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Energy Policy WA

Energy and Governance Legislation Reforms

Project Eagle

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Working together for a **brighter** energy future.

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Abbreviations

Term	Definition
Access Code	Electricity Networks Access Code 2004
AEMO	Australian Energy Market Operator
AES	Alternative Electricity Services
Coordinator	Coordinator of Energy
DER	Distributed Energy Resources
DSO	Distribution System Operator
DMO	Distribution Market Operator
EI Act	Electricity Industry Act 2004
ERA	Economic Regulation Authority
ESM	Emergency Solar Management
ETS Stage 2	Energy Transformation Strategy Stage 2: 2021-25
NQRS	Electricity Industry (Network Quality and Reliability of Supply) Code 2005
SWIS	South West Interconnected System
Technical Rules	A Western Power document, referred to as a technical code in s104B of the Electricity Industry Act 2005, and developed under the Electricity Networks Access Code 2004.
WEM	Wholesale Electricity Market

Executive Summary

Background

The Western Australian energy sector is transforming rapidly, with new technologies such as small- and large-scale renewable energy and energy storage playing an increasingly important role. This transformation creates significant opportunities to reduce costs and emissions, at the same time as new challenges are emerging to the continued security and reliability of our power system. In response to these opportunities and challenges, the Western Australian Government launched the [Energy Transformation Strategy](#) (ETS) in May 2019.

Led by the Energy Transformation Taskforce through to May 2021, the first stage of the Energy Transformation Strategy delivered a comprehensive [Whole of System Plan](#), [Distributed Energy Resources \(DER\) Roadmap](#),¹ and new design for the [Wholesale Electricity Market \(WEM\)](#) and [network access](#) in the South West Interconnected System (SWIS). Together, these initiatives created a foundation for the transformation of our power system and achievement of Western Australia's emissions reduction goals in the electricity sector.

Building on the achievements of the ETS, the Western Australian Government launched the [Energy Transformation Strategy Stage 2: 2021-2025](#) (ETS Stage 2) in July 2021, building upon key initiatives to ensure an efficient transition to cleaner forms of energy, while maintaining power system security.

Through the ETS and the development of ETS Stage 2, material barriers to implementation were identified in the existing framework of legislation and regulation governing the electricity sector. In response, the Western Australian Government, through Energy Policy WA (EPWA) (within the Department of Mines, Industry Regulation and Safety), identified necessary changes to Western Australia's legislative framework for energy regulation. These proposed changes were outlined in the October 2021 stakeholder consultation paper [Energy and Governance Legislation Reform: Project Eagle](#) (Project Eagle).

This Information Paper provides an update on the development of Project Eagle since October 2021, communicates the scope of planned changes to primary legislation, and outlines next steps for implementation of ETS Stage 2 through amendment to subsidiary legal instruments.

The case for change

The existing legislative and regulatory framework governing the SWIS is not well suited to maintaining a secure and reliable power system in the face of rapidly-changing technology and need to reduce electricity sector emissions. These limitations collectively pose a major impediment to reform.

The current governance framework for energy in Western Australia was established nearly two decades ago through primary legislation: principally, the *Electricity Industry Act 2004* (EI Act), which empowers more detailed regulations, rules, and codes. The subordinate instruments under the EI Act address a wide range of matters including power system security and reliability standards, network access and pricing, technical requirements and standards for equipment (including DER), metering, and customer protections including reliability obligations.

While the EI Act was established to meet the requirements of the time, the regulatory frameworks it empowers have had to evolve within its limitations and established regulatory change processes. An example of this evolution was the transfer of system management from Western Power to the

¹ DER are smaller-scale, controllable devices that either use, generate, or store energy and are located in the lower-voltage distribution system. Examples of DER include rooftop solar and battery storage systems, controllable air-conditioners and pool pumps, and electric vehicles. DER is usually owned and operated by end-use customers, such as households and small business.

Australian Energy Market Operator (AEMO). While allowed for under the EI Act, this important change in roles and responsibilities has resulted in challenges for the efficient operation of the regulatory frameworks that sit under it.

Over time, changes to roles, power system needs, and limitations on the scope of instruments under the EI Act have resulted in the duplication and inconsistency of standards, undue complexity, and a lack of clarity regarding the roles and responsibilities of participants within the power system. Further, the current framework is subject to varying and inflexible governance requirements (for example, diverse and separate change processes subject to approval by a range of governance bodies), and has proven limited in its ability to respond as required to our changing needs as technology and customer behaviour evolves.

In the context of the rapid and continuing transformation of the electricity sector, changes to the current regulatory framework are required to ensure it continues to support the planning and operation of an efficient, secure, reliable power system.

The reforms planned under Project Eagle are required to create a governance and regulatory framework for energy that efficiently and effectively delivers outcomes that protect and advance the interests of energy consumers through electricity supply services that are fair, secure and reliable, while being affordable and facilitating the State Government's emissions policy targets.

Scope of planned reforms

The scope of the reforms under Project Eagle has been amended since the release of the consultation paper in October 2021, with a revised scope for the reforms being approved by State Government and scheduled for drafting as an amending bill (and subsequent legislation) via Parliament in the second half of 2023.

The legislative amendments will enable a comprehensive program of work to support the implementation of ETS Stage 2. The revised scope of the reforms under Project Eagle is summarised as:

1) Introducing an overarching objective in the *Electricity Industry Act 2004* (EI Act)

A single objective will provide a unifying, overarching theme for the EI Act and subsidiary instruments, including the WEM Rules. At present, completely separate objectives are included in subordinate instruments without regard for an overarching objective established under the EI Act.

The new overarching objective will remain focused on promoting, in an affordable manner, the long-term interests of consumers (both present and future) in the:

- reliable supply of electricity; and
- reduction of emissions of greenhouse gases related to electricity supply.

In addition to providing an overarching objective to inform subsidiary instruments, the amendments to the EI Act will recognise the different characteristics and needs of existing and emerging technologies.

2) Expanding the scope of the WEM Rules

The amendments to the EI Act will allow the WEM Rules to address matters currently dealt with under a range of diverse subordinate instruments with varying scope and powers.

The WEM Rules will continue to address operation of the WEM and the SWIS, and will largely retain its current governance and change management frameworks. In addition, the scope of the WEM Rules will be expanded to address matters currently contained within:

- the Electricity Networks Access Code 2004 (Access Code), made under Part 8 of the EI Act;
- Western Power's Technical Rules, made under the Access Code;
- the Electricity Industry (Metering) Code 2012, made under Part 2 of the EI Act;
- the *Electricity Act 1945* (as it relates to network voltage and frequency limits); and

- the Electricity Industry (Network Quality and Reliability of Supply) Code 2005, made under Part 2 of the EI Act.

The content of these instruments will be incorporated within the expanded WEM Rules through a deliberate, phased approach (outlined in Section 4, below), with consideration for transitional arrangements to permit parts of each instrument to be imported in part or in full. Provisions in each subsidiary instrument will remain in effect until the commencement of the relevant portion of the WEM Rules.

