

Audit Report

Performance Audit
and Asset
Management
Review

Prepared for BHP Billiton
Nickel West Pty Ltd
August 2016



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Executive Summary

General

BHP Billiton Nickel West (NiW) holds an Electricity Distribution Licence (EDL2) and an Electricity Retail Licence (ERL2).

Nickel West (NiW) operates a small distribution network in the mining town of Leinster (the northern system) and a small non-contiguous network to five mining customers in the Kambalda region (the southern system). The sum total length of Nickel West's distribution lines is limited to 72 kilometres.

In the southern system the distribution system consists of off-takes from another licensee's distribution or transmission system and connections to customers.

The northern distribution system is the Leinster town site with less than 300 connections to consumers but who are not considered as customers as electricity is not retailed to the consumer.

These distribution networks are not Nickel West's core business (or reason to be in business) but legacy networks of Nickel West mining infrastructure following the sale of mining tenements and supply to consumers in the town of Leinster. Leinster is a mine controlled town with accommodation only provided for people associated with the mines, or the local town/community support functions as approved and permitted by the mine management.

Nickel West retails electricity to the same five mining customers in the southern system and to one mining customer in the northern system where the radial distribution is carried out by another licensee. There is no retail in Leinster town site. The Leinster Supply Authority supplies approximately 300 houses, industrial and commercial premises and electricity is supplied without charge. Nickel West purchases all its electricity from a third party.

While the Licences cover Mt Keith there are no distribution assets (other than the exempted self-supply) and no retail.

Version 6 of EDL2 and version 6 of ERL2 were both issued on 1 July 2015. These two documents were amendments by substitution of the previous versions of each licence resulting from an ERA review of electricity licences in 2015. Version 5 of EDL2 was issued on 1 January 2013, while version 5 of ERL2 was issued on 3 December 2012.

There have been no major changes to the assets or asset management systems used by NiW to provide its services during the review period.

Audit and Review Objectives

This audit has been conducted in order to assess:

1. NiW's level of compliance with the conditions of its electricity licences.
2. The effectiveness of NiW's asset management system.

This report outlines the findings of the audit and review of NiW to fulfil the above objectives, conducted during April/May 2016, with site visits to the southern and northern systems on 5 May 2016 and 18 May 2016 respectively. The audit and review covers the operating period of 1 April 2013 to 31 March 2016.

Performance Audit

Findings from the Previous Performance Audit

The previous audit identified the following non-compliances:

1. Reference Item 105 – Further improvement to controls of payment process is required. A compliance manual has been developed but expedited payment process to ensure payment on time in future is required.

Partially resolved during audit period

2. Reference Item 127 - Prepare and maintain a Priority Restoration Register.

Resolved during audit period

In addition to the non-compliances against the licence obligations, the previous audit also identified the following non-mandatory recommendations for improvement:

1. Reference Item 332 - In the event of a new customer requiring access, a metrology procedure should be prepared. Investigate if extracts of the PPAs will meet the requirements of a Metrology procedure and if so submit to the Authority for approval.

Not completed, no opportunity

2. Reference Item 334 - In the event of a new customer requiring access a metrology procedure should be prepared. Investigate if extracts of the PPAs will meet the requirements of a Metrology procedure and if so submit to the Authority for approval.

Not completed, no opportunity

3. Reference Item 337 - Long term clock rates should be checked (even if clocks are not generally used for tariff purposes and SCADA is the primary clock for collection basis).

Not required as meters are grandfathered

4. Reference Item 338 – NiW to consider moving the meter installation closer to the connection point (5 meter points – Victor, Otter, Coronet, Argo and Agnew feeders) if a suitable opportunity arises.

Not completed, non-mandatory

5. Reference Item 343 - Long term clock rates should be checked (even if clocks are not generally used for tariff purposes and SCADA is the primary clock for collection basis).

Not required as meters are grandfathered

6. Reference Item 346 - A general metrology procedure should be developed before any new customers are supplied. Investigate if extracts of the PPAs will meet the requirements of a Metrology procedure and if so submit to the Authority for approval.

Not completed, no opportunity

7. Reference Item 361 (a 2013 Electricity Compliance Manual number) - Test meters at light load and maximum load when meters are next tested.

Completed

8. Reference Item 350 – A further opportunity for improvement is to complete improvement of technical content of drawings. Drawings should preferably be “As built”.

Completed

9. Reference Item 351 - A further opportunity for improvement is to complete improvement of technical content of drawings. Drawings should preferably be “As built”.

Completed

10. Reference Item 352 - Complete installation of isolation facilities. This is applicable, but not limited, to the following feeders: Mariners, Miitel, Widgie and Wannaway.

Completed

11. Reference Item 353 - A further opportunity for improvement is to complete improvement of technical content of drawings. Drawings should preferably be “As built”.

Completed

12. Reference Item 459 – A non-mandatory action is to implement scheduling of surveys in 1SAP planning system.

*Completed***Findings from the Current Performance Audit**

The current performance audit identified the following non-compliances:

1. Manual Reference 105 – Although NiW's licence fee payments were paid within the required timeframes in 2013 and 2014, the payment was late in 2015, with NiW reporting a non-compliance in its 2015 Compliance Report to the ERA (dated 25 October 2015).
2. A1/2016 - During the course of the audit process, it was identified that the point of supply to the Agnew Gold Mining Company (AGMC) from NiW's northern system is outside NiW's licenced operating area. As a result, NiW is non-compliant with regard to clause 2.1 of its retail licence. The non-compliance does not apply to the distribution licence as the distribution that associated with the non-compliant retail area is carried out by Transalta.
3. A2/2016 - NiW has reported non-compliances against Electricity Industry Metering Code clause 3.5(9) (obligation reference 330) in both its 2013/14 and 2014/15 Compliance Reports to the ERA. In each case, the metering installation did not comply with the Code after a failure of a component and the affected customer not being appropriately notified they were being under-metered.
4. A3/2016 - NiW has reported a non-compliance against Electricity Industry Metering Code clause 3.11A(1) (obligation reference 340) in both the 2013/14 and 2014/15 Compliance Reports it has submitted to the ERA during the audit period. This is as a result of not testing at light load as required by the Standard.
5. A4/2016 - Although NiW has an Energy Data Verification Request Form it has never been used. Generally any requests for data verification are submitted by email to NiW. Given the requirement that an Energy Data Verification Request Form must require a Code participant to provide the information prescribed, NiW is technically non-compliant against Clause 5.20(2) of the Code (obligation reference 412), even though it has a very small customer base that facilitates any energy data verification requests. It is the distribution licensee's responsibility to ensure that the process outlined in Clause 5.20 of the Code is followed.
6. A5/2016 – As outlined in A4/2016, although NiW has an Energy Data Verification Request Form it has never been used. Generally any requests for data verification are submitted by email to NiW. Given the requirement for Code participants to provide the information in accordance with Clause 5.20(2) of the Code, NiW is also technically non-compliant against clause 5.20(4) of the Code (obligation reference 413). Although NiW has not received any requests under this section of the Code, it is NiW's responsibility to ensure that that the process is followed.
7. A6/2016 - As was observed in the previous audit report, standards are agreed with NiW's retail customers in the PPAs and these specify the relevant standard that was in place at the time, AS 2279. However, although the most recent versions of the PPAs are dated 2014, they still refer to the now-replaced AS. The old Australian standard (AS2279) uses a different method for voltage flicker and less detail for harmonics. The old Australian standard also has a more demanding total harmonic level than the Code. The 2013 survey was completed to the current AS 61000 standard and we note that this recommendation relates to an administration issue rather than an actual non-compliance.
8. A7/2016 - NiW completes the Compliance Report submitted to ERA annually. Previously the approach used by NIW was to complete quarterly reviews, however this was changed in order to not dictate a timeframe for this. Any issues/ concerns with compliance are noted and pencilled in on the compliance report during the year. The final report is then submitted to the ERA. Therefore, does not have a formal Breach Register, as such, and instead uses more informal working documents. Under section 9.3.2.3 of the Audit and Review Guidelines, the ERA expects NiW to maintain a compliance (or breach) register. As NiW has not developed such a register, this obligation has been rated with a C3 grading.
9. A8/2016 – Although each of the individual Power Purchase Agreements (PPAs) cover meter installation and accuracy and, as such, form NiW's metrology procedures, NiW does not have a dedicated, overall metrology procedure. Under Clauses 1.3 and 6.2 of the Metering Code, a

metrology procedure must be submitted to and approved by the ERA. As NiW has not completed the actions required by the Code, and it does not have an approved procedure, it is not compliant with any of the obligations that refer to a metrology procedure.

The affected obligations where NiW is technically non-compliant are:

- ▶ Obligation 319 - Electricity Industry Metering Code clause 3.1
- ▶ Obligation 320 - Electricity Industry Metering Code clause 3.2(1)
- ▶ Obligation 321 - Electricity Industry Metering Code clause 3.3(1)
- ▶ Obligation 336 - Electricity Industry Metering Code clause 3.10
- ▶ Obligation 343 - Electricity Industry Metering Code clause 3.12(2)
- ▶ Obligation 413 - Electricity Industry Metering Code clause 5.20(4)
- ▶ Obligation 415 - Electricity Industry Metering Code clause 5.21(4)
- ▶ Obligation 434 - Electricity Industry Metering Code clause 5.25

It is recognised that from a practical point of view, there is no real benefit for NiW to develop and submit a metrology procedure to the ERA for approval other than being able to comply with the requirements of the Metering Code. NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that the information included in the PPAs adequately covers the metering of NiW's customers' usage. As a result, there is no mandatory recommendation for this obligation although NiW will continue to be non-compliant against the requirements.

Performance Audit - Effectiveness of Controls

With respect to the operation of the licenced services during the audit period, the Auditor conducted tests and assessed the control environment, the procedures, policies and performance of NiW and found that it had a good control environment to ensure that the majority of licence obligations are met and that it generally operates in accordance with the operating licence. For the non-compliances observed, we found that the controls were adequate. We did not observe any instances where we considered the controls in place to be inadequate.

Performance Audit - Overall Compliance

The overall compliance of NiW with its licence is summarised in Section 4.2 of this report. Fifteen items were rated as non-compliant, including eight obligations where NiW is technically non-compliant because it does not have an approved metrology procedure. All other items were assessed as compliant, not applicable or not able to be rated.

Asset Management System Review

Findings from the Previous Asset Management System Review

The asset management system review assessed the performance of NiW against the key asset management processes and effectiveness criteria set out in the ERA Guidelines.

The previous asset management system review identified the following recommendations:

1. Asset Planning - Schedule annual reviews of plan.

Unresolved during audit period

2. Asset Operations - Non mandatory further action (Audit guidelines 11.9) is to complete updating of technical content of drawings.

Resolved during audit period

3. Asset Maintenance - Opportunity for improvement: Non mandatory further action (Audit guidelines 11.9) is to continue development of 1SAP for maintenance in northern system.

Resolved during audit period

4. Risk Management - Non mandatory further action (Audit guidelines 11.9) is to improve compliance manual and implement more rigorous reviews. Further recommendation is a review of risk plan.

Resolved during audit period

5. Review of AMS - The Asset Management System requires formal review every year.

Unresolved during audit period

Findings from the Current Asset Management System Review

The review of the NiW asset management system identified that all of the asset management processes were rated B2 or better. Where the licensee's asset management system components have not been rated as A1, this reflects that there are improvement opportunities to achieve what would be considered 'best practice' for those components.

Based on our asset management system review observations and findings, we consider that the adequacy and performance of the licensee's system meets a level appropriate for the licensee, given the size, asset base and risks associated with the services that it is licenced to provide.

Based on the findings from our site inspections, the assets appear to be in good condition and well-maintained.

The following recommendations and process improvement opportunities were identified during the current review:

Reference (no./year)	Asset Management System Component	Issue	Auditor's recommendation
R1/2016	<i>B2 Asset Planning - Plans are regularly reviewed and updated</i>	NiW's Asset Management Plan covers the period 2010-2016 (although the financial predictions finished in 2014/15). As such, the document ends at the end of the current financial year (with some information already being out-of-date). We also note that a number of items (e.g. the capital planning) were completed earlier than planned but the Plan not updated to take account of the changes.	Complete a new AMP for the licenced assets for the next 5 year period or develop a higher document that provides links/references to the NiW documentation that covers the asset management requirements.
R2/2016	<i>A2 Operational policies and procedures are documented and linked to service levels required</i>	During the course of the review we observed that although NiW has well-established policy and procedural documentation, a number of documents that were scheduled to be reviewed during the review period had not been reviewed/updated.	<p>Ensure that policy and procedural documentation is reviewed when due.</p> <p>NiW should create a schedule for a formal review in 1SAP on an annual basis.</p> <p>NiW could also implement a reminder system in Outlook or so that automated notifications are issued when documentation is required to be reviewed in accordance with NiW's quality management requirements.</p> <p>NiW should maintain records/update document control information to confirm that the review has taken place and to summarise any changes.</p>

Reference (no./year)	Asset Management System Component	Issue	Auditor's recommendation
R3/2016	<i>B2 Review of AMS - Independent reviews (e.g., internal audit) are performed of the asset management system</i>	NiW has a requirement to review its Asset Management System every year as part of its planned activities, with the document being updated where deemed necessary as a part of the review. However, although this action is scheduled in SAP, NiW were unable to provide any evidence that the AMP had been reviewed during the audit period.	NiW to ensure that the annual reviews take place and are documented to confirm that they have taken place and summarise any changes made. Refer to R2/2016.

Asset Management System Review – Control Environment

We consider that NiW has adequate controls in place for its asset management functions that are appropriate to the nature and scale of its activities.

Asset Management System Review - Overall effectiveness

A summary of our assessment of the effectiveness of NiW's Asset Management System is provided in Section 4.3. All elements but two were rated "A" for policy and procedures. All elements but three were rated "1" for performance.

Table of Contents

Executive Summary	ii
1 Introduction	1
1.1 Background	1
1.2 Purpose of this report	1
2 Audit/Review Scope	3
2.1 Audit/Review Objectives	3
2.2 Scope of Works	3
2.2.1 Performance Audit	4
2.2.2 Performance Audit Excluded Conditions	4
2.2.3 Asset Management System Review	5
2.3 Methodology and Approach	6
2.4 Time Period Covered by the Audit/Review	14
2.5 Time Period of the Audit/Review Process	14
2.6 Details of the Licensee Representatives Participating in the Audit/Review	14
2.7 Details of Key Documents and Other Information Sources	14
2.8 Details of Auditors Participating in the Audit/Review and Hours Utilised	17
3 Licensee’s Response to Previous Audit Recommendations	18
3.1 Previous Audit Non-Compliances and Recommendations	18
3.2 Previous Review Ineffective Components and Recommendations	24
4 Performance Summary	27
4.1 Assessment Rating Scales	27
4.1.1 Performance Audit Compliance Rating Scales	27
4.1.2 Asset Management Review Effectiveness Rating Scales	27
4.2 Performance Audit Compliance Summary	29
4.3 Asset Management Review Effectiveness Summary	41
5 Observations and Recommendations	45
5.1 Performance Audit	45
5.2 Asset Management System Review	141
6 Recommendations	171
6.1 Performance Audit	171
6.2 Asset Management Review	178
7 Confirmation of the Audit/Review	180

Tables

Table 2-1	Licence Performance Audit Areas	4
Table 2-2	Excluded conditions	4
Table 2-3	Licence Audit Methodology	7
Table 2-4	Asset Management Review Methodology	9
Table 4-1	Audit Compliance and Controls Rating Scales	27
Table 4-2	Asset Management Process and Policy Definition Adequacy Rating	27
Table 4-3	Asset Management Performance Ratings	28

Table 4-4	Audit Obligation Ratings	29
Table 4-5	Asset Management Review Effectiveness Summary	41
Table 5-1	Performance Audit Observations	45
Table 5-2	Asset Management System Review Observations.....	141
Table 6-1	Table of Current Audit Non-Compliances and Recommendations....	171
Table 6-2	Table of Current Review Asset System Deficiencies and Recommendations	178

Appendices

Appendix A Risk Management Framework

Appendix B Asset Management Performance Rating Definitions

1 Introduction

1.1 Background

The Economic Regulation Authority (ERA) is responsible for regulating the licensing schemes for gas, electricity and water services in Western Australia. The primary objective of regulation is to ensure the provision of a competitive and fair environment, particularly where businesses operate as natural monopolies.

Nickel West (NiW) operates a small distribution network in the mining town of Leinster (the northern system) and a small non-contiguous network to five mining customers in the Kambalda region (the southern system). The sum total length of Nickel West's distribution lines is limited to 72 kilometres.

In the southern system the distribution system consists of off-takes from another licensee's distribution or transmission system and connections to customers.

The northern distribution system is the Leinster town site with less than 300 connections to consumers but who are not considered as customers as electricity is not retailed to the consumer.

These distribution networks are not Nickel West's core business (or reason to be in business) but legacy networks of Nickel West mining infrastructure following the sale of mining tenements and supply to consumers in the town of Leinster. Leinster is a mine controlled town with accommodation only provided for people associated with the mines, or the local town/community support functions as approved and permitted by the mine management.

Nickel West retails electricity to the same five mining customers in the southern system and to one mining customer in the northern system where the radial distribution is carried out by another licensee. There is no retail in Leinster town site. The Leinster Supply Authority supplies approximately 300 houses, industrial and commercial premises and electricity is supplied without charge. Nickel West purchases all its electricity from a third party.

While the Licences cover Mt Keith there are no distribution assets (other than the exempted self-supply) and no retail.

NiW undertakes its activities under licences issued by the ERA. NiW is the holder of an Electricity Distribution Licence (EDL2) and an Electricity Retail Licence (ERL2).

Version 6 of EDL2 and version 6 of ERL2 were both issued on 1 July 2015. These two documents were amendments by substitution of the previous versions of each licence resulting from an ERA review of electricity licences in 2015. Version 5 of EDL2 was issued on 1 January 2013, while version 5 of ERL2 was issued on 3 December 2012.

1.2 Purpose of this report

As a condition of the licences, licensees are required to conduct a performance audit and asset management review that assesses the performance of the licensee against their obligations under the licences.

The performance audit focusses on the systems and effectiveness of processes used to ensure compliance with the standards, outputs and outcomes required by the licence. The asset management review assesses the measures taken by the licensee for the proper management of assets used in the provision and operation of services.

The Industry Acts prescribe a minimum interval of time between audits and reviews of 24 months, commencing from the date that the licence is granted. There is provision for the ERA, at its discretion, to extend or reduced the interval between audits and reviews from the standard 24 months.

A Performance Audit of licences EDL2 and ERL2 was last performed for the period 31 March 2010 to 31 March 2013. An Asset Management Review for EDL2 was last performed for the period 31 March 2010 to 31 March 2013. A Performance Audit of EDL2 and ERL2 and an Asset Management Review of EDL2 is now required to be undertaken for the period 31 March 2013 to 31 March 2016.

This report provides the comprehensive findings from the performance audit and the asset management review of SCE for the required audit period.

2 Audit/Review Scope

2.1 Audit/Review Objectives

The objectives of this audit were to:

1. Provide to the Authority an independent assessment of NiW's compliance with all of the relevant obligations under the licences
2. Provide to the Authority an independent assessment of the effectiveness of NiW's asset management system in relation to EDL2.
3. Identify, where appropriate, recommendations to address non-compliance with licence requirements and opportunities for improvement.

2.2 Scope of Works

The audit encompassed an assessment of the following four key areas using a risk based approach (to ISO 31000:2009):

- ▶ Process compliance: assessment of the effectiveness of systems and procedures
- ▶ Outcome compliance: assessment of actual performance against the prescribed licence standards
- ▶ Output compliance: assessment of records to indicate procedures are followed and controls are maintained
- ▶ Integrity of reporting: assessment of the completeness and accuracy of the compliance and performance reports.

The scope of works of this audit included:

- ▶ Interviews with key staff members from NiW to:
 - Assess findings from the last audit and review the actions taken to address the recommendations from the previous audit / review
 - Assess performance against licence conditions for EDL2 and ERL2
 - Assess performance against each asset management process for EDL2
- ▶ Reviews of documents, procedures and policy manuals in relation to financial management and planning, service performance standards, asset management, operations and maintenance functions and reporting
- ▶ Testing and assessment to determine whether the procedures and policies are followed and determine its effectiveness
- ▶ Preparation of an audit report in accordance with the format outlined in the ERA Audit and Review Guidelines: Electricity and Gas Licences (April 2014).

2.2.1 Performance Audit

The audit of the licences covered the entire licences, and contained the following key areas as outlined in Table 2-1 below.

Table 2-1 Licence Performance Audit Areas

Clause	Licence Requirements	EDL2	ERL2
4	Fees	✓	✓
5	Compliance	✓	✓
12	Accounting Records	✓	✓
13	Individual Performance Standards	✓	✓
14	Performance Audit	✓	✓
15	Reporting change in circumstances	✓	✓
16	Provision of information	✓	✓
17	Publishing information	✓	✓
18	Notices	✓	✓
19	Review of the Authority's Decisions	✓	✓
20	Asset Management System	✓	Not used (N/a)
21	Approved Scheme	✓	✓
22	Determination of Default Supplier	✓	Not used (N/a)
23	Marketers	Not used (N/a)	✓
24	Customer Contracts	Not used (N/a)	✓
25	Amending the Standard Form Contract	Not used (N/a)	✓
26	Directions by the Authority	Not used (N/a)	✓
27	Supplier of Last Resort	Not used (N/a)	✓
28	Notification of Default Supply	Not used (N/a)	✓
29	Priority Restoration Register	✓	Not used (N/a)

2.2.2 Performance Audit Excluded Conditions

Some of the reporting obligations for distribution and retail have been excluded from the audit because they are not applicable to NiW. In particular, as NiW has no small use customers, it is excluded from the electricity industry customer transfer code based on its current customer profile and it is not one of the businesses subject to the licence specific conditions.

Table 2-2 Excluded conditions

2014 Compliance Manual Reference	Reference	Reason for exclusion
1-71	Electricity Industry Customer Transfer Code	No retail transfers are available; therefore the Customer Transfer Code does not apply.
72 - 77	Electricity Industry (Obligation to Connect) Regulation 2005	No small use customers
78 - 100	Electricity Industry (Customer Contracts) Regulations 2005	No small use customers
108 - 109	Electricity Industry Act: Section 54	No small use customers
110	Electricity Industry Act: Section 76	NiW is not a retailer of last resort
111	Electricity Industry Act: Section 101	No small use customers
114 - 118	Electricity Industry Act: Section 11	No small use customers

2014 Compliance Manual Reference	Reference	Reason for exclusion
120	Electricity Industry Act: Section 11	There are no individual performance standards
129 - 316	Electricity Industry Act: Section 82	Code of conduct does not apply because there are no small use customers
350 - 354	Electricity Industry Metering Code – Division 3.3 - Clauses 3.15 to 3.18	These clauses for metering requirements for the Wholesale Electricity Market. NiW's is not connected to the WEM so the requirements are not applicable.
362 - 363	Electricity Industry Metering Code Clause 3.24A(1) and 3.24B(1)	Code of conduct does not apply because there are no small use customers
393	Electricity Industry Metering Code Clause 5.8	Code of conduct does not apply because there are no small use customers
394 - 396	Electricity Industry Metering Code Clauses 5.9, 5.10 and 5.11	The Customer Transfer Code does not apply to the Licensee
467	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 Clause 12.3	No small use customers
418 - 421	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 Clauses 18, 19 21(1), 21(2) and 21(3)	Electricity Corporation condition are not applicable
481 – 482	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 Clause 25(2) & (3)	No small use customers
486 - 496	Electricity Industry(Licence Conditions) Electricity Industry Act Sections 11, 61, 62, 64, and 65 Electricity Industry (Customer Contracts) Regulations 2005 Regulation 40	Licensee Specific Conditions that don't apply

2.2.3 Asset Management System Review

The review of NiW's asset management system for EDL2 covered the following asset management elements:

- ▶ Asset planning
- ▶ Asset creation and acquisition
- ▶ Asset disposal
- ▶ Environmental analysis
- ▶ Asset operations
- ▶ Asset maintenance
- ▶ Asset management information system
- ▶ Risk management
- ▶ Contingency planning
- ▶ Financial planning
- ▶ Capital expenditure planning
- ▶ Review of AMS.

2.3 Methodology and Approach

The audit was undertaken in accordance with ASAE3000. Our approach to the reporting work was to work closely with the Licensee so that comments and challenges could be responded to and addressed before the audit report was finalised. The key areas of our approach included:

- ▶ A start-up discussion (by telephone) with NiW to:
 - Discuss the main issues to be addressed at audit
 - Identify any issues from the previous audit
 - Identify any new issues arising from changes to the Licence or operating environment requirements
 - Discuss the audit plan.
- ▶ Preparation of a draft audit plan for comment by the Business. The audit plan identified the number and location of audits, the information to be addressed and the auditor responsible.
- ▶ Submission of the draft audit plan to the Economic Regulation Authority for approval
- ▶ Set-up of an FTP site for NiW to provide background material
- ▶ Review of background material provided by NiW
- ▶ Audit and review work comprising:
 - Structured interviews with NiW staff according to schedule in Audit and Review Plan
 - Demonstration of key systems, where appropriate
 - Sample testing for outcome compliance (assessing sample of documents to confirm procedures / policies are followed and implemented)
 - Review of any non-compliances and assess if any corrective action was undertaken and its effectiveness
 - Controls assessment on obligations that are found to be non-compliant or for obligations with an audit priority of 1, 2 or 3
 - Two days of site visits, consisting of one day to visit the northern system and one day to visit the southern system in order to inspect the assets and confirm asset management practices in the field
- ▶ Preliminary audit feedback at the audit close-out meeting
- ▶ Preparation of a draft report for NiW's review and comment;
- ▶ Preparation of a final report for submission to the Economic Regulation Authority.

Our methodology for completing this audit assignment was based on:

- ▶ A risk assessment that determined the priority of each audit area, using the risk management framework in Appendix A
- ▶ Our understanding of the Licensee's business
- ▶ The experience of our audit team in undertaking regulatory audits which has been gained in several jurisdictions in Australia and in the United Kingdom
- ▶ The outcome of the previous audit completed at NiW.

Our audit methodology, including the key documents required to be reviewed and the supporting systems that we requested to see demonstrated, is detailed in Table 2-3 and Table 2-4.

Table 2-3 Licence Audit Methodology

Audit Area	Priority	Approach	Systems	Key Documents
Licence Audit				
Clause 4 Fees	5	<ul style="list-style-type: none"> Review invoices from Authority and receipts of payment 		<ul style="list-style-type: none"> Invoices and receipts
Clause 5 Compliance	Various	<ul style="list-style-type: none"> Review legislative requirements and confirm compliance Identify any corrective action applied to correct / prevent breaches of compliance 	<ul style="list-style-type: none"> Work scheduling system 	<ul style="list-style-type: none"> Performance standards Compliance Summary Reports (record of breaches)
Clause 12 Accounting Records	4	<ul style="list-style-type: none"> Check that 2012/13, 2013/14 and 2014/15 financial statements are signed off as being to appropriate standards 	<ul style="list-style-type: none"> Finance system 	<ul style="list-style-type: none"> 2012/13 Financial statement 2013/14 Financial statement 2014/15 Financial statement
Clause 13 Individual Performance Standards	NA	<ul style="list-style-type: none"> Confirm that it's not applicable 		
Clause 14 Performance Standards	4	<ul style="list-style-type: none"> Review information reported to the Authority Confirm methodology used to determine performance conforms to legislation and procedures. 		<ul style="list-style-type: none"> Performance Audit Annual Performance Reports Procedures / Policy Manual Post Implementation Audit Reports / Status since previous audit Correspondence between NiW and Authority regarding review requirements
Clause 15 Reporting change in circumstances	5	<ul style="list-style-type: none"> Review any correspondence with the Authority 	<ul style="list-style-type: none"> Correspondence register 	<ul style="list-style-type: none"> Correspondence with ERA
Clause 16 Provision of Information	4	<ul style="list-style-type: none"> Confirm that the licensee has provided the Authority with data required for performance monitoring purposes as set out in the Compliance Reporting Manual. 	<ul style="list-style-type: none"> Correspondence register 	<ul style="list-style-type: none"> Annual compliance reports Correspondence register
Clause 17 Publishing Information	4	<ul style="list-style-type: none"> Check if any requests have been issued by the Authority to publish any information relating to the performance of the Licensee and correlating response 	<ul style="list-style-type: none"> Correspondence register 	<ul style="list-style-type: none"> Letters of notification / requests from the Authority Response to the Authority
Clause 18	4	<ul style="list-style-type: none"> Confirm all notices are issued in writing 	<ul style="list-style-type: none"> Correspondence register 	<ul style="list-style-type: none"> Issued notices

Audit Area	Priority	Approach	Systems	Key Documents
Notices				
Clause 19 Review of the Authority's Decisions	4	<ul style="list-style-type: none"> Confirm if any requests of a reviewable decision has been issued to the Authority and correlating response 		<ul style="list-style-type: none"> Requests for review of decision (Correspondence)
Clause 20 Asset Management System	Various	<ul style="list-style-type: none"> Confirm that the asset management policies and procedures meet legislative requirements. 	<ul style="list-style-type: none"> Enterprise Asset Management System Computerised Maintenance Management System 	<ul style="list-style-type: none"> Asset Management Policies Asset Management Plans Asset Management Systems and Procedures Manual Asset Register
Clause 21 Approved Scheme	NA	<ul style="list-style-type: none"> Confirm that it's not applicable 		
Clause 23 Marketers	NA	<ul style="list-style-type: none"> Confirm that it's not applicable 		
Clause 22 Determination of Default Supplier	NA	<ul style="list-style-type: none"> Confirm that it's not applicable 		
Clause 24 Customer Contracts	NA	<ul style="list-style-type: none"> Confirm that it's not applicable 		
Clause 25 Amending the Standard Form Contract	NA	<ul style="list-style-type: none"> Confirm that it's not applicable 		
Clause 26 Directions by the Authority	5	<ul style="list-style-type: none"> Confirm that directions from the authority have been complied with. 	<ul style="list-style-type: none"> Correspondence register 	<ul style="list-style-type: none"> Correspondence with ERA
Clause 27 Supplier of Last Resort	NA	<ul style="list-style-type: none"> Confirm that it's not applicable 		
Clause 28 Notification of Default Supply	NA	<ul style="list-style-type: none"> Confirm that it's not applicable 		
Clause 29 Priority Restoration Register	3	<ul style="list-style-type: none"> Confirm that Priority Restoration Register has been developed 		<ul style="list-style-type: none"> Priority Restoration Register

Table 2-4 Asset Management Review Methodology

Audit Area	Effectiveness Criteria	Approach	Systems	Key Documents
Asset Management Review				
Asset planning	<ul style="list-style-type: none"> ▪ Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning ▪ Service levels are defined ▪ Non-asset options (e.g., demand management) are considered ▪ Lifecycle costs of owning and operating assets are assessed ▪ Funding options are evaluated ▪ Costs are justified and cost drivers identified ▪ Likelihood and consequences of asset failure are predicted ▪ Plans are regularly reviewed and updated 	<ul style="list-style-type: none"> ▪ Review and assess the adequacy of asset planning processes ▪ Review and assess adequacy of asset management plans ▪ Assess if asset management plans are up to date ▪ Assess implementation of asset management plans (status) ▪ Assess whether the asset management plan clearly assigns responsibilities and if these have been applied in practice 	<ul style="list-style-type: none"> ▪ GIS ▪ Asset database / information system 	<ul style="list-style-type: none"> ▪ Overview of planning approach ▪ Population projections ▪ Infrastructure Planning Reports ▪ Asset management plans ▪ Service level agreements ▪ Business Case/project justification
Asset creation and acquisition	<ul style="list-style-type: none"> ▪ Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions ▪ Evaluations include all life-cycle costs ▪ Projects reflect sound engineering and business decisions ▪ Commissioning tests are documented and completed ▪ Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood 	<ul style="list-style-type: none"> ▪ Review adequacy of policies and procedures in relation to asset creation and acquisition ▪ Review examples of creations / acquisitions to check if policies and procedures were followed and check costs against estimates 		<ul style="list-style-type: none"> ▪ Policies and procedures for asset creating and acquisition. Accounting and engineering ▪ Overview of planning approach ▪ Business Case/project justification ▪ Asset management plans ▪ Commissioning certificates

Audit Area	Effectiveness Criteria	Approach	Systems	Key Documents
Asset disposal	<ul style="list-style-type: none"> ▪ Under-utilised and under-performing assets are identified as part of a regular systematic review process ▪ The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken ▪ Disposal alternatives are evaluated ▪ There is a replacement strategy for assets 	<ul style="list-style-type: none"> ▪ Review adequacy of policies and procedures in relation to asset disposal, asset replacement, identification of under-performing assets ▪ Determine if a review on the usefulness of assets are undertaken ▪ Review examples to check that policies and procedures are being followed 		<ul style="list-style-type: none"> ▪ Policies and procedures for asset disposal. Accounting and engineering ▪ Asset management plans ▪ Decommissioning certificates
Environmental analysis	<ul style="list-style-type: none"> ▪ Opportunities and threats in the system environment are assessed ▪ Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved ▪ Compliance with statutory and regulatory requirements ▪ Achievement of customer service levels 	<ul style="list-style-type: none"> ▪ Review performance and service standards over audit period ▪ Review performance / identify any breaches and non-compliances and corrective action taken ▪ Review adequacy of reporting and monitoring tools 		<ul style="list-style-type: none"> ▪ Relevant policies and procedures ▪ Planning reports ▪ Performance standards ▪ Compliance reports ▪ Strategic plans (if appropriate) ▪ Monthly KPI reports
Asset operations	<ul style="list-style-type: none"> ▪ Operational policies and procedures are documented and linked to service levels required ▪ Risk management is applied to prioritise operations tasks ▪ Assets are documented in an Asset Register, including asset assessment of assets' physical, structural condition and accounting data ▪ Operational costs are measured and monitored ▪ Staff receive training commensurate with their responsibilities 	<ul style="list-style-type: none"> ▪ Review adequacy of policies and procedures in relation to asset operations ▪ Review staff skills / training and resources available ▪ Check that operations procedures are being followed including testing of the asset register, observation of operational procedures and analysis of costs ▪ Identify any operational events and corrective actions 	<ul style="list-style-type: none"> ▪ Asset information system ▪ SCADA ▪ Finance system ▪ Works management system ▪ HR system 	<ul style="list-style-type: none"> ▪ Asset register ▪ Operations procedures ▪ Operational costs ▪ Daily / weekly / monthly check sheets ▪ Staff skills / resourcing structure ▪ Asset management plan ▪ Incident register

Audit Area	Effectiveness Criteria	Approach	Systems	Key Documents
Asset maintenance	<ul style="list-style-type: none"> ▪ Maintenance policies and procedures are documented and linked to service levels required ▪ Regular inspections are undertaken of asset performance and condition ▪ Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule ▪ Failures are analysed and operational / maintenance plans adjusted where necessary ▪ Risk management is applied to prioritise maintenance tasks ▪ Maintenance costs are measured and monitored 	<ul style="list-style-type: none"> ▪ Review adequacy of policies and procedures in relation to asset maintenance / maintenance functions ▪ Check that policies and procedures have been followed including testing of maintenance schedules, analysis of costs, ▪ Review maintenance schedules / plans ▪ Identify any maintenance events and corrective actions 	<ul style="list-style-type: none"> ▪ Asset information system ▪ Works management system 	<ul style="list-style-type: none"> ▪ Maintenance procedures and schedules ▪ Record of maintenance ▪ Maintenance costs
Asset Management Information System	<ul style="list-style-type: none"> ▪ Adequate system documentation for users and IT operators ▪ Input controls include appropriate verification and validation of data entered into the system ▪ Logical security access controls appear adequate, such as passwords and that appropriate system access and functionality is provided to users ▪ Physical security access controls appear adequate ▪ Data backup procedures appear adequate ▪ Key computations related to licensee performance reporting are materially accurate ▪ Management reports appear adequate for the licensee to monitor licence obligations 	<ul style="list-style-type: none"> ▪ Review adequacy of asset information system: <ul style="list-style-type: none"> – Asset coverage – Functionality – Data coverage – Security – User functionality granted is appropriate ▪ Review outputs / reports generated by systems and assess suitability for reporting against performance standards / licence obligations 	<ul style="list-style-type: none"> ▪ Asset Management Information system 	<ul style="list-style-type: none"> ▪ Asset Management Information System manual ▪ AMIS data coverage and quality report ▪ Asset reports

Audit Area	Effectiveness Criteria	Approach	Systems	Key Documents
Risk management	<ul style="list-style-type: none"> ▪ Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system ▪ Risks are documented in a risk register and treatment plans are actioned and monitored ▪ The probability and consequence of risk failure are regularly assessed 	<ul style="list-style-type: none"> ▪ Review risk assessment coverage ▪ Review sample of risk mitigation to check policies and procedures are followed ▪ Assess staff understanding of risk management and adequacy of risk management training for staff 		<ul style="list-style-type: none"> ▪ Corporate Risk management framework ▪ Risk assessment ▪ Risk Register
Contingency Planning	<ul style="list-style-type: none"> ▪ Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks 	<ul style="list-style-type: none"> ▪ Review adequacy / relevance and currency of contingency plans ▪ Review if plans have been tested and report on findings ▪ Identify any improvements that have been actioned as a result of testing of the contingency plans 		<ul style="list-style-type: none"> ▪ Contingency plans
Financial Planning	<ul style="list-style-type: none"> ▪ The financial plan states the financial objectives and strategies and actions to achieve the objectives ▪ The financial plan identifies the source of funds for capital expenditure and recurrent costs ▪ The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets) ▪ The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period ▪ The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services ▪ Significant variances in actual / budget income and expenses are identified and corrective action taken where necessary 	<ul style="list-style-type: none"> ▪ Review adequacy and effectiveness of financial planning and reporting processes ▪ Review current financial plan and assess whether the process is being followed 		<ul style="list-style-type: none"> ▪ Financial Plan

Audit Area	Effectiveness Criteria	Approach	Systems	Key Documents
Capital expenditure planning	<ul style="list-style-type: none"> ▪ There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates ▪ The plan provides reasons for capital expenditure and timing of expenditure ▪ The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan ▪ There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned 	<ul style="list-style-type: none"> ▪ Review adequacy and effectiveness of capital planning processes through examination of application of process and example documents 	<ul style="list-style-type: none"> ▪ Spreadsheets for capital planning and prioritisation 	<ul style="list-style-type: none"> ▪ Capital expenditure planning process outline ▪ Value engineering documents ▪ Risk management applied to investment planning ▪ Program management documents ▪ Review of capex estimate v outturn
Asset management plan	<ul style="list-style-type: none"> ▪ A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current ▪ Independent reviews (e.g., internal audit) are performed of the asset management system 	<ul style="list-style-type: none"> ▪ Review adequacy and currency of Asset Management Plan ▪ Assess when the Asset Management Plan was last updated / reviewed ▪ Assess outcomes of independent review of AMPs ▪ Identify if AMP needs to be updated 	<ul style="list-style-type: none"> ▪ Asset management system 	<ul style="list-style-type: none"> ▪ Asset management plans

2.4 Time Period Covered by the Audit/Review

This audit covers the period from 31 March 2013 to 31 March 2016.

