Western Power

2014/15 Electricity Industry (Network Quality and Reliability of Supply) Code Audit

September 2015

Deloitte.

Deloitte Touche Tohmatsu
ABN 74 490 121 060

Woodside Plaza
Level 14
240 St Georges Terrace
Perth WA 6000
GPO Box A46
Perth WA 6837 Australia

Tel: +61 8 9365 7000
Fax: +61 89365 7001
www.deloitte.com.au

Mr John Paolino
Senior Compliance Specialist
Western Power
363 Wellington Street
PERTH WA 6000

2 September 2015

Dear John

Re: 2014/15 Electricity Industry (Network Quality and Reliability of Supply) Code Audit

We have completed the Electricity Industry (Network Quality and Reliability of Supply) Code Audit for Western Power for the period 1 July 2014 to 30 June 2015 and are pleased to submit our report to you.

If you have any questions or wish to discuss anything raised in the report, please contact Andrew Baldwin on 9365 7236 or me on 9365 7024.

Yours sincerely

Richard Thomas
Partner
Deloitte Touche Tohmatsu

Contents

1 Independent Auditor's report

In accordance with Part 4, Division 3, section 26 of the *Electricity Industry (Network Quality and Reliability of Supply) Code 2005* (**the Code**), the Electricity Networks Corporation (**Western Power**) is required to arrange for an independent audit of systems that are in place to monitor compliance with Part 2 of the Code or an instrument made under Section 14(3).

Deloitte Touche Tohmatsu (**Deloitte**) was engaged to conduct the reasonable assurance audit for the year ended 30 June 2015.

The audit was conducted in accordance with the specific requirements of the Code and the April 2014 issue of the *Audit and Review Guidelines: Electricity and Gas Licences* (**Audit Guidelines**).

Western Power's responsibility for compliance with the requirements of the Code

Western Power is responsible for ensuring compliance with the conditions of the Code. This responsibility includes the following:

- Establishing and maintaining policies, procedures and controls designed to ensure the accuracy and validity of data and compliance with the Code
- Implementing processes and systems for assessing its compliance requirements and for monitoring its level of compliance.

Western Power is also responsible for making all relevant information available to Deloitte for the purpose of this engagement.

Deloitte's responsibility

Our responsibility is to express a conclusion on Western Power's systems established for monitoring its compliance with Part 2 of the Code, for the year ended 30 June 2015, based on the following procedures:

- Development of an Audit Plan to guide the execution of our work
- Interviews with and representations from relevant Western Power staff to gain an understanding of processes and controls, including specific focus on any changes made to current processes during the audit period
- Reporting our findings to Western Power.

We conducted our engagement in accordance with the Audit Guidelines and the Australian Standard on Assurance Engagements (**ASAE**) 3500 *Performance Engagements*[1] issued by the Australian Auditing and Assurance Standards Board, in order to state whether, in our opinion, based on the procedures performed, Western Power has, in all material respects, established and operated systems for monitoring its compliance with Part 2 of the Code, for the year ended 30 June 2015.

Our engagement provides reasonable assurance as defined in ASAE 3500.

[1] ASAE 3500 also provides for our engagement to be conducted in accordance with relevant requirements of ASAE 3100 *Compliance Engagements* and ASAE 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information.*

Limitations of use

This report is made solely for the information and internal use of Western Power, for the purpose of its reporting requirements to the Authority and the Minister for Energy under section 26 of the Code, and is not intended to be and should not be used by any person or entity, other than Western Power. No other person or entity is entitled to rely, in any manner, or for any purpose, on this report. We accept no duty, responsibility or liability to any party, other than Western Power, in connection with the report or this engagement.

Inherent limitations

Reasonable assurance means a high but not absolute level of assurance. Absolute assurance is very rarely attainable as a result of factors such as the following; the use of selective testing, the inherent limitations of internal control, the fact that much of the evidence available to us is persuasive rather than conclusive and the use of judgement in gathering and evaluating evidence and forming conclusions based on that evidence.

