

2014 Asset Management System Review

Post Review Implementation Plan

(Includes nine opportunities for improvement)

Document Number: DM#12512939

2014 Asset Management System Review - Post Review Implementation Plan (Includes nine opportunities for improvement)

Asset Management System Key Processes (KP)

KP 1	Asset Planning	KP 7	Asset Management Information System
KP 2	Asset Creation & Acquisition	KP 8	Risk Management
KP 3	Asset Disposal	KP 9	Contingency Planning
KP 4	Environmental Analysis	KP 10	Financial Planning
KP 5	Asset Operations	KP 11	Capital Expenditure Planning
KP 6	Asset Maintenance	KP 12	Review of AMS

Area of Special Focus (AOSF)

AOSF 1	Asset Management Information System
AOSF 2	Distribution Wood Poles
AOSF 3	SOCC & NOCC Business Continuity
AOSF 4	Transformer Management

Recommendations

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
01/2014	KPA: 1	<p>Jacobs recommends that there should be an overarching asset management strategy applicable to all network assets which considers each stage in the asset lifecycle e.g. plan, design, build, operate, maintain, renew and dispose.</p>	<p>Western Power has developed a “Key Considerations for Asset Management Strategy” document (DM#10399003) which is used to develop individual asset class strategies (including Whole of Life Costing considerations). Western Power will refine its key asset class strategies in line with this document.</p> <p>The individual key asset management strategies will be consolidated and included in the next version of the Network Management Plan (or equivalent).</p>	Asset Performance	31 Dec 2015
02/2014	KPA: 1	<p>It is recommended that Western Power establish a long term view of the total asset renewal expenditure requirement that integrates renewal needs across the range of asset classes. This should demonstrate how renewal needs for “child” assets roll up in a coordinated way to an overall renewal plan for a parent asset (for example, circuit breakers and transformers into substation renewal, etc).</p> <p>The long-term renewal plan should be coordinated and articulate renewal needs across the whole asset base. It should include high-level planning data such as renewal</p>	<p>Prepare a single Network Outlook for the Western Power network notionally covering 50 years (the asset lifecycle of primary network assets) covering all classes of transmission and distribution assets which shows asset renewal and maintenance investments and performance predictions.</p>	Network Planning & Standards	31 Dec 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
		expenditure modelling, “renewal” to “development” overlap synergies, and long-term objectives for overall asset and network health.			
03/2014	KPA: 1	<p>It is recommended that Western Power establish clear long-term objectives for the key performance measures such as SAIFI, SAIDI, supply security standards etc, and provide a sharp focus for the investment program through this.</p> <p>These objectives may be along the lines of maintaining current standards but at higher efficiency levels, or may be targeted, for example, by increasing performance standards for rural areas whilst maintaining standards for urban areas, etc., and should be clearly linked to overall business strategic plans and objectives.</p>	<p>Long-term objectives for service standard (reliability and supply security) measures will be developed by:</p> <p>a) Preparation of a Reliability Strategy which is consistent with overall business strategic plans and objectives, and is cognisant of funding and resource constraints.</p> <p>b) Scenarios will be used to develop long-term objectives for the service standard (reliability and supply security) measures for endorsement by Western Power’s Executive.</p>	Network Planning & Standards	<p>30 Jun 2015</p> <p>31 Dec 2015</p>
04/2014	KPA: 2	Jacobs recommends that Western Power articulate its intentions regarding Demand Management and Non-network solutions through a specific policy and associated strategy, and should consider developing high-level targets for DM programs or outcomes if practicable.	Develop an overarching Non-Network (including Demand Management) Solutions Management Standard and Strategy (including targets), for endorsement by Western Power’s Executive.	Network Planning & Standards	30 Jun 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
05/2014	KPA: 2	<p>Jacobs recommends that a strategic spares policy be developed that specifically spells out the types of risks being addressed, the appropriate level of spares to be kept, location and spares access arrangements, and a spares management regime (e.g. rotation through the live network, retention periods, maintenance arrangements, etc.)</p> <p>This spares policy should also give consideration to access, transport arrangements and define boundaries around acceptable time-to-site in order to better define storage requirements.</p>	<p>Develop a management standard for strategic spares which defines the overarching framework, principles and approach for network and asset strategic spares.</p> <p>The standard will also guide relevant matters including the types of risks to be addressed, the appropriate level of spares to be kept, location and spares access arrangements, and a spares management regime.</p>	Network Planning & Standards	31 Mar 2016
06/2014	KPA: 3	<p>Jacobs recommends that review of the performance KPIs and targets be formalised within an appropriate review process.</p>	<p>Ensure the 'Strategy Development Process' articulates the validation and re-evaluating of performance measures relevant to asset performance and ensure that:</p> <ul style="list-style-type: none"> a) the review plan for future Network Management Plans, or equivalent plans, includes the validation and re-evaluating of performance measures (KPI's & targets) valid to asset performance. b) the outcome of this is explicitly referenced in future Network 	Asset Performance	31 Dec 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
