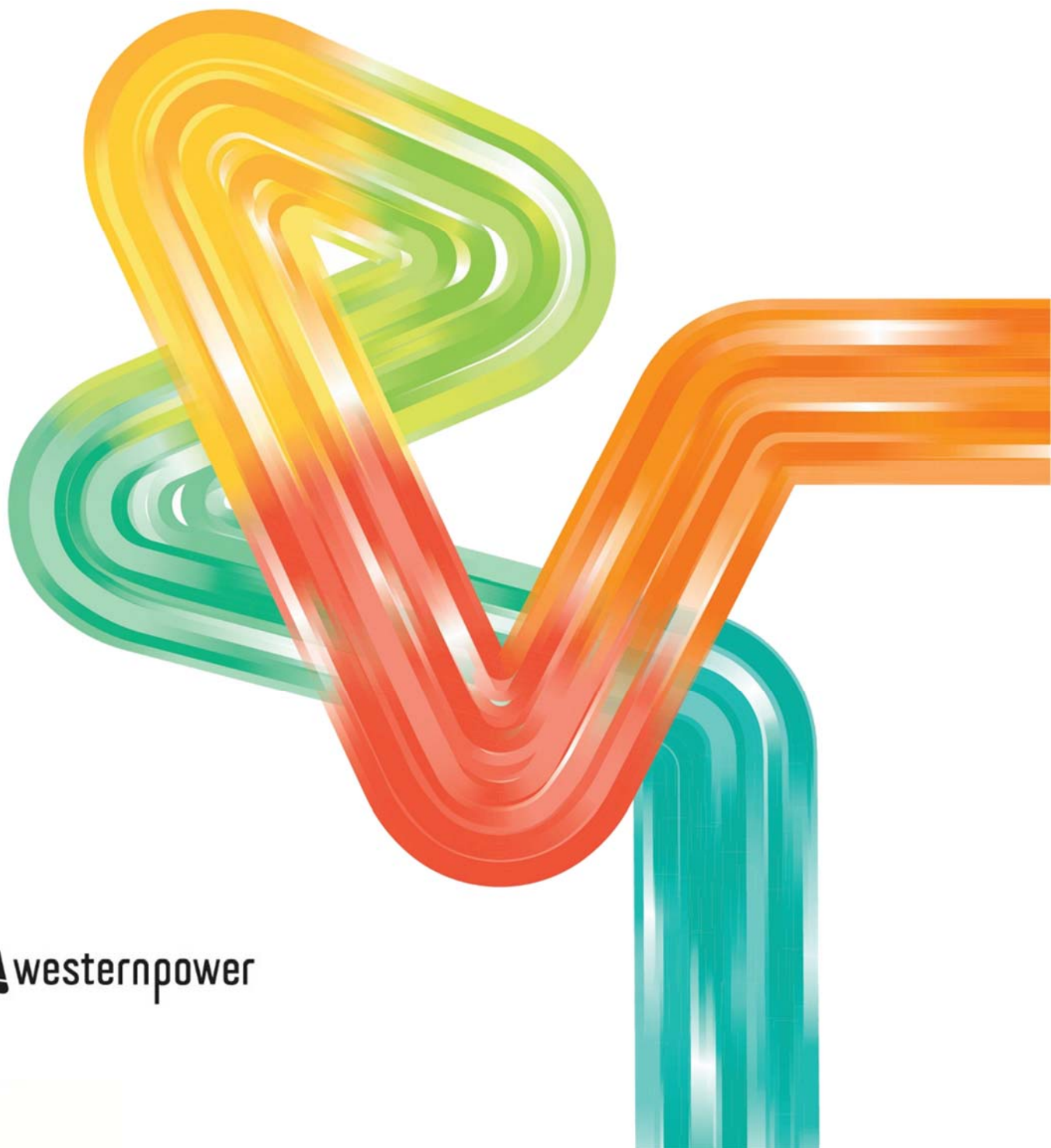


# 2020 Asset Management System Review

## Post Review Implementation Plan

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- Post Review Implementation Plan

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## Reference Western Power Electricity Transmission Licence (ETL2) and Electricity Distribution Licence (EDL1) Asset Management System Review (AMSR) 2020 : Post Review Implementation Plan