Drafting will also ensure that the Coordinator of Energy can establish expert or specialist panels to provide advice on future reviews.

3) Improving arrangements to address new subject matter

The Project Eagle amendments will enable the WEM Rules to address matters where these are not able to be adequately dealt with through existing instruments because of:

- the scope of regulations and subsidiary instruments being limited by the regulatory heads of power contained within the EI Act;
- processes for the governance and amendment of instruments no longer being fit for purpose due to their inflexibility; and
- matters being addressed across multiple instruments, with overlaps, inconsistencies, and gaps in coverage.

Examples of these challenges include the inability of Western Power's Technical Rules to empower required compliance and monitoring of equipment (such as DER) connected to lower-voltage networks and barriers to the implementation of a comprehensive framework for power system security and reliability standards across all parts of the system, reflecting Western Power and AEMO's differing roles and where these roles interact.

Resolving these problems has become urgent as DER, such as customer-owned rooftop solar, plays an increasingly important role in the power system and alternative options emerge to improve power system security and reliability, particularly in regional areas of the SWIS.

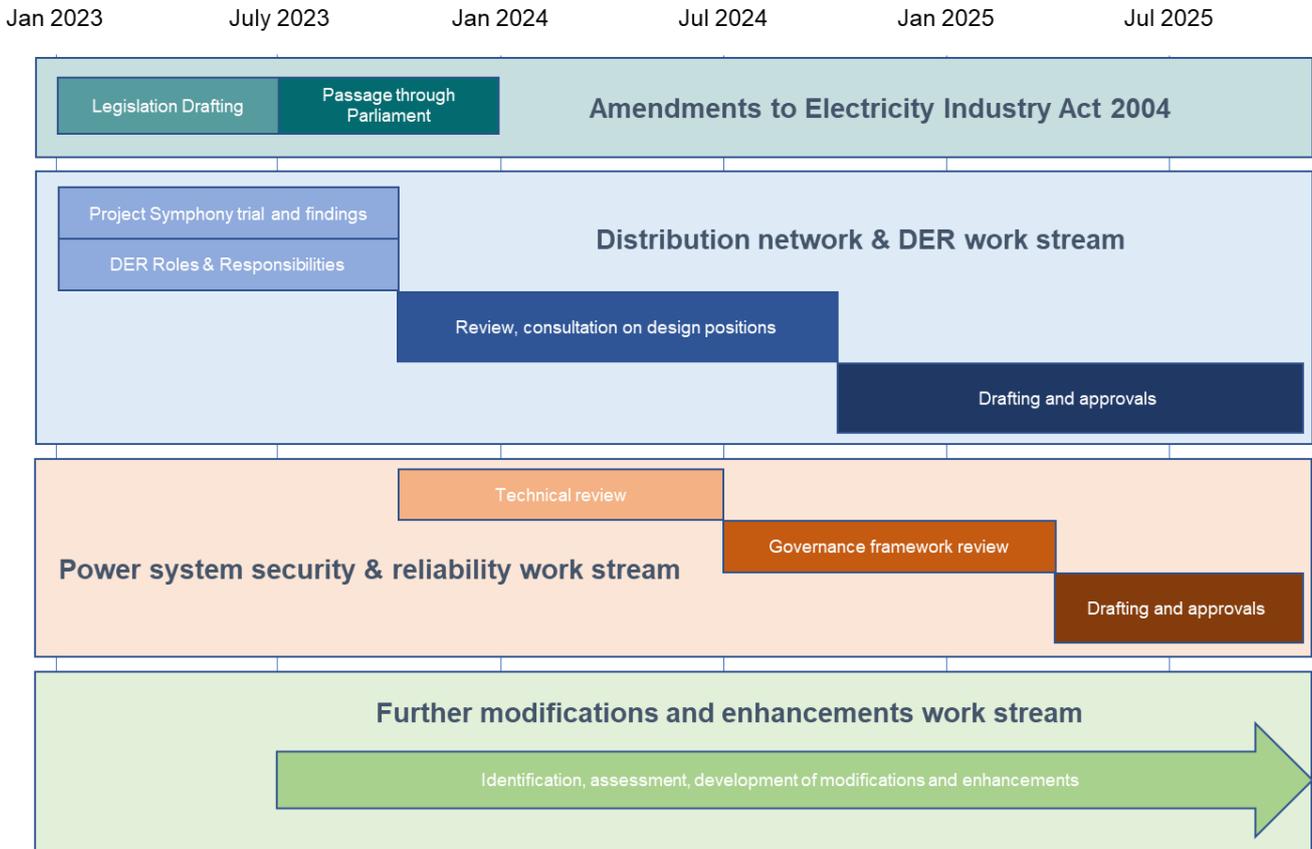
Amendments to the EI Act will also include definitions of embedded networks and microgrids to facilitate work being progressed under the planned [Alternative Energy Services framework](#).

Next Steps

Enabled by amendments to the EI Act, the planned changes will provide for major improvements to the responsiveness of the regulatory framework.

In acknowledgement of the significant changes to regulatory instruments required to implement ETS Stage 2 and the potential impact on energy market participants, Energy Policy WA (EPWA) anticipates a phased approach to the reforms through to 2025-26, with the most critical changes to instruments to be progressed first.

More detail on the timing of changes to subsidiary instruments and the inclusion of related content within the WEM Rules is contained in Section 5 of this paper. All changes to the WEM Rules will require the endorsement of the Minister for Energy and be made under Minister’s WEM Rule-making powers (rather than the standard WEM Rule change process), and will include extensive consultation with industry.



The progressive implementation of reforms will be subject to the completed drafting of legislative amendments to the EI Act and other instruments, the passage of amendments through Parliament, and the phased approach to policy development and detailed drafting for subsidiary instruments. Currently, introduction of legislative amendments to Parliament is planned for the second half of 2023.

1. Introduction

1.1 Background

The Western Australian energy sector is transforming rapidly, with new technologies such as small- and large-scale renewable energy and energy storage playing an increasingly important role. While this transformation creates significant opportunities to reduce costs and emissions, new challenges are emerging to the continued security and reliability of our power system. In response to these opportunities and challenges, the Western Australian Government launched the [Energy Transformation Strategy](#) in May 2019.

Led by the Energy Transformation Taskforce through to May 2021, the first stage of the ETS delivered a comprehensive [Whole of System Plan](#), [Distributed Energy Resources \(DER\) Roadmap](#),² and new design for the [Wholesale Electricity Market \(WEM\)](#) and [network access](#) in the South West Interconnected System (SWIS). Together, these initiatives created a foundation for the transformation of our power system and achievement of Western Australia's emissions reduction goals in the electricity sector.

Building on the achievements of the first stage of the ETS, the Western Australian Government launched the [Energy Transformation Strategy Stage 2: 2021-2025](#) (ETS Stage 2), in July 2021, outlining how key initiatives will be expanded and built-upon to ensure an efficient transition to cleaner forms of energy while maintaining power system security.