			Management Plans or equivalent plans.		
07/2014	KPA: 4 AOSF: 2 AOSF: 4	<p>Jacobs recommends that Western Power introduce and monitor timeliness indicators for attending to defects. This should be consistent with the new approach such that risk profiles are accurately represented to stakeholders. Specific areas that should be considered include:</p> <ul style="list-style-type: none"> • Pole remediation for all risk categories (Fault-Short Term Deferred/PAR/ZBAM); including volumes, failures and timeliness. • Pole remediation with respect to Western Power's high consequence areas (i.e. bushfire zones etc.); including volumes, failures and timeliness. <p>Jacobs advises that Western Power may wish to consider revising its reporting for all assets consistent with the above; with a view on ensuring that risk profiles are being accurately represented.</p>	<p>The management action items below are also linked to recommendations 10/2014 and 12/2014.</p> <ol style="list-style-type: none"> 1. Review the distribution zone based asset maintenance (ZBAM) approach to confirm and clarify the definitions for Fault, PAR and Zone works. 	Asset Performance	28 Feb 2015
			<ol style="list-style-type: none"> 2. Determine delivery timeframes and KPIs for the delivery of Fault, PAR and Zone works. 	Asset Performance	28 Feb 2015
			<ol style="list-style-type: none"> 3. Develop a process for monitoring and reporting against these timeframes and KPIs. 	Works Program	30 Jun 2015
08/2014	KPA: 4 AOSF: 2	Jacobs recommends that Western Power seek guidance from Energy Safety and the Authority on appropriate pole failure targets for reporting purposes.	Engage with Energy Safety and the ERA on the appropriateness of wood pole failure targets.	Asset Performance	31 Mar 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
09/2014	KPA: 6	<p>Jacobs recommends that a review be undertaken of the merits of adopting a broad CBRM approach in light of the Combined Maintenance framework. This would be aimed at:</p> <ul style="list-style-type: none"> • assessing the impacts of CBRM on the efficiencies of combined maintenance, • ensuring an orderly migration plan from time-based maintenance to condition and risk based maintenance across the asset base, • ensuring the Combined Maintenance Framework is adjusted to reflect the impacts of the CBRM approach, and that the project management structures are in place to accommodate this, and • ensuring that CBRM remains targeted to the areas of greatest impact. 	1. Undertake stakeholder engagement to consider the overall impact of any proposed change to transmission plant maintenance.	Asset Performance	28 Feb 2015
			2. Complete and incorporate Risk and Cost Benefit Analysis on the merits of Time Based Maintenance vs Reliability Centred Maintenance for specific plant assets, into the revised asset strategies development and maintenance requirements documentation.	Asset Performance	31 Mar 2015
			3. Complete the transmission asset plant strategies and maintenance requirements document reviews and improvements, in preparation for the AA4 submission.	Asset Performance	30 Jun 2015
10/2014	KPA: 6 AOSF: 2	Jacobs recommends that Western Power should investigate the appropriateness of the 12 week PAR remediation timeframe to assess whether it is appropriate, and whether there is scope for its improvement. Additionally,	1. Review the distribution zone based asset maintenance (ZSAM) approach to confirm and clarify the definitions for Fault, PAR and Zone works.	Asset Performance	28 Feb 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
		<p>Western Power should consider the monitoring and reporting of time to remediate 'Faulted' and 'Short-Term Deferred' Poles.</p> <p>Jacobs is of the view that Western Power should exercise a demonstrable focus on improving defect rectification times, not just for poles but across all of its distribution maintenance activities (where practicable).</p> <p>Issues that may frustrate the achievement of benchmarks (and benchmark improvement) may be considered to develop a suite of sub-benchmarks, for example time to rectify for access constrained poles versus access available poles.</p>	<p>2. Determine delivery timeframes and KPIs for the delivery of Fault, PAR and Zone works across its distribution maintenance activities.</p> <p>3. Develop a process for monitoring and reporting against these timeframes and KPIs.</p>	<p>Asset Performance</p> <p>Works Program</p>	<p>28 Feb 2015</p> <p>30 Jun 2015</p>
11/2014	KPA: 6	<p>Jacobs recommends that project management disciplines are formally implemented, and that Western Power considers the more formal provision of project planning and management support, perhaps through the formation of a permanent Combined Management Projects team.</p> <p>The creation of this team would need to be underpinned by process and procedure documentation, team resource planning, and succession planning.</p>	<p>Western Power will undertake a review of the processes and structure used to manage inspections and maintenance activities for substations throughout the SWIS. This review will analyse the management infrastructure in place to support the work planning, packaging allocation and completion of activities, identify opportunities for improvement (including project management) and implement as required.</p>	<p>Field Operations</p>	<p>31 May 2015</p>

