



Notice

19 November 2014

Electricity Networks Corporation (t/a Western Power)

2014 ASSET MANAGEMENT SYSTEM REVIEW

The Economic Regulation Authority has published the 2014 asset management system review (Review) report, and the post-review implementation plan for the electricity distribution (EDL1) and transmission (ETL2) licences of Electricity Networks Corporation (t/a Western Power).

- [2014 Review report](#)
- [Post-review implementation plan](#)

Action by the Authority

The Authority is satisfied that Western Power has, with the exception of contingency planning, an effective asset management system in place.

The Authority has decided to extend the interval until the next Review from 24 months to 36 months. The increase in the Review period is subject to Western Power satisfactorily addressing the auditor's recommendations in relation to contingency planning by 30 June 2015.

The next Review will cover the period 1 July 2014 to 30 June 2017, with the report on the Review to be provided to the Authority by 30 September 2017.

The Authority has identified nine opportunities for improvement in the Review report that need to be actioned. Western Power is required to add these items to the post-review implementation plan.

BACKGROUND

2012 Review Recommendations

There were 39 recommendations made in the 2012 Review. The 2014 Review report states that:

- 32 recommendations have been fully completed;
- three recommendations are no longer applicable, due to changes in Western Power's asset management system since the 2012 Review; and
- four recommendations have not been completed, and require further action to resolve the original issue. These four recommendations have been carried forward into the 2014 Review recommendations.



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2014 Review Findings

There were 20 recommendations in the 2014 Review. The Authority considers two recommendations address process deficiencies (in relation to Risk Management and Contingency Planning), while the remaining 18 recommendations are opportunities for process improvements.

With regard to Risk Management, Western Power will be updating their risk management framework documentation to include network operation (including contingency planning) and business information systems. The Contingency Planning recommendation requires Western Power to regularly review their contingency plans to ensure all relevant risks are captured.

Western Power's post-review implementation plan states that the actions to address 18 of the 20 recommendations in the Review will be completed by 31 December 2015. The two recommendations that are not scheduled to be completed until 2016 relate to Asset Creation & Acquisition and Asset Maintenance/Review of Asset Management System.

The Authority has reviewed the opportunities for improvement identified by the auditor in the 2014 Review report and concluded that nine of the opportunities for improvement address matters that should be actioned by Western Power. Accordingly, the Authority has requested Western Power provide to the Authority, by 31 December 2014, an updated post-review implementation plan that includes these nine opportunities for improvement. The Authority will publish the amended plan on its website.

Management of Distribution Wood Poles

Previous Reviews have identified a range of issues with Western Power's management of their distribution wood poles. Consequently, the Authority requested the auditor take a close look at Western Power's current wood pole maintenance practices.

The auditor reported that there has been a significant change in Western Power's strategy for remediating distribution wood poles since the 2012 Review. Up until the 2012 Review, Western Power used a pole defect remediation system based on assigning a defect severity rating to the pole (P1 – P4), which then assigned a fixed time to rectify.

Immediately after the 2012 Review, Western Power acknowledged that there were nearly 300,000 poles that were unserviceable, based on a desktop review of pole attributes, particularly age and wood type. This presented a logistical challenge that could not be met using the existing fixed time to rectify method, so Western Power has instead transitioned to a risk based asset management methodology, Network Risk Management Tool (**NRMT**), which considers:

- serviceability of the pole, using the condition of the pole and the pole attributes;
- likelihood of failure, based on its serviceability; and
- consequence of failure, in relation to safety, bushfire risk, reliability of supply.

The outcome of the above is a risk score for the pole, which then feeds into the process that is used to prioritise the remedial action for the pole. High risk poles are remediated quickly using the



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emergency fault teams (within 24 hours), while slightly less urgent poles (classified as Priority Action Required) are placed in the next work program, which can take up to 12 weeks for the poles to be remediated.

Poles that are not classified as Fault or PAR are placed into the pool of ZBAM¹ assets. ZBAM assets are remediated when the aggregated risk score for the assets within the zone exceed a threshold, or where there may be other project drivers that require work within the zone, thus making it more efficient to include the ZBAM assets into the work program.

Currently, Western Power allocate approximately 20% of resources to Fault and PAR assets, and 80% of resources on ZBAM maintenance and upgrade activities. The allocation of resources will be reviewed as more asset condition and fault data is collected from the network over time.

The Authority notes the auditor's comments that risk based asset maintenance is currently best practice in other utilities. Western Power has put in place processes to regularly refine the risk parameters used in the NRMT to ensure the risk scores produced by the tool more accurately reflect overall risk levels in the network.

Commitment to Improved Performance

The auditor (Jacobs) made the following comment in the report:

In Jacobs' view Western Power's response to the Previous Recommendations (PR) over the 2012-14 period demonstrates a strong and culturally embedded attitude towards continually improving the effectiveness of its asset management system. This was apparent throughout the review, and especially evident with respect to actions undertaken to address the PRs.

The quality and effectiveness of Western Power's asset management system has improved since the Authority served a section 32 notice (failure to comply with licence) in response to the 2009 Review report. The 2009 report disclosed significant deficiencies in relation to risk management, contingency planning, inspection of wood poles, replacement of faulty distribution poles, along with poor documentation of distribution asset condition.

There have been three Reviews since the 2009 Review: in 2011, 2012 and 2014. The 2011 Review found there had been some improvements in Western Power's asset management, but there were still significant issues with asset data quality and wood pole management. The 2012 Review found that there had been significant progress since the 2011 Review. Whilst noting that problems remained with risk management, contingency planning, and a backlog of poles requiring remedial treatment, the 2012 auditor commented that the management was committed to improving the asset management system.

¹ Zone Based Asset Management. The Western Power network is divided up into a number of geographic zones and the distribution assets within the zone are grouped together for the purposes of calculating a risk score, based on the most recent asset condition data for each asset.



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Since the 2012 Review, Western Power has significantly improved the functionality of its asset management information systems, and, recognising the resource constraints they are subject to, transitioned to a risk based asset maintenance approach.

The evidence demonstrates Western Power's management understands the need to have effective systems in place to manage its assets, and has put in place strategies to achieve this goal. These strategies have delivered tangible improvements in the standard of asset management, and have inculcated a culture of ongoing improvement across the business.

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