We cannot, in practice, examine every activity and procedure, nor can we be a substitute for management's responsibility to maintain adequate controls over all levels of operations and their responsibility to prevent and detect irregularities, including fraud. Accordingly, readers of our report should not rely on the report to identify all potential instances of non-compliance which may occur.

Independence

In conducting our engagement, we have complied with the independence requirements of the Australian professional accounting bodies.

Conclusion

In our opinion, based on the procedures performed, Western Power has, in all material respects, established and operated systems for monitoring its compliance with Part 2 of the Code for the year ended 30 June 2015.

DELOITTE TOUCHE TOHMATSU

Richard Thomas
Partner
Perth, September 2015

2 Executive summary

Objective

The reasonable assurance engagement was undertaken in order to express a conclusion whether, in our opinion, Western Power has, in all material respects, established and operated systems for monitoring its compliance with Part 2 of the *Electricity Industry (Network Quality and Reliability of Supply) Code 2005* (**the Code**) or an instrument made under section 14(3) for the 2014/15 financial year.

The relevant compliance requirements of the Code are listed at **Appendix A**.

This audit focused on Western Power's systems and processes for monitoring compliance and did not assess the level of compliance achieved or the validity of the information reported in the Annual Reliability and Power Quality report.

The objective of this report is to:

- Provide a summary of the background to the engagement and an overview of the work performed by us
- Communicate our engagement findings and associated recommendations, if any, to you.

Our independent assurance practitioner's reasonable assurance report is contained in section 1 of this report.

Scope

The scope of this audit relates to the four divisions of Part 2 of the Code. The key elements of each division are summarised below.

Code Division	Description
Quality of Supply (**Division 1**)	Power quality standards for quality of supply at the point of connection to the customer, specifically relating to voltage fluctuations and harmonic distortion.
Reliability of Supply (**Division 2**)	Standards for the interruption of supply to individual customers provide for the maintenance of supply and management of interruptions to customers, both in terms of the duration and number of interruptions. Those standards address the following: • Provision of supply with the minimum number and duration of interruptions • Consideration of providing alternative supply if the interruption is expected to be significant, its effect substantial or if the customer has special health needs that require continuous supply • Allowing planned interruptions if the customer is notified within a suitable time and where the duration is under 6 hours, or under 4 hours for forecast temperatures over 30 degrees Celsius • Provision for the distributor to remedy the causes of interruptions to small use customers or enter into alternative arrangements if the supply has been interrupted for more than 12 hours continuously, or more than the permitted number of times in the preceding year ending 30 June and it is considered that the prescribed standard is unlikely to be met for the customer.

Code Division	Description
Interruptions of supply standards (**Division 3**)	Standards for the duration of interruptions of supply in particular areas, provide, so far as is reasonably practicable, that the average length of interruptions be (calculated as an average of the yearly averages over 4 years): • Less than 30 minutes within the Perth CBD • Less than 160 minutes for urban areas other than the Perth CBD • Less than 290 minutes in any other area of the State.
Variation to obligations under Part 2 of the Code (**Division 4**)	Variations to obligations under Part 2 of the Code relate to: • Review and approval by the Minister of applications for alternative provisions made under section 14(3) of the Code • Agreement between transmitter/distributor and customers to exclude or modify a provision of Part 2, in relation to the supply of electricity.

Our engagement was conducted in accordance with Australian Standard on Assurance Engagements ASAE 3500 Performance Engagements, issued by the Australian Auditing and Assurance Standards Board and provides reasonable assurance as defined in ASAE 3500. The procedures we performed were based on our professional judgement and are described in more detail in the section below.