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
12/2014	KPA: 6 AOSF: 2	Jacobs recommends that Western Power consider whether firm time limits are appropriate for low-risk defects, and whether defect escalations are appropriate after specified time periods have lapsed.	Determine delivery timeframes and KPIs for the delivery of Fault, PAR and Zone works, which considers whether firm time limits are appropriate for low-risk defects.	Asset Performance	28 Feb 2015
13/2014	AOSF: 4	<p>Jacobs recommends that:</p> <ul style="list-style-type: none"> Western Power takes appropriate action based on the findings of the independent investigation [Muja BTT2 failure], and in view of the findings of other investigations and actions taken to-date. <p>A report be produced detailing the findings of the internal system investigation, and actions be taken as appropriate based on the findings.</p> <ul style="list-style-type: none"> Based on the outcome of the current investigations Western Power may wish to consider whether external expertise may be of assistance in diagnosing any broader system irregularities that may have contributed to the transformer failures. 	Western Power will take the actions below to further investigate causes of Muja BTT2 failure:		
			1. Forensic investigation of BTT2 TX winding by internal and independent transformer experts.	Asset Performance	30 Nov 2014 (completed)
			2. Prepare a report consolidating observations, findings and required actions, considering TX fleet, and network operation requirements.	Asset Performance	31 Dec 2014
			3. Develop an action plan to address the above, and hand over to responsible internal stakeholders.	Asset Performance	28 Feb 2015
			4. Stakeholders will consider required expertise and engage internal/external resources to deliver the actions.	Asset Performance	30 Sep 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
14/2014	KPA:2	<p>Jacobs recommends that a more formal and comprehensive approach to undertaking project post implementation reviews be developed.</p> <p>This would include a framework to facilitate a broader identification of projects that require a PIR. This should include high-significance non-Board approved projects or programs; such as the new approach to distribution assets management and significant upgrade to the asset management information system.</p> <p>A PIR framework (including a plan) should be developed that ensures that these are conducted as required and that actions and learnings are agreed upon, formally tracked and are used to inform improvements in project governance and project execution.</p> <p>Recommendation 15/2014 identifies a number of current or planned projects / programs where Jacobs considers that PIRs would be beneficial but would not necessarily be carried out under the existing policies.</p>	<p>In March 2014, the Quality Assurance Team implemented the Portfolio Assurance & Compliance Framework (DM#11809730) that establishes the rationale and strategy for all Portfolio Office assurance activities.</p> <p>The Framework includes the refreshed Post Implementation Review (PIR) process, which is part of a Risk based suite of review activities that provide assurance to the business of good project governance and management.</p> <p>A project plan is maintained outside the Framework.</p> <p>The PIR's for the current round of Board approved projects is underway and a report will be presented to the December 2014 Board meeting.</p>	Project Delivery	31 Dec 2014
15/2014	KPA: 6 KPA: 12 AOSF: 1 AOSF: 2	<p>Jacobs recommend that PIRs be carried out for the following projects and programs that are scheduled or were implemented during the 2012-14 period:</p> <p>1. Following the implementation of the new</p>	<p>1. Western Power will undertake a review of the Scoping phase of the Document Management System upgrade project</p>	Project Delivery/I&CT	30 Jun 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
		<p>document management system which is currently out for tender. This should consider whether the document control and review issues have been addressed – as per the OFI detailed in Jacobs observations with respect to KPA 12 i.e.:</p> <ul style="list-style-type: none"> o <i>Jacobs understands that a number of controlled documents are routinely reviewed and updated similar to the NMP. However, Jacobs has noted (2012/20) that uncertainties picked up in the 2012 review surrounding document revisions and control still persist within the organisation; for example:</i> <ul style="list-style-type: none"> - <i>Critical documents don't always contain document control information.</i> - <i>Documents with control sections do not identify intended start and completion dates for the next review.</i> <p><i>Jacobs advises that:</i></p> <ul style="list-style-type: none"> - <i>Western Power outlines and monitors all reviews that are required for each of its asset management system documents, processes and systems.</i> - <i>All documents should have a document control section that includes information on past revisions and intended start and</i> 	<p>2. Western Power will undertake a PIR of the Document Management System upgrade in accordance with the Portfolio Assurance & Compliance Framework (DM#11809730)</p>	<p>Project Delivery/I&CT</p>	<p>31 May 2016</p>