2.5 Time Period of the Audit/Review Process

The audit/review commenced in February 2016 with preparation of the draft Audit Plan. The review of documentation provided by NiW was carried out during April and May 2016. A series of teleconference interviews with NiW staff were carried out during May and June 2016. The two days of site visits, consisting of one day to visit the southern system in Kambalda and one day to visit the northern system in Leinster in order to inspect the assets and confirm asset management practices in the field, were conducted on Thursday 5 May and Wednesday 18 May 2016 respectively.

2.6 Details of the Licensee Representatives Participating in the Audit/Review

Details of representatives from NiW who participated in the audit and review process are provided in Table 2-12-1 below.

Table 2-1 Details of Licensee Representatives

Name	Organisation	Position
Karl Stokes	BHP Nickel West	Manger Integrated Operations
John Harvey	BHP Nickel West	Energy Consultant
Esther Croukamp	BHP Nickel West	Business Process Data Lead, Integrated Operations
Hilton Van Der Merwe	BHP Nickel West	Superintendent Technical Stewardship
Vijay Kakani	BHP Nickel West	Senior Electrical Engineer
Jonathan Maynard	BHP Nickel West	Supervisor Maintenance Electrical & Instrument

2.7 Details of Key Documents and Other Information Sources

- ▶ Electricity Distribution Licence, BHP Billiton Nickel West Pty Ltd, EDL2, Version 6, 1 July 2015
- ▶ Electricity Retail Licence, BHP Billiton Nickel West Pty Ltd, ERL2, Version 6, 1 July 2015
- ▶ Electricity Distribution Licence, BHP Billiton Nickel West Pty Ltd, EDL2, Version 5, 1 January 2013
- ▶ Electricity Retail Licence, BHP Billiton Nickel West Pty Ltd, ERL2, Version 5, 3 December 2012
- ▶ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1
- ▶ Agnew Gold Mining Company PPA, 27 May 2014
- ▶ Lightning Nickel PPA, 4 February 2014
- ▶ Mincor Resources PPA, 4 February 2014
- ▶ Cherish Metals and Donegal Lanfranchi PPA, 17 September 2014
- ▶ St Ives Gold Mining Company PPA, 30 October 2013
- ▶ BHP Billiton 1SAP Basic Procurement Guide, June 2015
- ▶ BHP Billiton Business Conduct - Our Requirements, Version 6.1, 22 March 2016
- ▶ Nickel West Compliance Report EDL2 and ERL2 2014 - 2015, 16 October 2015
- ▶ Nickel West Compliance Report EDL2 and ERL2 2013 - 2014, 28 August 2014
- ▶ BHP Billiton Environmental Management System Manual (Document Number: NIW-HSEC-MAN-0001), Version 3.0, 27 March 2014
- ▶ BHP Billiton KNSC Environmental Reporting Guideline (Document Number: 10019343), Version 2.0, 21 January 2010

- ▶ BHP Billiton Health, Safety, Environment and Community Reporting - Our Requirements, Version 6.0, 7 March 2016
- ▶ Nickel West HSEC Event Investigation Process (Document Number: NIW-HSEC-FRM-0024), Version 2.0, 21 May 2014
- ▶ BHP Billiton NKK HSEC Manual (Document Number: NKK-HS-MAN-0001, Version 3.2, 23 June 2010)
- ▶ BHP Billiton Safety - Our Requirements, Version 6.0, 7 March 2016
- ▶ BHP Billiton Power Quality Analysis - Leinster, Hahn Electrical Contracting, 4 April 2013
- ▶ BHP Billiton Power Quality Analysis - Leinster, Hahn Electrical Contracting, 10 February 2016
- ▶ BHP Billiton PQM Accuracy Testing - Kambalda Nickel Concentrator, 19 November 2015
- ▶ BHP Billiton 52 Weekly Testing and Calibration of Power Meters
- ▶ Nickel West Register of Town Transformers
- ▶ Nickel West Transformer Oil Sampling Town LSA Work Execution Form
- ▶ Nickel West LSA Pole Inspection Spreadsheet, November 2015
- ▶ Liquidated Damages Calculator
- ▶ BHP Billiton Leinster Safety Management Plan 2014
- ▶ Energy Data Verification Request Form
- ▶ Priority Restoration Register Memo, 19 August 2013
- ▶ Meter Accuracy Testing at Southern HV Area, Engineering Services Report, Global Testing Services, June 2013
- ▶ Nickel West Metering Standing Data Register
- ▶ NiW incident logs and reports 2013 – 2016
- ▶ EMG North Safety Meeting Minutes, 26 August 2014
- ▶ EMG North Safety Meeting Minutes, 31 August 2015
- ▶ EMG South Safety Meeting Minutes, 1 April 2014
- ▶ EMG South Safety Meeting Minutes, 5 May 2015
- ▶ Nickel West Lifting Operations Procedure (Document Number: 10025574), Version 1, 24 July 2015
- ▶ Standard Engineering Specification for Overhead Power Lines up to 33 kV (SES312), Revision 6, 27 May 2013
- ▶ BHP Billiton Security Technical Specifications - Our Requirements, Version 6.0, 7 March 2016
- ▶ BHP Billiton Global Processes, Information Systems and Cybersecurity - Our Requirements, Version 6.0, 7 March 2016
- ▶ Nickel West Description of Metering Overview
- ▶ Nickel West Consequence Determination Matrix
- ▶ Nickel West Risk Matrix
- ▶ Nickel West Risk Register
- ▶ Nickel West Likelihood Determination Table
- ▶ BHP Billiton Risk Assessment Workshop Form
- ▶ BHP Billiton Risk Mitigation Template Form
- ▶ Nickel West Risk Analysis Template Workshop Presentation, September 2009
- ▶ BHP Billiton Risk Management - Our Requirements, Version 6.0, 7 March 2016

- ▶ BHP Billiton SP25 HV Isolation R6 Procedure (Document Number: NIW-NWO-PRO-0005), Version 6.0, 27 January 2014
- ▶ Risk Assessment and Assurance - Terms of Reference, Version 6.0, 7 March 2016
- ▶ Energy Management Group - Supply Model FY17-21 5YP (Run 2) updated (financial model)
- ▶ BHP Billiton Finance 5 Year Plan Timetable (Calendar of event and milestones)
- ▶ BHP Billiton Nickel West Group - Approvals and Financial Delegations Matrix, 25 February 2016
- ▶ Nickel West - Flash Report, March 2016
- ▶ Nickel West Power and Gas Month End Processes Standard Operating Procedure (Document Number: NiW-SOP-FIN-120), 12 August 2014
- ▶ BHP Billiton Annual Report 2013
- ▶ BPB Billiton Annual Report 2014
- ▶ BPB Billiton Annual Report 2015
- ▶ Examples of Nickel West customer invoices
- ▶ Examples of Nickel West customer invoice spreadsheet
- ▶ Examples of customer requests for invoice verification and confirmation
- ▶ Nickel West CAP 2017 Financial Context Statement, Version 0, 19 February 2016 (for FY17 5YP Run 1)
- ▶ Asset Management System Review - Post Review Implementation Plan
- ▶ Correspondence with ERA

2.8 Details of Auditors Participating in the Audit/Review and Hours Utilised

The audit/review team comprised three staff members from Cardno.

Details of their roles and hours utilised in the audit/review process are provided in the table below.

Table 2-2 Details of Audit / Review Team Members

Name	Organisation	Role	Summary of Task	Hours Utilised
Stephen Walker	Cardno	Project Director/Reviewer	<ul style="list-style-type: none"> ▪ Project Management ▪ Review of Audit/Review Plan ▪ Review of Audit/Review Report 	8 hours
Justin Edwards	Cardno	Auditor/Reviewer	<ul style="list-style-type: none"> ▪ Project Management ▪ Audit/Review ▪ Preparation of report 	150 hours
Bruce Clare	Cardno	Auditor/Reviewer	<ul style="list-style-type: none"> ▪ Audit/Review ▪ Site Inspections 	30 hours

3 Licensee's Response to Previous Audit Recommendations

In the previous performance audit and asset management review, a series of actions were recommended or suggested to improve the existing controls.

3.1 Previous Audit Non-Compliances and Recommendations

Details of the actions completed by NiW against each of the previous operational licence audit non-compliance and recommendations are presented in Table 3-1 below.

Table 3-1 Previous Audit Non-compliances and Recommendations

A. Resolved before end of previous Audit period				
Reference (no./year)	(Compliance rating/ Legislative obligation / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
B. Resolved during current Audit period				
Reference (no./year)	(Compliance rating/ Legislative obligation / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
105/2013	<i>Electricity Industry Act section 17(1)</i> A Licensee must pay to the Authority the prescribed licence fee within one month after the day of grant or renewal of the licence and within one month after each anniversary of that day during the term of the licence.	<i>Further improvement to controls of payment process is required. A compliance manual has been developed but expedited payment process to ensure payment on time in future is required.</i> The Authority has been set up for immediate payment in 1SAP. The requirement for payment has been included in the compliance handbook.	2013	NiW has reported this non-compliance in its 2015 Compliance Report to the ERA (dated 25 October 2015), which additionally notes that the payment was not made within the required timeframe as a result of a change in personnel and long service leave. NiW has added the payment requirement to a calendar to act as

B. Resolved during current Audit period

Reference (no./year)	(Compliance rating/ Legislative obligation / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
127/2013	<i>Distribution Licence condition 29.1</i> A distributor must create and maintain a Priority Restoration Register.	<i>Prepare and maintain a Priority Restoration Register.</i> NiW developed a Priority Restoration Register memo in August 2013 in response to the findings and recommendations from the previous performance audit. The memo (or its replacement) will remain in force while the Priority Restoration Register is a requirement under this licence condition.	August 2013	an additional prompt and prevent payment being missed. No further action required No further action required

C. Unresolved at end of current Audit period

Reference (no./year)	(Compliance rating/ Legislative obligation / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
332/2013	<i>Electricity Industry Metering Code clause 3.1</i> A network operator must ensure that its meters meet the requirements specified in the applicable metrology procedure and also comply with any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the National Measurement Act.	<i>In the event of a new customer requiring access a metrology procedure should be prepared. Investigate if extracts of the PPAs will meet the requirements of a Metrology procedure and if so submit to the Authority for approval.</i> Although each of the individual Power Purchase Agreements (PPAs) cover meter installation and accuracy and, as such, form NiW's metrology procedures, NiW does not have a dedicated,	Not completed	It is recognised that from a practical point of view, there is no real benefit for NiW to develop and submit a metrology procedure to the ERA for approval other than being able to comply with the requirements of the Metering Code. NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that the information

C. Unresolved at end of current Audit period

Reference (no./year)	(Compliance rating/ Legislative obligation / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
		<p>overall metrology procedure.</p> <p>Under Clauses 1.3 and 6.2 of the Metering Code, a metrology procedure must be submitted to and approved by the ERA. As NiW has not completed the actions required by the Code, and it does not have an approved procedure, it is not compliant with any of the obligations that refer to a metrology procedure.</p>		<p>included in the PPAs adequately covers the metering of NiW's customers' usage. As a result, there is no mandatory recommendation for this obligation although NiW will continue to be non-compliant against the requirements.</p>
334/2013	<p><i>Electricity Industry Metering Code clause 3.3(1)</i></p> <p>An interval meter must at least have an interface to allow the interval energy data to be downloaded in the manner prescribed using an interface compatible with the requirements specified in the applicable metrology procedure.</p>	<p><i>In the event of a new customer requiring access a metrology procedure should be prepared.</i></p> <p><i>Investigate if extracts of the PPAs will meet the requirements of a Metrology procedure and if so submit to the Authority for approval.</i></p> <p>Refer to 332/2013</p>	Not completed	Refer to 332/2013
337/2013	<p><i>Electricity Industry Metering Code 3.5(3)</i></p> <p>A network operator must, for each metering installation on its network, on and from the time of its connection to the network, provide, install, operate and maintain the metering installation in the manner prescribed (unless otherwise agreed).</p>	<p><i>Action Completed for calibration but long term clock rates should be checked (even if clocks are not generally used for tariff purposes and SCADA is the primary clock for collection basis).</i></p> <p>Although the Hahn calibration report in November 2015 observed that the clocks on all of the power meters were not set correctly, NiW does not generally use internal clocks, instead using SCADA as the primary clock for timestamps.</p> <p>However, the requirements under this clause in the Metering Code include that the metering installation should be in accordance with the metrology procedure for the network. Refer to 332/2013.</p>	Not completed	Refer to 332/2013
338/2013	<p><i>Electricity Industry Metering Code 3.5(4)</i></p> <p>A network operator must ensure that, except for a Type 7 metering installation, the metering</p>	<p><i>Opportunity for improvement: Consider moving the meter installation closer to the connection point (5 meter points – Victor, Otter, Coronet,</i></p>	Not completed	No further action required as non-mandatory recommendation

C. Unresolved at end of current Audit period

Reference (no./year)	(Compliance rating/ Legislative obligation / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
	point for a revenue metering installation is located as close as practicable to the connection point in accordance with good electricity industry practice.	<i>Argo and Agnew feeders) if a suitable opportunity arises.</i> NiW has not moved these meters during the audit period and considers that there is unlikely to be any real benefit to completing this recommendation.		
343/2013	<i>Electricity Industry Metering Code 3.9(3)</i> Each metering installation must meet at least the requirements for that type of metering installation specified in Table 3 in Appendix 1 of the Code.	<i>Action Completed for calibration but long term clock rates should be checked (even if clocks are not generally used for tariff purposes and SCADA is the primary clock for collection basis).</i> Although the Hahn calibration report in November 2015 observed that the clocks on all of the power meters were not set correctly, NiW does not generally use internal clocks, instead using SCADA as the primary clock for timestamps. However, the requirements under this clause that are specified in Table 3 in Appendix 1 of the Metering Code include a reference to the metrology procedure for the network. Refer to 332/2013.	Not completed	Refer to 332/2013
346/2013	<i>Electricity Industry Metering Code 3.10</i> A network operator must ensure that any programmable settings within any of its metering installations, data loggers or peripheral devices, that may affect the resolution of displayed or stored data, meet the relevant requirements specified in the applicable metrology procedure and comply with any applicable specifications or guidelines specified by the National Measurement Institute under the National Measurement Act.	<i>A general metrology procedure should be developed before any new customers are supplied.</i> <i>Investigate if extracts of the PPAs will meet the requirements of a Metrology procedure and if so submit to the Authority for approval.</i> Refer to 332/2013.	Not completed	Refer to 332/2013.

C. Unresolved at end of current Audit period

Reference (no./year)	(Compliance rating/ Legislative obligation / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
361/2013	<i>Electricity Industry Metering Code 3.11A(1)</i> A network operator must ensure that the meters on its network are systematically sampled and tested for accuracy in accordance with AS 1284.13.	<i>Test meters at light load and maximum load when meters are next tested.</i> NiW has reported a non-compliance against this obligation in both the 2013/14 and 2014/15 Compliance Reports it has submitted to the ERA during the audit period. This is as a result of not testing at light load as required by the Standard. The meters were last tested in November 2015, with light load testing carried out, making NiW compliant for the 2015/16 period.	November 2015	NiW to ensure that it continues to test meters at light load in accordance with the standard.
350/2013	<i>Electricity Industry Metering Code 3.12(1)</i> A network operator must ensure that each metering installation complies with, at least, the prescribed design requirements.	<i>Further opportunity for improvement is to complete improvement of technical content of drawings.</i> <i>Drawings should preferably be "As built".</i> NiW initiated and has completed a project to develop 'As Build' drawings for safety and technical reasons.	2014	No further action required
351/2013	<i>Electricity Industry Metering Code 3.12(2)</i> A network operator must ensure that instrument transformers in its metering installations comply with the relevant requirements of any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the National Measurement Act and any requirements specified in the applicable metrology procedure.	<i>Further opportunity for improvement is to complete improvement of technical content of drawings.</i> <i>Drawings should preferably be "As built".</i> NiW initiated and has completed a project to develop 'As Build' drawings for safety and technical reasons.	2014	No further action required
352/2013	<i>Electricity Industry Metering Code 3.12(3)</i> A network operator must provide isolation facilities, to the standard of good electricity	<i>Complete installation of isolation facilities. This is applicable, but not limited, to the following feeders: Mariners, Miitel, Widgie and Wannaway.</i>	2015	No further action required

C. Unresolved at end of current Audit period

Reference (no./year)	(Compliance rating/ Legislative obligation / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
	industry practice, to facilitate testing and calibration of the metering installation.	NiW initiated the installation of isolation facilities following the previous audit and this project has now been completed.		
353/2013	<i>Electricity Industry Metering Code 3.12(4)</i> A network operator must maintain drawings and supporting information, to the standard of good electricity industry practice, detailing the metering installation for maintenance and auditing purposes.	<i>Further opportunity for improvement is to complete improvement of technical content of drawings.</i> <i>Drawings should preferably be "As built".</i> NiW initiated and has completed a project to develop 'As Build' drawings for safety and technical reasons.	2014	No further action required
459/2013	<i>Electricity Industry (Network Quality and Reliability of Supply) Code 2005 5(1)</i> A distributor or transmitter must, as far as reasonably practicable, ensure that electricity supply to a customer's electrical installations complies with prescribed standards.	<i>Non-mandatory action is to implement scheduling of surveys in 1SAP planning system.</i> Power inspections have been scheduled in 1SAP on an annual basis.	2014	No further action required

3.2 Previous Review Ineffective Components and Recommendations

Details of the actions completed by NiW against each of the previous asset management system review recommendations are presented in Table 3-2 below.

Table 3-2 Previous Review Ineffective Components and Recommendations

A. Resolved before end of previous review period				
Reference (no./year)	(Asset management effectiveness rating / Asset Management System Component & Criteria / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
B. Resolved during current review period				
Reference (no./year)	(Asset management effectiveness rating / Asset Management System Component & Criteria / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
Objective 5	<i>B2</i> <i>Asset operations</i> Operations functions relate to the day-today running of assets and directly affect service levels and costs.	<i>Non mandatory further action (Audit guidelines 11.9) is to complete updating of technical content of drawings.</i> NiW initiated and has completed a project to develop 'As Build' drawings for safety and technical reasons.	2015	No further action required
Objective 6	<i>A2</i> <i>Asset maintenance</i> Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.	<i>Opportunity for improvement: Non mandatory further action (Audit guidelines 11.9) is to continue development of 1SAP for maintenance in northern system.</i> NiW has completed a review of the maintenance plans for the northern and southern systems.	2015	No further action required
Objective 8	<i>B2</i> <i>Risk management</i> Risk management involves the identification of	<i>Non mandatory further action (Audit guidelines 11.9) is to improve compliance manual and implement more rigorous reviews. Further</i>	2013	No further action required

B. Resolved during current review period

Reference (no./year)	(Asset management effectiveness rating / Asset Management System Component & Criteria / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
	risks and their management within an acceptable level of risk.	<p><i>recommendation is a review of risk plan.</i></p> <p>NiW has adopted a risk analysis based approach to its operations to manage significant business risks and this is now entrenched as a key management tool.</p> <p>A material risk "Energy Supply Curtailment" NPR-R-00018 is now in place.</p> <p>A mandatory test plan for critical control verification has been developed and is maintained in the 1SAP risk module.</p>		

C. Unresolved at end of current review period

Reference (no./year)	(Asset management effectiveness rating / Asset Management System Component & Criteria / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
Objective 1	<p>A2</p> <p><i>Asset planning</i></p> <p>Asset planning strategies are focused on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price).</p>	<i>Schedule annual reviews of plan.</i>	Unresolved	<p>Further action required</p> <p>Schedule formal review in 1SAP on an annual basis.</p> <p>Maintain records/update document control information to confirm that review has taken place and to summarise any changes.</p>
Objective 12	<p>A2</p> <p><i>Review of AMS</i></p> <p>The asset management system is regularly reviewed and updated.</p>	<i>The Asset Management System requires formal review every year.</i>	Unresolved	<p>Further action required</p> <p>Schedule reviews in 1SAP on an annual basis.</p> <p>Maintain records/update document control information to</p>

C. Unresolved at end of current review period

Reference (no./year)	(Asset management effectiveness rating / Asset Management System Component & Criteria / details of the issue)	Auditor's recommendation or action undertaken	Date resolved	Further action required (Yes/No/Not applicable) & details of further action required including current recommendation reference if applicable
				confirm that review has taken place and to summarise any changes.

4 Performance Summary

The audit of performance compliance includes a two-dimensional rating assessment for the adequacy of existing controls and the compliance with each relevant licence obligation.

The review of the asset management system includes a rating for each of the twelve key asset management processes based on the overall effectiveness for each asset management process and the performance rating

Descriptions of the rating scale and outcomes of the performance audit compliance and asset management review are provided in the following sections.

4.1 Assessment Rating Scales

In accordance with the Audit Guidelines, an assessment of the performance of NiW was completed using the rating scale in Table 4-1 and the asset management system effectiveness was graded using the rating scales in Table 4-2 and Table 4-3.

4.1.1 Performance Audit Compliance Rating Scales

Table 4-1 Audit Compliance and Controls Rating Scales

Adequacy of Controls Rating		Compliance Rating	
Rating	Description	Rating	Description
A	Adequate controls – no improvement needed	1	Compliant
B	Generally adequate controls – improvement needed	2	Non-compliant – minor impact on customers or third parties
C	Inadequate controls – significant improvement required	3	Non-compliant – moderate impact on customers or third parties
D	No controls evident	4	Non-compliant – major impact on customers or third parties

4.1.2 Asset Management Review Effectiveness Rating Scales

Table 4-2 Asset Management Process and Policy Definition Adequacy Rating

Rating	Description	Criteria
A	Adequately defined	<ul style="list-style-type: none"> ▪ Processes and policies are documented. ▪ Processes and policies adequately document the required performance of the assets. ▪ Processes and policies are subject to regular reviews, and updated where necessary. ▪ The asset management information system(s) are adequate in relation to the assets that are being managed.
B	Requires some improvement	<ul style="list-style-type: none"> ▪ Process and policy documentation requires improvement. ▪ Processes and policies do not adequately document the required performance of the assets. ▪ Reviews of processes and policies are not conducted regularly enough. ▪ The asset management information system(s) require minor improvements (taking into consideration the assets that are being managed).

Rating	Description	Criteria
C	Requires significant improvement	<ul style="list-style-type: none"> ▪ Process and policy documentation is incomplete or requires significant improvement. ▪ Processes and policies do not document the required performance of the assets. ▪ Processes and policies are significantly out of date. ▪ The asset management information system(s) require significant improvements (taking into consideration the assets that are being managed).
D	Inadequate	<ul style="list-style-type: none"> ▪ Processes and policies are not documented. ▪ The asset management information system(s) is not fit for purpose (taking into consideration the assets that are being managed).

Table 4-3 Asset Management Performance Ratings

Rating	Description	Criteria
1	Performing effectively	<ul style="list-style-type: none"> ▪ The performance of the process meets or exceeds the required levels of performance. ▪ Process effectiveness is regularly assessed, and corrective action taken where necessary.
2	Opportunity for improvement	<ul style="list-style-type: none"> ▪ The performance of the process requires some improvement to meet the required level. ▪ Process effectiveness reviews are not performed regularly enough. ▪ Process improvement opportunities are not actioned.
3	Corrective action required	<ul style="list-style-type: none"> ▪ The performance of the process requires significant improvement to meet the required level. ▪ Process effectiveness reviews are performed irregularly, or not at all. ▪ Process improvement opportunities are not actioned.
4	Serious action required	<ul style="list-style-type: none"> ▪ Process is not performed, or the performance is so poor that the process is considered to be ineffective.

4.2 Performance Audit Compliance Summary

Table 4-4 provides a summary of NiW's compliance rating against each licence obligation, and an adequacy of controls rating where the item has been found to be non-compliant.

Na = Not applicable - Determined during the audit that the compliance obligation does not apply to the Licensee's business operations

Nr = Not rated - No relevant activity took place during the audit period, therefore it is not possible to assess compliance.

Table 4-4 Audit Obligation Ratings

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating							
			A	B	C	D	NP	1	2	3	4	Na	Nr		
-	Electricity Industry Act section 7.3	-		✓						✓					
-	Electricity Industry Act section 7.4	-		✓						✓					
105	Electricity Industry Act section 17(1)	5		✓						✓					
106	Electricity Industry Act section 31(3)	5	✓						✓						
107	Electricity Industry Act section 41(6)	4						✓							✓
112	Electricity Industry Act section 115(1)	4						✓							✓
113	Electricity Industry Act section 115(2)	4						✓							✓
317	Electricity Industry Metering Code clause 2.2(1)(a)	5						✓							✓
318	Electricity Industry Metering Code clause 2.2(1)(b)	4						✓							✓
319	Electricity Industry Metering Code clause 3.1	4	✓							✓					
320	Electricity Industry Metering Code clause 3.2(1)	4	✓							✓					
321	Electricity Industry Metering Code clause 3.3(1)	4	✓							✓					
322	Electricity Industry Metering Code clause 3.3(3)	4						✓							✓
323	Electricity Industry Metering Code clause 3.3A(1)	5						✓							✓
324	Electricity Industry Metering Code clause 3.3B	4						✓							✓

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating							
			A	B	C	D	NP	1	2	3	4	Na	Nr		
325	Electricity Industry Metering Code clause 3.3C	4					✓							✓	
326	Electricity Industry Metering Code clause 3.5(1) and (2)	4					✓							✓	
327	Electricity Industry Metering Code clause 3.5(3)	4					✓								✓
328	Electricity Industry Metering Code clause 3.5(4)	4	✓							✓					
329	Electricity Industry Metering Code clause 3.5(6)	4					✓							✓	
330	Electricity Industry Metering Code clause 3.5(9)	4		✓							✓				
331	Electricity Industry Metering Code clause 3.7	4					✓								✓
332	Electricity Industry Metering Code clause 3.8	4	✓							✓					
333	Electricity Industry Metering Code clause 3.9(3)	4					✓								✓
334	Electricity Industry Metering Code clause 3.9(7)	4					✓								✓
335	Electricity Industry Metering Code clause 3.9(9)	4					✓								✓
336	Electricity Industry Metering Code clause 3.10	4	✓								✓				
337	Electricity Industry Metering Code clause 3.11(1)	4	✓							✓					
338	Electricity Industry Metering Code clause 3.11(2)	4	✓							✓					
339	Electricity Industry Metering Code clause 3.11(3)	4					✓								✓
340	Electricity Industry Metering Code clause 3.11A(1)	4		✓							✓				
341	Electricity Industry Metering Code clause	4					✓								✓

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating						
			A	B	C	D	NP	1	2	3	4	Na	Nr	
	3.11A(2)													
342	Electricity Industry Metering Code clause 3.12(1)	4	✓						✓					
343	Electricity Industry Metering Code clause 3.12(2)	4	✓							✓				
344	Electricity Industry Metering Code clause 3.12(3)	4						✓						✓
345	Electricity Industry Metering Code clause 3.12(4)	4	✓						✓					
346	Electricity Industry Metering Code clause 3.13(1)	4	✓						✓					
347	Electricity Industry Metering Code clause 3.13(3)(c)	4	✓						✓					
348	Electricity Industry Metering Code clause 3.13(4)	4	✓						✓					
349	Electricity Industry Metering Code clause 3.14(3)	4	✓						✓					
355	Electricity Industry Metering Code clause 3.20(1)	4						✓						✓
356	Electricity Industry Metering Code clause 3.20(3)	4						✓						✓
357	Electricity Industry Metering Code clause 3.21(1)	4						✓						✓
358	Electricity Industry Metering Code clause 3.21(2)	4						✓						✓
359	Electricity Industry Metering Code clause 3.22	4						✓						✓
360	Electricity Industry Metering Code clause 3.23(a)	4						✓						✓
361	Electricity Industry Metering Code clause 3.23(b)	4						✓						✓
364	Electricity Industry Metering Code clause 3.27	4						✓						✓

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating							
			A	B	C	D	NP	1	2	3	4	Na	Nr		
365	Electricity Industry Metering Code clause 3.29	4					✓								✓
366	Electricity Industry Metering Code clause 4.1(1)	4	✓							✓					
367	Electricity Industry Metering Code clause 4.1(2)	4	✓							✓					
368	Electricity Industry Metering Code clause 4.1(3)	4	✓							✓					
369	Electricity Industry Metering Code clause 4.2(1)	4						✓							✓
370	Electricity Industry Metering Code clause 4.3(1)	4	✓							✓					
371	Electricity Industry Metering Code clause 4.4(1)	5						✓							✓
372	Electricity Industry Metering Code clause 4.5(1)	4						✓							✓
373	Electricity Industry Metering Code clause 4.5(2)	5						✓							✓
374	Electricity Industry Metering Code clause 4.6(1)	4						✓							✓
375	Electricity Industry Metering Code clause 4.6(2)	4						✓							✓
376	Electricity Industry Metering Code clause 4.7	4						✓							✓
377	Electricity Industry Metering Code clause 4.8(3)	4						✓						✓	
378	Electricity Industry Metering Code clause 4.8(3A)	4						✓						✓	
379	Electricity Industry Metering Code clause 4.8(4)(a)	4	✓							✓					
380	Electricity Industry Metering Code clause 4.8(4)(b)	4	✓							✓					
381	Electricity Industry Metering Code clause	4	✓							✓					

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating						
			A	B	C	D	NP	1	2	3	4	Na	Nr	
	4.8(5)													
382	Electricity Industry Metering Code clause 4.9	4	✓						✓					
383	Electricity Industry Metering Code clause 5.1 (1)	5						✓						✓
384	Electricity Industry Metering Code clause 5.1(2)	5						✓						✓
385	Electricity Industry Metering Code clause 5.3	4	✓						✓					
386	Electricity Industry Metering Code clause 5.4(1)	5	✓						✓					
387	Electricity Industry Metering Code clause 5.4(1A)	5	✓						✓					
388	Electricity Industry Metering Code clause 5.4(2)	5						✓						✓
389	Electricity Industry Metering Code clause 5.5(2)	4						✓						✓
390	Electricity Industry Metering Code clause 5.5(2A)	4						✓						✓
391	Electricity Industry Metering Code clause 5.6(1)	4						✓					✓	
392	Electricity Industry Metering Code clause 5.7	4						✓					✓	
397	Electricity Industry Metering Code clause 5.12(1)	4						✓						✓
398	Electricity Industry Metering Code clause 5.13	4						✓						✓
399	Electricity Industry Metering Code clause 5.14(3)	4						✓						✓
400	Electricity Industry Metering Code clause 5.15	4						✓						✓
401	Electricity Industry Metering Code clause 5.16	4						✓						✓

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating							
			A	B	C	D	NP	1	2	3	4	Na	Nr		
402	Electricity Industry Metering Code clause 5.17(1)	4	✓						✓						
403	Electricity Industry Metering Code clause 5.17A(1)	4	✓						✓						
404	Electricity Industry Metering Code clause 5.17A(3)	4	✓						✓						
405	Electricity Industry Metering Code clause 5.18	4						✓							✓
406	Electricity Industry Metering Code clause 5.19(1)	5						✓							✓
407	Electricity Industry Metering Code clause 5.19(2)	5	✓							✓					
408	Electricity Industry Metering Code clause 5.19(3)	4						✓							✓
409	Electricity Industry Metering Code clause 5.19(5)	5						✓							✓
410	Electricity Industry Metering Code clause 5.19(6)	5						✓							✓
411	Electricity Industry Metering Code clause 5.20(1)	4	✓							✓					
412	Electricity Industry Metering Code clause 5.20(2)	4		✓							✓				
413	Electricity Industry Metering Code clause 5.20(4)	4		✓							✓				
414	Electricity Industry Metering Code clause 5.21(2)	4						✓							✓
415	Electricity Industry Metering Code clause 5.21(4)	4	✓								✓				
416	Electricity Industry Metering Code clause 5.21(5)	4						✓							✓
417	Electricity Industry Metering Code clause 5.21(6)	4						✓							✓
418	Electricity Industry Metering Code clause	4						✓							✓