Approach

Our approach for this audit involved the following activities, which were undertaken during July 2015:

- Completion of a risk assessment, using the guidance provided by the Economic Regulation Authority (**the Authority**) Audit and Review Guidelines: Electricity and Gas Licences - April 2014 and the Electricity Compliance Reporting Manual – September 2014 (**Reporting Manual**). The risk assessment was designed to direct the audit to higher risk areas requiring compliance monitoring, with more audit effort applied to higher risk areas
- Preparation of an Audit Plan to outline the scope, purpose, timing and focus of the audit, the approach to be used in undertaking the audit and the deliverables of the audit. The Audit Plan and risk assessment were presented to Western Power for consideration and comment prior to being finalised
- Entry meeting with key representatives within Western Power (refer to **Appendix B** for a list of staff involved in the audit)
- Examination of the Code to fully understand Western Power's related obligations (refer to **Appendix B** for a list of references examined)
- Walkthrough and testing (where applicable) of processes, controls and systems and examination of documents (refer to **Appendix B** for reference listing) to determine whether Western Power has processes in place to achieve and monitor compliance
- Conducting a close out meeting with key audit representatives to present and discuss our preliminary findings
- Reporting of draft findings to Western Power for review and comment prior to finalisation.

Inherent limitations

Reasonable assurance means a high but not absolute level of assurance. Absolute assurance is very rarely attainable as a result of factors such as the following:

- The use of selective testing and testing as at a point of time
- The inherent limitations of internal control
- The fact that much of the evidence available to us is persuasive rather than conclusive
- The use of judgement in gathering and evaluating evidence and forming conclusions based on that evidence.

We cannot, in practice, examine every activity and procedure, nor can we be a substitute for management's responsibility to maintain adequate controls over all levels of operations and their responsibility to prevent and detect irregularities, including fraud. Accordingly, readers of our report should not rely on the report to identify all potential instances of non-compliance which may occur.

Summary of findings

In considering the processes and systems in place that enable Western Power to monitor its compliance with Part 2 of the Code during the year ended 30 June 2015, this audit observed that Western Power has continued to use:

- Established mechanisms and systems designed to monitor and report on compliance with its obligations for maintaining network quality and reliability of supply in accordance with Code requirements
- Its organisation-wide compliance framework, which intends to address key compliance requirements and activity, including recognition of instances of non-compliance.

We note that this is the fifth audit to be conducted by Deloitte, focusing on Western Power's systems for monitoring its compliance with Part 2 of the Code (rather than Western Power's actual level of compliance achieved). Since the first such audit in 2010/11, we have observed a continuous improvement in Western Power's approach to its compliance monitoring obligations and the resulting systems and mechanisms maintained. No further opportunities for improvement have been identified in the last three audits.

The remainder of this report provides:

- A summary of the operating systems and tools established to help Western Power achieve its Licence compliance and performance requirements, and to monitor its compliance with Part 2 of the Code (refer to **Section 3**)
- Detailed audit findings for each of the four divisions of Part 2 of the Code (refer to **Section 4**), including any relevant enhancements implemented by Western Power during the year ended 30 June 2015.

3 Operating systems and tools

During the period subject to audit, Western Power continued to utilise the following operating systems and tools to help achieve its Licence compliance and performance requirements. These systems and tools also form part of the mechanisms designed to enable Western Power to monitor its compliance with Part 2 of the Code.

During the period 1 July 2014 to 30 June 2015, there were no significant changes in these systems and tools, which impacted on Western Power's monitoring of its compliance with Part 2 of the Code.