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
		<i>completion dates for the next review.</i>			
		<p>3. New distribution maintenance approach (Fault / PAR / ZBAM). This review should be scheduled at an appropriate time once the outcomes can be effectively considered against the original objectives.</p> <p>This should also consider the re-evaluation of categorisation and risk assessment criteria such as the PAR classifications and the 20:80 split of resources between high-risk poles and ZBAM.</p> <p>In general, all specific risk prioritisation criteria should be periodically reviewed for appropriateness based on outcomes.</p>	<p>3. Western Power will conduct a PIR for the new distribution maintenance approach that includes Fault / PAR and ZBAM, to ensure outcomes can be effectively considered against the original objectives, following 12 months of full implementation.</p>	Asset Performance	31 Oct 2016
		<p>3. Asset Management Information System upgrade. This should include (but not be limited to) an overview of costs compared to budget, gap analysis of implemented specification to original specification, a review of changes and the change control process, observable benefits compared to originally expected benefits, and outstanding issues and action plan to resolve them.</p>	<p>4. Undertake a PIR for the ISAM project upgrade in accordance with the Portfolio Assurance & Compliance Framework (DM#11809730)</p>	Project Delivery/I&CT	30 Apr 2015
16/2014	KPA: 5	Jacobs recommends that the Risk Management Framework include network	The Risk Management Framework will be updated to include reference	Finance Treasury & Risk	31 Mar 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
	KPA: 7 KPA: 8 KPA: 9	operation (including contingency planning) and business information systems.	to Network Operations as required (including contingency planning) and business information systems.		
17/2014	KPA: 7 AOSF: 1	<p>Jacobs recommends that Western Power develop a Strategic Plan for its Asset Management Information Systems and data. This plan should include a review current state of the systems and where Western Power is placed along the strategic journey. It should also include a long-term vision for the systems and outline an understanding of the likely costs, benefits, and timeframes for achieving the vision.</p> <p>Western Power should undertake a strategic review of asset information requirements for the business and establish long term objectives for key process areas as well as system integration needs; recognising that high quality data is an enabler for asset management performance improvement.</p> <p>Western Power should specifically consider as part of this strategic review the need for better gathering and integration of transmission asset condition data (and associated test data) to ensure ready access to this information. This is particularly pertinent given the separation of the Operation Asset management group from the day-to-day management of the asset</p>	Complete a Strategic Plan for the Asset Management Information System as described in the recommendation.	I&CT	30 Jun 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
		maintenance activities undertaken and managed from the Kewdale depot.			
18/2014	KPA: 9 AOSF: 3	<p>Jacobs is of the view that Western Power should develop response plans for a broad range of contingencies, as given by way of example in the list below. These are by no means exhaustive but are provided as an indication of the range of issues that should be considered:</p> <ul style="list-style-type: none"> • Simultaneous loss of transmission and widespread distribution due to a single event (storm and or bushfire); review network topology where this may be a susceptibility due to local environmental factors or network topology. • Credible (although unlikely) multiple transmission network contingencies; Common-mode or simultaneous failures of key elements. • Widespread generation loss or network islanding scenarios; Jacobs recognises that this is not necessarily in Western Power's jurisdiction, but plans will be required to manage community requirements nonetheless. • Widespread interruptions to major load centres (e.g. Perth CBD). 	<p>Western Power will develop a Network Operations Contingency Planning Management Standard.</p> <p>This will clearly explain the principles governing how potential contingencies (as described in the recommendation) are identified and prioritised. It will define the risk assessment criteria (linked back to Western Power's standard risk assessment criteria) used to decide which contingencies require full contingency plans to be developed.</p> <p>The contingency plans will be reviewed and tested as outlined in recommendation 20/2014, Management Action 2.</p>	Network Operations	30 Jun 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
		These should be reviewed and tested on a routine basis – see recommendation 20/2014.			
19/2014	KPA: 9 AOSF: 3	<p>Jacobs recommends that Western Power consider and factor into its contingency and emergency response plans for a broad range of issues such as social infrastructure impact and restoration prioritisation.</p> <p>This in particular applies where Western Power's response plans actively rely upon the availability of this infrastructure such as mobile phone capability and fuel supply. In this respect, contingency plans should actively consider the restoration of supply to vital infrastructure such as the examples listed below, noting that this list is not exhaustive:</p> <ul style="list-style-type: none"> • Water supply • Sewage systems • Food supply • Traffic management and public transport • Mobile telephones and emergency services telecommunications • Hospitals (coordination with Department of Health and routine testing of standby generation capability) • Fuel supply (Supply to Kwinana refinery, 	<p>1. Update the Priority Restoration Guideline to ensure that the items below are clearly identified and covered:</p> <ul style="list-style-type: none"> • Water supply • Sewage systems • Food supply • Traffic management and public transport • Mobile telephones and emergency services telecommunications • Hospitals (coordination with Department of Health and routine testing of standby generation capability) • Fuel supply (supply to Kwinana refinery, bulk supply terminals and local supplies) <p>2. Complete a review of Western Power's mobile radio capability</p>	Network Operation	30 Jun 2015
				I&CT	30 Jun 2015

