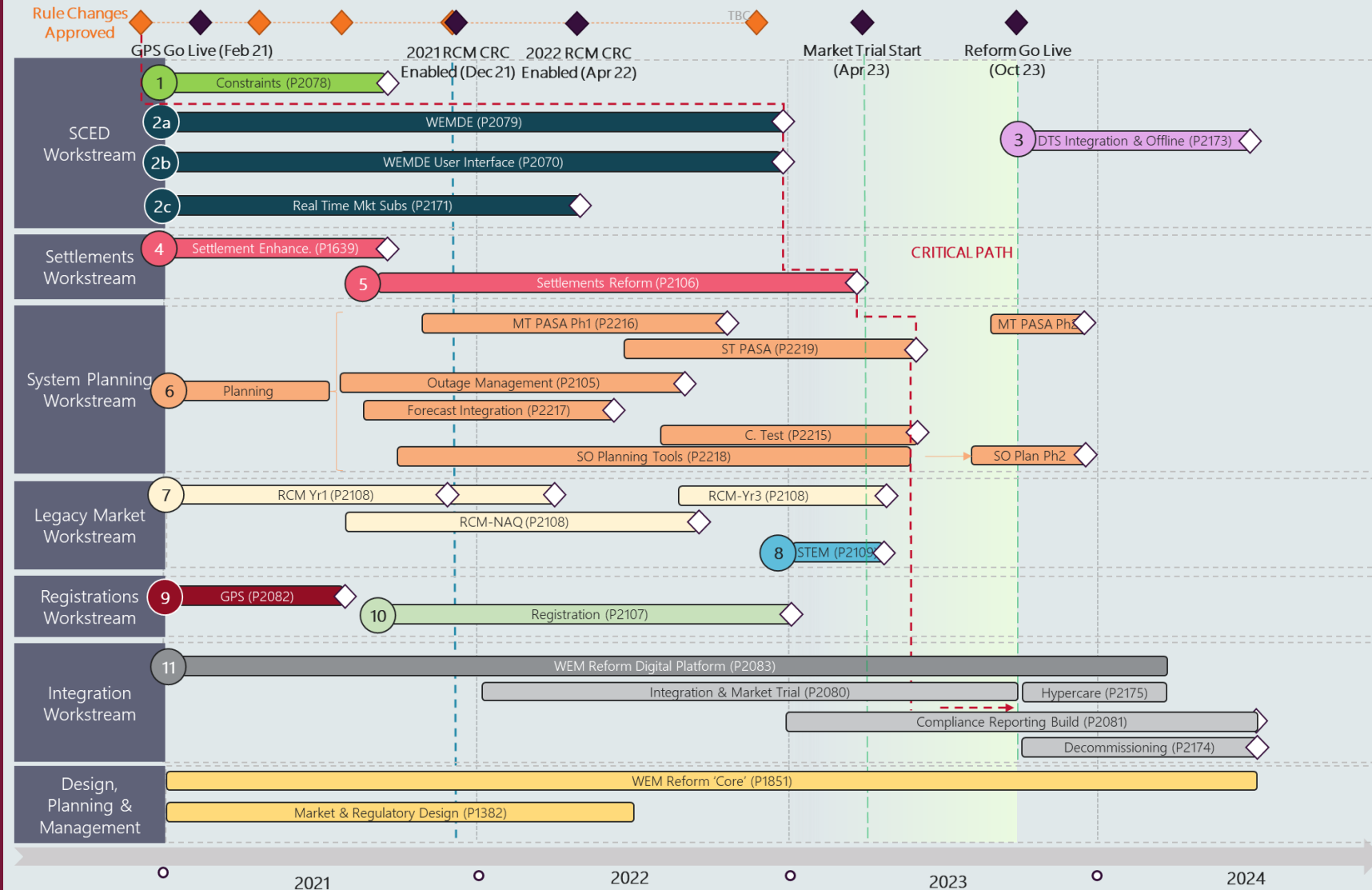
Program Team Reflects This

- IT Team covering design, development, testing and integration (mix of existing and project resources)
 - Range of SME and analysts with broad experience in AEMO's existing systems and processes
 - Change management resources to support the transition, both internally and externally