ETS Stage 2 included a range of initiatives for delivery over the years to 2025, under four main categories:

1. implementing the Energy Transformation Taskforce decisions;
2. integrating new technology into the power system;
3. keeping the lights on as the power system transitions; and
4. regulating for the future.

As part of the development of ETS Stage 2, material barriers to implementation were found in the existing framework of legislation and regulation governing the electricity sector. In response, the Western Australian Government, through EPWA (within the Department of Mines Industry Regulation and Safety), identified necessary changes to Western Australia's framework for energy regulation.

These reforms, enabled by planned changes to primary legislation, are critical to the implementation of the ETS Stage 2. They will enable the creation of regulatory frameworks to protect and advance the interests of energy consumers now and in the future and be responsive to the challenges and opportunities presented by the energy transformation. These planned changes were outlined in the October 2021 stakeholder consultation paper [Energy and Governance Legislation Reform: Project Eagle](#) (Project Eagle).

1.2 Purpose of this paper

This Information Paper provides an update on the development of Project Eagle since the release of the consultation paper in October 2021, identifies related initiatives that are currently underway, communicates the scope of planned changes to primary legislation, and outlines next steps for implementation of ETS Stage 2 through amendment to subsidiary legal instruments.

² DER are smaller-scale, controllable devices that either use, generate, or store energy and are located in the lower-voltage distribution system. Examples of DER include rooftop solar and battery storage systems, controllable air-conditioners and pool pumps, and electric vehicles. DER is usually owned and operated by end-use customers, such as households and small business.

It is important to note this paper does not set out the detailed policy and drafting decisions that are made possible by the planned amendments to primary legislation under Project Eagle. These positions will be developed through careful review and stakeholder consultation over coming months and years. Rather, this paper sets-out a broad approach to developing these positions (Section 5 of this paper).

2. The Energy Transformation & case for change

While the key reforms required for the power system have been outlined through the ETS Stage 2, and despite improvements made through the ETS, the existing legislative and regulatory framework governing the SWIS is not well suited to maintaining a secure and reliable power system in the face of rapidly-changing technology. These limitations collectively pose a major impediment to reform.

2.1 The Energy Transformation

The rapid uptake of renewable generation and DER (such as rooftop solar) presents significant opportunities for consumers to benefit from low-cost, low-emissions electricity generation and contribute towards the decarbonisation of our electricity sector. This transformation in how customers generate and use energy is occurring at the same time as investment in intermittent renewable generation and large-scale energy storage is accelerating and older, conventional generators are retiring. While critical to meeting Western Australia's emissions reduction objectives and minimising future power system costs, the unprecedented speed and scale of the transformation is also creating new challenges to the secure management of the power system.

For example, the minimum operational demand for electricity on the grid has steadily declined as a direct consequence of increasing levels of rooftop solar. As minimum demand thresholds are reached during 'low load' events, the power system becomes less resilient and more vulnerable to disturbances.

The past 12 months alone has seen a continued tightening of the conditions under which the power system must be operated. In 2021, the minimum operational demand record for the SWIS, experienced on 14 November 2021, was 761 megawatts (MW). This record was surpassed several times in 2022, with the current minimum demand record, experienced on 16 October 2022, being 626MW. At the same time, maximum operational demand ('peak' demand) remains high: 3,980MW was recorded on 19 January 2022, the second highest maximum recorded for the SWIS.

Increasing volatility in large-scale generation output and demand (even on an intra-day basis) is also adding greater risks and complexity to the management of the power system, with resultant impacts on power system costs and market effectiveness.

The existing framework of primary legislation and subsidiary legal instruments was designed for a power system where large conventional generators and a long-distance transmission network delivered electricity to passive consumers via low-voltage distribution systems. While the sector is experiencing profound changes to this traditional model of electricity supply, the regulatory framework governing the sector has not kept pace.

The ETS made considerable progress in addressing many of the challenges presented by the transition. However, in the context of increasingly challenging and emerging power system challenges, further change is needed. These changes were identified through ETS Stage 2.

2.2 ETS Stage 2

The ETS Stage 2 was developed to manage the continued and emerging risks presented by the ongoing energy transition, building on the original reforms undertaken as part of the ETS under the Energy Transformation Taskforce.

In consultation with stakeholders, design, development and delivery of the ETS 2 commenced across four themes. These were outlined in the July 2021 ETS Stage 2 Information Paper:

ETS Stage 2 themes

1. 'Implementing the decisions of the Energy Transformation Taskforce'

Completing the delivery of the DER Roadmap actions, implementing new network connection, Essential System Services and wholesale market arrangements and developing the next Whole of System Plan.

2. 'Integrating new technology in to the power system'

Continuing technology trials, facilitating the investment in new, low emissions generation technologies and supporting Western Power's adoption of microgrids and standalone power systems to improve system reliability.

3. 'Keeping the lights on as the power system transitions'

Continuing an orderly transition away from coal generation while decarbonising the energy sector, managing the increasing complexity of the power system, and promoting ongoing security, reliability and sustainability.

4. 'Regulating for the future'

Establishing regulatory frameworks that can respond quickly and effectively to future challenges from the energy transformation.

The successful and timely implementation of the initiatives contained within the ETS Stage 2 themes is critical to facilitate a transition to low emissions energy supply without compromising the secure, reliable, and affordable supply of electricity to consumers.

2.3 Limitations of the current regulatory framework

An agile and responsive regulatory framework comprised of primary and subordinate legislative instruments and related governance and institutional arrangements (such as organisational roles, responsibilities, and change processes) is central to the effective function of the sector. However, the existing framework governing the SWIS is not well-suited to maintaining a secure and reliable power system that is rapidly transforming or maximising the opportunities for an orderly transition to a low-cost, low-emissions energy sector.

The current governance framework for electricity in Western Australia was established nearly two decades ago through primary legislation: principally, the *Electricity Industry Act 2004* (EI Act), which empowers more detailed regulations, rules, and codes. The range of subordinate instruments under the EI Act address a wide range of matters including power system security and reliability standards, network access and pricing, technical requirements and standards for equipment (including DER), metering, and customer protections including reliability obligations.

While the EI Act was established to meet the requirements of the time, the regulatory frameworks it empowers have had to evolve within its limitations and established regulatory change processes. An example of this evolution was the transfer of system management from Western Power to the AEMO. While allowed for under the EI Act, this important change in roles and responsibilities has resulted in challenges for the efficient operation of the regulatory frameworks that sit under it as the EI Act does not contemplate a role for AEMO in the connection of small-scale generation to the network, despite the significant impact this generation has on system operation.

Over time, changes to roles, power system needs, and limitations on the scope of instruments under the EI Act have resulted in the duplication and inconsistency of standards, undue

complexity, and a lack of clarity regarding the roles and responsibilities of participants within the power system. Further, the current framework is subject to varying and inflexible governance requirements (for example, diverse and separate change processes subject to approval by a range of governance bodies), and has proven limited in its ability to respond as required to our changing needs as technology and customer behaviour evolves.

These constraints have practical impacts, including through limitations in the management of DER and distribution network connections, maintenance of power system security and reliability, and facilitation of efficient investment in (and integration of) lower-emission energy technologies.