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
		<p>bulk supply terminals, and local supplies)</p> <p>Active consideration should also be given to the management and review of Western Powers' mobile radio capability, and the management and coordination of a fleet of mobile generators in order to facilitate their rapid deployment to vital locations and key third party infrastructure sites. This would also include agreeing on supply connection standards for such assets.</p> <p>In addition to the above, contingency plans will need to consider the coordination of responses with other utilities. In this respect, protocols should be established with other emergency service departments and social-infrastructure service providers, including the examples listed below. These are by no means exhaustive but are provided as an indication of the range of issues that should be considered.</p> <ul style="list-style-type: none"> • Police • Fire Brigade • Ambulance and Hospitals • SES <p>These should be reviewed and tested on a routine basis – see JR: 20/2014.</p>	<p>and management</p> <p>3. Complete a review of Western Power's management and coordination of a fleet of mobile generators in order to facilitate their rapid deployment to vital locations and key third party infrastructure sites, in alignment with the Strategic Spares management standard outlined in 05/2014. This would also include agreeing on supply connection standards for such assets</p> <p>4. Complete a review and update all contingency plans, where necessary, to ensure that they actively consider the coordination of responses with other utilities. In this respect, protocols should be established with other emergency service departments and social infrastructure service providers including:</p> <ul style="list-style-type: none"> • Police • Fire brigade • Ambulance and hospitals 	<p>Network Planning & Standards</p> <p>Network Operations</p>	<p>30 Jun 2015</p> <p>30 Jun 2015</p>