Program Scope & Timeline

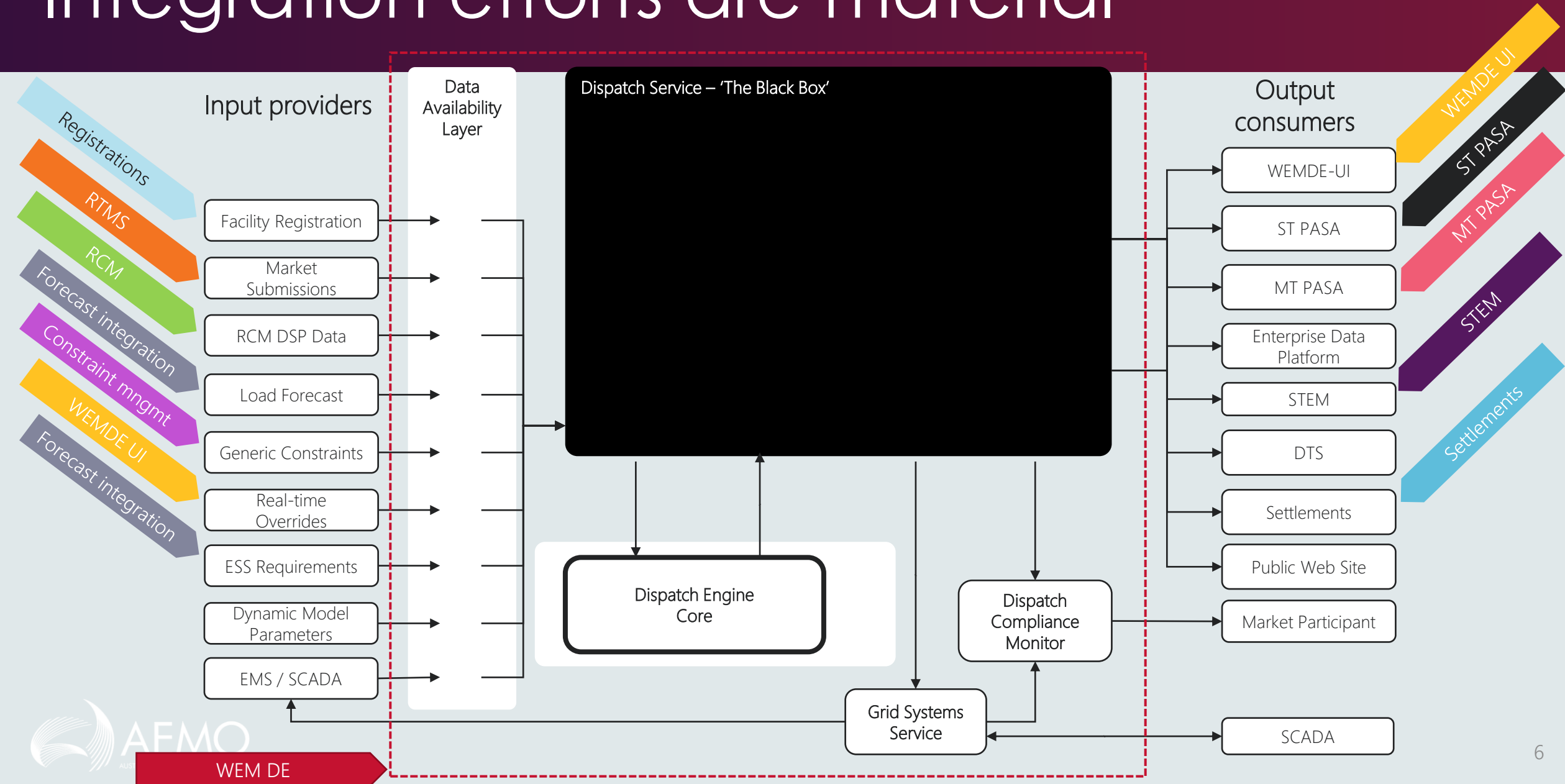
The Program consists:

- 21 implementation projects
- Substantial design and Program Management effort
- Significant integration and digital uplift following a long period of utilizing ageing assets
- Associated business and process change both internally and with industry participants



Workstream	Project	Delivering
SCED	Constraint Management	A centrally managed constraint library, systems/processes to develop constraints, new B2B processes with WP
	RTMS	New submission mechanism and validations for energy and ESS bids and offers
	WEM Dispatch Engine	New dispatch engine to co-optimize energy with ESS services, subject to constraints
	WEMDE UI	Updated real-time tools and UI's to support the control room
System Planning	Outage Management	A new outage management interface and changes to available outage types, workflows and processes
	Forecasting Integration	Load and ESS forecasts to input into WEMDE, ST PASA and/or MT PASA systems
	MT PASA	New system and processes for medium term (36 month horizon) PASA assessments
	ST PASA	New system and processes for short term (7 day horizon) PASA assessments
	System Planning Tools	Security/Reliability WEM Procedures and processes (UFLS, System Restart), offline security analysis supporting tools
	Commissioning Test	New system and processes for submitting and managing market participant's commissioning plans
Settlements	Settlements Reform	Implement changes including new market structures, changed settlements cycles, reporting requirements and settlement calculation changes
Legacy	STEM	Minor system changes to reflect different submission timetable and submission data requirements
	RCM Phase 1	System and process changes to support the participation of electric storage resources – Y1 2021 RC cycle
	RCM Phase 2	Introduction of network access quantities (NAQ) for the 2022 RC cycle.
	RCM Phase 3	Changes to reflect the introduction of components – Y3 2021 RC cycle
Registration	Registration	Changes to support new registration taxonomy including the registration portal, participant and facility registration functions and associated standing data.
	GPS	A new registry of technical GPS information, appropriate interfaces and monitoring arrangements
Integration	Digital Platform plus Integration and Market Trial	End to end system integration; planning, coordination and execution of the Market Trial phase; transition of Synergy's plant to dispatch by Synergy's control room among other things;

Integration efforts are material



WEM Reform – Procedure Change

- AEMO must draft/amend approximately 50 Market Procedures to align with newly implemented policy and obligations.
- The development process is significant and has many stages, both pre and post consultation, such as:
 - WEM Procedure scoping to ensure alignment with the WEM Rules;
 - Initial Drafting;
 - Business Review;
 - Compliance & Legal Review;
 - Industry consultation;
 - Post Consultation Drafting and Review; and
 - Management sign off.

For more information
please visit www.aemo.com.au