System/tool	Description
PowerOn Fusion [previously Electricity Network Management and Control (**ENMAC**)]	PowerOn Fusion is a Distribution Management System (**DMS**) supplied by GE Energy. The system is comprised of the following modules: • Network Management • SCADA • Limit Manager • Distribution Power Analysis • Advanced User Interface • Data Historian (to be replaced by the Rules Engine) • HV Webview (Reporting) • Trouble Call System (**TCS**). ENMAC, the base DMS system, was implemented in 2003 with the TCS module being added in 2008. The HV Webview interface provides users with a web interface to utilise the data within TCS. PowerOn Fusion has been established with varying levels of user access, dependant on the information required by the user. In 2013, the branding and subsequent name of the ENMAC system was changed to PowerOn Fusion.
Trouble Call System (**TCS**)	TCS is a module of PowerOn Fusion. The TCS module was implemented in late 2008, replacing the Trouble Call Management System. TCS is designed: • As a central system, primarily used by Network Operations, to monitor and facilitate a response to unplanned outages (faults) and to monitor planned outages • To maintain the network fault database, from which statistics for network quality and reliability of supply performance are monitored.
Distribution Quotation Management (**DQM**) system	DQM is a work flow management and estimation tool utilised broadly within Western Power. For the purposes of the audit, DQM is primarily utilised to plan and cost works to parts of Western Power's network, which may originate from power quality complaints or scheduled planned works.

System/tool	Description
Data Warehouse (**DW**)	The DW comprises the servers used to store read-only TCS and Metering Business System (**MBS**) data for the purposes of reporting, specifically including reliability reporting, network planning and Extended Outage Payment System (**EOPS**). Access to change or alter data is limited to the Information Management Specialists. Any change requests must be approved by the business and records maintained.
Permanent Power Quality Monitoring devices (permanent **PQ** devices)	An algorithm study conducted by the University of Wollongong (22 February 2012) recommended that 360 permanent PQ devices be installed. Western Power accepted those recommendations and has been undertaking a program to purchase and install an additional 260 devices (Model PM35) in addition to the already installed 105 devices (Model EDMI). Of the new PM35 devices, 25 will be installed at transformers and 235 devices installed at customers' premises. The additional 260 devices have already been purchased, of which 130 have already been installed and a further 130 PQ devices will be installed before 31 December 2015. The new permanent PQ devices will have the capability to monitor flicker and individual harmonics, which is not available in the existing permanent meters. Supporting the permanent PQ devices are portable 'logger' units, which are used to investigate quality of supply complaints. The logger units provide the capability to perform individual harmonic and flicker measurements. Permanent PQ devices are installed on the Low Voltage (**LV**) network in pairs, one at the distribution transformer and one at a customer premises near the end of the LV feeder. The devices: • Provide an indication of the power quality performance of a LV feeder • Are remotely monitored and data retrieved is stored in the PI database • Provide data in 5 minute intervals and can accumulate 12 days of data. Should a device be faulty, e.g. breakdown in a communication link or the device itself, an automated email is sent to the Power Quality email account.
Extended Outage Payment System (**EOPS**)	EOPS operates on Western Power's legacy Lotus Notes application to facilitate extended outage claims by, and relevant payments made to, customers affected by extended (not planned) outages. Once a claim is submitted by the customer, either by mail or online, EOPS performs a number of checks, including validating the: • Customer to MBS, either by National Meter Identifier (**NMI**) or customer name • Address to a customer listing within Lotus Notes • Outage by comparing the NMI and date to TCS. Claims that are not approved through the above process are listed and manually reviewed to determine whether the claim is still valid. For the purpose of monitoring compliance with the reliability requirements of the Code, EOPS is used as a secondary source for validating records of extended outages.

4 Detailed findings

This section of the report details the audit findings for each of the four divisions of Part 2 of the Code. For each division, this report summarises:

A. The relevant mechanisms and systems that Western Power had retained since the year ended 30 June 2014 (as detailed in the 2014 NQRS Code audit report) and that remained in place for the full year. Those mechanisms and systems enable Western Power to:

   - Meet its Code requirements
   - Monitor its compliance with those Code requirements
   - Identify any instances of potential non-compliance and implement any mitigating actions to prevent future occurrence of similar instances.

   We note that the 2014/15 financial year is the first full financial year that Western Power has operated under its current organisational structure, which combines its transmission and distribution businesses.