Managing DER and distribution networks connections

The existing legislative and regulatory framework does not enable the full implementation of technical connection and operation requirements for DER and distribution network connections that can be monitored and enforced. This is a problem as:

- the growing prevalence of unmanaged DER is a major contributor to emerging power system risks, and the absence of adequate standards applicable to DER is limiting the ability for it to be integrated into the energy supply value chain and provide benefits to consumers;
- existing policy approaches, such as Emergency Solar Management (ESM), are likely to be insufficient in future in their coverage, application, and reliability³ and are limited by the scope of deficient regulatory approaches in their ability to manage the most pressing risks associated with DER contributions to low load emergencies;
- the Energy Transformation Taskforce's DER Roadmap actions include the introduction of technical standards and eventual participation of DER in the power system, relying on the existence of a framework that can effectively prescribe requirements applicable to DER, something the current framework does not allow for; and
- without the ability to regulate for and manage DER, the effective and safe integration of DER within the power system is not possible and inefficient restrictions may otherwise be imposed, such as limitations on rooftop solar system installations or faster electric vehicle charging.

Maintaining power system security and reliability

The existing framework for power system security and reliability is spread across multiple instruments including the Wholesale Electricity Market Rules (WEM Rules), Western Power's Technical Rules, the Electricity Industry (Network Quality and Reliability of Supply) Code 2005 (NQRS Code), Western Power's Access Arrangement under the Electricity Networks Access Code 2004 (Access Code), and the *Electricity Act 1945*.

The current framework creates challenges for the effective and consistent maintenance of power system security and reliability against emerging challenges as:

³ Emergency Solar Management (whereby rooftop solar can be curtailed remotely in response to emergency power system conditions) only applies to Synergy's residential rooftop solar systems of less than 5kW in capacity and can only be triggered by AEMO when the power system is declared to be in a High Risk Operating State. There is no effective regulatory framework to support compliance with ESM requirements.

- the instruments are administered and approved by multiple entities, including the Economic Regulation Authority (ERA), Western Power, the Coordinator of Energy, and the Minister for Energy, or are else inflexibly prescribed within primary legislation without a framework for compliance; and
- there is no single instrument that regulates and governs power system security and reliability in the SWIS in a consistent, end-to-end manner; rather, these standards are variously ambiguous, duplicative, uncoordinated, have gaps in coverage, or do not adequately differentiate between diverse locations (such as metropolitan Perth compared to remote areas at the edge of the SWIS).

These challenges have the potential to lead to investments in infrastructure and procurement of services that are misaligned with customer and power system needs, are costly and inefficient, or fail to respond to changing power system conditions as the energy transformation continues.

Facilitating efficient investment and integration for lower-emissions technologies

Efficient and timely investment and integration for new utility-scale, lower-emission technologies is critical to ensure secure and reliable electricity supply over the longer-term. However, as the traditional model of electricity supply is disrupted by the energy transition, revenue certainty is required to underpin investment of new technology. Key barriers to the efficient and timely integration of and investment in lower-emissions technologies include:

- there being multiple, sometimes conflicting objectives contained in various instruments, limiting the ability of existing regulation to achieve efficient outcomes; and
- some objectives contained within primary legislation explicitly prohibit discrimination of energy technology by type and the specification of lower-emission power system outcomes, even when these may be desirable.

As such, the existing framework does not allow for the preferential treatment of technologies that may have higher immediate costs, but support increased investment in lower-emission technologies to the longer-term benefit of customers. The creation of a single, unified objective will enable consistency across subsidiary regulatory instruments and remove barriers to implementing changes to regulation and the WEM required to ensure timely and efficient investment in lower-emission technologies to meet our electricity needs.

2.4 Reforms enabling ETS Stage 2

The reforms planned under Project Eagle are required to create a governance and regulatory framework for energy that efficiently and effectively delivers outcomes that protect and advance the interests of energy consumers through electricity supply services that are fair, secure and reliable, while being affordable and sustainable.

It will do this by:

- developing a framework that rationalises and consolidates currently fragmented, disparate regulatory instruments into a single, more coherent framework within the WEM Rules; and
- making enhancements to regulatory arrangements, including modification or abolishment of older or outdated arrangements, to ensure the regulatory framework enables a resilient and responsive energy sector.

Section 3 of this paper outlines responses to the October 2021 Project Eagle consultation paper and changes in the context for energy policy development and progress made against the implementation of ETS Stage 2 reforms over the last 12 months. This context has been reflected in Section 4.

Section 4 outlines the scope of the planned reforms and how they have been amended since the October 2021 Project Eagle consultation paper.

Section 5 outlines the high-level sequencing of reforms under ETS Stage 2 through to 2025-26. Reforms will be primarily achieved through the progressive consolidation of regulatory instruments within the expanded WEM Rules, rather than establishing a new, single instrument as had originally been proposed in the October 2021 Project Eagle consultation paper.

3. Stakeholder views & progress since October 2021

The scope of the legislative and regulatory changes required to implement ETS Stage 2 were outlined within the October 2021 Project Eagle consultation paper. Following consideration of stakeholder submissions to the consultation paper, the implementation of the ETS Stage 2 reforms has continued and the scope of Project Eagle has been revised.

3.1 Public consultation

EPWA thanks all stakeholders who provided input as part of the Project Eagle consultation process.

In addition to the release of a consultation paper, an online forum on the proposed scope of Project Eagle was also held in October 2021 to help inform stakeholder submissions. The public forum was attended by 191 stakeholders.

Written submissions were provided by 12 stakeholders, including private generation and energy businesses, industry bodies, and government trading enterprises (Synergy and Western Power). These submissions are available on the [Energy Policy WA website](#).

Generally, stakeholder feedback supported the case for reform, indicating general agreement that the proposed reforms would create a more coherent, consolidated and centralised framework to support the implementation of ETS Stage 2.

Items for further consideration were reflected in stakeholder submissions. A summary of these and EPWA's response is provided below.

Stakeholder issues raised in October 2021 consultation

Timeframes for delivery and consultation of reforms, including the need for transparency and opportunities to participate in design, development and implementation.

The ETS Stage 2 reforms enabled by Project Eagle will be implemented progressively through to 2025-26. Policy development underpinning changes to regulation (mainly the WEM Rules) will be subject to separate processes of public consultation, similar to other initiatives progressed under the Energy Transformation Strategy which included public forums, the release of policy information papers, and consultation drafts of amended WEM Rules.

A high-level description of the progressive implementation of reforms and their timing is contained in Section 5 of this paper.

Establishment of a new energy code and risks of undertaking reform to rapidly consolidate existing instruments.

The new scope of reforms will now empower the existing WEM Rules to address matters as part of ETS Stage 2. The existing governance and change management framework for the WEM Rules will be retained and applied to additional content currently addressed through other regulatory instruments.

This, along with the phased approach to importing various other instruments and matters into the WEM Rules, will be less onerous for stakeholders and allow for prioritisation and careful consideration of the consolidation of instruments within the WEM Rules.