Recommendation reference	Reference Asset Management Process/ Effectiveness Criteria	Reviewer's recommendation	Action proposed to be taken by Western Power	Responsible person(s)	Target completion date
<b>REC:01/2020</b>	<p><b>AMP 1 – Asset Planning</b></p> <p>Effectiveness Criteria 1.4 – <b>Non-asset options (e.g. demand management) are considered</b></p> <p><b>AMP 2 – Asset Creation &amp; Acquisition</b></p> <p>Effectiveness Criteria 2.1 – <b>Full project evaluations are undertaken for new assets, including comparative assessment of non-asset options</b></p>	<p>We recommend that Western Power further develop, and ensure implementation of their framework for identifying, exploring, and progressing <b>non-asset</b> options (e.g. Demand Management) to address identified network and asset needs. This should involve clarifying and communicating the purpose and function of non-asset options in deferring the need for Western Power investment and consequently additions to the Regulatory Asset Base.</p> <p>To satisfy the requirement of this criteria it would normally be expected that the following existed:</p> <ul style="list-style-type: none"> <li>• Non-Asset Strategy</li> <li>• The establishment of clear processes, criteria and thresholds for potential Non-Asset solutions in order to implement the strategy</li> <li>• A Non-Asset Program established, implemented, governed, and monitored</li> </ul>	<p>The review report acknowledges that Western Power has a range of existing processes for assessment of non-asset options as a part of its asset management decision making. It is further acknowledged that the investment during the review period did not include any major investment in network augmentation. The report further acknowledges that Western Power has implemented initiatives such as demand response and is further investigating non-network alternatives to mitigate network risks due to increased penetration of renewable energy.</p> <p>The Electricity Network Access Code has been amended and was gazetted on 18 September 2020. The amended Access Code introduces requirements on Western Power that are aligned with the review recommendation. The Code requires Western Power to publish an Alternative Options strategy and Network Opportunities Map amongst other requirements. Non-</p>		

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		<ul style="list-style-type: none"> <li>Embedding in the Investment Governance Framework the requirement for non-asset options to be actively explored and reported on for all investments above the pre-determined threshold; and Management reporting on the above, including reporting on non-asset deliberations through the Investment Governance Framework compliance reporting arrangements</li> </ul>	<p>asset solutions are integral to the Alternative Options as defined in the Access Code.</p> <p>Western Power will implement actions that will address the Asset Management System review recommendations, whilst also addressing the requirements under the revised Access Code. These actions are discussed below:</p> <p><b>01.01. Develop Alternative Options Standard</b></p> <ul style="list-style-type: none"> <li>Defines <b>how</b> WP will investigate, develop, assess, implement and report on potential alternative options including non-asset options</li> <li>Defines <b>when</b> alternative options assessments are undertaken and how the outcomes are recorded</li> <li>Defines <b>how</b> a Network Opportunities Map is developed</li> <li>Defines <b>how</b> Western Power will engage potential solution providers to encourage alternative options and implement alternative options</li> </ul>	<p>Head of Function Grid Transformation</p>	<p>June 2021</p>

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			<p><b>01.02. Develop and publish Alternative Options Strategy</b></p> <ul style="list-style-type: none"> <li>To include <i>non-asset options strategy</i> and address all requirements of the Access Code from Alternative Options strategy</li> </ul>	Head of Function Grid Transformation	October 2021
			<p><b>01.03. Develop and publish a Network Opportunities Map</b></p>	Head of Function Grid Transformation	October 2021
			<p><b>01.04. Embed Alternative Options Standard and Strategy in Western Power's AMS and IGF</b></p> <ul style="list-style-type: none"> <li>Roll out Alternative Options Standard and Strategy to all responsible for implementation</li> <li>Update Asset Management System and Investment Governance Framework (as applicable)</li> </ul>	Head of Function Asset Performance (AMS) Finance and Metering (IGF)	October 2021
REC:02/2020	<p><b>AMP 1 - Asset Planning</b></p> <p>Effectiveness Criteria: 1.5 – <b>Life cycle costs of owning and operating</b></p>	<p>We recommend that Western Power:</p> <p>a. Document an approach for the development of asset whole-of-lifecycle costs, and for its application in the asset planning and in the asset investment decision making process. This approach for whole-of-life asset costing, should</p>	<p>The review report acknowledges that Western Power has a range of existing processes for assessment of cost evaluation as a part of its asset management decision making process. The opportunity and the extent to which life cycle cost evaluations are undertaken is dependent on the situation. The report acknowledges that</p>		

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	<p><b>assets are assessed</b></p> <p>AMP 2 – Asset Creation &amp; Acquisition</p> <p>Effectiveness Criteria: 2.2 – Evaluations include all life-cycle costs</p>	<p>cover the following considerations on a net-present or net-future value basis:</p> <ul style="list-style-type: none"> <li>• an asset's up-front capital costs;</li> <li>• ongoing maintenance and service costs;</li> <li>• risk costs associated with the asset due to deteriorating performance for e.g. obsolescence, or non-compliance with regulatory requirements;</li> <li>• mid-life refurbishment costs; and</li> <li>• end-of-life retirement, and disposal costs or residual value.</li> </ul> <p>b. Within the above guideline, establish (or reinforce) a requirement that whole-of-life cycle costs be considered as standard rigour in asset planning and investment decisions, and that these considerations be explicitly evident in the business case documentation as evidence that the matter has been appropriately considered.</p> <p>In our opinion the above should also capture the treatment of risk costs, which is particularly deficient in relation to transmission assets:</p> <p>c. We recommend that Western Power further develop the policy and</p>	<p>Western Power has undertaken detailed life cycle cost evaluations for major investment decisions such as standalone power systems amongst other projects.</p> <p>Western Power acknowledges the opportunity to develop and implement a comprehensive life cycle cost evaluation methodology that will consider a more holistic view of costs over the asset's life and to be implemented consistently across all asset management decisions. Actions planned to address this are discussed below:</p> <p><b>02.01. Develop Whole of Life Cycle Cost (WOLCC) Assessment Standard</b></p> <ul style="list-style-type: none"> <li>• Defines <b>how</b> WP will undertake whole of life cycle cost assessments, assumptions and inputs including period over which assessments are to be undertaken, consideration for capital costs, ongoing maintenance and service costs, risk costs, end of life retirement and residual costs</li> <li>• Defines <b>when</b> WOLCC assessments are to be undertaken and <b>how</b> the outcomes are recorded</li> </ul>	<p>Head of Function Grid transformation Finance &amp; Metering</p>	<p>June 2021</p>