B. Further enhancements implemented since the previous audit.

Division / Code requirement	Findings
Division 1 – Quality Standards Division 1 of the Code outlines the standards for quality of supply at the point of connection to the customer, specifically relating to: • Voltage fluctuations and harmonic distortion [sections 5(1), 6(2) and 7] • Disconnection of customers where there is a possibility of damage to the customers' installation (section 8).	**A. Established systems and mechanisms maintained during the year ended 30 June 2015** <u>Voltage fluctuations and harmonic distortion</u> We conducted discussions with the Senior Asset Strategy Engineer and the Engineering Team Leader, and reviewed established procedures and processes. We identified that, during the year ended 30 June 2015, Western Power maintained the following mechanisms and systems for monitoring compliance with voltage fluctuation and harmonic distortion requirements: • Proactive monitoring of network quality using permanently installed PQ devices (235 PQ devices were in use as at 30 June 2015) • Continued commitment to a business plan for installing an additional 130 permanent PQ devices with the capability to monitor flicker and harmonic components • Reactive monitoring of network quality using portable PQ devices installed at targeted locations in response to customer complaints on network quality • A process for power quality complaints to be logged via TCS and NetCIS, Western Power's customer information system. Additional reconciliation of complaints in NetCIS and TCS to ensure that all complaints received are captured and addressed in accordance with the timeframes stipulated by the Code (refer to Procedure for Handling Power Quality & Reliability Customer Complaints Received in NetCIS) • The following established procedures are documented and applied in practice: o Configuration and operation of PQ monitoring devices o Deployment of PQ devices to the field o PQ monitoring and maintenance standards o Power Quality and Reliability complaint handling o Power Quality Non-compliance Reporting o Configuring Power Quality Instruments for Measurements & Storing Data o PQ investigation documentation requirements for investigators. • Annual and monthly reporting of network quality performance, including: o Monthly 'Power Quality KPI Performance' report (collated into the Asset Performance Function report). The report includes data on power quality complaints o An additional monthly Power Quality KPI dashboard summarising the full KPI report, which is distributed to Managers and staff in Field Operations and Asset Performance

Division / Code requirement	Findings
	○ Annual 'LV Network Power Quality Compliance with Electricity Industry Code 2005 and Electricity Industry Act 1945' report. The report includes information on: ▪ Steady state voltage levels ▪ Total harmonic distortion ▪ Voltage unbalance ▪ Complaints by type and volume and the associated costs for investigation and remediation. <u>Duty to disconnect</u> We conducted discussions with the Senior Asset Strategy Engineer and the Engineering Team Leader, and reviewed established procedures and processes. We identified that Western Power maintained the following mechanisms and systems for monitoring compliance with requirements to disconnect customers where damage may result: • Western Power's voltage fluctuations and harmonic distortion levels are designed so that they will not breach the required section of the Code • PQ investigation procedures – to determine whether the customer should be disconnected • Power Quality Complaint Handling processes, which include consideration of disconnecting a customer where voltage and harmonic distortion may cause damage. The Engineering Team Leader confirmed that, to the best of his knowledge, Western Power has not been required to disconnect a customer as a result of voltage fluctuations and harmonic distortion levels breaching the requirements of section 6(2) and 7 of the Code. **B. Further enhancements implemented since the previous audit** The Engineering Team Leader and the Senior Asset Strategy Engineer advised the following: • Western Power completed the ICT component of the PQ device upgrade project • The PQ device upgrade project has progressed with 130 of the 260 new PQ devices installed. The remaining 130 devices will be deployed to the field for installation by 31 December 2015.
Division 2 – Standards for the interruption of supply to individual customers Division 2 provides for the maintenance of supply and management of interruptions to customers, both in terms of the duration and number of interruptions. Division 2 addresses:	**A. Established systems and mechanisms maintained during the year ended 30 June 2015** We reviewed established procedures and process and conducted discussions with the Evidence Retention Team Leader, Operations Network Development Manager, Complaints and Resolution Team Leader, Quality and Compliance Officer and Customer Services Team Leader. We identified that, during the year ended 30 June 2015, Western Power maintained the following mechanisms and systems for monitoring compliance with Standards for the interruption of supply to individual customers:

Division / Code requirement	Findings
• Provision of supply with the minimum number and duration of interruptions (section 9) • The requirement to reduce the effect of any interruption on a customer, so far as is reasonably practicable (section 10(1)) • Consideration of providing alternative supply if the interruption is expected to be significant, its effect substantial or if the customer has special health needs that require continuous supply (section 10(2)) • Allowance for planned interruptions if the customer is notified within a suitable time and where the duration is under 6 hours, or under 4 hours for temperatures over 30 degrees Celsius or north of the 26th parallel (section 11, which is referenced in section 9) • Provisions for the distributor to remedy the causes of interruptions or enter into alternative arrangements if the supply to small use customers has been interrupted for more than 12 hours continuously or more than: o 9 times in the Perth CBD or urban areas o 16 times in other areas in the preceding 12 months to 30 June and it is considered that the prescribed standard is unlikely to be met for the customer [section 12(3)].	• Outage data is obtained from Western Power's Data Warehouse (housing TCS outage data) to monitor and produce monthly and annual reports on the number and length of interruptions • Detailed planned outage procedures, involving scheduling of outages within the requirements of sections 9, 10, 11 and 12 of the Code • Provision of online training program in relation to the requirements of sections 9, 10, 11 and 12 of the Code • Strict processes that require a completed Distribution Network Access Request (**DNAR**) Checklist for every planned interruption. Checklists are reviewed by the Evidence Retention Team (**ERT**) and include a comprehensive set of 13 considerations for determining whether a planned interruption should proceed. Those considerations include: o DNAR evidence retention requirements, including tracking of compliance with DNAR checklist requirements o Life support equipment customer proximity and notification checks at multiple stages of the process o Strict evidence retention processes o Final approval processes. • Hot Weather guidelines to be applied when scheduling outages (for application to the DNAR), which include: o Formal checks based on Bureau of Meteorology forecasts are contained in the DNAR checklists o Such checks are followed up closer to the date, as well as on the actual day of interruption. • Customer notification (letter notification and hand carding) procedures to inform customers of planned outages in the timeframes stipulated by the Code • Comprehensive Life Support Customer notification and planning procedures, including consideration of provisions for alternative supply and on-the-day-checks before power is turned off • Established customer notification processes for planned interruptions, performed by mail by Customer Services or via hand cards delivered by Field Services staff • Monitoring of breaches of planned interruption notification requirements via Customer Services validation, recording and reporting of service standard payments o Customer notification compliance is also reviewed by the ERT during quality reviews of DNAR evidence collected.

Division / Code requirement	Findings
	• Procedures for investigating and remedying the cause of unplanned interruptions – managed by Network Operations, with the use of TCS • Preparation of a comprehensive monthly Network Planning and Standards Function Performance Dashboard report used to track and report the following measures relating to monitoring compliance with the Code o Total number of customers experiencing more than one interruption exceeding 12 hours over a 10 year period o Total number of customers experiencing more than the 'prescribed outages' over a 10 year period o Total number of devices that have tripped more than five times over a 30 day period o Power Quality complaints per 100,000 customers. • The following established procedures and checklists, which are documented and applied in practice: o Guidelines for completing the DNAR checklist o Switching operator training guides o Planned interruption field check work instructions o Notification to Life Support and Sensitive Customers affected by Planned Outages o Life Support Equipment (**LSE**) Planned Interruption checklist – LSE Customers are registered on the same day if notified prior to 3pm o Planned outages Type 1 – LSE work instructions retained by the ERT o TCS validation checklist (to assist in the verification of any compliance breaches) o Validation Guide checklist to provide a standard approach to validating reliability fault data for the purposes of reporting reliability KPIs. • Online mobile job notification system, which allows for smoother communication between field staff and Network Operations during planned and unplanned work. **B. Further enhancements implemented since the previous audit** No further enhancements have been implemented since the previous audit
Division 3 – Standards for the duration of interruptions of supply in particular areas Part 2, Division 3 provides standards for the duration of interruptions of supply in particular areas. Section 12 of the Code provides that the	**A. Established systems and mechanisms maintained during the year ended 30 June 2015** We conducted discussions with the Senior Asset Strategy Engineer and reviewed established procedures and processes. We identified that, during the year ended 30 June 2015, Western Power maintained the following mechanisms and systems for monitoring compliance with Standards for the duration of