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating							
			A	B	C	D	NP	1	2	3	4	Na	Nr		
	5.21(8)														
419	Electricity Industry Metering Code clause 5.21(9)	4	✓						✓						
420	Electricity Industry Metering Code clause 5.21(11)	4	✓						✓						
421	Electricity Industry Metering Code clause 5.21(12)	4						✓							✓
422	Electricity Industry Metering Code clause 5.22(1)	4						✓							✓
423	Electricity Industry Metering Code clause 5.22(2)	4						✓							✓
424	Electricity Industry Metering Code clause 5.22(3)	4						✓							✓
425	Electricity Industry Metering Code clause 5.22(4)	4						✓							✓
426	Electricity Industry Metering Code clause 5.22(5)	4						✓							✓
427	Electricity Industry Metering Code clause 5.22(6)	4						✓							✓
428	Electricity Industry Metering Code clause 5.23(1)	4						✓							✓
429	Electricity Industry Metering Code clause 5.23(3)	4						✓							✓
430	Electricity Industry Metering Code clause 5.24(1)	4						✓							✓
431	Electricity Industry Metering Code clause 5.24(2)	4						✓							✓
432	Electricity Industry Metering Code clause 5.24(3)	4						✓							✓
433	Electricity Industry Metering Code clause 5.24(4)	4						✓							✓
434	Electricity Industry Metering Code clause 5.25	4	✓							✓					

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating							
			A	B	C	D	NP	1	2	3	4	Na	Nr		
435	Electricity Industry Metering Code clause 5.27	4					✓								✓
436	Electricity Industry Metering Code clause 5.29	4					✓								✓
437	Electricity Industry Metering Code clause 5.30(1)	4					✓								✓
438	Electricity Industry Metering Code clause 5.31(1)	4					✓								✓
439	Electricity Industry Metering Code clause 5.31(2)	4					✓								✓
440	Electricity Industry Metering Code clause 5.34(2)	4					✓								✓
441	Electricity Industry Metering Code clause 5.37(1)(a)	4					✓							✓	
442	Electricity Industry Metering Code clause 5.37(1)(b)	4					✓							✓	
443	Electricity Industry Metering Code clause 5.37(1)(b)	4					✓							✓	
444	Electricity Industry Metering Code clause 5.37(2)	4					✓							✓	
445	Electricity Industry Metering Code clause 5.37(3)	4					✓							✓	
446	Electricity Industry Metering Code clause 5.38	4					✓							✓	
447	Electricity Industry Metering Code clause 6.1(1)	3	✓							✓					
448	Electricity Industry Metering Code clause 6.1(2)	4					✓								✓
449	Electricity Industry Metering Code clause 6.20(4)	5					✓								✓
450	Electricity Industry Metering Code clause 6.20(5)	5					✓								✓
451	Electricity Industry Metering Code clause	4	✓							✓					

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating						
			A	B	C	D	NP	1	2	3	4	Na	Nr	
	7.2(1)													
452	Electricity Industry Metering Code clause 7.2(2)	4	✓						✓					
453	Electricity Industry Metering Code clause 7.2(4)	4						✓						✓
454	Electricity Industry Metering Code clause 7.2(5)	4						✓						✓
455	Electricity Industry Metering Code clause 7.5	4						✓						✓
456	Electricity Industry Metering Code clause 7.6(1)	5						✓						✓
457	Electricity Industry Metering Code clause 8.1(1)	5						✓						✓
458	Electricity Industry Metering Code clause 8.1(2)	5						✓						✓
459	Electricity Industry Metering Code clause 8.1(3)	4						✓						✓
460	Electricity Industry Metering Code clause 8.1(4)	5						✓						✓
461	Electricity Industry Metering Code clause 8.3(2)	4						✓						✓
462	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 5(1)	5	✓						✓					
463	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 8	5						✓						✓
464	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 9	5	✓						✓					
465	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 10(1)	5	✓						✓					

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating							
			A	B	C	D	NP	1	2	3	4	Na	Nr		
466	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 10(2)	5						✓							✓
468	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 13(2)	5	✓							✓					
469	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 13(3)	4	✓							✓					
470	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 14(8)	4						✓							✓
471	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 15(2)	4						✓							✓
477	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 23(1)	5	✓							✓					
478	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 23(2)	4	✓							✓					
479	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 24(3)	4						✓							✓
480	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 24(4)	4						✓							✓
483	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 26	4						✓						✓	
484	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause	4						✓						✓	

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating						
			A	B	C	D	NP	1	2	3	4	Na	Nr	
	27(1)													
485	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 27(3)	4												✓
119	Distribution Licence condition 12.1 Retail Licence condition 12.1	4	✓							✓				
120	Distribution Licence condition 13.4 Retail Licence condition 13.4	Confirm not applicable						✓						✓
101	Electricity Industry Act section 13(1)	4	✓							✓				
121	Distribution Licence condition 14.2 Retail Licence condition 14.2	4	✓							✓				
123	Distribution Licence condition 15.1 Retail Licence condition 15.1	5						✓						✓
124	Distribution Licence condition 16.1 Retail Licence condition 16.1	4			✓						✓			
125	Distribution Licence condition 17.1 & 17.2 Retail Licence condition 17.1 & 17.2	4						✓						✓
126	Distribution Licence condition 18.1 Retail Licence condition 18.1	4						✓						✓
102	Electricity Industry Act section 14(1)(a)	5	✓							✓				
103	Electricity Industry Act section 14(1)(b)	4												✓
104	Electricity Industry Act section 14(1)(c)	5	✓							✓				
122	Distribution Licence condition 20.5	5	✓							✓				
111	Distribution Licence condition 21.1 Retail Licence condition 21.1	Confirm not applicable						✓						✓

Compliance Manual Ref No.	Licence Reference	Audit Priority applied (rated 1 (Highest) to 5 (Lowest))	Adequacy of Controls Rating					Compliance Rating							
			A	B	C	D	NP	1	2	3	4	Na	Nr		
99	Electricity Industry (Customer Contracts) Regulations 2005 regulation 36	Confirm not applicable					✓							✓	
114	Retail Licence condition 23.1	Confirm not applicable					✓							✓	
115	Retail Licence condition 23.2	Confirm not applicable					✓								✓
116	Retail Licence condition 24.2	Confirm not applicable					✓								✓
117	Retail Licence condition 24.3	Confirm not applicable					✓								✓
118	Retail Licence condition 25.1	Confirm not applicable					✓						✓		
110	Electricity Industry Act section 76	Confirm not applicable					✓								✓
127	Distribution Licence condition 29.1	2	✓							✓					
128	Distribution Licence condition 29.3	2						✓							✓

4.3 Asset Management Review Effectiveness Summary

The asset management system review assessed the effectiveness of the asset management system in delivering the services as required under the operating licence.

The review was conducted utilising the asset management adequacy and performance ratings as outlined in the Audit Guidelines. A summary of the outcomes of the review is provided in Table 4-5.

NP = Not Performed - No relevant activity took place during the audit period, therefore it is not possible to assess performance.

Table 4-5 Asset Management Review Effectiveness Summary

Asset Management System Component	Asset management process and policy definition adequacy rating	Asset management performance rating
Asset planning	A	1
▪ Asset management plan covers key requirements	A	1
▪ Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	A	1
▪ Service levels are defined	A	1
▪ Non-asset options (e.g. demand management) are considered	A	1
▪ Lifecycle costs of owning and operating assets are assessed	A	1
▪ Funding options are evaluated	A	1
▪ Costs are justified and cost drivers identified	A	1
▪ Likelihood and consequences of asset failure are predicted	A	1
▪ Plans are regularly reviewed and updated	B	2
Asset creation/acquisition	A	NP
▪ Full project evaluations are undertaken for new assets	A	NP
▪ Evaluations include all life-cycle costs	A	NP
▪ Projects reflect sound engineering and business decisions	A	NP
▪ Commissioning tests are documented and completed	A	NP
▪ Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood	A	NP
Asset disposal	A	NP
▪ Under-utilised and under-performing assets are identified as part of a regular systematic review process	A	NP
▪ The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	A	NP
▪ Disposal alternatives are evaluated	A	NP
▪ There is a replacement strategy for	A	NP

Asset Management System Component	Asset management process and policy definition adequacy rating	Asset management performance rating
assets		
Environmental analysis	A	1
<ul style="list-style-type: none"> Opportunities and threats in the system environment are assessed 	A	1
<ul style="list-style-type: none"> Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved 	A	1
<ul style="list-style-type: none"> Compliance with statutory and regulatory requirements 	A	1
<ul style="list-style-type: none"> Achievement of customer service levels 	A	1
Asset operations	A	2
<ul style="list-style-type: none"> Operational policies and procedures are documented and linked to service levels required 	A	2
<ul style="list-style-type: none"> Risk management is applied to prioritise operations tasks 	A	1
<ul style="list-style-type: none"> Assets are documented in an Asset Register including asset type, location, material, plans of components, an assessment of assets' physical/structural condition and accounting data 	A	1
<ul style="list-style-type: none"> Operational costs are measured and monitored 	A	1
<ul style="list-style-type: none"> Staff resources are adequate and staff receive training commensurate with their responsibilities 	A	1
Asset maintenance	A	1
<ul style="list-style-type: none"> Maintenance policies and procedures are documented and linked to service levels required 	A	1
<ul style="list-style-type: none"> Regular inspections are undertaken of asset performance and condition 	A	1
<ul style="list-style-type: none"> Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule 	A	1
<ul style="list-style-type: none"> Failures are analysed and operational / maintenance plans adjusted where necessary 	A	1
<ul style="list-style-type: none"> Risk management is applied to prioritise maintenance tasks 	A	1
<ul style="list-style-type: none"> Maintenance costs are measured and monitored 	A	1
Asset management information system	A	1
<ul style="list-style-type: none"> Adequate system documentation for users and IT operators 	A	1
<ul style="list-style-type: none"> Input controls include appropriate verification and validation of data 	A	1

Asset Management System Component	Asset management process and policy definition adequacy rating	Asset management performance rating
entered into the system		
<ul style="list-style-type: none"> Logical security access controls appear adequate, such as passwords 	A	1
<ul style="list-style-type: none"> Physical security access controls appear adequate 	A	1
<ul style="list-style-type: none"> Data backup procedures appear adequate and backups are tested 	A	1
<ul style="list-style-type: none"> Key computations related to licensee performance reporting are materially accurate 	A	1
<ul style="list-style-type: none"> Management reports appear adequate for the licensee to monitor licence obligations 	A	1
Risk management	A	1
<ul style="list-style-type: none"> Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system 	A	1
<ul style="list-style-type: none"> Risks are documented in a risk register and treatment plans are actioned and monitored 	A	1
<ul style="list-style-type: none"> The probability and consequence of risk failure are regularly assessed 	A	1
Contingency planning	A	1
<ul style="list-style-type: none"> Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks 	A	1
Financial planning	A	1
<ul style="list-style-type: none"> The financial plan states the financial objectives and strategies and actions to achieve the objectives 	A	1
<ul style="list-style-type: none"> The financial plan identifies the source of funds for capital expenditure and recurrent costs 	A	1
<ul style="list-style-type: none"> The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets) 	A	1
<ul style="list-style-type: none"> The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period 	A	1
<ul style="list-style-type: none"> The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services 	A	1
<ul style="list-style-type: none"> Significant variances in actual / budget income and expenses are identified and corrective action taken where necessary 	A	1
Capital expenditure planning	B	1

Asset Management System Component	Asset management process and policy definition adequacy rating	Asset management performance rating
<ul style="list-style-type: none"> ▪ There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates 	A	1
<ul style="list-style-type: none"> ▪ The plan provides reasons for capital expenditure and timing of expenditure 	A	1
<ul style="list-style-type: none"> ▪ The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan 	A	1
<ul style="list-style-type: none"> ▪ There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned 	B	2
Review of AMS	B	2
<ul style="list-style-type: none"> ▪ A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current 	B	2
<ul style="list-style-type: none"> ▪ Independent reviews (e.g., internal audit) are performed of the asset management system 	B	2

5 Observations and Recommendations

5.1 Performance Audit

Table 5-1 Performance Audit Observations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
105	Distribution Licence condition 4.1 Generation Licence condition 4.1 Integrated Regional Licence condition 4.1 Retail Licence condition 4.1 Transmission Licence condition 4.1	Electricity Industry Act section 17(1)	A licensee must pay to the Authority the prescribed licence fee within one month after the day of grant or renewal of the licence and within one month after each anniversary of that day during the term of the licence.	2	<ul style="list-style-type: none"> ▪ The last audit observed a late licence fee payment (2010) and recommended further improvements to the controls related to the payment process. NiW set up immediate payments to the ERA in its 1SAP system. ▪ However, the 2015 licence fee payments for EDL2 and ERL2, which were due on 16 April 2015 were not paid until 25 May 2015. ▪ Although payment is set up in 1SAP, the process requires a purchase order and this is not known until the invoice is received. If there is no purchase order, the invoice the invoice is not forwarded to the correct member of staff for processing. ▪ NiW has reported this non-compliance in its 2015 Compliance Report to the ERA (dated 25 October 2015), which additionally notes that the payment was not made within the required timeframe as a result of a change in personnel and long service leave. ▪ NiW has added the payment requirement to a calendar to act as an additional prompt and prevent payment being missed. ▪ Licence fee payments were paid within the required timeframes in 2013 and 2014. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Electricity Licence Invoices, receipts, interest payment receipts, standing orders for 2013, 2014, 2015.
-		5.1	Subject to any modifications or exemptions granted pursuant to the Act, the licensee must comply with any applicable legislation.	-		

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
-	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Act section 7.4	A person must not sell electricity to customers except under the authority of a retail licence or an integrated regional licence.	2	<ul style="list-style-type: none"> ▪ During the course of the audit process, it was identified that the point of supply to the Agnew Gold Mining Company (AGMC) from NiW's northern system is outside NiW's licenced operating area. ▪ The original PPA which was executed in 2001 and had a termination date in 2014, showed the point of supply at the Leinster end of the Southern Cross Energy-owned 66kV line to Agnew and, as such, the point of supply was inside the licence area. ▪ A fresh contract was executed in 2014 and the new PPA changed the point of supply to the Agnew end, therefore putting the point of retail supply outside of NiW's licenced area of operation. ▪ NiW should have amended the retail licence area in 2014 when the new PPA was executed, however this was overlooked. ▪ As a result, NiW is non-compliant with regard to clause 2.1 of its retail licence, which states that '<i>The licensee is granted a licence for the licence area to sell electricity to customers in accordance with the terms and conditions of this licence</i>'. NiW's retail licence details are set out in Schedule 1 of its retail licence, with the licence area information provided in section 1.1 of the Schedule. ▪ This does not impact on the distribution licence area and therefore, NiW is compliant with the requirements under its distribution licence. ▪ We recommend that NiW formally notifies the ERA to explain the current situation and seeks to amend the licence area in accordance with the ERA's processes for amending licences. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW's Retail Licences, v5 and v6 ▪ AGMC PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
106	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Act section 31(3)	A licensee must take reasonable steps to minimise the extent or duration of any interruption, suspension or restriction of the supply of electricity due to an accident, emergency, potential danger or other unavoidable cause.	1	<ul style="list-style-type: none"> ▪ NiW records every interruption of supply and investigates if required. ▪ Personnel are on call with access to a callout vehicle. An agreement is in place for additional support in the northern system and contractors are available in the southern area. In all cases the interruption was minimised. ▪ NiW have taken reasonable steps to minimise the extent or duration of any unavoidable interruption, suspension or restriction of electricity. ▪ There are PPA financial penalties imposed for any interruptions to supply. ▪ .During the 4 year reporting period, as set out in Schedule 1, cl 13 of the Network Quality and Reliability Code 2005, the northern system had 34 interruptions, and the southern system had 29 interruptions. Of these 48 were caused by loss of generation outside the control of the Licensee or by lightning or other issues outside the control of the licensee. ▪ The interruptions have been minor and response is in line with service levels expected for the number and size of customers and network. There is a requirement for mine production to keep interruptions to a minimum. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
107	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Act section 41(6)	A licensee must pay the costs of taking an interest in land or an easement over land.	NR	<ul style="list-style-type: none"> ▪ There have been no interests/easements taken in land during the audit period. ▪ All assets are on mining leases and no payments are made for interests or easements in land. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Transmission Licence condition 5.1					
112	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Act section 115(1)	A licensee that is a network service provider or an associate of a network service provider, in relation to network infrastructure covered by the Code, must not engage in conduct for the purpose of hindering or prohibiting access by any person to services in accordance with the Code, the making of access agreements or any particular agreement in respect of those facilities, or the access to which a person is entitled under an access agreement or a determination made by way of arbitration.	NR	<ul style="list-style-type: none"> NiW has complied with the obligation. The substations are located on mining leases and NiW has full access, as do third parties. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
113	Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Act section 115(2)	A licensee that has, or is an associate of a person that has, access to services under an access agreement must not engage in conduct for the purpose of hindering or prohibiting access.	NR	<ul style="list-style-type: none"> There have been no circumstances of NiW hindering or prohibiting access to network infrastructure facilities. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
317	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 2.2(1)(a)	A network operator must treat all Code participants that are its associates on an arms-length basis.	NA	<ul style="list-style-type: none"> The retailer and distributor are the same organisation and there is no alternative retailer on the network. As there are no alternate associates, there is no commercial reason for the network operator to treat the retailer on an arms-length basis and the requirement is assessed as not applicable. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
318	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 2.2(1)(b)	A network operator must ensure that no Code participant that is its associate receives a benefit in respect of the Code unless the benefit is attributable to an arm's length application of the Code or is also made available to all other Code participants on the same terms and conditions.	NA	<ul style="list-style-type: none"> The retailer and distributor are the same organisation and there is no alternative retailer on the network. As there are no alternate associates, there is no commercial reason for the network operator to treat the retailer on an arms-length basis and the requirement is assessed as not applicable. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
319	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.1	A network operator must ensure that its meters meet the requirements specified in the applicable metrology procedure and also comply with any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the National Measurement Act.	2	<ul style="list-style-type: none"> All of NiW's meter installations have been confirmed as predating the licence and, therefore, will be grandfathered as compliant (refer Meter Code 3.14(1)). The meters have been tested and the majority were found to be within the Meter Code accuracy levels. A couple of meters showed an overall error outside the 1.5% limit NiW does not have a dedicated, overall metrology procedure. However, each of the individual Power Purchase Agreements (PPAs) cover meter installation and accuracy and, as such, form NiW's metrology procedures. However, under Clauses 1.3 and 6.2 of the Metering Code, a metrology procedure must be submitted to and approved by the ERA. As NiW has not completed the actions required by the Code, and it does not have an approved procedure, it is not compliant with any of the obligations that refer to a metrology procedure. It is recognised that from a practical point of view, there is no real benefit for NiW to develop and submit a metrology procedure to the ERA for approval other than being able to comply with the requirements of the Metering 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Inspection of substations and sample installations Meter drawings NiW Metering Standing Data Register PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 Engineering Services Report – Meter Accuracy Testing at Southern HV

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<p>Code. NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that the information included in the PPAs adequately covers the metering of NiW's customers' usage. As a result, there is no mandatory recommendation for this obligation although NiW will continue to be non-compliant against the requirements.</p> <ul style="list-style-type: none"> The meters cannot meet the requirements of the National Measurement Institute as the specifications apply to measurement class CTs and where protection class CTs are allowed under the Code (3.14(4)). Additionally, the metering is often at the substation and the customer is paying for line losses which are much more significant than any excesses of metering accuracy requirements. Meter clocks are not used and not considered to be relevant by NiW. Instead time stamps from each meter are recorded every 30 minutes using the clock on the SCADA system that records the data electronically. 	<p>Area, GTS, August 2015</p> <ul style="list-style-type: none"> PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 Power Purchasing Agreements
320	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.2(1)	An accumulation meter must at least conform to the requirements specified in the applicable metrology procedure and display, or permit access to a display of the measurements specified in subclauses 3.2(1)(a)(b) using dials, a cyclometer, an illuminated display panel or some other visual means.	2	<ul style="list-style-type: none"> NiW has accumulation meters with display panels. However, generally this function is not used on the individual meters and accumulation is carried out electronically through the SCADA system. As noted previously, although each of the individual Power Purchase Agreements (PPAs) cover meter installation and accuracy and, as such, form NiW's metrology procedures, NiW has not submitted a metrology procedure to the ERA for approval, in accordance with the requirements of Clauses 1.3 and 6.2 of the Metering Code. As NiW has not completed the actions 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<p>required by the Code, and does not have an approved procedure, it is not compliant with any of the obligations that refer to a metrology procedure.</p> <ul style="list-style-type: none"> It is recognised that from a practical point of view, there is no real benefit for NiW to develop and submit a metrology procedure to the ERA for approval other than being able to comply with the requirements of the Metering Code. NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that the information included in the PPAs adequately covers the metering of NiW's customers' usage. As a result, there is no mandatory recommendation for this obligation although NiW will continue to be non-compliant against the requirements. 	
321	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.3(1)	An interval meter must at least have an interface to allow the interval energy data to be downloaded in the manner prescribed using an interface compatible with the requirements specified in the applicable metrology procedure.	2	<ul style="list-style-type: none"> The meters have interfaces to download data. NiW use Babelfish to download the data on a 30 minute interval basis from its meters There are no interval meters in the Leinster town site. While there are some old meters, none are read for raising charges for electricity. NiW does not meter the town for consumption charging purposes. As noted previously, although each of the individual Power Purchase Agreements (PPAs) cover meter installation and accuracy and, as such, form NiW's metrology procedures, NiW has not submitted a metrology procedure to the ERA for approval, in accordance with the requirements of Clauses 1.3 and 6.2 of the Metering Code. As NiW has not completed the actions required by the Code, and does not have an approved procedure, it is not compliant with any of the obligations that refer to a 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<p>metrology procedure.</p> <ul style="list-style-type: none"> ▪ In the event of a new customer requiring access, NiW would establish the metrology in the new PPA that would be created for the new customer. The basis of this information would be the metrology information included in NiW's existing PPAs. ▪ NiW has not had any new customers requiring access during the audit period and has not been required to develop any new metrology procedures. However, in order to be compliant with the obligation, NiW should have an approved metrology procedure regardless of whether it has not had any new customers during the audit period. ▪ It is recognised that from a practical point of view, there is no real benefit for NiW to develop and submit a metrology procedure to the ERA for approval other than being able to comply with the requirements of the Metering Code. NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that the information included in the PPAs adequately covers the metering of NiW's customers' usage. As a result, there is no mandatory recommendation for this obligation although NiW will continue to be non-compliant against the requirements. 	
322	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.3(3)	If a metering installation is required to include a communications link, the link must (where necessary), include a modem and isolation device approved under the relevant telecommunications regulations, to allow the interval energy data to be	NA	<ul style="list-style-type: none"> ▪ NiW's metering installation communications links are all on internal communication systems and, therefore, do not have to comply with the relevant telecommunications requirements. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
			downloaded in the manner prescribed.			installations <ul style="list-style-type: none"> ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
323	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.3A(1)	A network operator must ensure that bidirectional electricity flows do not occur at a metering point unless the metering installation for the metering point is capable of separately measuring and recording electricity flows in each direction.	NA	<ul style="list-style-type: none"> ▪ There is no generation behind NiW's meters that could cause a bidirectional electricity flow. Therefore, this obligation is not applicable. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
324	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.3B	A user who is aware of bi-directional flows at a metering point which was not previously subject to a bi-directional electricity flows or any changes in a customer's or user's circumstances in a metering point which will result in bi-directional electricity flows must notify the network operator within 2 business days.	NR	<ul style="list-style-type: none"> ▪ There have been no circumstances of metering points which were previously not capable of bi-directional flow becoming capable of bi-directional flow within the audit period. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
325	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.3C	An accumulation meter or an interval meter that separately measures and records bi-directional electricity flows at the metering point must record the net electricity production transferred into the network that exceeds electricity consumption and the net electricity consumption transferred out of the network that exceeds electricity production.	NA	<ul style="list-style-type: none"> ▪ As noted previously, there is no generation behind NiW's meters that could cause a bidirectional electricity flow. Therefore, there is no need for bidirectional and this obligation is not applicable. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Standing Data Register <ul style="list-style-type: none"> ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
326	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.5(1) and (2)	A network operator must ensure that there is a metering installation at every connection point on its network which is not a Type 7 connection point. Unless it is a Type 7 metering installation, the metering installation must meet the functionality requirements prescribed.	NA	<ul style="list-style-type: none"> ▪ All NiW's connections are metered. The metering is generally at the point of connection. ▪ Type 7 connection points are not directly metered and usage is calculated. NiW does not have any Type 7 connections, therefore this obligation is not applicable. ▪ NiW's metering installations meet the functionality requirements prescribed. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Register <ul style="list-style-type: none"> ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
327	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.5(3)	A network operator must, unless otherwise agreed, for each metering installation on its network, on and from the time of its connection to the network, provide, install, operate and, subject to subclause 3.7(5), maintain the metering installation in the manner prescribed.	NR	<ul style="list-style-type: none"> ▪ There were no new meters installed during the audit period. ▪ NiW has in place PPAs which specify requirements for maintaining meter installations, testing metering accuracy, remedying any faults, etc. ▪ The metering installations are as agreed with customers. ▪ Meter calibration was completed in November 2015. ▪ The Hahn calibration report in November 2015 observed that the clocks on all of the power meters were not set correctly. However, NiW does not generally use internal clocks, using SCADA as the primary 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					clock for timestamps. <ul style="list-style-type: none"> If NiW needs to carry out manual meter reads, this can still be carried out to derive totals within a timeframe but is not able to provide the 30 minute datasets that are normally reported through the SCADA. As NiW's meters predate the Code and are grandfathered, it is technically complaint with this obligation. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 Power Purchasing Agreements
328	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.5(4)	A network operator must ensure that, except for a Type 7 metering installation, the metering point for a revenue metering installation is located as close as practicable to the connection point in accordance with good electricity industry practice.	1	<ul style="list-style-type: none"> NiW's revenue meters are installed at the points of connections of the loads on the network. A few exceptions exist as a result of the topology of the network and customer locations after the sale of assets to junior miners. The customers have agreed to these arrangements. All customers are metered. Therefore, these meters are installed as close as practicable, satisfying the requirements of this obligation. As noted previously, NiW does not have any Type 7 connections. The previous audit report included a non-mandatory recommendation to consider moving five meter points closer to the 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Inspection of substations and sample installations Meter drawings NiW Metering Standing Data Register PQM Accuracy

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					connection if a suitable opportunity arose. <ul style="list-style-type: none"> ▪ However, NiW has not moved these meters during the audit period and considers that there is unlikely to be any real benefit to completing this recommendation. Therefore, it has not completed a recommended improvement opportunity identified in the previous audit report. ▪ The only site NiW considers to be relevant to the previous recommendation is the Agnew feeder point as this is approximately 40km from the meter. However, a line loss correction is agreed with the customer and used to calculate the losses. As a result, we consider that it is appropriate for NiW to have not completed the non-mandatory improvement opportunity that was identified in the previous audit report. ▪ All of NiW's PPAs include provisions for losses agreed with each customer. 	Testing Report, Hahn Electrical Contracting, November 19, 2015 <ul style="list-style-type: none"> ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreement
329	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.5(6)	A network operator may only impose a charge for providing, installing, operating or maintaining a metering installation in accordance with the applicable service level agreement between it and the user.	NA	<ul style="list-style-type: none"> ▪ NiW has not installed any new meters during the audit period. ▪ As per the PPAs, NiW does not charge for installing, operating or maintaining metering installations. ▪ If maintenance is required on a meter installation, this is completed by NiW at its own cost. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report,

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Hahn Electrical Contracting, November 19, 2015 <ul style="list-style-type: none"> ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
330	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.5(9)	If a network operator becomes aware that a metering installation does not comply with the Code, the network operator must advise affected parties of the non-compliance and arrange for the non-compliance to be corrected as soon as practicable.	2	<ul style="list-style-type: none"> ▪ A small number of NiW's meters do not have the capability to be able to have password protection as they cannot accept a password. However, Meter Code 3.14(1) does not require installations that predate the Code to be updated. All meters are, therefore, considered compliant with the code. ▪ The regime for testing the meters for accuracy is set out in each of the PPAs. ▪ The November 2015 meter calibration completed by Hahn found a couple of meters outside the required accuracy limit. ▪ NiW has reported non-compliances against this obligation in both its 2013/14 and 2014/15 Compliance Reports to the ERA. In each case, the metering installation did not comply with the Code after a failure of a component and the affected customer not 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					being appropriately notified they were being under-metered.	Contracting, November 19, 2015 <ul style="list-style-type: none"> ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Incident logs ▪ Power Purchasing Agreements
331	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.7	All devices that may be connected to a telecommunications network must be compatible with the telecommunications network and comply with all applicable State and Commonwealth enactments.	NR	<ul style="list-style-type: none"> ▪ NiW does not have devices connected to a telecommunications network. Instead devices connect to internal mine communications systems. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Contracting, November 19, 2015 <ul style="list-style-type: none"> ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
332	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.8	Subject to clause 3.27, a network operator must, for each metering installation on its network, ensure that the metering installation is secured by means of devices or methods which, to the standard of good electricity industry practice, hinder unauthorized access and enable unauthorized access to be detected.	1	<ul style="list-style-type: none"> ▪ NiW maintains its meter installations securely. ▪ Unauthorised access is prevented and restricted through control of metering installations. ▪ The meters are on controlled access mine sites and in locked substations which require access permits for any work. This is adequate security hindering unauthorized access meeting good electricity industry practice. ▪ The meters are remotely monitored and any unauthorized changes will be detected. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting,

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						November 19, 2015 <ul style="list-style-type: none"> ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
333	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.9(3)	Subject to subclauses 3.9(4), 3.9(5) and 3.9(7), each metering installation must meet at least the requirements for that type of metering installation specified in Table 3 in Appendix 1 of the Code.	NR	<ul style="list-style-type: none"> ▪ All of NiW meter installations predate the Meter Code. Although NiW replaced the PQ meter for the East Alpha Feeder based on a recommendation from PQM testing conducted in November 2015, the replacement was an old meter from a compressor that was no longer in use and which was commissioned before 23 December 2005. Therefore, NiW's meters are grandfathered and do not require updating to meet the requirements of the Code. ▪ Meter accuracy and testing requirements are included in each of the PPAs. NiW's customers have accepted the accuracy in their agreed contracts. ▪ Calibration is carried out in accordance with the requirements of the PPAs, with the latest calibration being completed by Hahn in November 2015. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19,

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<ul style="list-style-type: none"> The Hahn calibration report in November 2015 observed that the clocks on all of the power meters were not set correctly and, as a result, a couple were reset. However, NiW does not generally use internal clocks, using SCADA as the primary clock for timestamps. If NiW needs to carry out manual meter reads, this can still be carried out to derive totals within a timeframe but is not able to provide the 30 minute datasets that are normally reported through the SCADA. NiW has reported that it has been non-compliant against this obligation in both its 2014 and 2015 annual Compliance Reports it has submitted to the ERA. NiW notes that the non-compliance relating to long-term clock rates for meters not being checked is irrelevant as metering timing is determined by the SCADA clock. However, as a result of the grandfathering of its meters under the Code, NiW is not required to comply with the obligation and should not have reported that it was non-compliant. We consider that a not rated grading is appropriate. 	2015 <ul style="list-style-type: none"> Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 Power Purchasing Agreements
334	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.9(7)	For a metering installation used to supply a customer with requirements above 1000 volts that require a VT and whose annual consumption is below 750MWh, the metering installation must meet the relevant accuracy requirements of a Type 3 metering installation for active energy only.	NR	<ul style="list-style-type: none"> All of NiW meter installations predate the Meter Code. Although NiW replaced the PQ meter for the East Alpha Feeder based on a recommendation from PQM testing conducted in November 2015, the replacement was an old meter from a compressor that was no longer in use and which was commissioned before 23 December 2005. Therefore, NiW's meters are grandfathered and do not require updating to meet the requirements of the Code. Meters meet the requirements to the extent 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Inspection of substations and sample installations Meter drawings

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<p>possible as there was no load on a number of meters and load is necessary to measure current (and KW/KWh) and determine accuracy.</p> <ul style="list-style-type: none"> ▪ Meter accuracy and testing requirements are included in each of the PPAs. Although NiW does not have a dedicated metrology procedure, the information in the PPAs fulfils this requirement in practice (although NiW is non-compliant in respect of not having an approved metrology procedure). As such, NiW's customers have accepted the accuracy in their agreed contracts. 	<ul style="list-style-type: none"> ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements
335	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.9(9)	If compensation is carried out within the meter then the resultant metering system error must be as close as practicable to zero.	NR	<ul style="list-style-type: none"> ▪ No compensation has been carried out within a meter during the audit period. ▪ When meters are tested, readings are taken before and after to allow correction to be completed during the testing process. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Standing Data Register <ul style="list-style-type: none"> ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreement
336	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.10	A network operator must ensure that any programmable settings within any of its metering installations, data loggers or peripheral devices, that may affect the resolution of displayed or stored data, meet the relevant requirements specified in the applicable metrology procedure and comply with any applicable specifications or guidelines specified by the National Measurement	2	<ul style="list-style-type: none"> ▪ All of NiW's metering installations predate the Meter Code and are grandfathered and do not require updating to meet the requirements of the Code. ▪ Any issues are picked up in the monthly reports that NiW prepares for its customers. ▪ NiW does not have a dedicated, overall metrology procedure. However, each of the individual Power Purchase Agreements (PPAs) cover meter installation and accuracy and, as such, form NiW's metrology procedures. ▪ However, as noted previously, although each of the individual Power Purchase 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
			Institute under the National Measurement Act.		<p>Agreements (PPAs) cover meter installation and accuracy and, as such, form NiW's metrology procedures, NiW has not submitted a metrology procedure to the ERA for approval, in accordance with the requirements of Clauses 1.3 and 6.2 of the Metering Code.</p> <ul style="list-style-type: none"> ▪ As NiW has not completed the actions required by the Code, and does not have an approved procedure, it is not compliant with any of the obligations that refer to a metrology procedure. ▪ In the event of a new customer requiring access, NiW would establish the metrology in the new PPA that would be created for the new customer. The basis of this information would be the metrology information included in NiW's existing PPAs. ▪ NiW has not had any new customers requiring access during the audit period and has not been required to develop any new metrology procedures. However, in order to be compliant with the obligation, NiW should have an approved metrology procedure regardless of whether it has not had any new customers during the audit period. ▪ It is recognised that from a practical point of view, there is no real benefit for NiW to develop and submit a metrology procedure to the ERA for approval other than being able to comply with the requirements of the Metering Code. NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that the information included in the PPAs adequately covers the metering of NiW's customers' usage. As a result, there is no mandatory recommendation for this obligation although NiW will continue to be non-compliant 	<p>Register</p> <ul style="list-style-type: none"> ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreement

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					against the requirements.	
337	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.11(1)	A network operator must ensure that a metering installation on its network is operating consistently with good electricity industry practice to measure and record data, and to permit collection of data within the time specified in the applicable service level agreement, for at least the percentages of the year specified.	1	<ul style="list-style-type: none"> ▪ The metering installations meet the requirements specified in the PPAs. These form the applicable service level agreements which are allowed in the Code under clause 3.11(1)(b). ▪ As a result, NiW has complied with the requirements. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing

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						Agreement
338	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.11(2)	If an outage or malfunction occurs to a metering installation, the network operator must make repairs to the metering installation in accordance with the applicable service level agreement.	1	<ul style="list-style-type: none"> ▪ The metering repairs have been done in accordance with the requirements of the PPAs. ▪ These form the applicable service level agreements which are allowed in the Code under clause 3.11(1)(b). ▪ As a result, NiW has complied with the requirements. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> ▪ Power Purchasing Agreement
339	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.11(3)	A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	NR	<ul style="list-style-type: none"> ▪ A code participant is defined as someone with an access contract and the Power Purchase Agreements are access contracts. In the case of NiW, the retailer (Code participant) and the network operator are the same entity. ▪ NiW has experienced a metering outage/malfunction during the audit period. ▪ This resulted from an error with the transmission of data during October 2015 related to a major maintenance on a substation. ▪ The data was stored for 3-4 weeks and NiW relied on manual readings during this outage time. This did not affect the overall meter reads for the time of the outage but meant that the values for the 30 minute step interval that the SCADA records could not be reported. ▪ The shutdown was initiated by NiW and it notified the affected customer. The issue was not reported by the customer but through NiW identifying the issue. As a result, this obligation has not been rated. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
340	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.11A(1)	A network operator must ensure that the meters on its network are systematically sampled and tested for accuracy in accordance with AS 1284.13.	2	<ul style="list-style-type: none"> ▪ The requirement for accuracy of meters is covered by the PPAs. ▪ The periodicity of testing is more frequent than that prescribed in AS 1284 and covers all meters, not just a sample set. ▪ The testing included in the PPAs is at least every 2 years compared to the AS allowing 5 years for these meters and only 2 years if meters do not meet requirements. ▪ NiW uses an independent contractor for completing its meter testing, with the contractor carrying out this work under the provisions of AS 1284.13. ▪ NiW has reported a non-compliance against this obligation in both the 2013/14 and 2014/15 Compliance Reports it has submitted to the ERA during the audit period. This is as a result of not testing at light load as required by the Standard. ▪ The meters were last tested in November 2015, with light load testing carried out, making NiW compliant for the 2015/16 period. 	<ul style="list-style-type: none"> ▪ Power Purchasing Agreement ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power

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341	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.11A(2)	Subject to clause 3.11A(3), if a "population" of meters is deemed to have failed under AS 1284.13, the network operator must ensure that all the meters that make up the population are removed and replaced with new meters within 3 years of the testing of the population.	NR	<ul style="list-style-type: none"> ▪ There has been no failure of a population of meters. ▪ The requirements for testing and repairing/replacing meters are set out in each of the PPAs ▪ The PPAs stipulate that all meters are tested every 24 months. ▪ The PPAs stipulate that if any tests deem a meter to be inaccurate then that meter will be repaired. 	Purchasing Agreement <ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing

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						Agreements
342	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.12(1)	A network operator must ensure that each metering installation complies with at least the prescribed design requirements.	1	<ul style="list-style-type: none"> ▪ As observed at the previous audit, the requirements of 3.12(1) cannot be met as it requires measurement class Current Transformers (CTs) to be used exclusively for measurement. However, under the grandfathering allowances, protection class CTs are permitted by 3.14(4) and NiW utilises the CTs that have been installed prior to the Code being implemented. ▪ The previous audit identified that there is an opportunity for improvement to complete the technical content of the asset drawings by creating 'As Built' drawings. This action minimises the scope for errors in the drawings and allows the recorded technical information to be improved. ▪ NiW initiated and has completed a project to develop 'As Built' drawings for safety and technical reasons. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Agreements
343	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.12(2)	A network operator must ensure that instrument transformers in its metering installations comply with the relevant requirements of any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the National Measurement Act and any requirements specified in the applicable metrology procedure.	2	<ul style="list-style-type: none"> ▪ As noted above for Obligation 342, installation of metering pre-dates the requirements of the Code and, therefore, it is not required to be upgraded to the Code. ▪ However, as noted previously, NiW does not have an approved metrology procedure and, as such, cannot be compliant with any of the obligations that refer to the applicable metrology procedure. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Power Purchasing Agreements
344	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.12(3)	A network operator must provide isolation facilities, to the standard of good electricity industry practice, to facilitate testing and calibration of the metering installation.	NR	<ul style="list-style-type: none"> The metering installations predate the Code and are, therefore, grandfathered and do not require upgrading. Metering installations have been provided with isolation facilities where possible. Despite this, NiW has reported in its 2013/14 and 2014/15 annual Compliance Reports to the ERA that it has been non-compliant against this obligation as a result of meter isolation facilities not being installed to the standard of good electricity industry practices. As its meter installations predate the Code, NiW was not required to report that it had been non-compliant against this obligation. NiW initiated the installation of isolation facilities following the previous audit and this project has now been completed. The PQM Accuracy Testing report prepared by Hahn in November 2015 observed that the Mariners feeder located in the Redross substation could not be tested without switching off the power because there was no way of shorting out the CT's. The 3 meters in the new PH-B2A MCC need a specific test block in order to test them without switching off. However, the Mariners mine is currently not in operation and NiW probably should have notified Hahn that the meters at the feeder did not need to be tested at this time. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Inspection of substations and sample installations Meter drawings NiW Metering Standing Data Register PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 PQM Test Results Leinster, Hahn Electrical Contracting, 4

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Apr 2013 <ul style="list-style-type: none"> ▪ Power Purchasing Agreements
345	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.12(4)	A network operator must maintain drawings and supporting information, to the standard of good electricity industry practice, detailing the metering installation for maintenance and auditing purposes.	1	<ul style="list-style-type: none"> ▪ As noted for Obligation 342, NiW initiated and has completed a project to develop 'As Build' drawings for safety and technical reasons based on a recommendation at the previous audit. ▪ NiW maintains a Metering Standing Data Register that includes the asset attributes and associated equipment related to each meter. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Power Purchasing Agreements
346	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.13(1)	A network operator must procure the user or the user's customer to install (or arrange for the installation of) a full check metering installation or partial check metering installation in accordance with the prescribed requirements.	1	<ul style="list-style-type: none"> Installation of metering pre-dates the requirements of the Code and, therefore, they are not required to be upgraded to the Code. As a result, check metering installations are not required. However, NiW does have some check meters and uses these to compare generation against the consumption with assumed losses in the network. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Inspection of substations and sample installations Meter drawings NiW Metering Standing Data Register PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Power Purchasing Agreements
347	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.13(3)(c)	A partial check metering installation must be physically arranged in a manner determined by the network operator, acting in accordance with good electricity industry practice.	1	<ul style="list-style-type: none"> Installation of metering pre-dates the requirements of the Code and, therefore, they are not required to be upgraded to the Code. As a result, partial check metering installations are not required. NiW utilises the SCADA data when partial check metering is required. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Inspection of substations and sample installations Meter drawings NiW Metering Standing Data Register PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Power Purchasing Agreements
348	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.13(4)	A check metering installation for a metering point must comply with the prescribed requirements.	1	<ul style="list-style-type: none"> Installation of metering pre-dates the requirements of the Code and, therefore, they are not required to be upgraded to the Code. As a result, check metering installations are not required. However, NiW does have some check meters and uses these to compare generation against the consumption with assumed losses in the network. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Inspection of substations and sample installations Meter drawings NiW Metering Standing Data Register PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Power Purchasing Agreements
349	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.14(3)	If, under clause 3.14(2), a metering installation uses metering class CTs and VTs that do not comply with the Table 3 in Appendix 1, then the network operator must either or both install meters of a higher class accuracy and apply accuracy calibration factors within the meter to compensate for CT and VT errors, in order to achieve the accuracy requirements in Table 3 in Appendix 1.	1	<ul style="list-style-type: none"> Clause 3.14(3) is only applicable for installations committed before Code commencement (3.14(1)) and not commissioned within a specified time frame. Installation of metering pre-dates the requirements of the Code, and, therefore, they are not required to be upgraded to comply with the Metering Code. However, NiW's metering transformers meet the requirements of Table 3 Appendix 1. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Inspection of substations and sample installations Meter drawings NiW Metering Standing Data Register PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Power Purchasing Agreements
355	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.20(1)	A network operator must, if reasonably requested by a Code participant, provide enhanced technology features in a metering installation.	NR	<ul style="list-style-type: none"> NiW has not received a request to provide enhanced technology features in a metering installation within the audit period. As a result, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
356	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.20(3)	A network operator may only impose a charge for the provision of metering installations with enhanced technology features in accordance with the applicable service level agreement between it and the user.	NR	<ul style="list-style-type: none"> NiW has not received a request to provide enhanced technology features in a metering installation within the audit period. Therefore, NiW has not imposed a charge for the provision of a metering installation. As a result, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
357	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.21(1)	Meters containing an internal real time clock must maintain time accuracy as prescribed. Time drift must be measured over a period of 1 month.	NR	<ul style="list-style-type: none"> NiW has not received a request to provide enhanced technology features in a metering installation within the audit period. However, NiW has reported that it has been non-compliant against this obligation in both the 2013/14 and 2014/15 annual Compliance Reports it has submitted to the ERA. The non-compliance has been reported as a result of the long-term clock rates for meters not being checked over a period of one month. Although NiW has reported a non-compliance in its Compliance Reports, NiW is not required to comply with the obligation as its meters predate the Code/ 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations 2013/14 Compliance Report 2014/15 Compliance Report

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<ul style="list-style-type: none"> As has been noted previously, the need for internal real time clocks is irrelevant as NiW determines its meter timing through its SCADA clock. Meters have been reset as a result of the meter test findings in November 2015. 	
358	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.21(2)	If a metering installation includes measurement elements and an internal data logger at the same site, it must include facilities on site for storing the interval energy data for the periods prescribed.	NR	<ul style="list-style-type: none"> NiW has not received a request to provide enhanced technology features in a metering installation within the audit period. NiW's meters have facilities onsite for storing meter read data as this information is stored on the main NiW network through the SCADA system. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
359	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.22	A network operator providing one or more metering installations with enhanced technology features must be licensed to use and access the metering software applicable to all devices being installed and be able to program the devices and set parameters.	NR	<ul style="list-style-type: none"> NiW has not received a request to provide enhanced technology features in a metering installation within the audit period. As a result, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
360	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.23(a)	Where signals are provided from the meter for the user or the user's customer use, a network operator must ensure that signals are isolated by relays or electronic buffers to prevent accidental or malicious damage to the meter.	NR	<ul style="list-style-type: none"> NiW has not received a request to provide enhanced technology features in a metering installation within the audit period. As a result, this obligation has not been rated. However, NiW meets the requirements of the obligation as the signals are isolated to prevent accidental or malicious damage to the meter as part of the inherent design of the meter. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
361	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.23(b)	Where signals are provided from the meter for the user or the user's customer use, a network operator must provide the user or the user's customer with sufficient details of the signal specification to enable compliance with clause 3.23(c) of the Code.	NR	<ul style="list-style-type: none"> NiW has not received a request to provide enhanced technology features in a metering installation within the audit period. As a result, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
364	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 3.27	A person must not install a metering installation on a network unless the person is the network operator or a registered metering installation provider for the network operator doing the type of work authorised by its registration.	NR	<ul style="list-style-type: none"> NiW has not installed any metering installations within the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
365	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 3.29	A network operator must publish a list of registered metering installation providers, including the prescribed details, and at least annually, update the list.	NR	<ul style="list-style-type: none"> Clause 3.28 of the Code provides that a network operator may register or deregister a person to undertake some or all of the activities relating to installation of metering. However, NiW has chosen not to register any metering installation providers and so has not published a list of these registered providers An installer for any new metering installation shall be considered at time required as installations are non-standard. As registration is optional (<i>'the network operator may register a person to install metering installations'</i>) and there is no person registered, the requirement to publish and update a list is not applicable. Therefore, we have graded this obligation as not rated for the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
366	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.1(1)	A network operator must establish, maintain and administer a metering database containing, for each metering point on its network, standing data and energy data.	1	<ul style="list-style-type: none"> NiW maintains a database of the required information. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Examples of Energy Invoices spreadsheets
367	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.1(2)	A network operator must ensure that its metering database and associated links, circuits, information storage and processing systems are secured by means of devices or methods which, to the standard of good electricity industry practice, hinder unauthorised access and enable unauthorised access to be detected.	1	<ul style="list-style-type: none"> NiW has an IT policy in place to protect access to the database. The databases and associated links, circuits, information storage and processing systems are secure by passwords with varying access levels in order to hinder unauthorised access and enable unauthorised access to be detected. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations BHP Billiton Security Technical Specifications - Our Requirements, Version 6.0 (7 March 2016) BHP Billiton Global Processes, Information Systems and Cybersecurity - Our Requirements Version 6.0 (7 March 2016)

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
368	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.1(3)	A network operator must prepare, and if applicable, must implement a disaster recovery plan to ensure that it is able, within 2 business days after the day of any disaster, to rebuild the metering database and provide energy data to Code participants.	1	<ul style="list-style-type: none"> ▪ NiW has a data disaster recovery plan. ▪ Data is backed on a daily basis. A monthly offsite back-up is also maintained. ▪ In the event of a disaster, all data is able to be recovered expediently as part of NiW's disaster recovery and business continuity plan. ▪ The servers are backed up and recovery time has been tested. ▪ Recovery of energy data is within next meter reading as energy readings self-correct at the next meter reading (half hour). The database registry is recovered within one hour and general recovery of servers within one day. ▪ The energy data is captured to two independent systems – one SCADA and one SQL database. ▪ Either data set maybe used for provision of energy data. A disaster in one will not affect the data retained in the other, which will be immediately available, allowing the requirement to be complied with. Additionally, both data sets are backed up independently. ▪ Meter data is not required to be supplied to Code participants until after month end. The disaster recovery plan is covered by having independent dual data sets. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ BHP Billiton Security Technical Specifications - Our Requirements, Version 6.0 (7 March 2016) ▪ BHP Billiton Global Processes, Information Systems and Cybersecurity - Our Requirements Version 6.0 (7 March 2016)
369	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.2(1)	A network operator must ensure that its registry complies with the Code and the prescribed clause of the market rules.	NR	<ul style="list-style-type: none"> ▪ NiW does not maintain an internal registry in conjunction with Western Power's registry. ▪ NiW's network is not part of the WEM so the market rules are not applicable. The registry meets the requirements 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Register
370	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.3(1)	The standing data for a metering point must comprise at least the items specified.	1	<ul style="list-style-type: none"> NiW has provided a complete print out of the registry information which contains the standing data required. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register
371	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.4(1)	If there is a discrepancy between energy data held in a metering installation and data held in the metering database, the affected Code participants and the network operator must liaise together to determine the most appropriate way to resolve a discrepancy.	NR	<ul style="list-style-type: none"> There have been no such discrepancies with the data within the audit period. The power purchase agreements set out discrepancy resolution issues. For some remote meters where the communication link is weak, data is stored in the communication modules adjacent to the meter. From time-to-time, NiW receive requests from its customers to provide them with additional data outside the normal monthly reporting. NiW consider that this is for clarification or more detailed data purposes rather than being a discrepancy that needs resolving. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register
372	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission	Electricity Industry Metering Code clause 4.5(1)	A Code participant must not knowingly permit the registry to be materially inaccurate.	NR	<ul style="list-style-type: none"> NiW have not knowingly permitted the registry to be materially inaccurate. The meter database has been sighted and there are no known errors. The registry does not need to be reviewed until a meter is replaced. There have been no customer (Code participants) complaints. No errors have been highlighted by NiW's customers. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Licence condition 5.1					Register
373	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 4.5(2)	If a Code participant (other than a network operator) becomes aware of a change to or an inaccuracy in an item of standing data in the registry, then it must notify the network operator and provide details of the change or inaccuracy within the timeframes prescribed.	NR	<ul style="list-style-type: none"> ▪ No changes to or inaccuracies in an item of standing data in the registry have been reported by customers during the audit period. ▪ A code participant is defined as someone with an access contract and the Power Purchase Agreements are access contracts. ▪ There are no alternative retailers for transfers to cause registry errors. There is no need for a process for notification as in the case of NiW, the retailer and the network operator are the same entity. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register
374	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.6(1)	If the network operator is notified of a change to, or inaccuracy in, an item of standing data by a Code participant which is the designated source for the item of standing data under Table 2 in clause 4.3(1), then the network operator must update the registry to reflect the change to, or correct the inaccuracy in, the standing data.	NR	<ul style="list-style-type: none"> ▪ NiW has not received any notification relating to an item of standing data by a Code participant which is the designated source for the item of standing data within the audit period. ▪ Code participants include users with an access contract and the Power Purchase Agreements are access contracts. ▪ In the case of NiW, the retailer and the network operator are the same entity, so no formal correspondence takes place. ▪ However, one case of under-metering of a customer was identified during May 2015. This event occurred due to a failed voltage transformer (VT) to the Miitel mine, which is owned and operated by Mincor. The VT was sent for repair and during the time it was not in place an alternative VT was used. ▪ The inaccuracy was not corrected in the standing data register by NiW because it was a temporary situation and it was known there was under metering in the customer's benefit. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<ul style="list-style-type: none"> As a result, we consider that this obligation should not be rated. 	
375	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.6(2)	If a network operator is notified of a change to, or inaccuracy in, an item of standing data by a Code participant which is not the designated source for the item of standing data, or otherwise becomes aware of a change to or inaccuracy in an item of standing data, then the network operator must undertake investigations to the standard of good electricity industry practice to determine whether the registry should be updated, and update the registry as required.	NR	<ul style="list-style-type: none"> NiW has not received any notifications within the audit period relating to a change to, or inaccuracy in, an item of standing data by a Code participant which is not the designated source for the item of standing data. As such, NiW has not had to undertake investigations to the standard of good electricity industry practice to determine whether the registry should be updated, and update the registry as required. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register
376	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.7	If standing data for a metering point is updated in the registry, the network operator must, within 2 business days after the update (or such other time as is specified in the applicable service level agreement) notify the update to the current user and each previous user, if the updated standing data relates to a period or periods when the previous user was the current user.	NR	<ul style="list-style-type: none"> No updates have been made to standing data by NiW within the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register
377	Distribution Licence condition 5.1 Integrated Regional Licence condition	Electricity Industry Metering Code	A network operator must allow a user who is a retailer or a generator to have local and (where a suitable	NA	<ul style="list-style-type: none"> NiW allows its users to have access as NiW is both the network operator and the retailer. Therefore, this obligation is considered to be 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	5.1 Transmission Licence condition 5.1	clause 4.8(3)	communications link is installed) remote access to the energy data for metering points at its associated connection points, using a password provided by the network operator which provides 'read only' access.		not applicable.	<ul style="list-style-type: none"> Process Data Lead, Integrated Operations NiW Metering Standing Data Register
378	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.8(3A)	A network operator must allow a user who is a retailer or a generator to have access to data held in its metering database for metering points at its associated connection points, by means of a website (or otherwise by remote access to a "data storage device" as that expression is defined in the Electronic Transactions Act 2003), using a password provided by the network operator which provides 'read only' access.	NA	<ul style="list-style-type: none"> NiW allows its users to have access as NiW is both the network operator and the retailer i.e. there are no circumstances where an external user is required to be provided with remote access. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register
379	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.8(4)(a)	A network operator must have devices and methods in place that ensure that energy data held in its metering installation is secured from unauthorised local or remote access using the methods prescribed	1	<ul style="list-style-type: none"> NiW has security devices, controls and passwords in place in accordance with its IT policies. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations BHP Billiton Security Technical Specifications - Our Requirements, Version 6.0 (7 March 2016)

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> BHP Billiton Global Processes, Information Systems and Cybersecurity - Our Requirements Version 6.0 (7 March 2016)
380	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.8(4)(b)	A network operator must have devices and methods in place that ensure that the data held in its metering database is secured from unauthorised local or remote access using the methods prescribed.	1	<ul style="list-style-type: none"> NiW has security devices, controls and passwords in place in accordance with its IT policies. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations BHP Billiton Security Technical Specifications - Our Requirements, Version 6.0 (7 March 2016) BHP Billiton Global Processes, Information Systems and Cybersecurity - Our Requirements Version 6.0 (7 March 2016)
381	Distribution Licence condition 5.1 Integrated Regional Licence condition	Electricity Industry Metering Code	Without limiting subclause 4.8(4), a network operator must ensure that electronic passwords and other	1	<ul style="list-style-type: none"> NiW has security devices, controls and passwords in place in accordance with its IT policies. The metering information is secured by the 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	5.1 Transmission Licence condition 5.1	clause 4.8(5)	electronic security controls are only issued to the specified authorised personnel and otherwise keep its records of electronic passwords and other electronic security controls secure from unauthorised access.		BHP Billiton IT requirements and is secured by passwords with varying access levels. Passwords are only issued to authorised personnel and BHP Billiton IT policies also detail requirements for password usage.	Process Data Lead, Integrated Operations <ul style="list-style-type: none"> ▪ BHP Billiton Security Technical Specifications - Our Requirements, Version 6.0 (7 March 2016) ▪ BHP Billiton Global Processes, Information Systems and Cybersecurity - Our Requirements Version 6.0 (7 March 2016)
382	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 4.9	A network operator must retain energy data in its metering database for each metering point on its network (including any energy data that has been replaced under subclause 5.24) for at least the periods, and with the level of accessibility, prescribed.	1	<ul style="list-style-type: none"> ▪ Data is retained by IT systems with back up of servers and retained for the required time. ▪ Metered energy data from 2004 has been provided as evidence by NiW. This data is available immediately on the computer network to the appropriate personnel. ▪ Energy data is reported to NiW's customers on a monthly basis. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register ▪ Examples of customer invoice spreadsheets
383	Distribution Licence condition 5.1 Integrated Regional Licence condition	Electricity Industry Metering Code	A network operator must use all reasonable endeavours to accommodate another Code participant's requirement to	NR	<ul style="list-style-type: none"> ▪ No requests for a metering service have been made during the audit period. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	5.1 Transmission Licence condition 5.1	clause 5.1(1)	obtain a metering service and requirements in connection with the negotiation of a service level agreement.			Process Data Lead, Integrated Operations <ul style="list-style-type: none"> NiW Metering Standing Data Register
384	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.1(2)	Without limiting subclause 5.1(1), a network operator must expeditiously and diligently process all requests for a service level agreement and negotiate its terms in good faith, and, to the extent reasonably practicable in accordance with good electricity industry practice, permit a Code participant to acquire a metering service containing only those elements of the metering service which the Code participant wishes to acquire.	NR	<ul style="list-style-type: none"> No requests for a metering service have been made during the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register.
385	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.3	A network operator must, for each metering point on its network, obtain energy data from the metering installation and transfer the energy data into its metering database by no later than 2 business days after the date for the scheduled meter reading for the metering point (or such other time as is specified in the applicable service level agreement).	1	<ul style="list-style-type: none"> Energy data is downloaded from each metering installation at each point of supply every half hour via the SCADA system. As a result, NiW has complied with the requirements. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register.

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
386	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.4(1)	A network operator must, for each meter on its network, at least once in every 12 month period undertake a meter reading that provides an actual value that passes the validation processes in Appendix 2.	1	<ul style="list-style-type: none"> ▪ NiW engages a third party independent contractor to complete annual calibration of its meters, including validation checks. ▪ Although NiW uses its SCADA system to record and download energy data electronically, it also takes manual meter readings if required. A small number of NiW's meters, including check and low consumption meters, are not connected to the SCADA system and have to be manually read. These manual meter readings are verified by cross checking and separation of duties. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
387	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.4(1A)	The meter reading referred to in clause 5.4(1) must not be undertaken by the customer associated with the meter, and must be undertaken by a person who is employed or appointed by the network operator and who is suitably skilled in accordance with good electricity industry practice to carry out meter readings.	1	<ul style="list-style-type: none"> ▪ Meter readings are not undertaken by the customer as NiW employs qualified and trained high voltage technicians to take manual readings of customer associated meters when/if required. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Inspection of substations and sample installations ▪ Meter drawings ▪ NiW Metering Standing Data Register ▪ PQM Accuracy Testing Report, Hahn Electrical Contracting, November 19, 2015 ▪ Engineering Services Report – Meter Accuracy Testing at Southern HV Area, GTS, August 2015 ▪ PQM Test Results Leinster, Hahn Electrical Contracting, 4 Apr 2013 ▪ Power Purchasing Agreements

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
388	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.4(2)	A user must, when reasonably requested by a network operator, use reasonable endeavours to assist the network operator to comply with the network operator's obligation.	NR	<ul style="list-style-type: none"> A code participant is defined as someone with an access contract and the Power Purchase Agreements are access contracts. No requests were made of users (customers) by NiW during the audit period related to complying with Clause 5.4(1) of the Code. In the case of NiW, the retailer and the network operator are the same entity, so no formal correspondence takes place related to meeting this obligation. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements
389	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.5(2)	Subject to subclause 5.5(2A)(b), a network operator may impose a charge for the provision of data, but only if a user has requested the energy data to the extent permitted by, and in accordance with the applicable service level agreement between it and the user, and if a customer has given a direction under subclause 5.17A(1), in accordance with the prescribed conditions.	NR	<ul style="list-style-type: none"> No charges have been imposed for the provision of data between network operator and retailer. Similarly, NiW's does not charge its customers for the provision of data. Customers are only charged in accordance with their respective PPAs, which form the applicable service level agreements. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements
390	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.5(2A)	A user must not impose any charge for the provision of the data under this Code unless it is permitted to do so under another enactment.	NR	<ul style="list-style-type: none"> NiW has not imposed a charge for the provision of standing data under the Code. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Power Purchasing Agreements
391	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.6(1)	Subject to subclause 5.6(2), a network operator must provide validated, and where necessary, substituted or estimated energy data for a metering point to the user for the metering point and the IMO within the timeframes prescribed in subclause 5.6(1)(2).	NA	<ul style="list-style-type: none"> The NiW network is not part of the WEM and the requirement is not applicable as daily settlements with the Independent Market Operator (IMO) are not required. The energy data provided to each of NiW's customer users is provided in accordance with the applicable service level agreements included in the respective PPAs. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements
392	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.7	If a replacement energy data value is inserted in a metering database for a metering point, the network operator must provide replacement energy data to the user for the metering point and the IMO within the timeframes prescribed.	NA	<ul style="list-style-type: none"> The NiW network is not part of the WEM and the requirement is not applicable as daily settlements with the Independent Market Operator (IMO) are not required. The energy data provided to each of NiW's customer users is provided in accordance with the applicable service level agreements included in the respective PPAs. Any energy data value that needs to be replaced is replaced in accordance with the timeframes included in the relevant service level agreement (the PPAs). NiW's policy is to use zero as the replacement value when smaller loads have an error. Peak values are not estimated for any other replacement. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
397	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.12(1)	If a user gives a network operator an energy data request for a metering point in accordance with the communication rules, and the energy data request relates only to a time or times for which the user was the current user at the metering point, then the network operator must provide a user with a complete set of energy data for the metering point within the timeframes prescribed.	NR	<ul style="list-style-type: none"> There have been no energy data requests from users to NiW made under this clause of the Code during the audit period. The users have been provided energy data according to the PPAs (the applicable service level agreements). 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements
398	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.13	If the current user for a metering point gives the network operator a standing data request for the metering point in accordance with the communication rules then the network operator must provide the current user with a complete current set of standing data for a metering point and advise whether there is a communications link for the metering point, within the timeframes prescribed.	NR	<ul style="list-style-type: none"> No request for standing data has been received within the audit period. There are no communication rules as there is no need for them with no other retailer on network. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements
399	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.14(3)	If a user makes a bulk standing data request, the network operator must in accordance with the communication rules, acknowledge receipt of the request and provide the requested standing data within the timeframes	NR	<ul style="list-style-type: none"> No requests for bulk standing data has been received within the audit period from NiW's users. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
			prescribed.			Register <ul style="list-style-type: none"> Power Purchasing Agreements
400	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.15	If a network operator provides energy data to a user or the IMO it must also provide the date of the meter reading in accordance with the requirements specified.	NR	<ul style="list-style-type: none"> The NiW network is not part of the WEM and the requirement is not applicable as daily settlements with the Independent Market Operator (IMO) are not required. The energy data provided to each of NiW's customer users is provided in accordance with the applicable service level agreements included in the respective PPAs. Dates are included with meter readings on invoices or supporting data provided to NiW's customers. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements
401	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.16	A user that collects or receives energy data from a metering installation must provide the network operator with the energy data (in accordance with the communication rules) within the timeframes prescribed.	NR	<ul style="list-style-type: none"> Users do not collect or receive energy data to send to the network operator. NiW is both network operator and retailer and there is no need for communication rules as there are no other retailers on network. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements
402	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.17(1)	A user must provide standing data and validated (and where necessary substituted or estimated) energy data to the user's customer, to which that information relates, where the user is required by	1	<ul style="list-style-type: none"> NiW has complied with the requirements. Detailed standing and validated energy data is provided to NiW's customers in the monthly invoices it issues. Although there is no enactment to provide data, the PPAs make provision for meter data to be provided to a customer after 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
			an enactment or an agreement to do so for billing purposes or for the purpose of providing metering services to the customer.		<ul style="list-style-type: none"> month end. Time frames are not specified. Applicable enactments, such as the Code of Conduct, do not apply to NiW as it does not supply any small use consumers. 	<ul style="list-style-type: none"> NiW Metering Standing Data Register Power Purchasing Agreements
403	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.17A(1)	A network operator must provide data for a metering point from its metering database to a person if (and to the extent that) the customer associated with the metering point gives the network operator a direction to do so that complies with subclause 5.17A(2).	1	<ul style="list-style-type: none"> NiW has complied with the requirements. One of NiW's retail customers, St Ives Gold (SIG), are provided with a daily download of the previous day's usage that allows them to monitor their energy consumption in more detail. NiW does not give SIG a password to access this data but has created a sub-routine that automatically provides this information to the customer in read-only format. In addition, other retail customers make ad hoc requests to NiW to provide energy data (e.g. maximum usage). NiW fulfils these ad hoc requests when they are made. NiW provides its customers with monthly energy data in its invoices so requests to provide metering point data tend to be intra-month. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements Examples of ad hoc data requests from customers
404	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.17A(3)	A network operator must comply with a direction under subclause 5.17A(1) within the timeframes prescribed.	1	<ul style="list-style-type: none"> Where requests for data from a metering point have been made by NiW's customers, NiW has complied with the requirements to provide the data as soon as practicable and within the required 10 business days after direction has been received. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register Power Purchasing Agreements

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Examples of ad hoc data requests from customers
405	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.18	If a user collects or receives information regarding a change in the energisation status of a metering point then the user must provide the network operator with the prescribed information, including the stated attributes, within the timeframes prescribed.	NR	<ul style="list-style-type: none"> No change in the energisation status of a metering point has occurred during the audit period. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register
406	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.19(1)	A user must, when requested by the network operator acting in accordance with good electricity industry practice, use reasonable endeavours to collect information from customers, if any, that assists the network operator in meeting its obligations described in the Code and elsewhere.	NR	<ul style="list-style-type: none"> There have been no requests to any user to collect information during the audit period. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register.
407	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.19(2)	A user must, to the extent that it is able, collect and maintain a record of the address, site and customer attributes, prescribed in relation to the site of each connection point, with which the user is associated.	1	<ul style="list-style-type: none"> NiW has complied with the requirements. Contacts lists and address, site and customer attributes and sample advice to customers has been provided as evidence. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. Correspondence with retail

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						customers
408	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.19(3)	A user must, after becoming aware of any change in a site's prescribed attributes, notify the network operator of the change within the timeframes prescribed.	NR	<ul style="list-style-type: none"> NiW as a retailer and generator has not become aware of any change in attribute. There has been no advice from users of any changes to site attributes. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence files
409	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.19(5)	A network operator must give notice to a user, or (if there is a different current user) the current user, acknowledging receipt of any customer, site or address attributes from the user within the timeframes prescribed.	NR	<ul style="list-style-type: none"> NiW as a network operator has not received any customer, site or address attributes. There was no new customer site or address attributes in the audit period to require a notice. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence files
410	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.19(6)	A user must use reasonable endeavours to ensure that it does not notify the network operator of a change in an attribute that results from the provision of standing data by the network operator to the user.	NR	<ul style="list-style-type: none"> NiW as a retailer and generator has not become aware of any change in attribute. There has been no advice from users of any changes to site attributes. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence files
411	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission	Electricity Industry Metering Code clause 5.20(1)	A network operator must, by not later than 6 months after the date this Code applies to the network operator, develop, in accordance with the communication rules, an	1	<ul style="list-style-type: none"> NiW has previously developed an energy data verification request form but this has never been used by NiW. Generally any requests for data verification are submitted by email to NiW. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Licence condition 5.1		Energy Data Verification Request Form.		<ul style="list-style-type: none"> There are no communication rules. 	<ul style="list-style-type: none"> Operations Energy Data Verification Request Form
412	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.20(2)	An Energy Data Verification Request Form must require a Code participant to provide the information prescribed.	2	<ul style="list-style-type: none"> NiW's energy data verification request form contains the required information to be provided in accordance with this obligation. However, as noted above, although NiW has an Energy Data Verification Request, the form has never been used as generally any requests for data verification are submitted by email to NiW. Given the requirement for Code participants to provide the information in accordance with Clause 5.20(2) of the Code, NiW is technically non-compliant against this obligation, even though it has a very small customer based that facilitates any energy data verification requests. It is the distribution licensee's responsibility to ensure that the process outlined in Clause 5.20 of the Code is followed. We recommend that NiW ensures that any energy data verification requests are undertaken using the Energy Data Verification Request Form. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Energy Data Verification Request Form Examples of data verification requests from NiW's customers
413	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.20(4)	If a Code participant requests verification of energy data under subclause 5.20(3), the network operator must, in accordance with the metrology procedure, subject to subclause 5.20(5), use reasonable endeavours to verify energy data and inform the requesting Code participant of the result of the	2	<ul style="list-style-type: none"> NiW has received requests for energy data verification during the audit period but no requests have been made using the Energy Data Verification Request Form process. Generally any requests for data verification are submitted by email to NiW. NiW is able to manage the process easily as it has such a small number of customers. Although NiW has not received any requests under this section of the Code, we consider 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Energy Data Verification Request Form

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
			verification and provide the verified energy data within the timeframes prescribed.		<p>that a compliance rating of Not Compliant is appropriate as the licensee is technically non-compliant against this section of the Code and it is NiW's responsibility to ensure that that the process is followed.</p> <ul style="list-style-type: none"> As above, we recommend that NiW ensures that any energy data verification requests are undertaken using the Energy Data Verification Request Form and the verification is completed using the process set-out in Clause 5.20 of the Code. In addition, as noted previously, NiW does not have an approved metrology procedure and, as such, cannot be compliant with any of the obligations that refer to the applicable metrology procedure. 	
414	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.21(2)	A network operator must comply with any reasonable request under subclause 5.21(1).	NR	<ul style="list-style-type: none"> NiW has not received any requests for meter testing or auditing within the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register.
415	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.21(4)	A test or audit under subclause 5.21(1) is to be conducted in accordance with the metrology procedure and the applicable service level agreement.	2	<ul style="list-style-type: none"> NiW has not received any requests for meter testing or auditing within the audit period. The applicable service level agreement for each of NiW's retail customers is included in the respective PPA. However, as noted previously, NiW does not have an approved metrology procedure and, as such, cannot be compliant with any of the obligations that refer to a metrology procedure. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
416	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.21(5)	A Code participant must not request a test or audit unless the Code participant is a user and the test or audit relates to a time or times at which the user was the current user or the Code participant is the IMO.	NR	<ul style="list-style-type: none"> ▪ No request to separately test or audit has been made within the audit period. ▪ The meter accuracies are tested in accordance with the requirements in NiW's PPAs. Depending on the customer and the requirements included in their respective PPA, this is either at least once every 24 or 48 months. ▪ The NiW network is not part of the WEM and so the requirement is not applicable regarding the Code participant not being the Independent Market Operator (IMO). 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs ▪ Correspondence files
417	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.21(6)	A Code participant must not make a test or audit request that is inconsistent with any access arrangement or agreement.	NR	<ul style="list-style-type: none"> ▪ No requests to test or audit a meter have been made within the audit period. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs ▪ Correspondence files
418	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.21(8)	A network operator may only impose a charge for the testing of the metering installations, or auditing of information from the meters associated with the metering installations, or both, in accordance with the applicable service level agreement between it and the user.	NR	<ul style="list-style-type: none"> ▪ NiW does not impose charges for the testing of metering installations or the auditing of information from meters associated with the metering installation. ▪ As noted previously, no requests to test or audit a meter were made within the audit period. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> Correspondence files
419	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.21(9)	Any written service level agreement entered into under subclause 5.21(7) must include a provision that no charge is to be imposed if the test or audit reveals a non-compliance with this Code.	1	<ul style="list-style-type: none"> Each of NiW's PPAs set out the requirements for meter testing. The normal routine meter tests (carried out at least once every 24 or 48 months depending on the customer) are carried out at NiW's expense (<i>'All costs incurred in connection with such tests shall be borne by the Seller'</i>). NiW's retail customer may request additional tests outside of the routine testing schedule set out in the PPA. These tests are at the retail customer's expense <i>'unless the tests show that a component is outside the Prescribed Limits of Error or show some need for repair, replacement or other correction to the Electricity Metering Equipment'</i>. Therefore, NiW complies with the requirement. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs Correspondence files
420	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.21(11)	If a test or audit shows that the accuracy of the metering installation or information from the meter associated with the metering installation does not comply with the requirements under this Code, the network operator must advise the affected parties as soon as practicable of errors detected under a test or audit, the possible duration of the errors, and must restore the accuracy of the metering installation in accordance with the applicable service	1	<ul style="list-style-type: none"> The requirements for notifying affected parties of a meter non-compliance identified through a test or an audit is covered by each of the PPAs. An under-metering error resulting from a failed voltage transformer (VT) to the Miitel mine, which is owned and operated by Mincor. The reason for the error was a phase shift in the voltage. The fault was diagnosed in May 2015 and rectified in August 2015. NiW notified the affected customer on 25 September 2015. Although the customer was not formally notified until some months after the error was identified, NiW provided informal notification to the affected customer. The informal 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs BHP Billiton PQM Accuracy Testing, Hahn Electrical Contracting, 19

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
			level agreement.		<p>notification at time of diagnosis notified the customer that the under metering was in customer's favour.</p> <ul style="list-style-type: none"> ▪ NiW informed the affected customer that following the re-installation of the repaired transformer a small increase in energy consumption to the correct levels may be observed. ▪ PQM testing in November 2015 identified the meter for the East Alpha Feeder as reading outside the required limits and this meter has been replaced. Although NiW has replaced the East Alpha Feeder meter, the replacement was an old meter from a compressor that was no longer in use and which was commissioned before 23 December 2005. Therefore, this meter replacement with an old meter means that all of NiW's meters comply with the requirements to be grandfathered. ▪ No correction of energy use was made as the error was found to be in the affected customer's favour. ▪ In addition, an error was found with the meter recording supply to the Mariners site when the meter was tested in November 2015. However, as the site is currently shut, no customer will have been affected. 	<ul style="list-style-type: none"> ▪ November 2015 Correspondence files
421	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.21(12)	The original stored error correction data in a meter must not be altered except during accuracy testing and calibration of a metering installation.	NR	<ul style="list-style-type: none"> ▪ Error correction data has not been altered or destroyed during calibration or tests conducted during the audit period. ▪ Stored data in a meter is not used. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register.