Ensuring advisory panels are used for advising and reviewing changes, and transparency around governance and regulatory changes.

The current scope of changes as part of the ETS Stage 2, enabled by Project Eagle, includes ensuring advisory panels are able to be used to support the Coordinator of Energy's review of changes to the WEM Rules. Detail on additional measures to ensure transparency of governance and the role of the Coordinator of Energy with respect to various standards will be provided as drafting is progressed.

Stakeholder positions on State Government energy policy settings (including buyback schemes, contestability in electricity retail services, and the contractual relationship between customers, retailers, and the network operator).

Project Eagle will result in amended legislative heads of power to implement ETS Stage 2 and of itself does not contain detail on the implementation of policy under ETS Stage 2. Detailed policy settings and subsequent drafting in the WEM Rules and other regulatory instruments will be conducted separately, as outlined in Section 5 of this paper.

Recovery of ETS Stage 2 costs.

Ultimately, the implementation of initiatives under ETS Stage 2 is required for the continued secure and reliable functioning of the SWIS, which facilitates private sector participation. The ETS Stage 2 includes initiatives regarding the integration of DER within the power system that will also, in future, ensure that all parties pay their fair share for the operation of the WEM and power system.

The implementation of the reforms will be undertaken, in the main, by the Western Australian Government. However, in order to implement State Government policy, implementation activities may be required by entities that recover costs from market participants, such as AEMO and Western Power. The recovery of these costs will be subject to independent review and approval by the Economic Regulation Authority, where appropriate.

Given its specialist expertise, AEMO will play a central role in both the development and implementation of the ETS Stage 2 reforms. As such, it is expected that an in-period submission to the Economic Regulation Authority will be required for AEMO to undertake and recover costs for implementation of reforms under ETS Stage 2. EPWA anticipates that amendment to the WEM Rules will be required to enable these costs to be recovered from market participants.

3.2 Recent developments

Several initiatives have been progressed or implemented in the 12 months since the release of the Project Eagle consultation paper. The progress of these initiatives has been reflected in the amended scope of the Project Eagle legislative reforms and anticipated prioritisation and timing of ETS Stage 2 to reduce risks to implementation and impacts on WEM participants.

Emergency Solar Management

On 14 February 2022, the State Government introduced ESM, the requirement for newly installed residential rooftop solar systems of less than 5 kilowatts in capacity to be capable of being turned down or off remotely if required by AEMO in emergency situations. The establishment of ESM leveraged powers under existing regulatory instruments including the WEM Rules, Western Power's Technical Rules, Synergy's Electricity Transfer Access Contract, and residential customer Distributed Energy Buyback Scheme contracts.

The approach adopted to implement ESM capability in the SWIS leveraged elements of existing instruments; however, implementation has exposed deficiencies in the regulatory framework in

terms of its flexibility, enforceability, and ability for DER-related requirements to apply to a broader range of customers.

The comprehensive integration of DER within the power system will require improvements to the regulatory framework in order to appropriately manage and facilitate customer participation and enforce obligations to support the power system and network, and compliance approaches. This has been reflected in the scope of Project Eagle and the ETS Stage 2 reforms.

Implementation of new WEM arrangements under the Energy Transformation Strategy

Comprehensive changes to the WEM Rules are being made to implement new market arrangements for commencement on 1 October 2023. Approved by the Energy Transformation Taskforce and made by the Minister for Energy, these new arrangements include new bidding requirements and other obligations for Synergy, the co-optimised dispatch of energy and Essential System Services around power system constraints, revised settlement timeframes, and new Essential System Service markets and procurement mechanisms.

EPWA acknowledges the comprehensive work program currently being undertaken by WEM participants to prepare for the 1 October 2023 commencement of new market arrangements. The timing for the commencement of these arrangements and the associated activities of WEM participants and other stakeholders is reflected in the timing of implementation of ETS Stage 2 reforms enabled by Project Eagle.

Further information on the WEM is available at the EPWA [website](#).

Review of the Reserve Capacity Mechanism

The Reserve Capacity Mechanism (RCM) was implemented in the SWIS in 2005 to ensure sufficient capacity is available to ensure power system reliability, particularly during periods of peak electricity demand. In light of the challenges posed by the energy transformation, the Coordinator of Energy is currently undertaking a [review of the RCM](#) to assess how it will meet reliability and capacity needs into the future.

A [consultation paper](#) outlining findings of Stage 1 of the review was released on 29 August 2022. Stage 2 will assess how the findings in Stage 1 will affect the operation of the RCM. The timing of the review has been considered in the staging of implementation for ETS Stage 2 reforms.

Western Power's Technical Rules Review

Western Power's Technical Rules are established under the Access Code and comprise standards and procedures which govern the planning, construction, and operation of its electricity network. It also includes the technical requirements related to the connection and performance of customer equipment connected to the SWIS, such as DER.

Following its review in 2020-21, Western Power made a [submission](#) to the ERA to amend its Technical Rules in July 2021. This submission has been paused and is being re-scoped in the context of Project Eagle and the planned ETS Stage 2 reforms. Once re-scoped, Western Power plans to resubmit an application to amend its Technical Rules to the ERA in early-2023.

The Independent Review of the Christmas 2021 Power Outages, also referred to as the 'Shepherd Review', conducted in March 2022, identified additional improvements to distribution operation. These improvement will be reflected in Western Power's revised scope and resubmission of its proposed changes to its Technical Rules to the ERA.

AEMO Allowable Revenue Approval

The ERA approved a [funding guideline](#) for AEMO's allowable revenue and forecast capital expenditure for its sixth allowable revenue period (AR6) from 1 July 2022 to 30 June 2025. This included allowable revenue to fund planning activities associated with elements of ETS Stage 2, including the implementation of the DER Roadmap; however, the ERA's determination did not

include allowable revenue for related capital works and other expenditure for non-DER activities that will occur under Project Eagle, the detail of which has not yet been refined.

As discussed above, AEMO will be required to make an in-period submission to the ERA by the end of 2023 to accommodate capital works and other planning activities required to implement the ETS Stage 2 reforms. This in-period submission will be supported by amended WEM Rules clarifying the role of AEMO in implementing elements of the ETS Stage 2 reforms, to be implemented in the first half of 2023.

The ERA's determination of AEMO's in-period submission will be subject to public consultation.

Progress of DER Roadmap implementation

The DER Roadmap Two-Year Progress Report was released in June 2022, highlighting progress and achievements against Roadmap actions during 2021-22. These included the release of the *EV Action Plan*, launch of ESM, and achievement of major milestones for Project Symphony, the State Government's flagship virtual power plant pilot.

Importantly, the progress report outlined future steps to establish new technical connection and operation requirements for DER in the SWIS and signalled the June 2022 release of an [Information Paper](#) outlining DER orchestration roles and responsibilities for Western Power as the Distribution System Operator (DSO), AEMO as the Distribution Market Operator (DMO) and DER aggregators in the SWIS. As outlined in the Information Paper, implementation of many of the required policy settings for DER aggregation is contingent on amendments to legislative heads of power planned under Project Eagle.