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
			<ul style="list-style-type: none"> SES <p>All of these documents will be controlled documents and as part of the Network Operations ISO9001:2008 Quality Management System will be regularly reviewed and updated according to the standard document review cycle.</p>		
20/2014	KPA: 9 AOSF: 3	<p>Jacobs recommends that Western Power develop a review timetable for the contingency and emergency management plans and the reviews should be undertaken at a frequency commensurate with the nature of the scenario and the likelihood of its occurrence in recognition of the changes in the network over time.</p> <p>Western Power should also develop an annual review policy, timetable or framework as appropriate for the East Perth Control Centre (EPCC). A routine formal risk re-assessment program should be implemented for the EPCC in line with Western Power's general facilities management responsibilities.</p> <p>These reviews also relate to contingency planning JR: 18/2014 and JR:19/2014</p>	<ol style="list-style-type: none"> Initiate a process to collate a rolling corporate timetable of reviews, testing and exercises, based on information provided by the business. Timings will follow the required testing schedule laid down in section 3.4 of the Western Power Business Continuity Framework. Create an annual rolling timetable of EPCC contingency and emergency management plan reviews and exercises, which will include regular programs of re-assessment of operational risks. This will be included in the corporate timetable as per item 1 above. 	<p>Finance Treasury & Risk</p> <p>Network Operations</p>	<p>31 Dec 2014</p> <p>30 Jun 2015</p>

Recommendation No.	Key Processes	Recommendation	Management Actions	Accountability	Due Date
			3. Undertake an annual risk assessment of the Facilities assets at EPCC. This annual risk assessment will be built into the regular maintenance schedule for EPCC.	Property & Fleet	31 Dec 2014

Opportunities for Improvement

Opportunity for Improvement No.	Key Processes	Opportunity for Improvement	Management Actions	Accountability	Due Date
01/2014	KPA: 3	<p>Jacobs notes that the current incident investigation process is an 'interim process' and Western Power has advised that it will be reviewed as part of the Asset Management Strategic Theme project. Although, it was not observed that a specific timeline and scope for this review has been established.</p> <p>Jacobs recommends that a scope and timeline for the interim process review should be determined and documented.</p>	Western Power will develop a scope and timeline to undertake a review of its asset failure investigations process.	Asset Performance	31 Mar 2015
02/2014	KPA: 3	<p>Although the business cases reviewed showed that asset renewal decisions are based upon cost / benefit analyses, the full scope of decision criterion is not always apparent within the NMP. It is noted that referencing is made to LCMPs and business cases however references to additional strategies are also included in the asset-class discussions (e.g. creation, maintenance, spares strategies etc.) and it is not clear where these have come from. It is noted that references do not always include identifiers, and relevant incident investigations that have informed the strategies are not provided. It is recommended that referencing to all LCMPs, strategies, and business cases be made clearer, and not included selectively</p>	Review the NMP structure to ensure that the content and discussion for each asset class is clear and consistent and includes referencing to each asset class strategy and LCMP.	Asset Performance	30 Jun 2015

Opportunity for Improvement No.	Key Processes	Opportunity for Improvement	Management Actions	Accountability	Due Date
03/2014	KPA: 3	<p>The individual 'interim process' documents for incident investigations appear appropriate as reviewed; however, Jacobs had difficulty discerning the alignment between the process diagrams and the underlying documents. Jacobs advises that the review of the interim process should streamline the process and clarify the alignment between the overview process diagram, the detailed process diagram and the underlying process documents.</p>	<p>Western Power will complete a review of its asset failure investigations process. The review will include streamlining and clarification of the alignment between the overview and detailed process diagram and underlying process documents.</p>	Asset Performance	30 Jun 2015
04/2014	KPA: 8	<p>It is noted that the Network Risk Management Procedure (DM# 6592701) makes reference to Network Risk Management Tool (NRMT). However, Jacobs understands that the NRMT is only applied to selected asset groups and that a number of risk assessment tools are used throughout Western Power which are not included. Jacobs had difficulty clearly identifying the full scope of risk assessment tools and to which asset classes each is applied.</p> <p>Jacobs advises that Western Power should clearly articulate the scope of risk assessment tools that are used and to which asset classes each is applied.</p>	<p>Western Power will update the Network Risk Management Procedure to show its relationship with enterprise risk management and include the risk assessment tools used, and to which asset classes they apply.</p>	Asset Performance	28 Feb 2015
05/2014	KPA: 12	<p>Jacobs understands that a number of controlled documents are routinely reviewed and updated similar to the NMP. However, Jacobs has noted (2012/20) that uncertainties</p>	<p>Process improvements to support review of controlled documents will occur as a result of the implementation of a new</p>		