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> PPAs
422	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.22(1)	A network operator must validate energy data in accordance with this Code applying, as a minimum, the prescribed rules and procedures set out in Appendix 2 and must, where necessary, substitute and estimate energy data under this Code applying, as a minimum, the prescribed rules and procedures set out in Appendix 3.	NR	<ul style="list-style-type: none"> NiW has complied with the requirements. Validation for the energy data is not required as meters were installed before Code and CT ratios not changed, and check metering is not required. The East Alpha feeder meter replaced during the audit period was an old meter originally commissioned before the Metering Code came into place that was able to be recycled. As such, it complies with the grandfathering requirements. Substituted or estimated data has been zero for smaller loads (this is not an issue to the retailer who is the same person as the network operator). For larger loads, estimated energy is substituted using Substitution Method 13 or interpolated data which will self-correct the following month. For the meter outage experienced at Substation Ph-B2 during the audit period, as the 30 minute data recorded by the SCADA system wasn't being recorded for a three week period, NiW used manual meter readings to collect the data. As such, although the detailed 30 minute intervals were not able to be recorded or reported for this period, the overall energy use data was unaffected as the manual meter reads could be used as substitutes until the repair work was completed. Peak power is not estimated during periods of data loss, which meets substitution method 18 requirements. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs
423	Distribution Licence	Electricity	The network operator must	NR	<ul style="list-style-type: none"> NiW does not employ check meters. Instead 	<ul style="list-style-type: none"> Interview with

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Industry Metering Code clause 5.22(2)	use check metering data, where available, to validate energy data provided that the check metering data has been appropriately adjusted for differences in metering installation accuracy in accordance with subclause 3.13.		NiW uses an internal check of generation through its SCADA system.	Energy Consultant & Business Process Data Lead, Integrated Operations <ul style="list-style-type: none"> ▪ NiW Metering Standing Data Register. ▪ PPAs
424	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.22(3)	If a check meter is not available or energy data cannot be recovered from the metering installation within the time required under this Code, then the network operator must prepare substitute values using a method contained in Appendix 3 and agreed where necessary with the relevant Code participants.	NR	<ul style="list-style-type: none"> ▪ As noted above, check metering not installed or required. ▪ Substituted or estimated data has been zero for smaller loads and this is not an issue to the retailer who is the same person as the network operator in the case of NiW. ▪ For larger loads, if required, NiW would estimate energy data using Substitution Method 13 or interpolated data which would self-correct the following month. However, no energy data has had to be substituted or estimated during the audit period. ▪ For the meter outage experienced at Substation Ph-B2 during the audit period, as the 30 minute data recorded by the SCADA system wasn't being recorded for a three week period, NiW used manual meter readings to collect the data. As such, although the detailed 30 minute intervals were not able to be recorded or reported for this period, the overall energy use data was unaffected as the manual meter reads could be used as substitutes until the repair work was completed. Essentially, the meter did not fail, it was a failure of the telemetry. As such, no estimation or substitution of energy data was required to be made. ▪ Peak power is not estimated during periods 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					of data loss, which meets substitution method 18 requirements.	
425	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.22(4)	If a network operator detects a loss of energy data or incorrect energy data from a metering installation, it must notify each affected Code participant of the loss or error within 24 hours after detection.	NR	<ul style="list-style-type: none"> ▪ Any loss of energy data or incorrect energy data is handled according to the applicable metrology procedure (PPAs). ▪ There is no loss of energy data or incorrect recording of data as NiW is able to use manual meter reads if there are problems with the SCADA information and vice versa. Therefore, as any discrepancy related to the consumption within the billing self-corrects in the next billing cycle there is generally no need to notify the customer that energy data has been lost or incorrectly recorded. ▪ In the case of the meter outage experienced at Substation Ph-B2 during the audit period, NiW notified the affected customer as soon as the issue was detected. NiW was initially unaware that there was an issue with the telemetry but no energy data was lost as NiW was able to take manual meter readings. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs
426	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.22(5)	Substitution or estimation of energy data is required when energy data is missing, unavailable or corrupted, including in the circumstances described in this subclause.	NR	<ul style="list-style-type: none"> ▪ The meter accuracies are regularly tested every 24 or 48 months (depending on the customer) in accordance with the requirements in NiW's PPAs. ▪ Validation checks and error corrections are made to data using an automated routine when importing data into the database via the SCADA system. ▪ Substituted or estimated data has been zero for smaller loads and this is not an issue to the retailer who is the same person as the network operator in the case of NiW ▪ For larger loads, estimated energy is substituted using Substitution Method 13 or interpolated data which will self-correct the following month. ▪ For the meter outage experienced at 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<p>Substation Ph-B2 during the audit period, as the 30 minute data recorded by the SCADA system wasn't being recorded for a three week period, NiW used manual meter readings to collect the data. As such, although the detailed 30 minute intervals were not able to be recorded or reported for this period, the overall energy use data was unaffected as the manual meter reads could be used as substitutes until the repair work was completed. Essentially, the meter did not fail, it was a failure of the telemetry. As such, there was no estimation or substitution of the energy data.</p> <ul style="list-style-type: none"> Peak power is not estimated during periods of data loss, which meets substitution method 18 requirements. 	
427	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.22(6)	A network operator must review all validation failures before undertaking any substitution.	NR	<ul style="list-style-type: none"> As noted above, NiW has not undertaken any substitution of energy data during the audit period. NiW did not substitute any data for the Miitel meter under-read or the East Alpha accuracy issue as in both cases the identified error was in the affected customer's favour. Validation checks and error corrections are made to data using an automated routine when importing data into the database. The meter accuracies are regularly tested (every 2 years) in accordance with the requirements in SCE's PPAs. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs
428	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.23(1)	If a network operator determines that there is no possibility of determining an actual value for a metering point, then the network operator must designate an estimated or substituted value for the metering point	NR	<ul style="list-style-type: none"> As noted above, NiW has not estimated or substituted an actual value for a metering point during the audit period. The meter accuracies are regularly tested every 24 or 48 months (depending on the customer) in accordance with the requirements in NiW's PPAs. Validation checks and error corrections are 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
			to be a deemed actual value for the metering point.		<p>made to data using an automated routine when importing data into the database.</p> <ul style="list-style-type: none"> ▪ In the event that NiW has to estimate or substitute a value for a metering point, where there is no possibility of determining an actual value for a metering point, the designated, substituted or estimated data is deemed to be zero for smaller loads and this is not an issue to the retailer who is the same person as the network operator in the case of NiW. ▪ For larger loads, the designated, substituted or estimated energy data value is determined using Substitution Method 13 or interpolated data which will self-correct the following month. Peak power is not estimated during periods of data loss, which meets substitution method 18 requirements. ▪ NiW did not substitute any data for the Miitel meter under-read or the East Alpha accuracy issue as in both cases the identified error was in the affected customer's favour. ▪ For the meter outage experienced at Substation Ph-B2 during the audit period, as the 30 minute data recorded by the SCADA system wasn't being recorded for a three week period, NiW used manual meter readings to collect the data. As such, although the detailed 30 minute intervals were not able to be recorded or reported for this period, the overall energy use data was unaffected as the manual meter reads could be used as substitutes until the repair work was completed. Essentially, the meter did not fail, it was a failure of the telemetry. 	<p>Standing Data Register.</p> <ul style="list-style-type: none"> ▪ PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
429	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.23(3)	If a network operator has designated a deemed actual value for a metering point then the network operator must repair or replace the meter or one or more of components of metering equipment (as appropriate) at the metering point and subclauses 5.24(3(c) and 5.24(4) apply in respect of the estimated or substituted value which was designated to be the deemed actual value.	NR	<ul style="list-style-type: none"> ▪ No such event has occurred that has required replacement or repair of any meters within the audit period. ▪ The meter accuracies are regularly tested every 24 or 48 months (depending on the customer) in accordance with the requirements in NiW's PPAs. ▪ Following substitution of a deemed value, any faulty equipment, communication link or logging system would be repaired or replaced as appropriate. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs
430	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.24(1)	If a network operator uses an actual value (first value) for energy data for a metering point, and a better quality actual or deemed actual value is available (second value), the network operator must replace the first value with the second value if doing so would be consistent with good electricity industry practice.	NR	<ul style="list-style-type: none"> ▪ No such event has occurred within the audit period as no better values have become available. ▪ If this were to occur, it would not be necessary for NiW to revise the reading with the second value (accumulator register) for large loads, as the error will self-correct the following month. ▪ For small loads, the assumed value of zero consumption would be retained by NiW to maintain good customer relations consistent with good electricity industry practice. ▪ The meter accuracies are regularly tested every 24 or 48 months (depending on the customer) in accordance with the requirements in NiW's PPAs. ▪ Validation checks and error corrections are made to data using an automated routine when importing data into the database via the SCADA system. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
431	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.24(2)	If a network operator uses a deemed actual value (first value) for energy data for a metering point, and a better quality deemed actual value is available (second value), then the network operator must replace the first value with the second value if doing so would be consistent with good electricity industry practice.	NR	<ul style="list-style-type: none"> ▪ No such event has occurred within the audit period as no better values have become available. ▪ If this were to occur, it would not be necessary for NiW to revise the reading with the second value (accumulator register) for large loads, as the error will self-correct the following month. ▪ For small loads, the assumed value of zero consumption would be retained by NiW to maintain good customer relations consistent with good electricity industry practice. ▪ The meter accuracies are regularly tested every 24 or 48 months (depending on the customer) in accordance with the requirements in NiW's PPAs. ▪ Validation checks and error corrections are made to data using an automated routine when importing data into the database via the SCADA system. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs
432	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.24(3)	If a network operator uses an estimated or substituted value (first value) for energy data for a metering point, and a better quality actual, deemed, estimated or substituted value is available (second value), then the network operator must replace the first value with the second value if doing so would be consistent with good electricity industry practice or the user and its customer jointly request it to do so.	NR	<ul style="list-style-type: none"> ▪ No such event has occurred within the audit period as no better values have become available and there have been no requests from customers to replace any energy data values. ▪ If this were to occur, it would not be necessary for NiW to revise the reading with the second value (accumulator register) for large loads, as the error will self-correct the following month. ▪ For small loads, the assumed value of zero consumption would be retained by NiW to maintain good customer relations consistent with good electricity industry practice. ▪ The meter accuracies are regularly tested every 24 or 48 months (depending on the customer) in accordance with the 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Metering Standing Data Register. ▪ PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					requirements in NiW's PPAs. <ul style="list-style-type: none"> Validation checks and error corrections are made to data using an automated routine when importing data into the database via the SCADA system. 	
433	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.24(4)	A network operator (acting in accordance with good electricity industry practice) must consider any reasonable request from a Code participant for an estimated or substituted value to be replaced under subclause 5.24.	NR	<ul style="list-style-type: none"> No such event has occurred within the audit period as there have been no requests for an estimated or substituted value to be replaced. Essentially, there is no advantage (or disadvantage) to a customer making this request due to self-correction or zero energy estimate. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs
434	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.25	A network operator must ensure the accuracy of estimated energy data in accordance with the methods in its metrology procedure and ensure that any transformation or processing of data preserves its accuracy in accordance with the metrology procedure.	2	<ul style="list-style-type: none"> NiW has not used any estimated energy data during the audit period. Therefore, this obligation has not been rated. The accuracy would not be relevant where a zero energy value has been substituted or no higher peak power value has been estimated. The accuracy would also not be relevant where the estimate will self-correct the following month. The metrology procedure used by NiW is set out in each of the PPAs. However, as noted previously, under Clauses 1.3 and 6.2 of the Metering Code, a metrology procedure must be submitted to and approved by the ERA. As NiW has not completed the actions required by the Code, and it does not have an approved procedure, it is not compliant with any of the obligations that refer to a metrology procedure. It is recognised that from a practical point of 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					view, there is no real benefit for NiW to develop and submit a metrology procedure to the ERA for approval other than being able to comply with the requirements of the Metering Code. NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that the information included in the PPAs adequately covers the metering of NiW's customers' usage. As a result, there is no mandatory recommendation for this obligation although NiW will continue to be non-compliant against the requirements.	
435	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 5.27	Upon request, a current user must provide the network operator with customer attribute information that it reasonably believes are missing or incorrect within the timeframes prescribed.	NR	<ul style="list-style-type: none"> There have been no requests made by NiW for a current user to provide customer attribute information that it reasonably believes are missing or incorrect within the timeframes prescribed. In the case of NiW, the retailer and the network operator are the same entity. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs
436	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.29	If a network operator makes an election under subclause 5.28 in respect of a network, then, (unless the election is terminated under the meter data agency agreement) the parties must undertake the activities prescribed, as applicable.	NR	<ul style="list-style-type: none"> NiW and Western Power have not entered into a metering data agency agreement. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
437	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause	If a network operator makes an election under subclause 5.28 in relation to the network, then the parties must enter into an agreement	NR	<ul style="list-style-type: none"> NiW and Western Power have not entered into a metering data agency agreement during the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Transmission Licence condition 5.1	5.30(1)	in relation to the network, which must deal with at least the matters prescribed.			Lead, Integrated Operations
438	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.31(1)	If a network operator makes an election under subclause 5.28 in relation to a network, the electricity networks corporation must assess the compliance of each metering installation in the network with this Code and notify the electing network operator of each non-compliant metering installation.	NR	<ul style="list-style-type: none"> NiW and Western Power have not entered into a metering data agency agreement during the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
439	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.31(2)	For each non-compliant metering installation notified under subclause 5.31(1)(b), the electing network operator may, by notice to the electricity networks corporation, require the electricity networks corporation to upgrade a non-compliant metering installation, in which case the electricity networks corporation must undertake the upgrade in accordance with the metering data agency agreement and good electricity industry practice.	NR	<ul style="list-style-type: none"> NiW and Western Power have not entered into a metering data agency agreement during the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
440	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition	Electricity Industry Metering Code clause 5.34(2)	Except to the extent that the metering data agency agreement provides otherwise, the costs which may be recovered by the electricity networks corporation under subclause 5.34(1) must not exceed the	NR	<ul style="list-style-type: none"> NiW and Western Power have not entered into a metering data agency agreement during the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	5.1		amounts prescribed.			
441	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.37(1)(a)	A network operator must for the year ending on each 30 June, prepare a report setting out the information listed in subclause 5.37(2) for each metering service it was requested during the year to provide or scheduled during the year to carry out.	NA	<ul style="list-style-type: none"> The clauses of Division 5.5 do not apply to NiW as it does not have any small use customers. Therefore, this obligation has been rated as not applicable. 	
442	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.37(1)(b)	A network operator must provide a copy of the report described in subclause 5.37(1)(a) to the Minister and the Authority not less than 5 business days before it is published under subclause 5.37(3).	NA	<ul style="list-style-type: none"> The clauses of Division 5.5 do not apply to NiW as it does not have any small use customers. Therefore, this obligation has been rated as not applicable. 	
443	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.37(1)(b)	A network operator must publish the report described in subclause 5.37(1) within 3 months after the year ends.	NA	<ul style="list-style-type: none"> The clauses of Division 5.5 do not apply to NiW as it does not have any small use customers. Therefore, this obligation has been rated as not applicable. 	
444	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.37(2)	The report prepared by the network operator must include the information prescribed.	NA	<ul style="list-style-type: none"> The clauses of Division 5.5 do not apply to NiW as it does not have any small use customers. Therefore, this obligation has been rated as not applicable. 	

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
445	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.37(3)	For each relevant metering service, the information in subclause 5.37(2) must be reported separately for the specified classes of connection point.	NA	<ul style="list-style-type: none"> The clauses of Division 5.5 do not apply to NiW as it does not have any small use customers. Therefore, this obligation has been rated as not applicable. 	
446	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 5.38	A network operator must keep such records of information as are required for the purposes of subclause 5.37, and must retain the information (in a format that is accessible within a reasonable period of time) for at least 7 years after the day on which a report containing the information is published under subclause 5.37(1)(c)	NA	<ul style="list-style-type: none"> The clauses of Division 5.5 do not apply to NiW as it does not have any small use customers. Therefore, this obligation has been rated as not applicable. 	
447	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 6.1(1)	A network operator must, in relation to its network, comply with the agreements, rules, procedures, criteria and processes prescribed.	1	<ul style="list-style-type: none"> NiW's procedures are set out in each of the power purchase agreements it has in place with its retail customers. There is no evidence that NiW has departure from any of the information included in the PPAs that it is required to comply with. NiW has not received any complaints from its customers related to not complying with the information set out in the PPAs. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations NiW Metering Standing Data Register. PPAs
448	Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 6.1(2)	A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed.	NR	<ul style="list-style-type: none"> As noted above, NiW's procedures are set out in each of the power purchase agreements it has in place with its retail customers. There is no evidence that that any user with an access contract related to NiW's network has failed to comply with the rules, 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<p>procedures, agreements and criteria prescribed.</p> <ul style="list-style-type: none"> ▪ In addition, there is no evidence that NiW has departure from any of the information included in the PPAs that it is required to comply with in its position as a licenced electricity retailer. ▪ NiW has not received any complaints from its customers related to not complying with the information set out in the PPAs. 	<ul style="list-style-type: none"> ▪ NiW Metering Standing Data Register. ▪ PPAs
449	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 6.20(4)	A network operator must amend any document in accordance with the Authority's final findings.	NR	<ul style="list-style-type: none"> ▪ NiW has not received any request by the Authority to amend any documents within the audit period. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Correspondence from ERA
450	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 6.20(5)	The network operator must publish any document that has been amended under subclause 6.20(4).	NR	<ul style="list-style-type: none"> ▪ NiW has not received any request by the Authority to amend any documents within the audit period. Therefore, it has not had to publish any amended document. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Correspondence from ERA
451	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission	Electricity Industry Metering Code clause 7.2(1)	Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection	1	<ul style="list-style-type: none"> ▪ NiW has complied with the requirements. ▪ NiW as both a licenced retailer and electricity distribution entity is able to send and receive a notice by post, facsimile and electronic communication. ▪ NiW has not received any complaints during the audit period. ▪ In the case of NiW, the same entity is both 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Licence condition 5.1		with the Code.		the network operator and the retailer.	
452	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 7.2(2)	A network operator must notify each Code participant of its initial contact details and of any change to its contact details at least 3 business days before the change takes effect.	1	<ul style="list-style-type: none"> NiW changed its address during the previous audit period but this information has not changed during this audit period. The primary contact for the ERA has changed twice during the audit period. NiW provided written notification to the ERA on 21/02/2014 and 26/10/2015 including the updated contact information 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence with ERA
453	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 7.2(4)	A Code participant must notify its contact details to a network operator with whom it has entered into an access contract within 3 business days after the network operator's request.	NR	<ul style="list-style-type: none"> In the case of NiW, the onus for this obligation is on the customer, retailer and other external code participant entities rather than the network operator. In the case of NiW, the same entity is both the network operator and the retailer and, therefore, notification is superfluous. The network operator has made no requests during the audit period. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
454	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 7.2(5)	A Code participant must notify any affected network operator of any change to the contact details it notified to the network operator at least 3 business days before the change takes effect.	NR	<ul style="list-style-type: none"> In the case of NiW, the onus for this obligation is on the customer, retailer and other external code participant entities rather than the network operator. In the case of NiW, the same entity is both the network operator and the retailer and, therefore, notification is superfluous. The network operator has made no requests during the audit period. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
455	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 7.5	A Code participant must not disclose, or permit the disclosure of, confidential information provided to it under or in connection with the Code and may only use or reproduce confidential information for the purpose for which it was disclosed or another purpose contemplated by the Code.	NR	<ul style="list-style-type: none"> ▪ NiW has not disclosed or permitted the disclosure of confidential information provided to it under or in connection with the Code. ▪ NiW's data systems have secure access. ▪ There is no evidence of complaints about disclosure of confidential information during the audit period. ▪ NiW has advised its customers that the PPAs have been provided as part of the evidence required to complete this operating licence audit. The PPAs allow for confidential information to be provided if required under law or as part of a government requirement. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Correspondence files ▪ PPAs
456	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 7.6(1)	A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.	NR	<ul style="list-style-type: none"> ▪ NiW has not disclosed or permitted the disclosure of confidential information provided to it under or in connection with the Code. ▪ NiW's data systems have secure access. ▪ There is no evidence of complaints about disclosure of confidential information during the audit period. ▪ NiW has advised its customers that the PPAs have been provided as part of the evidence required to complete this operating licence audit. The PPAs allow for confidential information to be provided if required under law or as part of a government requirement. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Correspondence files ▪ PPAs
457	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1	Electricity Industry Metering Code clause 8.1(1)	Representatives of disputing parties must meet within 5 business days after a notice given by a disputing party to the other disputing parties and attempt to resolve the dispute under or in connection with the Electricity Industry Metering Code by	NR	<ul style="list-style-type: none"> ▪ There have been no metering disputes within the audit period. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Correspondence files

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Transmission Licence condition 5.1		negotiations in good faith.			
458	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 8.1(2)	If a dispute is not resolved within 10 business days after the dispute is referred to representative negotiations, the disputing parties must refer the dispute to a senior management officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith.	NR	<ul style="list-style-type: none"> There have been no metering disputes within the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence files
459	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 8.1(3)	If the dispute is not resolved within 10 business days after the dispute is referred to senior management negotiations, the disputing parties must refer the dispute to the senior executive officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith.	NR	<ul style="list-style-type: none"> There have been no metering disputes within the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence files
460	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition	Electricity Industry Metering Code clause 8.1(4)	If the dispute is resolved by representative negotiations, senior management negotiations or CEO negotiations, the disputing parties must prepare a written and signed record of the resolution and adhere to the resolution.	NR	<ul style="list-style-type: none"> There have been no metering disputes within the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence files

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
5.1						
461	Distribution Licence condition 5.1 Generation Licence condition 5.1 Integrated Regional Licence condition 5.1 Retail Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry Metering Code clause 8.3(2)	The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective of dispute resolution with as little formality and technicality and with as much expedition as the requirements of Part 8 of the Code and a proper hearing and determination of the dispute, permit.	NR	<ul style="list-style-type: none"> There have been no metering disputes within the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence files
462	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 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.	1	<ul style="list-style-type: none"> NIW has as far as is reasonably practicable, ensured that the electricity supply to its customers' electrical installations has complied with the prescribed standards during the audit period. The power quality survey completed during the audit period show compliance with the voltage fluctuation and harmonic requirements included in Clauses 6 and 7 of the Code. As was observed in the previous audit report, standards are agreed with NiW's retail customers in the PPAs and these specify the relevant standard that was in place at the time, AS 2279). However, although the most recent versions of the PPAs are dated 2014, they still refer to the now-replaced AS. The old Australian standard (AS2279) uses a different method for voltage flicker and less detail for harmonics. The old Australian 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Hahn Electrical Contracting, BHP Billiton Power Quality Analysis Report, 4 April 2013

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<p>standard also has a more demanding total harmonic level than the Code.</p> <ul style="list-style-type: none"> The 2013 survey was completed to the current AS 61000 standard. We recommend that NiW reviews and updates the references to AS 2279 when the PPAs are next updated. 	
463	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 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.	NR	<ul style="list-style-type: none"> There have been no disconnections for network quality and reliability of supply issues during the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence files Hahn Electrical Contracting, BHP Billiton Power Quality Analysis Report, 4 April 2013
464	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 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.	1	<ul style="list-style-type: none"> NiW has ensured that the supply of electricity has been maintained and the occurrence and duration of interruptions has been kept to a minimum. There are heavy PPA financial penalties imposed for any interruptions to supply. NiW maintains a log of its interruptions to supply. During the 4 year reporting period, as set out in Schedule 1, cl 13 of the Network Quality and Reliability Code 2005, the northern system had 34 interruptions, and the southern system had 29 interruptions. The statistics for the interruptions for this period is as follows: <ul style="list-style-type: none"> Average length of interruption: 148 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Incident logs and reports 2014/2015/2016 Correspondence files

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					minutes – Average no. of interruptions pa: 16 – Average Supply availability percentage: 99.86% – Average total length of interruptions pa 2,353 minutes ▪ The interruptions have been minor and response is in line with service levels expected for the number and size of customers and network. ▪ There is a requirement for mine production to keep interruptions to a minimum.	
465	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 10(1)	A distributor or transmitter must, so far as reasonably practicable, reduce the effect of any interruption on a customer.	1	▪ NiW aims to minimise the effect of any interruption on the customer and there are PPA financial penalties imposed for any interruptions to supply. ▪ Planned outages are coordinated with mine production/shutdowns. Any unplanned outages are restored as soon as reasonably practicable and as expected for a radial system. ▪ There is no remote switching on the network and personnel are required to travel to the site for local switching operations. This impact to customers is reduced by having on call personnel with vehicle access.	▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Incident logs and reports 2014/2015/2016 ▪ Correspondence files
466	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 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.	NR	▪ NiW's networks are essentially radial and there is no backup for line failures. There have been no requests for standby or alternative supply due to shutdown during the audit period. These circumstances are very unlikely as planned outages are coordinated with mine shutdowns.	▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Incident logs and reports 2014/2015/2016 ▪ Correspondence

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						files <ul style="list-style-type: none"> ▪ PPAs ▪ Schematic drawings
468	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 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.	1	<ul style="list-style-type: none"> ▪ During the 4 year reporting period, as set out in Schedule 1, cl 13 of the Network Quality and Reliability Code 2005, the average length of interruption of supply to has been 148 minutes. This is less than the 290 minute requirement outlined under this section of the Code. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Incident logs and reports 2014/2015/2016 ▪ Correspondence files ▪ PPAs ▪ Schematic drawings
469	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 13(3)	The average total length of interruptions of supply is to be calculated using the specified method.	1	<ul style="list-style-type: none"> ▪ NiW creates an incident log every time there is an incident and an interruption to the supply. Interruption times can be ascertained from the incident logs and this information is recorded in spreadsheet for reporting purposes. ▪ The Electricity Industry Network Quality and Reliability of Supply Code - Reporting Requirements spreadsheet records the following interruption information: <ul style="list-style-type: none"> – Date – Initial LOS time – Switching Operator – Grid – From substation 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Incident logs and reports 2014/2015/2016 ▪ Electricity Industry Network Quality and Reliability of Supply Code - Reporting Requirements spreadsheets.