Alternative Electricity Services (AES) Framework

In January 2021, the State Government agreed to introduce a registration framework to deliver enforceable protections for electricity customers of new and emerging categories of electricity services, such as solar power purchase agreements. This new Alternative Electricity Services (AES) framework will establish a code of practice, registration requirements, and enforcement and compliance obligations for providers of prescribed categories of AES.

The initial proposed scope of Project Eagle in October 2021, including the development of a single energy code, interacted with the planned development and operation of the initial code of practice under the AES framework. As a result, the drafting of the AES amendments was paused pending a decision on how Project Eagle would progress.

Following the amended scope of Project Eagle, outlined in Section 4, it is no longer proposed that the scope of the WEM Rules be expanded to incorporate the AES code of practice. As such, the drafting of amendments to primary legislation to enable the AES framework is recommencing and will be progressed in parallel to Project Eagle and the ETS Stage 2 reforms.

4. Revised scope of the Energy and Governance Legislation Reform Project (Project Eagle)

4.1 Matters in scope

The scope of the reforms under Project Eagle have been amended since the release of the Project Eagle consultation paper in October 2021.

Following consideration by Government, a revised scope for the reforms has been approved and is scheduled for drafting as an amending bill and subsequent legislation via Parliament.

The revised scope of the reforms under Project Eagle is summarised as:

1) Introducing an overarching objective in the *Electricity Industry Act 2004*

A single objective will provide a unifying, overarching theme for the EI Act and subsidiary instruments, including the WEM Rules. At present, separate objectives are included in subordinate instruments. While these have been aligned where possible, there is no overarching objective for the regulatory frameworks established under the EI Act.

The new overarching objective will remain focused on promoting, in an affordable manner, the long-term interests of consumers (both present and future) in the:

- reliable supply of electricity; and
- reduction of emissions of greenhouse gases related to electricity supply.

In addition to providing an overarching objective to inform subsidiary instruments, the intent of drafting is to enable the differential treatment of technologies that may not result in the lowest-cost outcome in all instances, something which the existing WEM Objective does not allow. For example, the new overarching objective could permit an outcome where a decision that achieves a reliable supply of electricity *and* a reduction in emissions is preferred over one that achieves reliable supply at least cost.

2) Expanding the scope of the WEM Rules

The drafting will amend the EI Act so that the WEM Rules may address matters currently dealt with under a range of diverse subordinate instruments.

The WEM Rules will continue to address operation of the WEM and the SWIS, and will largely retain its existing governance and change management framework. This approach will retain a change management process that is transparent and familiar to industry stakeholders.

In addition, the scope of the WEM Rules will be expanded to address matters currently contained within:

- the Electricity Networks Access Code 2004 (Access Code), made under Part 8 of the EI Act;
- Western Power's Technical Rules, made under the Access Code;
- the Electricity Industry (Metering) Code 2012, made under Part 2 of the EI Act;
- the *Electricity Act 1945* (as it relates to network voltage limits); and
- the Electricity Industry (Network Quality and Reliability of Supply) Code 2005, made under Part 2 of the EI Act.

The content of these instruments will be incorporated within the expanded WEM Rules through a deliberate, staged approach (outlined in Section 5, below). Transitional provisions within the amended EI Act (and other primary legislation as necessary) will permit parts of each instrument to be imported in part or in full at different times as policy development and consultation is completed. This means that existing instruments may be modified as required in advance of their content being incorporated within the expanded WEM Rules. Additionally, provisions in each subsidiary instrument will remain in effect until the commencement of the relevant portion of the WEM Rules.

Drafting will also ensure that the Coordinator of Energy can establish expert or specialist panels to provide advice on future reviews.

Provisions in the *Electricity Act 1945* relating to prescription of voltage (or “electrical pressure”) will be repealed, and the WEM Rules empowered to deal with prescribing voltage.

3) Improving arrangements to address new subject matter

The Project Eagle amendments will enable the WEM Rules to address matters where these are not able to be adequately dealt with through existing instruments because of:

- the scope of regulations and subsidiary instruments being limited by the heads of power in the EI Act;
- processes for the governance and amendment of instruments no longer being fit for purpose due to their inflexibility; and
- matters being addressed across multiple instruments, with overlaps, inconsistencies, and gaps in coverage.

Examples of these challenges include:

- the inability of Western Power’s Technical Rules to empower required compliance, monitoring and enforcement for equipment (such as DER) connected to lower-voltage networks or to effectively confer obligations and roles on parties other than Western Power (such as AEMO as system operator, or electricity retailers);
- the process for amending Western Power’s Technical Rules, NQRS Code, and Access Code being cumbersome, time-consuming, and inconsistent with that used for the WEM Rules; and
- barriers to the implementation of the improved framework for power system security and reliability approved by the Energy Transformation Taskforce under multiple regulatory instruments with different heads of power and limited interoperability.

Resolving these problems has become urgent as DER, such as customer-owned rooftop solar, plays an increasingly important role in the power system and alternative options emerge to improve power system security and reliability, particularly in regional areas of the SWIS.

Amendments to the EI Act will also include definitions of embedded networks and microgrids to facilitate work being progressed under the planned Alternative Energy Services framework.

4.2 Matters removed from scope

Several items that were originally included within the scope of Project Eagle as described in the October 2021 consultation paper have been removed, or are otherwise being addressed by other work currently underway. In summary, items no longer included within the scope for the Project Eagle legislative amendments include:

-
- *Alternative Electricity Service framework* – as outlined in Section 3.2, the AES framework reforms are being progressed through a separate legislative package. The code of practice under the AES framework will remain a standalone code as originally proposed. The AES amendments are expected to be introduced into Parliament in the second half of 2023, with prescription of the first AES likely in 2024.
 - *Reforms relating to the Pilbara electricity system* – reforms relating to the [regulation of the Pilbara networks](#) (under Part 8A of the EI Act) are not in scope and are being progressed separately under the existing governance framework for the Pilbara Network Rules and Pilbara Network Access Code.
 - *Customer protections* – at the present time, legislative amendments are not in scope in relation to the “retailer of last resort” schemes for electricity and gas; improvements to electricity and gas licencing regimes; energy buyback schemes; and contestability orders. These items may be subject to future review and public consultation.

5. Implementation and next steps

Enabled by changes to the EI Act, the planned regulatory framework will provide for major improvements to the effectiveness and responsiveness of energy sector governance. In acknowledgement of the significant changes to regulatory instruments required to implement ETS Stage 2 and the potential impact on energy market participants, EPWA anticipates a phased approach to the reforms through to 2025-26, with the most critical changes to instruments to be progressed first.

A phased approach to the reforms will enable a considered approach to reviewing existing instruments and engaging meaningfully with stakeholders prior to amending the WEM Rules. More detail on the timing of changes to subsidiary instruments and the inclusion of related content within the WEM Rules is provided below. It is planned that changes to the WEM Rules to implement ETS Stage 2 will require the endorsement of the Minister for Energy. Throughout the ETS, the Minister for Energy was empowered to make WEM Rules, to ensure the change process was appropriately speedy and flexibility. Similar powers are contemplated for the implementation of these reforms, though are yet to be introduced.