Division / Code requirement	Findings
average length of interruptions (calculated as an average of the yearly averages over 4 years) must be less than: • 30 minutes within the Perth CBD • 160 minutes for urban areas other than the Perth CBD • 290 minutes in any other area of the State.	interruptions of supply in particular areas: • Preparation of a comprehensive monthly Network Planning and Standards Function Performance Dashboard report used to track and report the following measures relating to monitoring compliance with the Code o System Average Interruption Duration Index (**SAIDI**), representing the average number of minutes each customer is without supply during a four year period, annualised over 12 months (in accordance with the calculation requirement of section 13(3) of the Code) o System Average Interruption Frequency Index (**SAIFI**) o Average total length of interruptions (SAIDI figures used) reported for the Perth CBD, Perth metropolitan area (except for the CBD), Mandurah, Albany, Bunbury, Geraldton, Kalgoorlie and the non-urban (rural) demographics within the South West Interconnected System • Use of a Reliability KPI Calculation Guide to assist with determining the average length of interruptions in both urban and rural areas, which aligns with the Code's definitions of terms used • Implementation of a formal reliability Validation Guide Checklist and process to confirm instances of compliance breaches in relation to the duration (and notification) of planned outages, which distinguishes between distribution and transmission customers • Automated population of customer data within power quality reports. **B. Further enhancements implemented since the previous audit** No further enhancements have been implemented since the previous audit.
Division 4 – Variation of obligations under Part 2 Variations of obligations under Part 2 provide for: • Review and approval by the Minister of alternative requirements (section 14 (8)) • Agreement between transmitter/distributor and the customer of extensions and modifications to the standards (section 15 (2)).	The Access Solutions and Line Relocation Manager independently confirmed there were no instances where Western Power had: • Applied to the Minister for an exemption from compliance with or the replacement of a provision of Part 2 of the Code (such an exemption or replacement can only occur on application to the Minister by Western Power) • Negotiated with a customer an amendment or exclusion to the provisions of Part 2 of the Code. We note that Western Power has assigned to individuals the responsibility for ownership of specific compliance obligations. For example, responsibility for Division 4 of the Code has been assigned to the Access Solutions and Line Relocation Manager. For the purposes of the 2014/15 Network Quality and Reliability of Supply audit, none of the compliance obligations under Part 2, Division 4 of the Code were applicable to Western Power.