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<ul style="list-style-type: none"> - To substation - Circuit breaker - Client - Number of customers - Nickel West Initiated Outages Planned (Pl) /Unplanned (Un) - Timely notice to customer - Voltage level (kv) - Restoration - Circuit breaker - Downtime - Origin of Fault - Fault Symptom - Fault Cause - Forecast above 30dec C? - Permitted duration(Clause 11) - Down time (Minutes) - Explanation - Customer minutes of down time <ul style="list-style-type: none"> ▪ During the 4 year reporting period, as set out in Schedule 1, cl 13 of the Network Quality and Reliability Code 2005, the average length of interruption of supply to has been 148 minutes. This is less than the 290 minute requirement outlined under this section of the Code. 	<ul style="list-style-type: none"> ▪ Correspondence files ▪ PPAs ▪ Schematic drawings
470	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission	Electricity Industry (Network Quality and Reliability of Supply)	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	NR	<ul style="list-style-type: none"> ▪ NiW has not received any requests to 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 Code 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Licence condition 5.1	Code 2005 clause 14(8)	14(7) of the Electricity Industry (Network Quality and Reliability of Supply) Code 2005.			Operations <ul style="list-style-type: none"> Correspondence files
471	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 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.	NR	<ul style="list-style-type: none"> Provisions related to quality and reliability standards are set out in each of the PPAs. However, as there have not been any new agreements during the audit period, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
477	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 23(1)	A distributor or transmitter must take all such steps as are reasonably necessary to monitor the operation of its network to ensure compliance with specified requirements.	1	<ul style="list-style-type: none"> NiW has taken all such steps as are reasonably necessary to monitor the operation of its network to ensure compliance with the specified requirements. The southern system is part of the BHP Billiton mine SCADA. The southern network is not continuously monitored in real time by an operations room dedicated to the network but by is monitored by the mine site operations centre. Alarms or faults are relayed to network staff by mobile telephone. The northern system is not monitored by the network operator. The system is very small (essentially Leinster town site) and outages are reported quickly for the network operator staff to respond. This meets the reasonably necessary requirements. Another network operator monitors the upstream supply and endeavours to notify of any failures and interruptions. Repair work is carried out by contractors. The reporting requirements associated with this obligation do not apply as there are no small use customers. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Network schematics Site inspections Incident logs and reports 2014/2015/2016

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
478	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 23(2)	A distributor or transmitter must keep records of information regarding its compliance with specific requirements for the period specified.	1	<ul style="list-style-type: none"> NiW has an internal system for record keeping However, the time requirement for this obligation only applies to reports under clause 27, which in turn are not required as there are no small use consumers. NiW maintains power quality surveys and incident logs in relation to the obligations under clause 23(1)(a) 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Network schematics Site inspections Incident logs and reports 2014/2015/2016 Hahn Electrical Contracting, BHP Billiton, Power Quality Analysis Report, 4 April 2013
479	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 24(3)	A distributor or transmitter must complete a quality investigation requested by a customer in accordance with specified requirements.	NR	<ul style="list-style-type: none"> NiW completes quality investigations requested by its customers in accordance with specified requirements. During the audit period, there has not been any requests by any customers for a quality investigation. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
480	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 24(4)	A distributor or transmitter must report the results of an investigation to the customer concerned.	NR	<ul style="list-style-type: none"> During the audit period, there has not been any requests by any customers for a quality investigation. Therefore, this obligation has not been rated. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
483	Distribution Licence condition 5.1	Electricity Industry	A distributor or transmitter must arrange for an	NA	<ul style="list-style-type: none"> This obligation only applies to distribution licence holders supplying small users. 	<ul style="list-style-type: none"> Interview with Energy

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	(Network Quality and Reliability of Supply) Code 2005 clause 26	independent audit and report on its systems for monitoring, and its compliance with specific requirements. This is to be carried out in respect of the operation of such systems during each year ending on 30 June.		NiW does not supply any small use customers. Therefore, this obligation is not applicable to NiW.	Consultant & Business Process Data Lead, Integrated Operations
484	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 27(1)	A distributor or transmitter must prepare and publish a report about its performance in accordance with specified requirements.	NA	<ul style="list-style-type: none"> This obligation only applies to distribution licence holders supplying small users. NiW does not supply any small-use customers. Therefore, this obligation is not applicable to NiW. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
485	Distribution Licence condition 5.1 Integrated Regional Licence condition 5.1 Transmission Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 27(3)	A distributor or transmitter must give a copy of its report about its performance to the Minister and the Authority within the specified period.	NA	<ul style="list-style-type: none"> This obligation only applies to distribution licence holders supplying small users. NiW does not supply any small-use customers. Therefore, this obligation is not applicable to NiW. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
119	Electricity Industry Act Section 11	Distribution Licence condition 12.1 Retail Licence condition 12.1	A licensee and any related body corporate must maintain accounting records that comply with the Australian Accounting Standards Board Standards or equivalent International Accounting Standards.	1	<ul style="list-style-type: none"> Nickel West does not publish separate audited accounts but is audited as part of BHP Billiton. The BHP Billiton annual reports published during the audit period show compliance with accounting standards. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations BHP Billiton Annual Report 2013 BHP Billiton Annual Report 2014 BHP Billiton

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						Annual Report 2015
120	Electricity Industry Act Section 11	Distribution Licence condition 13.4 Retail Licence condition 13.4	A licensee must comply with any individual performance standards prescribed by the Authority.	NR	The Authority has not prescribed any individual performance standards that NiW has to comply with. Therefore, this obligation has not been rated.	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ Electricity Distribution Licence, BHP Billiton Nickel West Pty Ltd, EDL2, Version 6, 1 July 2015 ▪ Electricity Retail Licence, BHP Billiton Nickel West Pty Ltd, ERL2, Version 6, 1 July 2015 ▪ Electricity Distribution Licence, BHP Billiton Nickel West Pty Ltd, EDL2, Version 5, 1 January 2013 ▪ Electricity Retail Licence, BHP Billiton Nickel West Pty Ltd, ERL2, Version 5, 3 December 2012
101	Distribution Licence condition 14.1	Electricity Industry Act	A licensee, must, unless otherwise notified in writing	1	<ul style="list-style-type: none"> ▪ NiW is currently subject to performance audits at 36 month intervals. This was confirmed by 	<ul style="list-style-type: none"> ▪ Interview with Energy

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Generation Licence condition 14.1 Integrated Regional Licence condition 14.1 Retail Licence condition 14.1 Transmission Licence condition 14.1	section 13(1)	by the Authority, provide the Authority with a performance audit within 24 months after the commencement date, and every 24 months thereafter.		<p>the Authority in writing on 13 October 2010.</p> <ul style="list-style-type: none"> The last performance audit was undertaken in 2013 by McGill Engineering Services (final report prepared in July 2013) which covered a 36 month period from 31 March 2010 to 31 March 2013. The next performance audit (this audit) covers the period from 1 April 2013 to 31 March 2016. NiW sought approval for Cardno to undertake the performance audit in writing on 22 January 2016. Approval was granted by the ERA in writing on 27 January 2016. 	<ul style="list-style-type: none"> Consultant & Business Process Data Lead, Integrated Operations McGill Engineering Services, BHP Billiton, Nickel West Pty Ltd Distribution Licence EDL2, Retail Licence ERL2, Performance Audit Report, July 2013 Correspondence with ERA
121	Electricity Industry Act Section 11	Distribution Licence condition 14.2 Retail Licence condition 14.2	A Licensee must comply, and require its auditor to comply, with the Authority's standard audit guidelines dealing with the performance audit.	1	<ul style="list-style-type: none"> NiW has previously complied with, and continues to comply with the Authority's standard audit guidelines dealing with the performance audit. The previous performance audit was reported on in July 2013 and the subsequent audit is currently being undertaken (this audit). The audit plan prepared by Cardno for the current performance audit was approved by the ERA in writing on 12 April 2016. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations McGill Engineering Services, BHP Billiton, Nickel West Pty Ltd Distribution Licence EDL2, Retail Licence ERL2, Performance Audit Report, July 2013 Correspondence

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						with ERA
123	Electricity Industry Act Section 11	Distribution Licence condition 15.1 Retail Licence condition 15.1	The licensee must report to the Authority: (a) if the licensee is under external administration, as defined by the Corporations Act 2001 (Cwlth), within 2 business days of such external administration occurring; or (b) if the licensee: (i) experiences a change in the licensee's corporate, financial or technical circumstances upon which this licence was granted; and (ii) the change may materially affect the licensee's ability to perform its obligations under this licence, within 10 business days of the change occurring; or (c) if the: (i) licensee's name; (ii) licensee's ABN; or (iii) licensee's address, change, within 10 business days of the change occurring.	NR	<ul style="list-style-type: none"> NiW has not reported a change in their circumstances. NiW has not been under external administration. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence with ERA.
124	Electricity Industry Act Section 11	Distribution Licence condition 16.1 Retail Licence condition 16.1	The licensee must provide to the Authority any information that the Authority may require in connection with its functions under the Act in the time, manner and form specified by the Authority.	3	<ul style="list-style-type: none"> NiW considers that it has provided the required information to the Authority. NiW completes the Compliance Report submitted to ERA annually. Previously the approach used by NIW was to complete quarterly reviews, however this was changed in order to not dictate a timeframe for this. Any issues/ concerns with compliance are 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<p>noted and pencilled in on the compliance report during the year. The final report is then submitted to the ERA.</p> <ul style="list-style-type: none"> Therefore, does not have a formal Breach Register, as such, and instead uses more informal working documents. Under section 9.3.2.3 of the Audit and Review Guidelines, the ERA expects NiW to maintain a compliance (or breach) register. As NiW has not developed such a register, this obligation has been rated with a C3 grading. We recommend that NiW develops a breach register so that it can comply with the requirement and ensure that its compliance reports are prepared in accordance with the register. 	<ul style="list-style-type: none"> with ERA. NiW Annual Compliance Reports 2013/14 and 2014/15
125	Electricity Industry Act Section 11	Distribution Licence condition 17.1 & 17.2 Retail Licence condition 17.1 & 17.2	The Authority may direct the licensee to publish, within a specified timeframe, any information it considers relevant in connection with the licensee or the performance by the licensee of its obligations under this licence.	NR	<ul style="list-style-type: none"> NiW has not been directed by the Authority to publish any such information. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence with ERA.
126	Electricity Industry Act Section 11	Distribution Licence condition 18.1 Retail Licence condition 18.1	Unless otherwise specified, all notices must be in writing.	1	<ul style="list-style-type: none"> NiW has provided the ERA with information as requested. No notices have been required by the Authority. All material communication with the Authority is in writing. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Correspondence with ERA.
102	Distribution Licence condition 20.1	Electricity Industry Act	A licensee must provide for an asset management	1	<ul style="list-style-type: none"> NiW have provided for an effective asset management system to support their physical 	<ul style="list-style-type: none"> Interview with Energy

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Generation Licence condition 20.1 Integrated Regional Licence condition 20.1 Transmission Licence condition 20.1	section 14(1)(a)	system in respect of the licensee's assets.		assets. <ul style="list-style-type: none"> ▪ A copy of the current Asset Management Plan has been reviewed and operations and maintenance systems have been confirmed during site visits to NiW's assets. These include maintenance planning modules in 1SAP supported by spreadsheets. ▪ The asset management system includes time based and conditioned based maintenance. The review examined the efficacy of the asset management system. 	Consultant & Business Process Data Lead, Integrated Operations <ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016 ▪ NiW, 1SAP Basic Procurement Guide, June 2015 ▪ NiW Environmental management System Manual, 2014 ▪ NiW Weekly Meter testing and Calibration Procedure ▪ Power Quality Survey Reports ▪ NiW Risk Register ▪ NiW Risk Management Manual ▪ Meter drawings/network plans ▪ NiW Supply/Demand & Revenue Five Year Model

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
						<ul style="list-style-type: none"> NiW Power and gas Month End Financial processes NiW Financial Context Statement, FY2017 BHP Billiton Code of Business Conduct,
103	Distribution Licence condition 20.2 and 20.3 Generation Licence condition 20.2 and 20.3 Integrated Regional Licence condition 20.2 and 20.3 Transmission Licence condition 20.2 and 20.3	Electricity Industry Act section 14(1)(b)	The licensee must notify the Authority of the details of the asset management system within 5 business days from the later of: (a) the commencement date; and (b) the completion of construction of the distribution system.	NR	<ul style="list-style-type: none"> The asset management system was previously provided to the ERA as part of a previous performance audit. NiW advised that there have been no such substantial changes to the AMS within the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
104	Distribution Licence condition 20.4 Generation Licence condition 20.4 Integrated Regional Licence condition 20.4 Transmission Licence condition 20.4	Electricity Industry Act section 14(1)(c)	A licensee must provide the Authority with a report by an independent expert, acceptable to the Authority, as to the effectiveness of the asset management system not less than once in every period of 24 months calculated from the commencement date (or any longer period that the Authority allows by notice in writing).	1	<ul style="list-style-type: none"> NiW is currently subject to asset management system reviews at 36 month intervals. This was confirmed by the Authority in writing on 13 October 2010. The last asset management system review was undertaken in 2013 by McGill Engineering Services (final report prepared in July 2013) which covered a 36 month period from 31 March 2010 to 31 March 2013. The next performance audit (this audit) covers the period from 1 April 2013 to 31 March 2016. NiW sought approval for Cardno to undertake the performance audit in writing on 22 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations McGill Engineering Services, BHP Billiton, Nickel West Pty Ltd Distribution Licence EDL2, Retail Licence

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					January 2016. <ul style="list-style-type: none"> Approval was granted by the ERA in writing on 27 January 2016. The audit plan prepared by Cardno for the current asset management system review was approved by the ERA in writing on 12 April 2016. 	ERL2, Performance Audit Report, July 2013 <ul style="list-style-type: none"> Correspondence with ERA
122	Electricity Industry Act Section 11	Distribution Licence condition 20.5	A licensee must comply, and must require the licensee's expert to comply, with the Authority's standard audit guidelines.	1	<ul style="list-style-type: none"> NiW is complying with the relevant aspects of the Authority's standard guidelines by undertaking the asset management system review. The previous asset management system review was reported on in July 2013 and the subsequent audit is currently being undertaken (this audit). 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations Cardno Audit Plan - Performance Audit and Asset Management Review, Prepared for BHP Nickel West Pty Ltd, 9 March 2016
111	Distribution Licence condition 21.1 Integrated Regional Licence condition 21.1 Retail Licence condition 21.1	Distribution Licence condition 21.1 Retail Licence condition 21.1	A licensee must not supply electricity to small use customers unless the licensee is: (a) a member of an approved scheme; and (b) bound by, and compliant with, any decision or direction of the electricity ombudsman under the approved scheme.	NA	<ul style="list-style-type: none"> NiW has no small use customers and, therefore, this obligation is not applicable. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
99	Distribution Licence condition 22.1 Integrated Regional	Electricity Industry (Customer	The licensee must determine, from time to time, the default supplier for each connection	NA	<ul style="list-style-type: none"> NiW does not have a default supplier, therefore this obligation is not applicable. 	<ul style="list-style-type: none"> Interview with Energy Consultant &

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Licence condition 22.1	Contracts) Regulations 2005 regulation 36	point that connects to a distribution system operated by the licensee.			Business Process Data Lead, Integrated Operations
114	Electricity Industry Act Section 11	Retail Licence condition 23.1	A licensee must ensure that an electricity marketing agent of the licensee complies with the Code of Conduct for the Supply of Electricity to Small Use Customers.	NA	<ul style="list-style-type: none"> NiW as a retailer does not have an electricity marketing agent. Therefore, this obligation is not applicable. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
115	Electricity Industry Act Section 11	Retail Licence condition 23.2	A licensee must report a breach by the electricity marketing agent of the applicable conditions of the Code of Conduct for the Supply of Electricity to Small Use Customers to the Authority within 3 business days of becoming aware of the breach.	NA	<ul style="list-style-type: none"> NiW as a retailer does not have an electricity marketing agent. Therefore, this obligation is not applicable. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations.
116	Electricity Industry Act Section 11	Retail Licence condition 24.2	A licensee must, if directed by the Authority, review the standard form contract and submit to the Authority the results of that review within the time specified by the Authority.	NR	<ul style="list-style-type: none"> NiW has not received any direction from the Authority to review the standard form contract and submit the results of the review during the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
117	Electricity Industry Act Section 11	Retail Licence condition 24.3	A licensee must comply with any direction given by the Authority in relation to the scope, process or methodology of the review referred to in clause 24.2.	NR	<ul style="list-style-type: none"> NiW has not received any direction from the Authority to review the standard form contract and submit the results of the review during the audit period. 	<ul style="list-style-type: none"> Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
118	Electricity Industry	Retail Licence	A licensee may only amend the standard form contract	NA	<ul style="list-style-type: none"> NiW does not have a standard contract as these are for use with small customers. NiW 	<ul style="list-style-type: none"> Interview with Energy

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
	Act Section 11	condition 25.1	with the Authority's approval.		has PPAs with each of its customers instead.	Consultant & Business Process Data Lead, Integrated Operations <ul style="list-style-type: none"> ▪ PPAs
110	Integrated Regional Licence condition 27.1 Retail Licence condition 27.1	Electricity Industry Act section 76	If a designation under section 71(1) of the Electricity Industry Act is in force a licensee must perform the functions of a retailer of last resort and must carry out the supplier of last resort plan if it comes into operation under section 70 of the Electricity Industry Act.	NR	NiW has not been required to perform the functions of a retailer of last resort during the audit period.	Interview with Energy Consultant & Business Process Data Lead, Integrated Operations
127	Electricity Industry Act Section 11	Distribution Licence condition 29.1	A distributor must create and maintain a Priority Restoration Register.	1	<ul style="list-style-type: none"> ▪ The obligation is only required under the obligations for NiW's distribution licence. For distribution lines where only one customer is supplied, the Register would not be required, and this is what happens in NiW's northern system. In the southern system, NiW also has some lines that only supply a single customer but also has some that supply more than one customer. ▪ The priority of restorations after an unplanned outage is set out in the Power Purchase Agreements. ▪ NiW developed a Priority Restoration Register memo in August 2013 in response to the findings and recommendations from the previous performance audit. The memo (or its replacement) will remain in force while the Priority Restoration Register is a requirement under this licence condition. ▪ The memo takes into account health and safety issues associated with the customers it supplies. 	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Priority Restoration Register memo ▪ PPAs

2014 No.	Licence Condition	Obligations under Condition	Description	Compliance Rating	Observations	Evidence (Include Contact)
					<ul style="list-style-type: none"> ▪ The memo also sets out the operating constraints and limited ability to influence most power restorations to NiW's customers. ▪ The memo outlines the considerations that need to be taken in account when prioritising restoration actions. ▪ The considerations allow a sequence to restore supply to be activated. ▪ Based on our review of the Priority Restoration Register memo, we consider that it meets the requirements of the obligation. 	
128	Electricity Industry Act Section 11	Distribution Licence condition 29.3	The Priority Restoration Register must comply with any criteria determined by the Minister.	NR	The Minister has not determined any criteria that NiW's Priority Restoration Register has to comply with during the audit period.	<ul style="list-style-type: none"> ▪ Interview with Energy Consultant & Business Process Data Lead, Integrated Operations ▪ NiW Priority Restoration Register memo ▪ PPAs ▪ Correspondence files

5.2 Asset Management System Review

The following table provides detailed commentary based on the findings observed during the audit process.

Table 5-2 Asset Management System Review Observations

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
Asset Planning – Overall Rating: A1		
<ul style="list-style-type: none"> ▪ Asset Management Plan covers key requirements ▪ Planning processes and objectives reflect the needs of all stakeholders and is integrated with business planning. ▪ Service levels are defined. ▪ Non-asset options (e.g. demand management) are considered. ▪ Lifecycle costs of owning and operating assets are assessed. ▪ Funding options are evaluated. ▪ Costs are justified and cost drivers identified. ▪ Likelihood and consequences of asset failure are predicted. ▪ Plans are regularly reviewed and updated. 	<p>Overview of NiW's Electricity Assets and Operations</p> <ul style="list-style-type: none"> ▪ WMC Resources Limited (WMC), who were taken over by BHP Billiton in 2005, originally built, owned and maintained the generation and distribution systems required to operate its assets in Western Australia. ▪ Since 2005, NiW has since sold its generation assets and the majority of its distribution assets to Transalta Energy Australia, trading as Southern Cross Energy. The remaining length of NiW's distribution lines is limited to 67 kilometres and 7 commercial customers and is divided into the Northern Electrical System (NES) and the Southern Electrical System (SES). ▪ The remaining network includes 66kV, 33kV, 22kV, 11kV, 6.3kV and 415V electricity distribution systems. Generally these include the following assets: <ul style="list-style-type: none"> – Distribution overhead lines and power cables – Substations including associated switchgear, plant, buildings and civil infrastructure – Protection, control, metering and communication equipment – Related functions and facilities such as spares, maintenance and test equipment – Asset management processes and systems such as Supervisory Control And Data Acquisition (SCADA) and asset management information systems (e.g. SAP). ▪ Although the schematic map from 2006 shows distribution lines between the meters and transformers (on NiW's side) as being 66kv, the meters and the transformers are in close proximity of each other. As such, there would not be a need to define these sections of the network as transmission systems. ▪ The operations are powered by local generation and are connected to the Transalta owned transmission network. The NiW distribution network that supplies its own mine sites also supplies power to third party mining operations. Therefore NiW is a network operator as per the Distribution and Retail Licence definitions for those parts of the network where it supplies power to these customers. ▪ In the northern system, NiW hold a retail licence with one customer. NiW own the metering equipment and subcontract the supply and distribution to the customer. 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ Agnew Gold Mining Company PPA, 27 May 2014 ▪ Lightning Nickel PPA, 4 February 2014 ▪ Mincor Resources PPA, 4 February 2014 ▪ Cherish Metals and Donegal Lanfranchi PPA, 17 September 2014 ▪ St Ives Gold Mining Company PPA, 30 October 2013 ▪ BHP Billiton 1SAP Basic Procurement Guide, June 2015 ▪ Energy Management Group - Supply Model FY17-21 5YP (Run 2) updated (financial model) ▪ BHP Billiton Finance 5 Year Plan Timetable (Calendar of event and milestones) ▪ Meeting minutes

Overview of NiW's Asset Planning

- The Nickel West 5 Year Business Planning Process reflects the requirements of the BHP Billiton GLD 0.34 Corporate Alignment Planning.
- NiW's asset planning is undertaken within the context of the business as a whole. As the primary business of Nickel West are nickel mining and processing, the activities undertaken with respect to its electricity distribution and retail licences are predominantly governed by its mining operations and those of its customers. The distribution and retailing of electricity is not considered core business.
- Developments in the mining business can be unpredictable and optimal utilisation over the life cycle planning period is generally more difficult to establish. As a result, NiW's asset management activities differ from what would be expected by the more traditional power utility companies serving residential populations.
- The main function of the NiW distribution network is to provide sufficient electrical power to the NiW operations and customers. As such, the network will only grow on demand due to expansion of customer activities.
- The controls that are in place to manage future demand versus available capacity are based on demand planning.
- The Power Purchase Agreements between NiW and its electricity customers requires a capacity plan to be provided by individual customers, which allows NiW to undertake future demand planning.
- However, under the current economic climate it is unlikely that there will be any significant expansion of customers' energy requirements.
- BHPB Nickel West hold a distribution licence for the town of Leinster but there are no retail customers. The power is distributed and supplied to Company-owned facilities at no cost. The town was being considered to be closed by the end of 2014, during the asset management system review period, with financial assessments of the impacts completed. However, this proposed closure is not being progressed, with an upturn in the mining operations in the area. Although there was an influx of personnel associated with the accommodation units being leased to other companies in 2015, the majority of the residential houses in the town are vacant.
- With the potential closure of Leinster during the review period, NiW's planning during this was related to the closure. With the load reducing significantly, NiW's asset planning comprised of monitoring items identified in the Capital budget from the previous audit period. During the site visit to the northern system, the plans, which detail the assets involved with the retail customer and the town were sighted.
- As noted previously, the proposal to close the town has been discarded for the foreseeable future.

**Asset Management Process /
Effectiveness Criteria**

Observation / Comments

Evidence

Asset Management Plan

- NiW has an overall Asset Management Plan (AMP) related to its distribution and retailing of electricity, as required by its electricity distribution and retail licences.
- The NiW AMP was originally developed by Sinclair Knight Merz (SKM) as part of an 'Audit Compliance Action Plan', a project with the objective to assist NiW to resolve the compliance issues identified in the recent compliance audit.
- NiW's assets are clearly defined on the schematic drawings included in the Appendices.
- The Asset Management Plan is the responsibility of the Registered Manager.
- NiW's AMP describes the systematic and coordinated activities and practices through which NiW manage its distribution network assets and asset systems, their associated performance, risks and expenditures over the life cycle of the assets. It also ensures regulatory requirements and contractual requirements for supplying power to customers are met.
- The prime purpose of NiW's Asset Management Plan is to ensure specific objectives related to the distribution and retail activities are achieved and hence, compliance with the requirements of its two electricity licences.
- NiW's overall Asset Management Framework consists of four parts:
 - Asset Management Plan (AMP)
 - Risk Management Plan (RMP)
 - Contingency Plan (CP) and
 - Power Quality Monitoring Plan (PQMP).
- There has been no change to the Asset Management Plan during the review period. During the review, we confirmed that there have been no changes to customer requirements or to the assets.
- The period of validity for NiW's Asset Management Plan is the six year period 2010 to 2016. However, we note that forecasts included in the document only cover until 2014/15.
- NiW has a requirement to review its Asset Management System every year as part of its planned activities, with the document being updated where deemed necessary as a part of the review. However, although this action is scheduled in SAP, NiW were unable to provide any evidence that the AMP had been reviewed during the audit period.
- However, the AMP related to its operations under its EDL2 and ERL2 operating licences only form a small part of NiW's operations and it essentially manages its licenced electrical assets using the same approaches used for its other electrical assets.

**Asset Management Process /
Effectiveness Criteria**

Observation / Comments

Evidence

- NiW has a series of other asset management plans for its non-regulated electricity assets and is looking to link the ERA licence requirements to the other asset management documents it uses to manage these assets.

Stakeholder Engagement

- NiW's Energy Management Group (EMG) holds regular meetings with the representatives of external stakeholders (Customers/Power Provider (SCE)). These meetings are minuted and contact details for participants and key personnel are included in the minutes. The meetings cover aspects of safety, technical supply issues and developments, reliability and outage planning.
- EMG also holds regular meetings with SCE management to discuss aspects of the supply of electricity and associated technical and commercial arrangements.
- Examples of meeting minutes were provided as evidence.

Service Levels

- Service level targets are outlined in Section 1.7 of NiW's AMP and these reflect the service levels included in each of NiW's Power Purchase Agreements (PPAs).

Planning Processes and Lifecycle Management

- NiW's AMP specifies activities, resources, responsibilities and timescales for improving the long-term optimisation of delivering the business objectives associated with the network distribution activities.
- Each of the life cycle activities (acquisition, enhancement, utilisation, maintenance and disposal), has been assessed and outlined in the AMP, allowing NiW to develop plans based on the results of a risk management process and existing maintenance programs.
- As noted above, the asset planning activities, including project justification, risk assessments, option analysis and funding options are generally taken with consideration to specific core business mining projects and functions rather than being related to the planning requirements and lifecycle management of the electrical assets themselves.
- Mining companies operate under different circumstances and, as a result, the economic lifespan of distribution assets is directly related to the profitable operation of the mine. Economic lifespan will, therefore, need to be determined for each specific situation/asset.
- Non-asset options are considered, as additional asset options are unlikely in the current climate, therefore making improved utilisation of existing assets the preferred solution. In addition, demand management is a preferred function of NiW's

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
	<p>customers, most of who are on two part tariffs.</p> <ul style="list-style-type: none"> ▪ The capital expenditure forecasts are drawn from mining projects, and although asset life is considered in the process, the life of the assets usually exceeds that of the overall mining project. ▪ NiW's capital expenditure estimates for major items follows a rigorous process defined in BHP Billiton Engineering Standards. ▪ The distribution network covered under NiW's AMP represents only a small part of Nickel West's greater electrical network. NiW has one division responsible for the operation of the total electrical system and no clear distinction is made between budgets. For this reason, the operational budget for the distribution part of the network is an estimation derived from the total operational budget. 	
Asset Creation – Overall Rating: ANP		
<ul style="list-style-type: none"> ▪ Full project evaluations are undertaken for new assets including comparative assessment of non-asset solutions. ▪ Evaluations include all life-cycle costs. ▪ Projects reflect sound engineering and business decisions. ▪ Commissioning tests are documented and completed. ▪ Ongoing legal / environmental / safety obligations of the asset owners are assigned and understood. 	<ul style="list-style-type: none"> ▪ Asset Acquisition is covered in Section 1.8.1 of NiW's AMP. ▪ The AMP only lists two asset acquisition projects, one of which was completed outside the current review period. The pole earthing project is an ongoing existing program ▪ The only new assets NiW has identified in the AMP for the 2010 to 2016 period are to install earthing on the metal parts on top of wooden poles, which is an existing programme, and a spare 11kV earthing transformer specified according the SES385. ▪ For the pole top earthing, NiW has equipped approximately five (5) to ten (10) wooden poles with earthing over the period of the AMP, at an estimated cost of \$5,000/year. The objective of the project is to reduce the risk of power outages and bush fires due to pole top fires and to enhance safe working practices. ▪ However, due to the small nature of this project, it was completed early and outside the current audit period. ▪ The earthing of the transformer was completed in 2011 (outside the current review period) at a cost of \$49,000 (compared to the estimated \$40,000 included in the AMP. The justification for the project was to reduce the outage time in case of earthing transformer failure. ▪ NiW uses standard engineering specifications details for the technical design related to the procurement of major components in the network. ▪ NiW reviews these specifications on a regular basis. The specifications have not been updated since they were uploaded into NIW's ProjectWise Explorer system in May 2013. ▪ NiW has in-house resources and access to external contactors to ensure that any asset creation projects will reflect sound engineering and business decisions. ▪ Ongoing legal / environmental / safety obligations are assigned to the asset manager and understood. The obligations are key components of new projects and are 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ BHP Billiton 1SAP Basic Procurement Guide, June 2015 ▪ Energy Management Group - Supply Model FY17-21 5YP (Run 2) updated (financial model) ▪ BHP Billiton Finance 5 Year Plan Timetable (Calendar of event and milestones)

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
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- specifically addressed in the project requirements.
- NiW undertakes its asset procurement activities under the BHP Billiton procurement framework. The 1SAP Basic Procurement Guide, June 2015, provides detailed information related to all steps in the procurement process.
 - New assets are entered into the asset maintenance register (SAP) on completion of any new project.
 - As a result of NiW not creating or acquiring any new assets during the audit period, this asset management component has been assigned a performance rating of Not Performed.

Evidence

Asset Disposal – Overall Rating: ANP		
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| <ul style="list-style-type: none"> ▪ Under-utilised and under-performing assets are identified as part of a regular systematic review process. ▪ The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken. ▪ Disposal alternatives are evaluated. ▪ There is a replacement strategy for assets. | <ul style="list-style-type: none"> ▪ NiW's asset disposal processes include the disposal of redundant plant. However, the most likely reason for asset disposal is asset failure as the nature of the mining industry means that it is likely that assets may be under-utilised for long periods as a result of production demand. Therefore, under-utilised assets would be expected to be retained for future use and increases in mining production rather than being identified for removal and either disposal or replacement with an asset more suited to the lower demands. ▪ This disposal strategy is also applied to instances where mining operations are mothballed and placed into care and maintenance regimes, with the electricity assets maintained for the future resumption of operations. ▪ NiW's replacement strategy is also focused on asset failure. However, predicted demand and expansion of NiW's and its customers' mining operations is also taken into account. Condition assessments from NiW's asset inspection programs is also used to identify assets for replacement. ▪ Section 1.8.6 of NiW's AMP provides details of the assets to be renewed/replaced during the AMP period (2010 to 2016 for the current AMP). ▪ For the AMP period, NiW has only identified one asset renew, the earthing transformer at the Redross substation failed and needed to be replaced. In the short-term, a temporary replacement (spare) was available at the moment but ultimately the long-term solution was a permanent replacement of the asset. However, the new transformer was installed in 2010, outside of the review period. ▪ NiW has not disposed of any assets during the review period. This was confirmed during the site inspections to Kambalda and Leinster. ▪ When asset failures occur, they are critically examined as part of the replacement process. ▪ Generally, based on the asset failure disposal strategy, NiW has limited asset disposal options to evaluate. Sale for scrap is the most likely option for failed plant such as transformers. | <ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ BHP Billiton 1SAP Basic Procurement Guide, June 2015 ▪ Energy Management Group - Supply Model FY17-21 5YP (Run 2) updated (financial model) ▪ BHP Billiton Finance 5 Year Plan Timetable (Calendar of event and milestones) |
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Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
	<ul style="list-style-type: none"> ▪ NiW has disposal officers that are responsible for asset disposal through stores. ▪ NiW has procedures in place to comply with BHP Billiton's environmental and accounting requirements. ▪ As a result of NiW not disposing of any new assets during the audit period, this asset management component has been assigned a performance rating of Not Performed. 	

Environmental Analysis – Overall Rating: A1

<ul style="list-style-type: none"> ▪ Opportunities and threats in the system environment are assessed. ▪ Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved. ▪ Compliance with statutory and regulatory requirements. ▪ Achievement of customer service levels. 	<p>Overview</p> <ul style="list-style-type: none"> ▪ NiW has an 'Environment' business objective "<i>To consider sustainability in asset management decisions and minimise risks to the environment</i>" ▪ To meet the current standards required, NiW follows a risk assessment in order to identify potential environmental risks and develop mitigation actions to control these risks. ▪ All NiW projects require environmental assessments and clearance. This is covered under NiW's project approval process. ▪ The decision making process for expansion of NiW's distribution network includes an environmental impact assessment. These assessments are carried out as part of the overall mine project of which the electrical component is a small part. Local environmental conditions are recorded and used for the purchasing of equipment. ▪ Given the nature of NiW's licenced electricity distribution and retail business, both opportunities and threats in the system environment are related to its own and its customer's mining operations. As noted previously, NiW's electricity asset management is generally assessed as part of overall mining operations and the feasibility of new mining projects. As such, and given mine life is often shorter than the nominal electricity asset lives, it differs from a more traditional asset management approach. <p>Statutory and Regulatory Requirements</p> <ul style="list-style-type: none"> ▪ Nickel West maintains a legal register which contains all relevant legislation that is applicable to its operations. ▪ To assist Nickel West with compliance to legal and other requirements, AMN Group Legal provide resources and support for various questions, approvals and stakeholder interactions. ▪ Environment obligations that arise from licenses and approvals are maintained in Land Assist. This database is used to provide a central repository for the management of these requirements. In addition, an on-line subscription to a legal obligations directory (available via the Intranet) is maintained to provide access to new and existing regulatory developments. ▪ The HSEC Licences and Approvals procedure ensures the management of HSEC 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ BHP Billiton Business Conduct - Our Requirements, Version 6.1, 22 March 2016 ▪ Nickel West Compliance Report EDL2 and ERL2 2014 - 2015, 16 October 2015 ▪ Nickel West Compliance Report EDL2 and ERL2 2013 - 2014, 28 August 2014 ▪ BHP Billiton Environmental Management System Manual (Document Number: NIW-HSEC-MAN-0001), Version 3.0, 27 March 2014 ▪ BHP Billiton KNSC Environmental Reporting Guideline (Document Number: 10019343), Version 2.0, 21 January 2010 ▪ BHP Billiton Health, Safety, Environment and Community Reporting - Our Requirements, Version 6.0, 7 March 2016 ▪ Nickel West HSEC Event Investigation Process (Document Number: NIW-HSEC-FRM-0024), Version 2.0, 21 May 2014 ▪ BHP Billiton NKK HSEC Manual (Document Number: NKK-HS-MAN-0001, Version 3.2, 23 June 2010 ▪ BHP Billiton Safety - Our Requirements, Version 6.0, 7 March 2016 ▪ Nickel West Kambalda Concentrator, Department of Environment Regulation, Annual Environmental Report, 1 January – 31 December 2015
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**Asset Management Process /
Effectiveness Criteria**

Observation / Comments

Evidence

- regulatory licences and commitments, including the provision of reminders for key dates, the payment of licence fees and recording of compliance.
- Nonconformity, corrective and preventative action, related to HSE issues, is managed in accordance with the Nickel West HSEC Event Reporting and Investigation procedure.
 - Environment monitoring is completed across Nickel West to satisfy legal and other obligations and is undertaken according to the relevant standards. The monitoring of Environment aspects is captured in the Environment Monitoring procedure.
 - Reporting health, safety, environment and community significant events is covered in BHP Billiton's Health, Safety, Environment and Community Reporting - Our Requirements Version 6.0 (7 March 2016).

Performance Standards

- NiW has three business objectives that relate to achieving performance standards. It has:
 - A 'Quality' business objective "To meet the power quality requirements as specified in the Electricity Regulations and in applicable industry codes of practice."
 - A 'Capacity' business objective "To endeavour to meet current and future customers demand whilst at the same time meeting the specified security standards in a cost effective manner."
 - A 'Reliability' business objective "To maximise reliability of supply by minimising the quantity and duration of planned and unplanned power supply interruptions."
- Service level targets are outlined in Section 1.7 of NiW's AMP and these reflect the service levels included in each of NiW's Power Purchase Agreements (PPAs). We note that the performance targets were set in 2010. The AMP covers the 2010-2016 period and is expected to be reviewed and updated by the end of the current financial year.
- Table 1 in Section 1.7 sets out the KPIs (and target levels) for different attributes against each of NiW's business objectives.
- NiW measures and monitors its asset performance by means of the following techniques:
 - Power quality monitoring program
 - Power system load flow and protection studies
 - Outage recording
 - Customer feedback

**Asset Management Process /
Effectiveness Criteria**
Observation / Comments
Evidence

- Operational cost accounting
- Incident registration
- Each of these techniques is directly associated with NiW's defined business values and objectives. NiW controls and optimises its asset performance through the application of its risk management process.
- Part 4 of NiW's AMP, the Power Quality Monitoring Plan (PQMP) notes that non-compliance with the power quality requirements will increase the risk of customer complaints and violation of the applicable Code and/or license conditions. The power quality requirements that NiW has to adhere to include frequency, steady state voltage, voltage fluctuations and harmonic voltages of the supplied electricity.

Customer Complaints & Service Levels

- NiW has 'Customer Service' business objective "To apply a pro-active approach to customer related issues; provide 'call centre like' facility".
- As the span of NiW's distribution network and the number of customers is considered to be too limited to justify the operation of a fully equipped call centre, customer feedback is achieved through the use of a simplified communication channel that meets specified requirements and is accepted by customers.
- NiW currently provides for a 'call centre like' facility by means of the following arrangements:
 - NiW field service details available to all customers
 - Maintenance manager phone number publicly listed (Leinster Township)
 - Regular meetings which customers may attend.
- NiW has a complaint procedure in place to address complaints for all customer groups and any identified power quality non-compliances are recorded as part of the overall risk management procedure.