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		<p>procedural requirements of investment governance so that:</p> <ul style="list-style-type: none"> <li>The principles of the quantification of risk as outlined in the Risk-Based Planning Methodology be embedded as standard planning practice for all transmission asset renewal and capacity upgrade planning assessments;</li> <li>All business case evaluations of network asset investments in the transmission network include a quantitative evaluation of pre and post investment risk outcomes and measurable benefits as required by the Investment Governance Framework; and</li> <li>That greater rigour be applied in the Investment Gate Approval process to ensure that quantified and monetised network asset risk assessments become a key feature of business cases.</li> </ul> <p>Combined, the above will ensure that the expected economic impacts as well as the financial impacts of any proposed investment are considered and understood and will facilitate objective risk-based optimisation of the network investment portfolio.</p>	<ul style="list-style-type: none"> <li>Defines <b>how</b> WOLCC assessments are maintained over the asset life cycle</li> <li>Details <b>how</b> safety, environment, reliability (security and capacity) risk costs are to be applied in WOLCC assessments to ALL asset management decisions</li> </ul> <p><b>02.02. Deploy and implement WOLCC Standard</b></p> <ul style="list-style-type: none"> <li>Roll out WOLCC Standard to all responsible for implementation</li> <li>Update Asset Management System and Investment Evaluation Manual (as applicable)</li> </ul>	<p>Head of Function Grid Transformation Asset Performance Engineering &amp; Design  Finance &amp; Metering</p>	<p>October 2021</p>

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<b>REC:03/2020</b>	<b>AMP 12 – Review of AMS</b>  <b>Effectiveness Criteria:</b>  <b>12.1 – A review process is in place to ensure the asset management plan and the asset management system described in it remain current</b>	<p>We recommend that Western Power demonstrate a sustainable approach to maintaining the currency of documents in the asset management system, update the asset management system description and processes accordingly, and resource and implement the required changes. An appropriate SMART performance metric demonstrating year-on-year management of documents and document currency should also be developed and monitored.</p> <p>To satisfy the requirement of this criteria it would normally be expected that the following should exist:</p> <ul style="list-style-type: none"> <li>• Evidence of implementation and monitoring of the Corrective Action Plan in ISO 55001 Assessment Findings and Corrective Action Plan 2019;</li> <li>• Understanding of existing review cycles and basis including impact on dependencies for changing review cycles;</li> <li>• Evidence of reviews and maintenance of the currency of documents;</li> <li>• All asset management documents and processes reflect the current asset management activities and are approved and published when and as required by the system specification.</li> </ul>	<p>Western Power acknowledges the improvements possible in management of the documented information within its AMS and has a plan in place to implement these improvements. This plan is in its second year of implementation. Aligned with the recommendations, Western Power will undertake the following actions:</p>		
			<p><b>03.01. Refine the standard for management of AMS documented information.</b></p> <ul style="list-style-type: none"> <li>• Defines <b>which</b> AMS documents need to be “maintained” or “retained”</li> <li>• Defines <b>what</b> are the minimum requirements for management of documented information over their life cycle including roles and responsibilities. This will include the definition of review cycles/ triggers for AMS documented information</li> </ul>	<p>Head of Function Asset Performance (AMS)</p>	<p>June 2021</p>
			<p><b>03.02. Deploy and implement a standard for management of AMS documented information</b></p> <ul style="list-style-type: none"> <li>• Undertake assessment of the currency of AMS documented information</li> <li>• Reconfirm the currency or develop a review plan for AMS documented</li> </ul>	<p>Head of Function Asset Performance (AMS)</p>	<p>August 2021</p>



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		<ul style="list-style-type: none"> <li>This should include updating holocentric processes to maintain their currency</li> </ul>	<p>information. The review plan where applicable will be risk prioritised</p> <ul style="list-style-type: none"> <li>Update AMS (as applicable)</li> </ul>		
			<p><b>03.03. Implement ongoing monitoring and reporting on status of AMS documented information</b></p>	<p>Head of Function (Various)</p>	<p>June 2021</p>
			<p><b>03.04. Reconfirm the currency or develop a review plan for the business processes as recorded in holocentric</b></p>	<p>Head of Function (Various)</p>	<p>August 2021</p>