Appendix A: Compliance requirements

Section	Requirement
Division 1	
5(1)	A distributor or transmitter must, as far as reasonably practicable, ensure that electricity supply to a customer's electrical installations complies with prescribed standards *(in sections 6(2) and 7, relating to voltage fluctuations and harmonics)*.
8	A distributor or transmitter must, so far as reasonably practicable, disconnect the supply of electricity to installations or property in specified circumstances, unless it is in the interest of the customer to maintain the supply.
Division 2	
9	A distributor or transmitter must, as far as reasonably practicable, ensure that the supply of electricity is maintained and the occurrence and duration of interruptions is kept to a minimum *(section 11 specifies the planned interruptions that are allowable (not a breach)).*
10(1)	A distributor or transmitter must, so far as reasonably practicable, reduce the effect of any interruption on a customer.
10(2)	A distributor or transmitter must consider whether, in specified circumstances, it should supply electricity by alternative means to a customer who will be affected by a proposed interruption.
12(3)	A distributor must take prescribed action in the event of a significant interruption to a small use customer.
Division 3	
13(2)	A distributor or transmitter must, so far as reasonably practicable, ensure that customers in specified areas do not have average total lengths of interruptions of supply greater than specified durations.
13(3)	The average total length of interruptions of supply is to be calculated using the specified method.
Division 4	
14(8)	A distributor or transmitter must, on request, provide to an affected customer a free copy of an instrument issued by the Minister and of any notice given under section 14(7) of the Electricity Industry (Network Quality and Reliability of Supply) Code 2005.
15(2)	A distributor or transmitter that agrees with a customer to exclude or modify certain provisions must set out the advantages and disadvantages to the customer of doing so in their agreement.

Source: Electricity Compliance Reporting Manual July 2014 published by the Economic Regulation Authority

Appendix B: References

Key Western Power staff participating in the audit

Position	Function	Applicable Code Division
Operations Development Manager	Network Operations	1, 2
Quality & Compliance Officer	Network Operations	1, 2
Complaints & Resolution Team Leader	Customer Service	1, 2
Senior Process & Governance Analyst	Customer Service	1, 2
Access Solutions Manager	Customer Service	4
Application Services Team Leader	Information & Communication Technology	1, 2, 3
Evidence Retention Team Leader	Field Operations	2
Senior Asset Strategy Engineer	Network Planning & Standards	3
Senior Asset Strategy Engineer	Network Planning & Standards	1, 2
Engineering Team Leader	Network Planning & Standards	1, 2
Senior Compliance Specialist	Regulation & Investment Management	Overall audit
Regulatory Compliance Manager	Regulation & Investment Management	Overall audit

Key documents and other information sources examined

Regulation and Investment Management

- Email confirmation/advice relating to provision for Part 2 Division 4 of the Code 2005
- September 2014 Electricity Compliance Reporting Manual
- Electricity Industry (Network Quality and Reliability of Supply) Code 2005
- Email from Senior Compliance Specialist detailing reported breaches for 2014/15.

Customer Services

- Complaints handling process map
- Reconciliation of PQ complaints to DQM procedure.

Network Operations

- Introduction to Western Power switching procedures - Learners guide
- Guidelines for the management of planned interruptions in hot weather
- Life Support Equipment Type 1 Compliance Program - Network Operations Fact Sheet.

Information and Communications Technology

- ICT Team Organisational Structure.

Field Operations

- Identification and Notification of Customers for Planned Interruptions procedure
- Minor Planned Interruptions Procedure
- Field Check Planned Interruptions Work Instruction
- DNAR ERT Processes
- ERT DNAR report 2014/2015
- DNAR supporting walkthrough documentation examples.

Network Planning and Standards Function (formerly part of Network Performance Branch)

- Network Planning and Standards Function Monthly KPI reports
- Network Planning and Standards Function Reporting Dashboard and Guideline
- Reliability email distribution list
- Data Validation Rules and Checklist.

Asset Performance

- Monthly Power Quality KPI Performance report summary dashboard
- Monthly Power Quality KPI Performance report
- Power Quality KPI Performance Report Methodology
- Distribution list for the monthly performance report
- Listing of installed PQ devices.
- Installed Annual LV Network Power Quality Compliance with Industry Code 2005 and Electricity Industry Act 1945 report
- Configuring PQ Instruments and Storing Data for Power Quality Measures procedure
- Permanent PQ device lifecycle and data usage
- Permanent PQ device roll-out: Detailed business case and budget approvals
- Configuring PQ Instruments and Storing Data for Power Quality Measures procedure
- Reporting PQ Non-compliances procedure.