Environmental Management

- Environment objectives and targets are established as per the Nickel West planning process.
- The requirements of the Environment Management System at Nickel West are set out in the EMS Manual (document number NIW-HSEC-MAN-0001). This was endorsed in March 2014, with a review of the document not due until March 2019.
- The Manual provides the framework for NiW's compliance to legislative requirements, internal operating procedures and corporate standards as appropriate to the nature and scale of its operations
- Nickel West maintains a Risk Register that identifies the environment aspects

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
	<p>associated with each Operation.</p> <ul style="list-style-type: none"> ▪ The Nickel West Environment Risk Registers are reviewed on an annual basis. The review is completed with a range of skilled and experienced people, and people with a direct and indirect influence on environment impact. ▪ The EMS Manual provides information on NiW's Land Management, Hydrocarbon Management, Water Management, Air Emission Management, Energy and Greenhouse Gas Management and Waste Management. NiW has separate management plans for each of these areas. ▪ The Nickel West HSE Analysis & Improvement SI is the nominated management representative who is responsible and has authority for: <ul style="list-style-type: none"> – Ensuring that an environmental management system is established, implemented and maintained in accordance with the requirements of AS/NZS ISO14001:2004; and – Reporting to top management on the performance of the environmental management system for review, including recommendations for improvement. ▪ A review of NiW's Environment Management System Management is completed annually with the Nickel West HSEC Lead Team. The outcomes from the annual review are included in the Annual Environmental Report submitted to the Department of Environment Regulation. 	
Asset Operations – Overall Rating: A1		
<ul style="list-style-type: none"> ▪ Operational policies and procedures are documented and linked to service levels required. ▪ Risk management is applied to prioritise operations tasks. ▪ Assets are documented in an Asset Register, including asset type, location, material, plans of components, an assessment of assets' physical / structural condition and accounting data. ▪ Operational costs are measured and monitored. ▪ Staff receives training commensurate with their 	<p>Operational/Maintenance Procedures</p> <ul style="list-style-type: none"> ▪ NiW has multiple policies and procedures for managing its distribution systems. ▪ Section 1.8.3.3 of NIW's AMP outlines the Condition Monitoring and Predictive Maintenance activities carried out. These include: <ul style="list-style-type: none"> – Metering routine 'in situ' test and verification tests – Metering installation overall accuracy test – Line and insulator inspections – Transformer oil inspections (ground based transformers) – Protection review – Substation electrical integrity inspections. – Power Quality Measurements. ▪ NiW has a 52 Weekly Testing and Calibration of Power Meters procedural form for planned maintenance that is designed to eliminate/mitigate failure or inaccurate operation of customers Power Meters. The procedure includes the safety and training requirements for carrying out the associated tasks. 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ BHP Billiton Power Quality Analysis - Leinster, Hahn Electrical Contracting, 4 April 2013 ▪ BHP Billiton Power Quality Analysis - Leinster, Hahn Electrical Contracting, 10 February 2016 ▪ BHP Billiton PQM Accuracy Testing - Kambalda Nickel Concentrator, 19 November 2015 ▪ BHP Billiton 52 Weekly Testing and Calibration of Power Meters ▪ Nickel West Register of Town Transformers ▪ Nickel West Transformer Oil Sampling Town

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
responsibilities.	<ul style="list-style-type: none"> ▪ The procedure includes sign-off by the field staff carrying out the work, the supervisor/coordinator, to confirm that the tasks have been completed by the technician to the required standard and the Planner, to confirm that the documentation and tasks have been completed to the standard required by the business process. ▪ NiW has a Transformer Oil Sampling pro forma that is completed during oil testing. ▪ NiW's high voltage isolation and access procedures are set out in a dedicated procedural document (NIW-NWO-PRO-0005). This was last updated in January 2014 and was due for review and update in January 2016. However, this update has not yet taken place. ▪ The procedure has been prepared to ensure electrical safety, isolation practices and statutory requirements, governing work on or near High Voltage apparatus. The main purpose is to ensure the safety of employees, and contractors, avoidance of damage to company equipment and continuity of supply. ▪ No work activities were occurring during the site visits to NiW's facilities. However, the procedure for high voltage isolations was explained. Drawings were readily available and contained detail to the expected level for isolations. <p>Power Quality Monitoring</p> <ul style="list-style-type: none"> ▪ Part 4 of NiW's AMP covers the Power Quality Monitoring Plan. It notes that the purpose of the Plan is to "<i>define requirements, measurement points, service levels, risk criteria and a measurement plan for the year 2009/2010.</i>" However, there is an annual testing program initiated with the Project Managers in the SAP system to carry out the Power Quality Monitoring testing. ▪ Power quality monitoring is an ongoing activity and includes all connection points of NiW's business customers and a representative sample of end user connections. Each year NiW measures three locations in the Leinster LV distribution network and three business customer connections in the southern part of the network in the Kambalda area. ▪ The PQ Monitoring Plan is included in Section 4.6 of NiW's AMP. ▪ Power quality requirements are set out in Section 4.2 of the AMP. The Power Quality limits are also quantified in this section. ▪ Power quality requirements apply to the 'connection points' at a customer's premises as these points determine the transfer of ownership and responsibility from network operator to customer. ▪ Table 13 in the AMP presents an overview of business customers and their physical connection points in terms of ownership transfer. ▪ Recording and reporting associated with NiW's Power Quality Monitoring is included in Section 4.9 of the AMP. 	<p>LSA Work Execution Form</p> <ul style="list-style-type: none"> ▪ Nickel West LSA Pole Inspection Spreadsheet, November 2015 ▪ Liquidated Damages Calculator ▪ BHP Billiton Leinster Safety Management Plan 2014 ▪ Examples of customer invoice spreadsheet ▪ Energy Data Verification Request Form ▪ Priority Restoration Register Memo, 19 August 2013 ▪ Meter Accuracy Testing at Southern HV Area, Engineering Services Report, Global Testing Services, June 2013 ▪ Nickel West Metering Standing Data Register ▪ NiW incident logs and reports 2013 – 2016 ▪ EMG North Safety Meeting Minutes, 26 August 2014 ▪ EMG North Safety Meeting Minutes, 31 August 2015 ▪ EMG South Safety Meeting Minutes, 1 April 2014 ▪ EMG South Safety Meeting Minutes, 5 May 2015 ▪ Nickel West Lifting Operations Procedure (Document Number: 10025574), Version 1, 24 July 2015 ▪ Standard Engineering Specification for Overhead Power Lines up to 33 kV (SES312), Revision 6, 27 May 2013 ▪ BHP Billiton 52W Power Quality Survey - Leinster Town procedure ▪ Examples of staff training records and certificates

**Asset Management Process /
Effectiveness Criteria**

Observation / Comments

Evidence

- A registration system is used to store the results from power quality measurements and to record and manage power quality complaints. Information from this database is available for annual reporting and auditing purposes.
- NiW is required to annually report on its quality and reliability performance. For Power Quality (PQ) the two areas of performance are:
 - The results of PQ monitoring.
 - The number of customer PQ complaints received.
- NiW has a key performance indicator related to the number of (recognised) power quality complaints. Complaints are attributed to the parameters they relate to (e.g. frequency, steady state voltage level, voltage fluctuations and harmonic voltages).
- The process for managing Power Quality customer complaints is outlined in Section 4.8 of the AMP.
- NiW uses PQ monitoring to pro-actively identify situations where poor power quality could potentially cause customer complaints.
- NiW's power quality risk levels are based on the maximum allowed values and these are set out in the AMP.
- An overview of NiW's staff responsibilities related to its Power Quality Management Plan is provided in Section 4.10 of the AMP

Metering

- NiW's metering is generally at the point of connection. However, a few exceptions exist as a result of the topology of the network and the customer locations after the sale of the assets to junior miners. Each customer was aware of the metering facilities and agreed to these.
- NiW does not a formal metering procedure. Any new installations would be negotiated with the customer to suit particular supply needs and arrangements. The basis for arrangements would be the Metering Code 2005 and associated legislation.
- NiW's only customer in the Northern System is Agnew Gold Mine. The metering is owned and operated by TransAlta as they are the network operator. The metering was installed before the code and is covered by agreement in a PPA contract.
- In the Southern System, the metering was installed before the Metering Code came into effect and is covered by agreement in PPA contract. Although NiW has replaced the PQ meter for the East Alpha Feeder based on a recommendation from PQM testing conducted in November 2015, the replacement was an old meter from a compressor that was no longer in use and which was commissioned before 23 December 2005.
- NiW's meters are generally inside locked substations or within the mine site controlled access areas. Where possible meters are also password protected.

**Asset Management Process /
 Effectiveness Criteria**
Observation / Comments
Evidence

- Metering data is transmitted over internal mine communication networks and does not rely on open public (Telstra) communications links.
- Collection of data is continuously logged to a central data base and is available to the last ½ hour interval on demand.
- NiW does not have any “Small Use” or “Contestable” customers.

Asset Management System

- NiW’s asset maintenance is scheduled in SAP and the output is a work order for a task. Each work order has been risk assessed and the frequency of the task is associated with the risk.
- NiW’s assets are defined on drawings and these are readily available from the corporate information system.

Risk Management

- Each power interruption is subject to a risk assessment. This risk assessment is part of NiW’s process to analyse the root cause of interruptions and to determine whether or not the particular circumstances are likely to recur and result in a similar interruption. In case of recurrence, immediate mitigation measures are established and implemented.
- Loss of supply data is collected by NiW and registered in an IT based system as part of a mandatory procedure. The data collected is used to enable NiW to establish an annual risk assessment for its assets.

Asset Register

- Detailed technical data for electrical distribution equipment is currently stored in NiW’s asset data register. NiW utilises SAP as their ERP (Enterprise Resources Planning) application to record numerical equipment data.
- The asset data recorded in the asset register includes asset type, location, material (where applicable), plans of components (where applicable), asset condition and accounting data. Assets in the field are physically tagged with the asset ID number and key asset information.
- The distribution system assets are documented in a spreadsheet that is held on the corporate computer network.
- Personnel with the appropriate computer access level are able to access the assets document.
- The asset register is updated by a site based person if change occurs.

**Asset Management Process /
Effectiveness Criteria**
Observation / Comments
Evidence
Asset Costs

- Section 1.9.2 of NiW's AMP sets out the Maintenance and Operations Budget for the period covered by the AMP. We note that the financial projections included in NiW's 2010 AMP only extend out to 2014/15 and don't extend to the end of the current review period.
- In its AMP, NiW forecast an annual spend on asset operations of \$200,000 per year. The actual operations costs for each year in the review period are included within the costs centres for scheduled repairs, preventative maintenance and breakdown costs. In the AMP, NiW forecast an annual spend on maintenance of \$750,000 per year, resulting in a combined O&M cost of \$950,000 per year.
- Actual cost data for the three years during the period show an average annual O&M spend of \$955,285 for the southern network and \$98,681 for the northern network.
- NiW uses SAP as the corporate accounting and maintenance software. All costs entered into SAP and are regularly monitored.

Staff Training

- NiW's staff receive training commensurate with their responsibilities.
- Each member of staff has an individual training record that identifies training requirements and includes copies of certification.
- Training is completed both in-house and through the use of external training, as may be required.

Staff Resourcing

- NiW's normal distribution network operation does not require a high level of involvement of staff. Switching activities are usually initiated by maintenance requirements or emergency situations or, occasionally, requested by customers and/or Transalta.
- The staff resourcing is considered appropriate for managing the assets.
- The resourcing for the Southern System comprises of a team of one electrical supervisor, three HV switching operators plus an electrician. The distribution work is only a portion of the duties of BHP Billiton's employees. The employees are residential and have an arrangement for managing after hours call outs. If a task requires additional resources, then contractors are used. There is a local contractor who has plant and equipment for working with power poles and aerial power lines. There are significant additional resources in Kalgoorlie which is 50km away.
- The resourcing for the northern system comprises of the town work being a portion of the duties of a BHP Billiton employee and the main catering contractor has three electricians on a FIFO roster. If a task requires additional resources, then BHP Billiton

Asset Management Process / Effectiveness Criteria
Observation / Comments
Evidence

- employees from the area can be used as required. There is a contractor based in Leonora approximately 150km away who has plant and equipment for working with power poles and aerial power lines. There are significant additional resources in Kalgoorlie which is 400km away.
- An Asset Manager, who is located at the Perth head office, coordinates activities between NiW's two main locations of operation.
 - Both NiW's Leinster and Kambalda locations have a Site Supervisor/Maintenance Manager and associated staff.
 - NiW staff are supported by contractors for labour and equipment with contractors contacted when a power interruption requires component(s) to be repaired or replaced. Incidents of lack of availability of a contractor have been experienced which leads to an increase in outage time.
 - In addition to contractor support, NiW has a formal agreement with Transalta in place for breakdown support at Leinster.

Asset Maintenance – Overall Rating: A1

- Maintenance policies and procedures are documented and linked to service levels required.
- Regular inspections are undertaken of asset performance and condition.
- Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.
- Failures are analysed and operational / maintenance plans adjusted where necessary.
- Risk management is applied to priorities maintenance tasks.
- Maintenance costs are measured and monitored.

Overview

- NiW's AMP provides a high level description of the significant maintenance activities carried out by NiW on its electricity network.
- Any maintenance requires close interaction with the connected customers as NiW's radial network structure has only limited switching options.
- Maintenance on major equipment is generally scheduled during shutdowns of the associated mining area in order to minimise impacts on NiW and its electricity retail customers.
- NiW uses condition based and preventive maintenance methodologies.
- Preventive maintenance is based on maintenance intervals prescribed by manufacturers or common industry standards.
- Maintenance is performed by NiW internal resources and contractors. NiW staff are responsible for, planning the activities, managing client communication, directing contractor staff, switching duties and ensuring a safe work environment. The contractors provide labour and equipment and work under supervision of NiW personnel.
- NiW uses SAP as its main planning tool for interval based maintenance activities such as preventive maintenance and condition monitoring (e.g. asset inspections and measurements).
- With the forecast closure of Leinster in the northern system, NiW has reviewed all scheduled maintenance activities and the risks have been assessed. As a result, NiW has removed non-essential tasks from the scheduled maintenance program.
- Of the equipment inspected during our site visits, all had identification that was

- Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1
- BHP Billiton Power Quality Analysis - Leinster, Hahn Electrical Contracting, 4 April 2013
- BHP Billiton Power Quality Analysis - Leinster, Hahn Electrical Contracting, 10 February 2016
- BHP Billiton PQM Accuracy Testing - Kambalda Nickel Concentrator, 19 November 2015
- BHP Billiton 52 Weekly Testing and Calibration of Power Meters
- Nickel West Register of Town Transformers
- Nickel West Transformer Oil Sampling Town LSA Work Execution Form
- Nickel West LSA Pole Inspection Spreadsheet, November 2015
- Liquidated Damages Calculator
- BHP Billiton Leinster Safety Management

**Asset Management Process /
Effectiveness Criteria**
Observation / Comments

unique. The identification labels varied in quality from excellent to mediocre. One example of mediocre labelling was on DB11 where the label had long term exposure to the outdoor environment and would be difficult to read at night.

Work Orders and Maintenance Scheduling

- Regular work orders are produced in SAP for maintaining the equipment. The work order includes the risk rating and this is utilised in prioritising work when scheduled manning is unavailable or a task takes longer than expected.
- NiW's list of work orders in SAP is extensive and involves timeframes of weekly to multi-year maintenance activities.
- During the site visits, we reviewed a number of recent work orders in detail and observed that they had well-documented procedures and checklists. The work order work flow was well understood by the interviewed staff. The work flow involves the supervisor reviewing the actions and results. If further actions are required, a work order is created for the specific action.
- A risk management procedure is used to each work order to assess the risk involved, with a structure of CET – test the risk to be assigned, CCV – verify the risk is appropriate and CCE – execute the risk assigned. No incidents have occurred during the review period, hence no changes have occurred to the risk management procedure or work orders.

Asset Inspections

- NiW monitors asset integrity data through regular inspection programs. The intensity of monitoring depends on the estimated risk levels. Although it does not currently maintain a single asset inspection record, inspection results are recorded as specific equipment parameters in NiW's SAP system.
- The regular inspections include thermographic inspections on a yearly basis of HV aerials, HV transformers, LV main distribution boards and pole mounted fuses.
- Visual inspections are carried out of all distribution equipment on a 3 monthly basis.
- Transformer oil sampling of ground mounted transformers is scheduled for every 12 months or more frequent if required.
- A power quality audit is scheduled for once in every 12 months. The audit includes reviewing the loading on transformers as the air conditioning load has been increasing.
- Inspections of poles are managed using a dedicated spreadsheet. Inspections are prioritised, with information/notes being recorded against each asset in the spreadsheet, including where maintenance/renewal work has been identified.
- All transformers are inspected on a three monthly basis for oil leaks and general

Evidence

- Plan 2014
- Examples of customer invoice spreadsheet
- Energy Data Verification Request Form
- Priority Restoration Register Memo, 19 August 2013
- Meter Accuracy Testing at Southern HV Area, Engineering Services Report, Global Testing Services, June 2013
- Nickel West Metering Standing Data Register
- NiW incident logs and reports 2013 – 2016
- EMG North Safety Meeting Minutes, 26 August 2014
- EMG North Safety Meeting Minutes, 31 August 2015
- EMG South Safety Meeting Minutes, 1 April 2014
- EMG South Safety Meeting Minutes, 5 May 2015
- Nickel West Lifting Operations Procedure (Document Number: 10025574), Version 1, 24 July 2015
- Standard Engineering Specification for Overhead Power Lines up to 33 kV (SES312), Revision 6, 27 May 2013
- BHP Billiton 52W Power Quality Survey - Leinster Town procedure

**Asset Management Process /
Effectiveness Criteria**
Observation / Comments
Evidence

condition. NiW has not identified any transformer oil leak during the review period. We did not observe any oil leak events during our visits to NiW's sites.

- A contractor with personnel and equipment for removal of vegetation near power lines visits Leinster every 3 months with the task of managing vegetation where required. During the site visits, we did not observe any issues related to vegetation being in close proximity to the power lines.
- NiW's electrical equipment is either designed for an outdoor environment or enclosed with a suitable IP rating. The major electrical equipment is visually inspected every 3 months and switchboards have a detailed inspection every 12 months. During our site visits to both the southern and northern systems, we did not observe any issue related to water affecting any of NiW's electrical equipment.
- A power pole audit was conducted in March 2015 by Electrix. The audit was by a specialist company who reviewed the condition of all the wooden power poles. The review included core sampling.
- A spot check of a few wooden power poles during our site visits found they were clearly identified with unique identification and evidence of core sampling on multiple occasions. The poles were in good condition.
- A spot check of the point of supply for Long Shaft found the PH-B2 HV circuit breaker was in excellent condition, in an indoor environment in a well-sealed and air conditioned room. The HV Circuit breaker had been assessed in March 2015 for arc flash rating and the power meter had been assessed in November 2015. The protection equipment had been assessed in July 2013.

Maintenance Plans

- Section 1.8.3.2 of NiW's AMP outlines its Preventive Maintenance Plan.
- Predictive maintenance activities are based on the outcome of the condition monitoring program and vary from year-to-year.
- NiW has a bush clearing program to clear vegetation under power lines and around substations to prevent it from reaching lines. Activities are scheduled annually and carried out by contractors with specialised equipment. NiW's expenditure on its bush clearing program is in the region of \$20,000/year.

Customer Consultation

- NiW's Energy Management Group (EMG) holds regular meetings with the representatives of external stakeholders (Customers/Power Provider (SCE)). These meetings are minuted and contact details for participants and key personnel are included in the minutes. The meetings cover aspects of safety, technical supply issues and developments, reliability and outage planning. As a result of these meetings, outages on the power system are normally discussed well in advance and,

**Asset Management Process /
Effectiveness Criteria**
Observation / Comments
Evidence

where possible, coordinated with the end users to minimise the impact to the customers.

- EMG also holds regular meetings with SCE management to discuss aspects of the supply of electricity and associated technical and commercial arrangements.

Interruptions to Supply

- NiW uses a 'Planned Outage Notification' form to notify each individual customer in the area that will be affected by the planned interruption.
- Notice is provided to affected customers not less than 72 hours before the proposed interruption to the customer.
- As both of NiW's distribution networks are located below the 26th parallel of latitude, the length of the interruption should not exceed 6 hours. However, if the Bureau of Meteorology in Perth forecasts temperatures of 30°C or more, the maximum length of interruption should not exceed 4 hours.
- In terms of standards for the duration of interruptions, NiW's average total length of interruption for a customer should not exceed 290 minutes. The average is determined by taking the average of the total minutes of supply interruption over 4 consecutive years.
- NiW is required to take action if end user customers are affected by interruptions for more than 12 hours continuously or if the customer has in the preceding year been interrupted more than 16 times. Clause 12 of the Network Quality and Reliability of Supply Code 2005, which sets out the required actions for significant interruptions does not apply to NiW as it is only applies to small use customers.
- NiW has to pay liquidated damages under the terms of the respective PPAs to Agnew Gold Mine and St Ives. Under the terms of the PPAs in place for NiW's other customers, the requirements for interruptions relate to the standard Western Power quality of supply requirements.
- Any supply interruptions greater than four hours are highlighted in NiW's Electricity Industry Network Quality and Reliability of Supply Code - Reporting Requirements spreadsheet.
- NiW has experienced two interruptions greater than 12 hours, one for a pole broken in a severe weather event, the other resulting from Western Power network issues.
- To assess its performance against its reliability business objective, NiW uses key performance indicators based on:
 - Customer minutes lost
 - Length of interruption
 - Number of interruptions

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
	<ul style="list-style-type: none"> - Annual average percentage of supply ▪ A retail customer was affected by lightning affecting supply during the review period and the PPA with this customer covers the management of the event. 	
	<p>Asset Failure Analysis and Risk Assessment</p> <ul style="list-style-type: none"> ▪ Each power interruption is subject to a risk assessment. This risk assessment is part of NiW's process to analyse the root cause of interruptions and to determine whether or not the particular circumstances are likely to recur and result in a similar interruption. In case of recurrence, immediate mitigation measures are established and implemented. ▪ Loss of supply data is collected by NiW and registered in an IT based system as part of a mandatory procedure. The data collected is used to enable NiW to establish an annual risk assessment for its assets. 	
	<p>Maintenance Costs</p> <ul style="list-style-type: none"> ▪ Maintenance costs related to completed work orders are recorded in SAP and are reviewed by the Electrical Supervisor on a regular basis. ▪ Section 1.9.2 of NiW's AMP sets out the Maintenance and Operations Budget for the period covered by the AMP. We note that the financial projections included in NiW's 2010 AMP only extend out to 2014/15 and don't extend to the end of the current review period. ▪ In its AMP, NiW forecast an annual spend on asset maintenance of \$750,000 per year. ▪ The actual operations and maintenance costs for each year in the review period are included within the costs centres for scheduled repairs, preventative maintenance and breakdown costs. In the AMP, NiW forecast an annual spend on operations of \$200,000 per year, resulting in a combined O&M cost of \$950,000 per year. ▪ Actual cost data for the three years during the period show an average annual O&M spend of \$955,285 for the southern network and \$98,681 for the northern network. 	
Asset Management Information System – Overall Rating: A1		
<ul style="list-style-type: none"> ▪ Adequate system documentation for users and IT operators ▪ Input controls include appropriate verification and validation of data entered into the system 	<p>Overview</p> <ul style="list-style-type: none"> ▪ NiW's asset management system documentation is held and managed within the BHP Billiton's corporate information system. ▪ Detailed technical data for electrical distribution equipment is currently stored in NiW's asset data register. NiW utilises SAP as their ERP (Enterprise Resources Planning) application to record numerical equipment data. 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ BHP Billiton Security Technical Specifications - Our Requirements, Version 6.0, 7 March 2016

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
<ul style="list-style-type: none"> ▪ Logical security access controls appear adequate, such as passwords ▪ Physical security access controls appear adequate ▪ Data backup procedures appear adequate ▪ Key computations related to licensee performance reporting are materially accurate ▪ Management reports appear adequate for the licensee to monitor licence obligations 	<ul style="list-style-type: none"> ▪ NiW's graphical equipment data is registered on drawings in a drawing library. ▪ The drawings of NiW's assets are extensive. Key drawings for the southern system are maintained in the electrical supervisor's office. Key drawings for the northern scheme are maintained in the town office. ▪ NiW's drawing management involves the electrical supervisor marking up changes on drawings and submitting to the drawing office. The drawing office has procedures for drawing changes and is responsible for updating drawings on the Corporate IT network. ▪ Some paper records are used for reference when planning field work. ▪ NiW has procedures in place to maintain and update these registers in case of acquisition of new assets and decommissioning/disposal of existing assets. <p>Data Back-Up</p> <ul style="list-style-type: none"> ▪ NiW has data recovery procedures, including operating on the Perth office server and back-up of the servers to ensure data integrity. NiW carries out daily back-ups and offsite back-up of the servers is carried out on a weekly basis. <p>Data Analysis</p> <ul style="list-style-type: none"> ▪ Data input controls focus on asset maintenance requirements but there is appropriate verification and validation of the data entered into the system, with reports being able to be run from the system to help identify any incorrectly recorded information. ▪ The key computations related to licensee performance reporting undertaken by NiW are minimal. Meter data is recorded and reported via NiW's SCADA system. Any data transferred to spreadsheets for analysis has validation checks completed. Key computations related to NiW's performance reporting appeared to be materially accurate. <p>Security Access</p> <ul style="list-style-type: none"> ▪ Access to the Corporate IT network is via user accounts and passwords. Access to the write to NiW's databases is also controlled through the use of passwords and changes to records are tracked. ▪ NiW's physical security access controls are adequate, with access to the Perth offices and mine sites being by swipe card. Visitors are required to be escorted. <p>Management Reporting</p> <ul style="list-style-type: none"> ▪ NiW's recording and reporting requirements are provided in Section 3.9 of the AMP. This includes: 	<ul style="list-style-type: none"> ▪ BHP Billiton Global Processes, Information Systems and Cybersecurity - Our Requirements, Version 6.0, 7 March 2016 ▪ Nickel West Description of Metering Overview ▪ Schematic drawings ▪ Asset Register extracts ▪ Liquidated Damages Calculator ▪ Nickel West Metering Standing Data Register

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
	<ul style="list-style-type: none"> - Number of end user customers experiencing electricity supply interruptions for more than 12 hours continuously. - Number of end user customers experiencing more than 16 electricity supply interruptions. - Number of complaints received relating supply interruption. - Capital expenditure by NiW in addressing these complaints. - Number and total amount of payments made for failure to give required minimum 72 hours' notice of planned interruptions. - Number and total amount of payments made for supply interruptions exceeding 12 hours. - Average length of interruptions to supply at customer premises expressed in minutes - Average number of interruptions to supply at customer premises - Average percentage of time that electricity has been supplied to customer premises. - Average total length of all interruptions to supply at customer premises expressed in minutes. <ul style="list-style-type: none"> ▪ Key reports for outage logging are considered appropriate and adequate. 	

Risk Management – Overall Rating: A1

<ul style="list-style-type: none"> ▪ Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system ▪ Risks are documented in a risk register and treatment plans are actioned and monitored ▪ The probability and consequences of asset failure are regularly assessed 	<p>Overview</p> <ul style="list-style-type: none"> ▪ Part 2 of NiW's AMP covers the Risk Management Plan ▪ NiW's risk management process is set out in Section 2.2 of its AMP. ▪ NiW uses NiW's Risk Assessment and Assurance - Terms of Reference Version 6.0 (7 March 2016) to set out the purpose and structure for the organisation's Risk Assessment and Assurance. ▪ The Risk Assessment and Assurance is responsible for providing independent and objective assurance over BHP Billiton's governance and internal control processes to the Board, Chief Executive Officer and Company management. ▪ The Terms of Reference for the corporate Risk Assessment and Assurance cover Role, Scope of Works (including Risk Assessment and Assurance accountabilities), Authority and access of Internal Audit, Independence and objectivity of Internal Audit, Standards of internal audit practice, and Liaison with external auditor. ▪ Risk management for the Leinster distribution is based on achieving the regulatory requirements. 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ Nickel West Consequence Determination Matrix ▪ Nickel West Risk Matrix ▪ Nickel West Risk Register ▪ Nickel West Likelihood Determination Table ▪ BHP Billiton Risk Assessment Workshop Form ▪ BHP Billiton Risk Mitigation Template Form ▪ Nickel West Risk Analysis Template Workshop Presentation, September 2009 ▪ BHP Billiton Risk Management - Our
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**Asset Management Process /
Effectiveness Criteria**

Observation / Comments

Evidence

Policies

- The agreed risk management policy is included in each of the PPAs that NiW has in place for each of its retail customers.
- NiW has a 'Safety' business objective 'To align all network activities with BHP Billiton Nickel West's existing safety standard (Health, Safety, Environment and Community (HSEC) Management Standard – STA.009)'.

Risk Management Process

- NiW's risk management procedures have been prepared in full compliance with BHP Billiton Enterprise Wide Risk Management (EWRM) process.
- The risk management process applicable to NiW's distribution and retail activities is integrated with the existing NiW risk management procedure. This procedure aligns with the Risk Management Standard AS/NZS 4360:2004.
- Risk management strategies are based on maximising performance of service levels for each of NiW's seven business values.
- NiW uses its performance indicators as a reference to measure the performance and adequacy of controls.
- NiW's risk criteria are linked to these performance indicators and are used to assess the severity of potential risks in terms of likelihood and consequence.

Risk Identification

- NiW identifies risks through:
 - Annual Risk Assessment Workshops involving management and operational staff.
 - Measurements of performance indicators, including power supply quality assessed against the defined quality criteria, customer complaints, equipment loads and fault current levels.
 - Inspection results from condition monitoring activities, which are used in conjunction with the measurements, to compare with reference values and provide an indication of the equipment condition and associated risk levels.
 - Loss of supply reports based on information from planned and unplanned loss of supply events. These reports allow NiW to identify risks related to reliability of supply and also an assessment of component failure data.
 - HSE incident reports. HSE related issues having a high priority and are addressed immediately by NiW. Lower level risks are addressed in line with NiW's business priorities.

- Requirements, Version 6.0, 7 March 2016
- BHP Billiton SP25 HV Isolation R6 Procedure (Document Number: NIW-NWO-PRO-0005), Version 6.0, 27 January 2014
 - Risk Assessment and Assurance - Terms of Reference, Version 6.0, 7 March 2016

**Asset Management Process /
Effectiveness Criteria**
Observation / Comments
Evidence

- Customer Service reports, including customer complaints are used by NiW to contribute to the risk management process.

Prioritisation of Risks

- NiW uses quantitative analysis method to rank risks. Risk ranking is based on both likelihood and consequence scores.
- NiW's Consequence Determination Matrix includes levels of consequence definitions (from Severe to Insignificant) based on reliability, capacity, quality, safety, customer service, environment and financial impacts.
- The Likelihood Determination Table sets out the probability for semi-quantitative frequency and also an environmental frequency.
- NiW's Risk Matrix is included in Section 2.2.3 of its AMP. NiW's Risk Matrix is used to score risks, allowing them to be ranked, and where they exceed the organisation's appetite for risk, for mitigation to be identified to reduce the overall risk to a more acceptable level.
- NiW has a Risk Analysis Tool for assessing and scoring each risk, which allows the process to be replicated using a standard template.
- NiW's risk process includes an evaluation step to determine whether or not the particular risks need to be mitigated. NiW has a standard template for developing Risk Mitigation Options.
- NiW prioritises its risks based on the EWRM methodology, as set out in Section 2.2.4 in the AMP.
- The methodology differentiates between risk levels and proposes suggested actions, timing and determines the person who is authorised to make a decision on the continued toleration of residual risk.

Risk Register

- NiW uses CURA, an electronic database used to record significant risks, is the preferred risk register tool for recording significant risk issues.
- The 2009 risk assessment workshop identified 33 primary risks. As an event can affect more than one business value, and since each correlation requires an individual approach, the total number of risks identified was set to 64. However, the risk register that was established for NiW's licenced electrical assets and included in the AMP has now been superseded by a NiW-wide risk register.
- This risk register has a line for each identified risk, that specifies the applicable organisation/location, the risk owner, the inherent risk level, residual risk level and the inherent and residual risk scores.

Risk Management Plan

- The Risk Management Plan (RMP) included in NiW's AMP has been derived from BHP Billiton's corporate risk management policy (BHP Billiton Group Level Document, version: 2.0, Document date 21 July 2009) and adapted to the particular circumstances of NiW's electrical distribution and retail activities.
- NiW has assigned business values and defined performance indicators for each activity. These performance indicators are measurable and provide input to the risk management process.
- NiW's RMP describes the process and the methodology to determine risk levels.
- Process input is generally based on performance data extracted from several sources (e.g. results of power quality measurements, risk assessment workshop, incidents, increasing demand data). NiW's current version of its RMP is based on information that was collected in a risk assessment workshop held in 2009.
- The process steps included in NiW's RMP describe identification, analysis and evaluation of risks leading to the development of a risk mitigation plan.

Residual Risks and Risk Mitigation

- The residual risks are controlled by NiW through the use of a post-event action plan. This plan addresses the consequence of an event and target measures that could reduce the impact. Post-event measures use the following controls:
 - Contingency planning – preparedness, quick anticipation and recovery
 - Back-up systems – substitute function (e.g. generation) or equipment (spare parts)
 - Protection systems – safeguard equipment and personnel
 - Insurances
- NiW uses a risk mitigation process to develop mitigation options and select the best option in terms of maximum risk reduction versus minimum cost (cost benefit analysis).
- NiW's risk mitigation process focuses primarily on preventative actions and address measures that reduce the likelihood of an event occurring. Taking away the root cause is the main priority of any risk mitigation plan.
- Preventative measures are established by NiW through the use of one or more of the following controls:
 - Investment - Create, replace or enhance assets to improve reliability
 - Maintenance - Monitor assets, reduce or remove risk sources.

Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
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- Operation – Training, procedural measures to recognise and reduce risk sources
- NiW's mitigation plan defines measures that reduce the risk levels to acceptable levels. Selected mitigation measures have been incorporated in other parts of the NiW's risk framework and translated into practical investment, maintenance, replacement or contingency actions.
- NiW's network structure is primarily radial and, for that reason, it has limited redundancy. Therefore, NiW's risk mitigation actions focus on the availability of spare parts for critical assets and a generator backup facility.
- In particular 66kV switchgear and 66/11kV power transformers are identified as a considerable risk as no spares are presently available and lead times for replacements can be up to 18 months.
- The risk assessment workshop also identified improvement measures for the emergency response procedures. However, the current response to emergency situations is generally considered adequate and does not require major modifications.

WH&S

- NiW has a fully developed HSEC management framework in place and has implemented industry approved safe work practices. The activities associated with the operation of the electricity distribution network are, as a minimum, subject of the same safety requirements as NiW's operational mining and processing sites.
- BHP Billiton's Safety - Our Requirements, Version 6.0 (7 March 2016) provides an overview of Safety risk management, including Permit to work, Isolation work, Company-wide safety risks (Confined space, Dropped and falling objects, Fall of ground, Lifting, Light vehicle, Loss of containment of hazardous materials, Mobile equipment and light vehicle collisions in open cut mining operations, and Personnel falling from height).

Contingency Planning – Overall Rating: A1

<ul style="list-style-type: none"> ▪ Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks 	<p>Overview</p> <ul style="list-style-type: none"> ▪ Section 3.5 of the AMP covers NiW's Contingency Plan. ▪ NiW's Contingency Plan is split into sections that cover the background, requirements, directions and actions and priorities related to <ul style="list-style-type: none"> - Network Configuration Aspects - Asset Back-up and Replacement - Mobile and Stand-by Generators - Critical Components ▪ The Contingency Plan is in place to reduce the impact (or consequence) of power 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1
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**Asset Management Process /
Effectiveness Criteria**
Observation / Comments
Evidence

interruptions. It details all activities, resources, processes, procedures and equipment required to return to the normal operational situation with minimum loss of supply.

- The Plan evaluates the present emergency response procedures and the existing network configuration with regards to redundancy and backup facilities. It takes a closer look at the reliability requirements and NiW objectives to meet the minimum service levels associated with these reliability requirements.
- The type, number, location, redundancy and risks associated with the critical assets are also outlined in the AMP.
- The Plan identifies and schedules improvement actions based on the results from the Risk Management Plan in order to reduce outage time and maintain normal operation with minimal loss of supply.
- The AMP notes that *'At the time of writing this CP (December 2009), the reliability related risks require further analysis and the process of developing mitigation options and methods for selection also needs to be defined. The future directions proposed in this plan will therefore require fine tuning before final implementation'*. NiW developed contingency plans during the previous review period.
- NiW has a formal arrangement with Southern Cross Energy (SCE) for network support in the northern system and local contractors are used in Kambalda with SCE being available on an as required basis. Spares such as pole top transformers, poles, switchgear such as Ring Main Units and insulators are kept on site.
- An overview of NiW's staff responsibilities related to contingency plan activities is provided in Section 3.10 of the AMP.
- In June 2015 one power pole was affected by lightning. The power pole was replaced approximately 2 months later as a precaution. The replacement was well planned and no improvements were identified.