The progressive implementation of reforms enabled by changes to the EI Act will be subject to the completed drafting of legislative amendments to the EI Act and other instruments, the passage of amendments through parliament, and a staged approach to policy development and detailed drafting for subsidiary instruments. Currently, drafting of amendments to primary legislation and their introduction to parliament is planned for the second half of 2023.

5.1 Our phased approach

The implementation of the reforms will be subject to a legislative amendment drafting process, followed by a phased approach to the development of policy and subsequent amendments to the WEM Rules.

It is anticipated that the drafting of an amendment bill will be concluded in mid-2023, followed by its introduction to Parliament.

The proposed approach to implementation of the ETS Stage 2 reforms enabled by Project Eagle has activities packaged into three broad work streams relating to:

1. The lower-voltage distribution network and DER integration;
2. power system security and reliability; and
3. other enhancements and modifications.

Each work stream will be progressed in parallel, and it is anticipated that there will be interdependencies between each of the work streams.

To implement these changes, and manage interdependencies and timing, governance arrangements (including industry consultation, working groups, and advice and approval bodies) will be required. These arrangements will be developed by EPWA over the coming months and communicated to stakeholders.

5.1.1 Distribution network and DER

A critical feature of the ETS Stage 2 is implementing the DER Roadmap actions to safely and efficiently integrate DER with the power system.

Scope for this work stream includes:

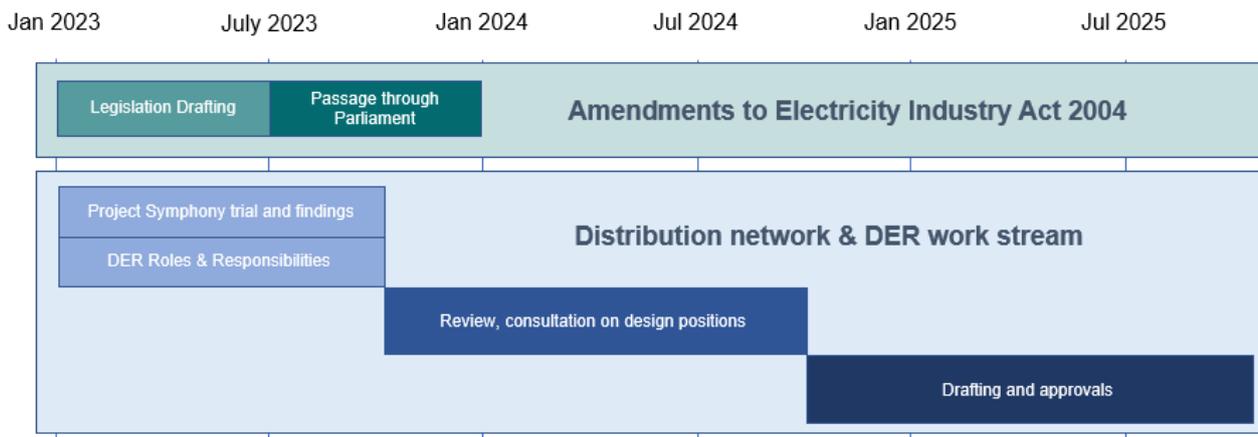
- importation of relevant existing distribution connection provisions from instruments including Western Power’s Technical Rules, the Access Code, and the NQRS Code, as well as voltage standards currently prescribed in the *Electricity Act 1945*; and
- establishment of new requirements relating to the connection of DER – including technical and operational standards for DER devices, as well as obligations for new visibility, monitoring and compliance provisions to ensure ongoing maintenance of those standards.

The planned implementation of this reform work stream will include consideration of a range of parallel activities:

- The Project Symphony virtual power plant pilot, which involves the orchestration of hundreds of consumer DER devices to test technical capabilities, and network, system and market integration, is currently underway. A key deliverable of this project includes identification of key legislative and regulatory benefits, barriers, and required areas for change. The conclusion of pilot activities is anticipated for mid-2023.
- EPWA is continuing work on defining the future framework for DER participation, which relates to DER Roadmap actions to establish DSO, DMO, and DER Aggregator roles and responsibilities. EPWA will build upon the previously published Information Paper with a subsequent report due for release in mid-2023 which will be used, in conjunction with the outcomes of Project Symphony, to guide the development of WEM Rules and other regulatory changes required for the integration of DER within the power system.

Process for implementation

The approach to this work stream will rely upon this work already underway to develop policy positions, and will therefore commence later in 2023.



Broadly, as outlined in the figure above, implementation will involve:

- **Review:** A review will identify all relevant provisions in existing instruments, consolidate policy positions (such as those developed through Project Symphony and DER Roles and Responsibilities work by EPWA) into a consistent view of requirements, and undertake a gap analysis to outline the areas for further drafting development.
- **Consultation:** It is envisaged that stakeholder consultation will occur through the DER Roles and Responsibilities work and in response to review stage work, which will be used to test and refine a design position to inform drafting.
- **Drafting:** Once positions are clearly defined, drafting of the relevant WEM Rules will occur, with consideration for transitional arrangements and the impact of importing provisions from within existing instruments. Stakeholder input will continue through the drafting stage.

Noting the close interaction between the DER and power system security and reliability frameworks, interdependencies between the two work streams will be considered carefully, and may result in packages being progressed in tandem.

5.1.2 Power System Security and Reliability

This work stream will implement the [Energy Transformation Taskforce’s decisions on the future framework for power system security and reliability](#) to address the urgent need for a consolidated, clear and consistent set of standards, with a centralised governance framework under the WEM Rules. Under the WEM Rules, the governance and rule change processes sit under the Coordinator of Energy, who will be supported by technical advisory panels.

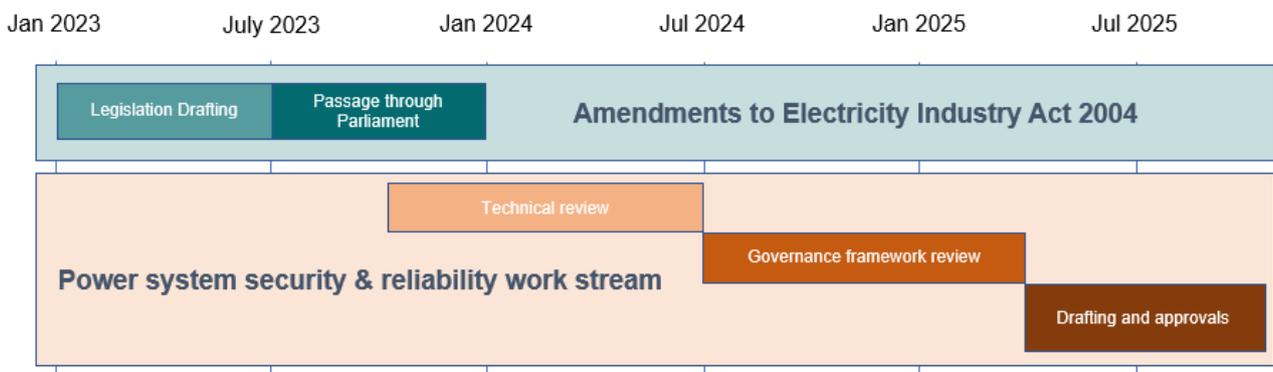
Scope for this work stream includes:

- reviewing and identifying all power system security and reliability standards and frameworks within Western Power’s Technical Rules, Western Power’s Access Arrangement, the WEM Rules, and NQRS Code, identifying conflicting or duplicative standards;
- developing a framework for the development and oversight of standards; and
- subject to review, defining an approach to consolidate, draft and import relevant provisions into the WEM Rules.