Opportunity for Improvement No.	Key Processes	Opportunity for Improvement	Management Actions	Accountability	Due Date
		<p>picked up in the 2012 review surrounding document revisions and control still persist within the organisation; for example:</p> <ul style="list-style-type: none"> • Critical documents don't always contain document control information. • Documents with control sections do not identify intended start and completion dates for the next review. <p>Jacobs advises that:</p> <ul style="list-style-type: none"> • Western Power outlines and monitors all reviews that are required for each of its asset management system documents, processes and systems. • All documents should have a document control section that includes information on past revisions and intended start and completion dates for the next review. 	<p>electronic document management system (Content Server 10).</p> <ol style="list-style-type: none"> 1. An update on the system design impacting controlled documents will be provided by 30 June 2015. In the interim, the promotion of regular self-assurance and random audit checks by the Records Management Team will be implemented. 2. Implementation of a new electronic document management system completed. 	<p>I&CT</p> <p>I&CT</p>	<p>30 Jun 2015</p> <p>31 Dec 2015</p>
06/2014	KPA: 12	<p>Jacobs did not observe any evidence of Western Power carrying out internal audits of their asset management system.</p> <p>Jacobs advises that Western Power should consider whether internal audits of its asset management system are appropriate.</p>	<p>Internal audits of the asset management system will be conducted on a regular basis. The first such audit will be undertaken during 2016.</p>	RIM	31 Mar 2016
07/2014	KPA: 12	<p>In carrying out the 2012-14 asset management system review Jacobs found that the document hierarchy and map could not be clearly defined by Western Power. In general, this meant that</p>	<ol style="list-style-type: none"> 1. Develop and implement a new Corporate Policies Framework. 2. Categorise approved and published new or revised 	<p>Legal & Governance</p> <p>Legal &</p>	<p>30 Jun 2015</p> <p>31 Dec 2015</p>

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		<p>Jacobs had difficulty in readily identifying where each document sat within the document hierarchy. Jacobs advises that:</p> <ul style="list-style-type: none"> • The asset management system document hierarchy be simplified and clearly articulated. • Each document should clearly show where it fits within the hierarchy. 	<p>controlled documents in accordance with the Corporate Policies Framework.</p>	<p>Governance</p>	
<p>08/2014</p>	<p>AOSF: 4</p>	<p>Jacobs has reviewed the Catalogue of Equipment Types and Definitions of Defect Severities for Distribution Substation (DM# 1200779) which is used for condition assessments of ground mounted distribution transformers. Jacobs considers this document to be complete and fit for the purpose of assessing asset condition. However, Jacobs notes that the document provides timeframes for defect rectification for the different defect severity levels. Jacobs notes that these timeframes appear to be inconsistent with Western Power's new Fault/PAR/ZBAM approach to asset maintenance. Jacobs' notes that this document is scheduled for review.</p> <p>Jacobs advises that Western Power revise the defect resolution timeframes consistent with the Fault/PAR/ZBAM approach to asset maintenance during the scheduled review.</p>	<p>Western Power will review the documentation used to perform condition assessments and where appropriate align the defect resolution timeframes with the Fault/PAR/ZBAM approach to asset maintenance.</p>	<p>Asset Performance</p>	<p>31 Oct 2015</p>

Opportunity for Improvement No.	Key Processes	Opportunity for Improvement	Management Actions	Accountability	Due Date
09/2014	AOSF: 4	<p>Jacobs has reviewed the maintenance criteria for Power Transformers (DM# 1045897) which identifies monthly inspection intervals for transmission power transformers. Oil sampling and thermal camera inspections are carried out yearly. Jacobs considers these schedules to be appropriate and consistent with typical industry practice.</p> <p>Jacobs advises that Western Power revise the maintenance criteria for Power Transformers (DM# 1045897) consistent with bi-monthly inspections. Western Power may wish to produce a document which explains the reasoning for the inspection regime change such that it can be readily understood by interested external parties.</p>	Western Power will review the maintenance criteria for Power Transformers (DM# 1045897) to reflect the current bi-monthly inspection intervals and document the reasons for moving from monthly to bi-monthly inspection intervals.	Asset Performance	30 Jun 2015