Emergency Staff Resources

- At both of NiW operation locations, staff participate in a weekly emergency service roster. The emergency contact phone number is clearly communicated to both large use customers and Leinster residents connected to the distribution systems.
- In the event of an emergency, NiW staff work closely with a number of designated contractors to secure the emergency area and perform necessary switching operations. The 'callout' contractor usually performs the repair work.
- There is a formal agreement with Southern Cross Energy Partnership (SCE - operated by TransAlta) for breakdown support at Leinster and there is also support available through Power Plus Electrical Services. In Kambalda, work is arranged through local contractors depending on availability, typically KEC Electrical contractors or SCE. Given that the majority of the network is owned and operated by SCE, there is an SCE crew available around the clock and in the event of concurrent

**Asset Management Process /
Effectiveness Criteria**
Observation / Comments
Evidence

faults, contractors such as KEC provide a reliable service for either breakdown or planned work.

- There is a dedicated HV vehicle available at both Kambalda and Leinster equipped on a needs basis and this is used by NiW staff for work such as isolations, fault finding and line inspections. Similarly a fully equipped emergency vehicle is available through on a needs basis at all times. If NiW resources are unavailable, contractor resources are used as below.
- The mine site emergency crews in both of NiW's supply areas are trained in aspects of emergency management, first aid fire-fighting and rescue.
- The existing emergency procedures are considered by NiW to function satisfactorily.

Contingency Planning for NiW's Southern System

- Contingency planning for NiW's southern system is based on the following:
 - Isolating affected equipment where possible.
 - Installing hire generators for affected loads
 - Utilising BHP Billiton resources in Kambalda plus contractors from Kambalda and Kalgoorlie to manage/ assist with isolation of affected equipment and restoration of power to the loads.

Contingency Planning for NiW's Northern System

- Contingency planning for NiW's northern system is based on the following:
 - Bypassing affected equipment where possible. There are high voltage and low voltage bypass facilities
 - Utilising emergency generators for specific loads, i.e. medical centre and dining facility
 - Installing hire generators for affected loads
 - Utilising multiple high voltage isolators plus a high voltage ring configuration to minimise the number of affected loads
 - Utilising all of BHP Billiton's resources in Leinster and Mt Keith to manage/ assist with isolation of affected equipment and restoration of power to the loads
 - Utilising Transalta's EWP for minor aerial HV issues. The EWP is located at Leinster
 - Utilising Powerlines Plus for major HV issues. Powerlines Plus are based in Leonora approximately 200km south of Leinster. Power lines plus are fully

Asset Management Process / Effectiveness Criteria
Observation / Comments
Evidence

equipped for all aerial power line work including power pole replacement.

- There are two generators at NiW's northern system retail customer's facility that can meet the essential load requirement to supply this customer.

Financial Planning – Overall Rating: A1

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| <ul style="list-style-type: none"> ▪ The financial plan states the financial objectives and strategies and actions to achieve the objectives ▪ The financial plan identifies the source of funds for capital expenditure and recurrent costs ▪ The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets) ▪ The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period ▪ The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services ▪ Significant variances in actual / budget income and expenses are identified and corrective action taken where necessary | <ul style="list-style-type: none"> ▪ NiW has a 'Financial' business objective '<i>To assess life cycle costs in the asset management decision making processes and determine financial impact of risks</i>'. ▪ The financial management of the licenced assets form part of NiW's mining electrical assets and are included as part of the overall budgeting process. The overall budget identifies the source of funds for proposed capital expenditure projects and also recurrent asset lifecycle costs. The majority of capital expenditure is funded as part of larger specific mining development projects. ▪ NiW uses the BHP Billiton corporate Power and Gas Month End processes. There is a standard operating procedure for the preparation and processing of month end close journals, physicals upload into 1SAP for allocation of variable power costs and allocation of actual gas commodity costs to sites. ▪ As the financial management of the licenced assets forms only a small part of NiW's core business mining operations, detailed financial plans for the licensed assets are not considered relevant, and instead detailed financial plans for the mining operations are prepared. ▪ Although costs are monitored with respect to budgets, detailed operating statements (profit and loss) and statements of financial position (balance sheets) are not prepared for the licenced electricity assets. Additionally, NiW does not predict income from its licensed electricity activities. Income is considered as revenue under the retail licence, although the profitability of the network is considered largely immaterial compared to the core business mining operations. ▪ NiW prepares a monthly Flash report which compares monthly actual financial information to budgets and also provides the Year to Date assessment. The Flash report uses a traffic light grading for each line so that any significant variances can be quickly identified. ▪ Financial delegation is set out in the BHP Billiton Nickel West - Approvals Matrix ▪ NiW's overall financial planning process is set out in a financial calendar that includes the key milestones that form the annual budgeting process. ▪ NiW uses a financial model spreadsheet that includes the Energy Management Group predicted revenue and expenditure for a five year period. The upcoming year is split out into monthly financials, with annual totals for the remaining four years in the period. ▪ The five year financial plan applies a detailed bottom-up build approach to operating costs, capital expenditure and headcount planning. | <ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ Energy Management Group - Supply Model FY17-21 5YP (Run 2) updated (financial model) ▪ BHP Billiton Finance 5 Year Plan Timetable (Calendar of event and milestones) ▪ BHP Billiton Nickel West Group - Approvals and Financial Delegations Matrix, 25 February 2016 ▪ Nickel West - Flash Report, March 2016 ▪ Nickel West Power and Gas Month End Processes Standard Operating Procedure (Document Number: NiW-SOP-FIN-120), 12 August 2014 ▪ BHP Billiton Annual Report 2013 ▪ BPB Billiton Annual Report 2014 ▪ BPB Billiton Annual Report 2015 ▪ Examples of Nickel West customer invoices ▪ Examples of Nickel West customer invoice spreadsheet ▪ Examples of customer requests for invoice verification and confirmation |
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Asset Management Process / Effectiveness Criteria	Observation / Comments	Evidence
Capital Expenditure Planning – Overall Rating: A1		
<ul style="list-style-type: none"> ▪ There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates ▪ The plan provides reasons for capital expenditure and timing of expenditure ▪ The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan ▪ There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned 	<ul style="list-style-type: none"> ▪ NiW's capital expenditure is predominantly drawn from mining projects. While asset life is considered in NiW's process, the life of the electricity assets usually exceeds that of the project. ▪ NiW develops its capital projects for major items follow a rigorous process defined in BHP Billiton Engineering Standards. ▪ NiW's Financial Context Statement has been developed to provide financial context to assist in preparation of the FY 2017 five year plan (5YP) and two year budget (2YB) financials. ▪ The document sets out the financial process, the Systems, Templates & Tools to be used, the analysis and comparisons that are required to be completed, the key contacts, actions and responsibilities associated with specific items that need to be considered in the budgeting process, and details of cost centre and resources codes. Standard information to be used in the preparation of the five year plan (e.g. CPI, exchanges rates etc.) are set out in the Appendices. The Appendices also include details of predicted expenditure on major consumables and services. ▪ The capital budget included in Section 1.9.1 of NiW AMP only extends to 2014/15, meaning it does not extend to the end of the review period. Although the Plan shows the only capital expenditure being incurred during 2015/16 is the continuing annual program of pole top earthing, this project was completed before the start of the current review period. ▪ Due to the forecast closure of Leinster, all capital plans were frozen for the period 2014 and 2015. ▪ In January 2016, capital was approved for an Asset Integrity project involving the replacement of 12 power poles on the northern system. This project is following the expenditure plan for the project. ▪ There have not been any items of capital expenditure related to southern system included in NiW's capital plan for the entire review period. There were no carry over items from the previous period and no items for the current year. 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ Nickel West CAP 2017 Financial Context Statement, Version 0, 19 February 2016 (for FY17 5YP Run 1) ▪ Energy Management Group - Supply Model FY17-21 5YP (Run 2) updated (financial model) ▪ BHP Billiton Finance 5 Year Plan Timetable (Calendar of event and milestones) ▪ BHP Billiton Nickel West Group - Approvals and Financial Delegations Matrix, 25 February 2016 ▪ Nickel West - Flash Report, March 2016 ▪ Nickel West Power and Gas Month End Processes Standard Operating Procedure (Document Number: NiW-SOP-FIN-120), 12 August 2014 ▪ BHP Billiton Annual Report 2013 ▪ BPB Billiton Annual Report 2014 ▪ BPB Billiton Annual Report 2015 ▪ Examples of Nickel West customer invoices ▪ Examples of Nickel West customer invoice spreadsheet ▪ Examples of customer requests for invoice verification and confirmation
Review of Asset Management System – Overall Rating: B2		
<ul style="list-style-type: none"> ▪ A review process is in place to ensure that the asset management plan and asset management system described therein are kept current ▪ Independent reviews (e.g., 	<p>Improvement Plan</p> <ul style="list-style-type: none"> ▪ Section 3.6 of NiW's, included in the Contingency Plan part of the document provides areas of improvement that were identified at the time the AMP was initially developed. ▪ Analysis of the existing situation highlighted the lack of a formal Service Level Agreement (SLA) between NiW and its contractor(s) which provided no incentive for the contractor to reduce response times. Therefore, the AMP includes an action to 	<ul style="list-style-type: none"> ▪ Nickel West, Asset Management Plan 2010 – 2016, BHP Billiton Nickel West Electricity Distribution Network, 27 July 2010, Revision 1 ▪ Asset Management System Review - Post Review Implementation Plan

Asset Management Process / Effectiveness Criteria
Observation / Comments
Evidence

internal audit) are performed of the asset management system

prepare a Service Level Agreement for contractors, address availability, response times, competency requirements and a framework to monitor this. NiW has addressed this action and has established a formal agreement with Southern Cross Energy Partnership (SCE - operated by TransAlta) for breakdown support at Leinster and there is also support available through Power Plus Electrical Services. In Kambalda, work is arranged through local contractors depending on availability, typically KEC Electrical contractors or SCE.

- In the event of an incident involving a live cable on the ground, NiW personnel are responsible for securing the area and isolating supply if required. Analysis of this risk identified that in some cases the response could be delayed by lack of availability of an emergency vehicle as in many cases the emergency vehicle is also used for other purposes. Therefore, the AMP includes an action to ensure vehicle availability to be used in emergency situations by communicating existing procedure with staff. It was proposed that for both the Leinster (NES) and Kambalda (SES) locations at least one fully equipped vehicle should be available. NiW has addressed the vehicle access and access to resources.
- As the AMP has not been updated since 2010, no other improvement plans have been developed outside of the Post-Audit/Review Improvement Plans that have been an outcome of the external licence audits/asset management reviews.

Internal Auditing

- NiW has an auditing process that contains a variety of methods to assess performance against internal and external obligations. It provides the process for conducting audits, reporting feedback, managing corrective actions and driving continual improvement.
- At the completion of an audit, findings shall be aggregated and captured at an Asset Level, entered into 1SAP and communicated to functional and operational stakeholders as appropriate.
- Although NiW has the annual review of the AMS/AMP scheduled in SAP, no evidence could be provided to confirm that these reviews had taken place during the review period.

- Correspondence with ERA

6 Recommendations

6.1 Performance Audit

Table 6-1 Table of Current Audit Non-Compliances and Recommendations

A. Resolved during current audit period			
Manual Ref.	Non-Compliance/Controls Improvement (Rating / Legislative Obligation / Details of Non-Compliance or inadequacy of controls)	Date Resolved (& management action taken)	Auditor's comments
105	<p>B2</p> <p><i>Electricity Industry Act section 17(1)</i> <i>A licensee must pay to the Authority the prescribed licence fee within one month after the day of grant or renewal of the licence and within one month after each anniversary of that day during the term of the licence.</i></p> <p>Licence fee payments were paid within the required timeframes in 2013 and 2014. NiW has reported this non-compliance in its 2015 Compliance Report to the ERA (dated 25 October 2015), which additionally notes that the payment was not made within the required timeframe as a result of a change in personnel and long service leave.</p>	<p>2015</p> <p>NiW has added the payment requirement to a calendar to act as an additional prompt and prevent payment being missed.</p> <p>Although payment is set up in 1SAP, the process requires a purchase order and this is not known until the invoice is received. If there is no purchase order, the invoice the invoice is not forwarded to the correct member of staff for processing.</p>	<p>No further action required</p>
B. Unresolved at end of current Audit period			
Reference (no./ year)	Non-Compliance/Controls Improvement (Rating / Legislative Obligation / Details of Non-Compliance or inadequacy of controls)	Auditor's Recommendation	Management action taken by end of Audit period
A1/2016	<p>B2</p> <p><i>Electricity Industry Act section 7.4</i> <i>A person must not sell electricity to customers except under the authority of a retail licence or an integrated regional licence.</i></p> <p>During the course of the audit process, it was identified that the point of supply to the Agnew Gold Mining Company (AGMC) from NiW's northern system is outside NiW's licenced operating area.</p> <p>The original PPA which was executed in 2001 and had a termination date in 2014, showed the point of supply at the Leinster end of the Southern Cross Energy-owned 66kV line to Agnew and, as such, the point of supply was inside the licence area.</p> <p>A fresh contract was executed in 2014 and the new PPA changed the point of</p>	<p>We recommend that NiW formally notifies the ERA to explain the current situation and seeks to amend the licence area in accordance with the ERA's processes for amending licences.</p>	

B. Unresolved at end of current Audit period			
Reference (no./ year)	Non-Compliance/Controls Improvement (Rating / Legislative Obligation / Details of Non-Compliance or inadequacy of controls)	Auditor's Recommendation	Management action taken by end of Audit period
	<p>supply to the Agnew end, therefore putting the point of supply outside of NiW's licenced area of operation.</p> <p>NiW should have amended the retail licence area in 2014 when the new PPA was executed, however this was overlooked.</p> <p>As a result, NiW is non-compliant with regard to clause 2.1 of its retail licence, which states that 'The licensee is granted a licence for the licence area to sell electricity to customers in accordance with the terms and conditions of this licence'. NiW's retail licence details are set out in Schedule 1 of its retail licence, with the licence area information provided in section 1.1 of the Schedule.</p> <p>The non-compliance does not apply to the distribution licence as the distribution that associated with the non-compliant retail area is carried out by Transalta.</p>		
A2/2016	<p><i>B2</i></p> <p><i>Electricity Industry Metering Code clause 3.5(9)</i></p> <p><i>If a network operator becomes aware that a metering installation does not comply with the Code, the network operator must advise affected parties of the non-compliance and arrange for the non-compliance to be corrected as soon as practicable.</i></p> <p>NiW has reported non-compliances against this obligation in both its 2013/14 and 2014/15 Compliance Reports to the ERA. In each case, the metering installation did not comply with the Code after a failure of a component and the affected customer not being appropriately notified they were being under-metered.</p>	<p>NiW to review its current processes, and revise them if identified as being required, to ensure that customers are notified as soon as practicable.</p>	
A3/2016	<p><i>B2</i></p> <p><i>Electricity Industry Metering Code clause 3.11A(1)</i></p> <p><i>A network operator must ensure that the meters on its network are systematically sampled and tested for accuracy in accordance with AS 1284.13.</i></p> <p>NiW has reported a non-compliance against this obligation in both the 2013/14 and 2014/15 Compliance Reports it has submitted to the ERA during the audit period. This is as a result of not testing at light load as required by the Standard.</p> <p>The meters were last tested in November 2015, with light load testing carried out,</p>	<p>NiW to continue to ensure that light load testing is carried out during the annual meter testing</p>	

B. Unresolved at end of current Audit period			
Reference (no./ year)	Non-Compliance/Controls Improvement (Rating / Legislative Obligation / Details of Non-Compliance or inadequacy of controls)	Auditor's Recommendation	Management action taken by end of Audit period
	making NiW compliant for the 2015/16 period.		
A4/2016	<p><i>B2</i></p> <p><i>Electricity Industry Metering Code clause 5.20(2)</i></p> <p><i>An Energy Data Verification Request Form must require a Code participant to provide the information prescribed.</i></p> <p>NiW's energy data verification request form contains the required information to be provided in accordance with this obligation.</p> <p>However, although NiW has an Energy Data Verification Request Form it has never been used. Generally any requests for data verification are submitted by email to NiW.</p> <p>Given the requirement that an Energy Data Verification Request Form must require a Code participant to provide the information prescribed, NiW is technically non-compliant against Clause 5.20(2) of the Code (obligation reference 412), even though it has a very small customer based that facilitates any energy data verification requests. It is the distribution licensee's responsibility to ensure that the process outlined in Clause 5.20 of the Code is followed.</p>	We recommend that NiW ensures that any energy data verification requests are undertaken using the Energy Data Verification Request Form.	
A5/2016	<p><i>B2</i></p> <p><i>Electricity Industry Metering Code clause 5.20(4)</i></p> <p><i>If a Code participant requests verification of energy data under subclause 5.20(3), the network operator must, in accordance with the metrology procedure, subject to subclause 5.20(5), use reasonable endeavours to verify energy data and inform the requesting Code participant of the result of the verification and provide the verified energy data within the timeframes prescribed.</i></p> <p>NiW has received requests for energy data verification during the audit period but no requests have been made using the Energy Data Verification Request Form process.</p> <p>Generally any requests for data verification are submitted by email to NiW. NiW is able to manage the process easily via as it has such a small number of customers.</p> <p>Given the requirement for Code participants to provide the information in</p>	As above, we recommend that NiW ensures that any energy data verification requests are undertaken using the Energy Data Verification Request Form and the verification is completed using the process set-out in Clause 5.20 of the Code.	

B. Unresolved at end of current Audit period			
Reference (no./ year)	Non-Compliance/Controls Improvement (Rating / Legislative Obligation / Details of Non-Compliance or inadequacy of controls)	Auditor's Recommendation	Management action taken by end of Audit period
	<p>accordance with Clause 5.20(2) of the Code, NiW is also technically non-compliant against clause 5.20(4) of the Code (obligation reference 413). Although NiW has not received any requests under this section of the Code, it is NiW's responsibility to ensure that that the process is followed</p>		
A6/2016	<p>A1</p> <p><i>Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 5(1)</i></p> <p><i>A distributor or transmitter must, as far as reasonably practicable, ensure that electricity supply to a customer's electrical installations complies with prescribed standards.</i></p> <p>NiW has as far as is reasonably practicable, ensured that the electricity supply to its customers' electrical installations has complied with the prescribed standards during the audit period.</p> <p>The power quality survey completed during the audit period show compliance with the voltage fluctuation and harmonic requirements included in Clauses 6 and 7 of the Code.</p> <p>As was observed in the previous audit report, standards are agreed with NiW's retail customers in the PPAs and these specify the relevant standard that was in place at the time, AS 2279). However, although the most recent versions of the PPAs are dated 2014, they still refer to the now-replaced AS.</p> <p>The old Australian standard (AS2279) uses a different method for voltage flicker and less detail for harmonics. The old Australian standard also has a more demanding total harmonic level than the Code.</p> <p>The 2013 survey was completed to the current AS 61000 standard and we note that this recommendation relates to an administration issue rather than an actual non-compliance.</p>	<p>We recommend that NiW reviews and updates the references to AS 2279 when the PPAs are next updated.</p>	
A7/2016	<p>C3</p> <p><i>Electricity Industry Act Section 11 - Distribution Licence condition 16.1, Retail Licence condition 16.1</i></p> <p><i>The licensee must provide to the Authority any information that the Authority may require in connection with its functions under the Act in the time, manner and</i></p>	<p>We recommend that NiW develops a breach register so that it can comply with the requirement and ensure that its compliance reports are prepared in accordance with the register.</p>	

B. Unresolved at end of current Audit period			
Reference (no./ year)	Non-Compliance/Controls Improvement (Rating / Legislative Obligation / Details of Non-Compliance or inadequacy of controls)	Auditor's Recommendation	Management action taken by end of Audit period
	<p><i>form specified by the Authority.</i></p> <p>NiW considers that it has provided the required information to the Authority.</p> <p>NiW completes the Compliance Report submitted to ERA annually. Previously the approach used by NiW was to complete quarterly reviews, however this was changed in order to not dictate a timeframe for this. Any issues/ concerns with compliance are noted and pencilled in on the compliance report during the year. The final report is then submitted to the ERA.</p> <p>Therefore, does not have a formal Breach Register, as such, and instead uses more informal working documents.</p> <p>Under section 9.3.2.3 of the Audit and Review Guidelines, the ERA expects NiW to maintain a compliance (or breach) register. As NiW has not developed such a register, this obligation has been rated with a C3 grading.</p>		
A8/2016	<p>A2 <i>Electricity Industry Metering Code clause 3.1</i> <i>A network operator must ensure that its meters meet the requirements specified in the applicable metrology procedure and also comply with any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the National Measurement Act.</i></p> <p>A2 <i>Electricity Industry Metering Code clause 3.2(1)</i> <i>An accumulation meter must at least conform to the requirements specified in the applicable metrology procedure and display, or permit access to a display of the measurements specified in subclauses 3.2(1)(a)(b) using dials, a cyclometer, an illuminated display panel or some other visual means.</i></p> <p>A2 <i>Electricity Industry Metering Code clause 3.3(1)</i> <i>An interval meter must at least have an interface to allow the interval energy data to be downloaded in the manner prescribed using an interface compatible with the requirements specified in the</i></p>	<p>As noted, there is no mandatory recommendation for this obligation although NiW will continue to be technically non-compliant against the requirements of these obligations</p> <p>NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that in practice the information included in the PPAs adequately covers the metering of NiW's customers' usage.</p>	

B. Unresolved at end of current Audit period			
Reference (no./ year)	Non-Compliance/Controls Improvement (Rating / Legislative Obligation / Details of Non-Compliance or inadequacy of controls)	Auditor's Recommendation	Management action taken by end of Audit period
	<i>applicable metrology procedure.</i>		
	<p>A2</p> <p><i>Electricity Industry Metering Code clause 3.10</i></p> <p><i>A network operator must ensure that any programmable settings within any of its metering installations, data loggers or peripheral devices, that may affect the resolution of displayed or stored data, meet the relevant requirements specified in the applicable metrology procedure and comply with any applicable specifications or guidelines specified by the National Measurement Institute under the National Measurement Act.</i></p>		
	<p>A2</p> <p><i>Electricity Industry Metering Code clause 3.12(2)</i></p> <p><i>A network operator must ensure that instrument transformers in its metering installations comply with the relevant requirements of any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the National Measurement Act and any requirements specified in the applicable metrology procedure.</i></p>		
	<p>A2</p> <p><i>Electricity Industry Metering Code clause 3.12(2)</i></p> <p><i>A network operator must ensure that instrument transformers in its metering installations comply with the relevant requirements of any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the National Measurement Act and any requirements specified in the applicable metrology procedure.</i></p>		
	<p>B2</p> <p><i>Electricity Industry Metering Code clause 5.20(4)</i></p> <p><i>If a Code participant requests verification of energy data under subclause 5.20(3), the network operator must, in accordance with the metrology procedure, subject to subclause 5.20(5), use reasonable endeavours to verify energy data and inform the requesting Code participant of the result of the verification and provide</i></p>		

B. Unresolved at end of current Audit period			
Reference (no./ year)	Non-Compliance/Controls Improvement (Rating / Legislative Obligation / Details of Non-Compliance or inadequacy of controls)	Auditor's Recommendation	Management action taken by end of Audit period
	<p><i>the verified energy data within the timeframes prescribed.</i></p> <p>A2 Electricity Industry Metering Code clause 5.21(4) A test or audit under subclause 5.21(1) is to be conducted in accordance with the metrology procedure and the applicable service level agreement.</p> <p>A2 Electricity Industry Metering Code clause 5.25 A network operator must ensure the accuracy of estimated energy data in accordance with the methods in its metrology procedure and ensure that any transformation or processing of data preserves its accuracy in accordance with the metrology procedure.</p> <p>NiW does not have a dedicated, overall metrology procedure. However, each of the individual Power Purchase Agreements (PPAs) cover meter installation and accuracy and, as such, form NiW's metrology procedures. However, under Clauses 1.3 and 6.2 of the Metering Code, a metrology procedure must be submitted to and approved by the ERA. As NiW has not completed the actions required by the Code, and it does not have an approved procedure, it is not compliant with any of the obligations listed above that refer to a metrology procedure. It is recognised that from a practical point of view, there is no real benefit for NiW to develop and submit a metrology procedure to the ERA for approval other than being able to comply with the requirements of the Metering Code. NiW may wish to consider submitting a metrology procedure to the ERA for approval but it is accepted that the information included in the PPAs adequately covers the metering of NiW's customers' usage. As a result, there is no mandatory recommendation for this obligation although NiW will continue to be non-compliant against the requirements.</p>		

6.2 Asset Management Review

Table 6-2 Table of Current Review Asset System Deficiencies and Recommendations

A. Resolved during current Review period			
Ref.	Asset System Deficiency (Rating / Asset Management System Component & Effectiveness Criteria / Details of Asset System Deficiency)	Date Resolved (& management action taken)	Auditor's comments
B. Unresolved at end of current Review period			
Reference (no./ year)	Asset System Deficiency (Rating / Asset Management System Component & Effectiveness Criteria / Details of Asset System Deficiency)	Auditor's Recommendation	Management action taken by end of Audit period
R1/2016	<p><i>B2</i></p> <p><i>Asset Planning - Plans are regularly reviewed and updated</i></p> <p>NiW's Asset Management Plan covers the period 2010-2016 (although the financial predictions finished in 2014/15). As such, the document ends at the end of the current financial year (with some information already being out-of-date). We also note that a number of items (e.g. the capital planning) were completed earlier than planned but the Plan not updated to take account of the changes.</p>	<p>Complete a new AMP for the licenced assets for the next 5 year period or develop a higher document that provides links/references to the NiW documentation that covers the asset management requirements.</p>	
R2/2016	<p><i>A2</i></p> <p><i>Operational policies and procedures are documented and linked to service levels required</i></p> <p>During the course of the review we observed that although NiW has well-established policy and procedural documentation, a number of documents that were scheduled to be reviewed during the review period had not been reviewed/updated. This include the Asset Management Plan and the High Voltage Isolation and Access Procedure.</p>	<p>Ensure that policy and procedural documentation is reviewed when due.</p> <p>NiW should create a schedule for a formal review in 1SAP on an annual basis.</p> <p>NiW could also implement a reminder system in Outlook or so that automated notifications are issued when documentation is required to be reviewed in accordance with NiW's quality management requirements.</p> <p>NiW should maintain records/update document control information to confirm that the review has taken place and to summarise any changes.</p>	
R3/2016	<p><i>B2</i></p> <p><i>Review of AMS - Independent reviews (e.g., internal audit) are performed of the asset management system</i></p> <p>NiW has a requirement to review its Asset Management System every year as part of its planned activities, with the document</p>	<p>NiW should create a schedule in 1SAP for a formal annual review of its asset management system.</p> <p>NiW could also implement a reminder system in Outlook or so that automated notifications are issued when documentation is required to</p>	

B. Unresolved at end of current Review period			
Reference (no./ year)	Asset System Deficiency (Rating / Asset Management System Component & Effectiveness Criteria / Details of Asset System Deficiency)	Auditor's Recommendation	Management action taken by end of Audit period
	being updated where deemed necessary as a part of the review. However, although this action is scheduled in SAP, NiW were unable to provide any evidence that the AMP had been reviewed during the audit period.	be reviewed in accordance with NiW's quality management requirements. NiW should maintain records/update document control information to confirm that the review has taken place and to summarise any changes.	

7 Confirmation of the Audit/Review

I confirm that the audit/review carried out at BHP Billiton Nickel West Pty Ltd in April/May/June 2016 and recorded in this report is an accurate presentation of our findings and opinions.

J Edwards

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12 August 2016

Performance Audit and
Asset Management
Review

APPENDIX A
RISK
MANAGEMENT
FRAMEWORK



Types of Compliance Risk

Type of Risk	Examples
Supply quality and reliability	Delays in new connections, excessive supply interruptions, supply quality standards not met.
Consumer protection	Customer service levels not met, incorrect bills, disconnection and reconnection standards not met, customers unable to access financial hardship assistance.
Legislation/licence	Breach of industry Acts, regulations and codes, contravention of licence conditions.

Risk Assessment Rating Scales

The consequence, likelihood, inherent risk and adequacy of internal controls are assessed using a 3-point rating scale as described below. The rating scale is as per the Audit and Review Guidelines: Electricity and Gas Licences, (Economic Regulation Authority), April 2014.

Consequence Rating

The consequence rating scale is outlined below.

Rating	Supply Quality and Reliability	Consumer Protection	Breaches of Legislation or Other Licence Conditions
1 Minor	<p>Breaches of supply quality or reliability standards – affecting small number of customers.</p> <p>Delays in providing a small proportion of new connections.</p>	<p>Customer complaints procedures not followed in a few instances.</p> <p>Small percentage of disconnections or reconnections not completed on time.</p> <p>Small percentage of bills not issued on time.</p>	<p>Legislative obligations or licence conditions not fully complied with, minor impact on customers or third parties.</p> <p>Compliance framework generally fit for purpose and operating effectively.</p>
2 Moderate	<p>Supply quality breach events that significantly impact customers; large number of customers affected and/or extended duration and/or damage to customer equipment.</p> <p>Supply interruptions affecting significant proportion of customers on the network for up to one day.</p> <p>Significant number of customers experiencing excessive number of interruptions per annum.</p> <p>Significant percentage of new connections not provided on time/ some customers experiencing extended delays.</p>	<p>Significant percentage of complaints not being correctly handled.</p> <p>Customers not receiving correct advice regarding financial hardship.</p> <p>Significant percentage of bills not issued on time.</p> <p>Ongoing instances of disconnections and reconnections not completed on time, remedial actions not being taken or proving ineffective.</p> <p>Instances of wrongful disconnection.</p>	<p>More widespread breaches of legislative obligations or licence conditions over time.</p> <p>Compliance framework requires improvement to meet minimum standards.</p>
3 Major	<p>Supply interruptions affecting significant proportion of customers on the network for more than one day.</p> <p>Majority of new connections not completed on time/ large number of customers experiencing extended delays.</p>	<p>Significant failure of one or more customer protection processes leading to ongoing breaches of standards.</p> <p>Ongoing instances of wrongful disconnection.</p>	<p>Wilful breach of legislative obligation or licence condition.</p> <p>Widespread and/or ongoing breaches of legislative obligations or licence conditions.</p> <p>Compliance framework not fit for purpose,</p>

Rating	Supply Quality and Reliability	Consumer Protection	Breaches of Legislation or Other Licence Conditions
			requires significant improvement.

Likelihood Ratings

The likelihood rating scale is described below.

Level	Description
A Likely	Non-compliance is expected to occur at least once or twice a year
B Probable	Non-compliance is expected to occur once every three years
C Unlikely	Non-compliance is expected to occur once every 10 years or longer

Inherent Risk Assessment Rating and Description

The inherent risk rating is based on the combined consequence and likelihood rating. The inherent risk assessment rating scale and descriptions are outlined below.

Likelihood	Consequence		
	Minor	Moderate	Major
Likely	Medium	High	High
Probable	Low	Medium	High
Unlikely	Low	Medium	High

Level	Description
High	Likely to cause major damage, disruption or breach of licence obligations
Medium	Unlikely to cause major damage but may threaten the efficiency and effectiveness of service
Low	Unlikely to occur and consequences are relatively minor

Adequacy Ratings for Existing Controls

The adequacy of existing internal controls is also assessed based on a 3-point scale as indicated below.

Level	Description
Strong	Controls that mitigate the identified risks to an appropriate level
Moderate	Controls that only cover significant risks; improvement required
Weak	Controls are weak or non-existent and have minimal impact on the risks

Assessment of Audit Priority

The assessment of audit priority is used to determine the audit objectives, the nature of audit testing and the extent of audit testing required. It combines the inherent risk and risk control adequacy rating to determine the priority level.

Inherent Risk	Adequacy of Existing Controls		
	Weak	Medium	Strong
High	Audit Priority 1	Audit Priority 2	
Medium	Audit Priority 3		Audit Priority 4
Low	Audit Priority 5		

Performance Audit and
Asset Management
Review

APPENDIX B
ASSET
MANAGEMENT
PERFORMANCE
RATING
DEFINITIONS



Compliance Assessment Rating Scale

In accordance with the Audit Guidelines – Electricity, Gas and Water Licences (ERA, April 2014), a 7-point rating scale has been adopted to assess the licensee’s compliance against each licence condition. The rating scale and description of compliance is outlined below.

Compliance Status	Rating	Description of Compliance
Compliant	5	Compliant with no further action required to maintain compliance
Compliant	4	Compliant apart from minor or immaterial recommendations to improve the strength of internal controls to maintain compliance
Compliant	3	Compliant with major or material recommendations to improve the strength of internal controls to maintain compliance
Non-Compliant	2	Does not meet minimum requirements
Significantly Non-Compliant	1	Significant weaknesses and/or serious action required
Not Applicable	N/A	Determined that the compliance obligation does not apply to the licensee’s business operations.
Not Rated	N/R	No relevant activity took place during the audit period therefore it is not possible to assess compliance.

Asset Management Review Rating Scales

The asset management review utilises a combination of asset management adequacy ratings and asset management performance ratings, which are outlined below. These are based on the Audit Guidelines – Electricity, Gas and Water Licenses (ERA, April 2014).

Asset Management Adequacy Ratings

Rating	Description	Criteria
A	Adequately defined	<ul style="list-style-type: none"> ▪ Processes and policies are documented. ▪ Processes and policies adequately document the required performance of the assets. ▪ Processes and policies are subject to regular reviews, and updated where necessary. ▪ The asset management information system(s) are adequate in relation to the assets that are being managed
B	Requires some improvement	<ul style="list-style-type: none"> ▪ Process and policy documentation requires improvement. ▪ Processes and policies do not adequately document the required performance of the assets. ▪ Reviews of processes and policies are not conducted regularly enough. ▪ The asset management information system(s) require minor improvements (taking into consideration the assets that are being managed)
C	Requires significant improvement	<ul style="list-style-type: none"> ▪ Process and policy documentation is incomplete or requires significant improvement ▪ Processes and policies do not document the required performance of the assets ▪ Processes and policies are significantly out of date ▪ The asset management improvement system(s) require significant improvements (taking into consideration the assets that are being managed).
D	Inadequate	<ul style="list-style-type: none"> ▪ Processes and policies are not documented. ▪ The asset management information system is not fit for purpose (taking into consideration the assets that are being managed).

Asset Management Performance Ratings

Rating	Description	Criteria
1	Performing effectively	<ul style="list-style-type: none">▪ The performance of the process meets or exceeds the required levels of performance▪ Process effectiveness is regularly assessed and corrective action taken when necessary
2	Opportunity for improvement	<ul style="list-style-type: none">▪ The performance of the process requires some improvement to meet the required level▪ Process effectiveness reviews are not performed regularly enough▪ Process improvement opportunities are not actioned
3	Corrective action required	<ul style="list-style-type: none">▪ The performance of the process requires significant improvement to meet the required level▪ Process effectiveness reviews are performed irregularly or not at all▪ Process improvement opportunities are not actioned
4	Serious action required	<ul style="list-style-type: none">▪ Process is not performed or the performance is so poor that the process is considered to be ineffective.