Process for implementation

This work stream will consolidate the various power system security and reliability standards already defined in existing instruments. These include those standards relating to: power system performance and operations; network planning; generation planning; customer performance; network reliability; and service standard benchmarks. Where relevant, this review may also identify areas for improvement or refinement of existing material and will have regard to the ERA’s final determination on Western Power’s Fifth Access Arrangement.

Stakeholder consultation will be required to inform the prioritisation and drafting of the standards to be transferred to the WEM Rules.



Broadly, the implementation approach will include:

- **Technical review:** This work stream will require an initial technical standards review process which will identify and consolidate relevant PSSR standards across existing instruments. Where relevant, this review may identify areas of duplication or inconsistency, and opportunities to rationalise standards.
- **Governance framework review:** A limitation of the existing arrangements includes the inconsistent governance and change processes for PSSR standards – a review will assess areas for improvements to PSSR governance.
- **Consultation:** It is envisaged that stakeholders will be consulted throughout development of the technical and governance framework reviews, with a view to producing a position to inform drafting.
- **Drafting:** Once positions are clearly defined, drafting of the relevant WEM Rules will occur, with consideration for transitional arrangements and the impact of importing provisions from existing instruments. Stakeholder input will continue through the drafting stage.

The planned implementation of this reform work stream will include consideration of a range of parallel activities. Most notably, the timeframes suggested above have regard for the commencement of the new WEM arrangements, and will not commence until after 1 October 2023. This starting date reflects the implications for stakeholders in the lead-up to market start, including stakeholder resourcing constraints, and will allow any review activities to better incorporate issues identified in the new market.

5.1.3 Further modifications and enhancements

This work stream will assess all remaining provisions within Western Power's Technical Rules, the Access Code, the Metering Code, and NQRS Code to be incorporated within the expanded scope of the WEM Rules. Indicatively, this work stream will include various review processes, gap analyses, and incorporation of any emerging policy decisions.

For example, prioritisation of WEM Rule changes for parts of the Access Code that may assist in the implementation of recommendations arising from Western Power's review of its Major Customer Connection Process.

Further staging and prioritisation of work under this stream may be required to ensure implementation is appropriate and orderly. This will be subject to the review processes and stakeholder consultation.

6. Further consultation

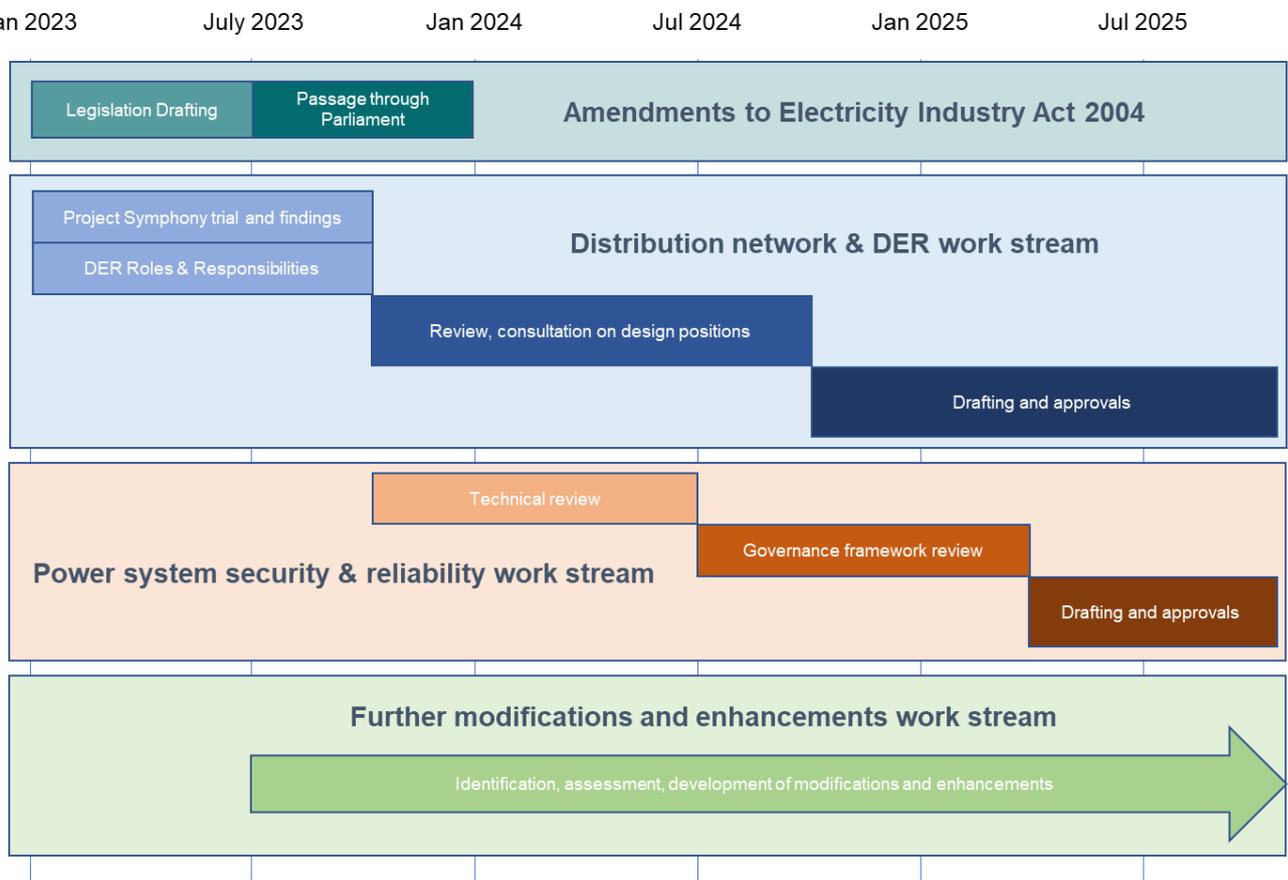
EPWA will provide an update on a more detailed work plan at the time of introduction of the amending bill to Parliament. It is anticipated that introduction will occur in the second half of 2023, and subsequent progress on the amending bill will be subject to consideration and approval by Parliament.

This work plan will include greater depth of detail on proposed governance, timing and detail to be included under each of the work streams.

In the interim, EPWA will further develop implementation timeframes and consult with stakeholders progressing related initiatives.

Appendices

Appendix A. Timeline for planned implementation



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