



## Performance Audit of the Ord Hydro Integrated Regional License Conditions



- Final Rev A
- 16 December 2008



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## 1. Executive Summary

Pacific Hydro Pty Ltd (PHL) sought and was granted approval to appoint SKM to undertake a Performance Audit of the compliance of the Ord Hydro Partnership with the licence conditions in its Integrated Regional Licence (EIRL4) as required by Section 13 of the Electricity Industry Act 2004 (WA). This approval was notified to PHL on 29 July 2008

PHL subsequently engaged SKM to undertake the performance audit and SKM developed a performance audit plan which was submitted to the Economic Regulation Authority (Authority) and subsequently approved on 30 October 2008.

The audit and review covers the period from 30 June 2006 to 30 June 2008 and is the first such audit and review required, and was conducted in accordance with the Authority's "*Audit Guidelines: Electricity, Water and Gas Licences (September 2006)*".

PHL and the OHP co-operated fully during the conduct of this audit.

SKM found that PHL was generally in compliance with the performance areas audited in this study. All fees that were required to be paid were paid in full in a timely manner and all reports required by the Economic Regulation Authority (Authority), required to be published or provided to the Minister, had been provided or published within the specified time frame or within extended time frames approved by the Authority.

There were also a number of conditions that could not be tested as the occurrence of the event to be audited had not occurred or been triggered during the audit period, or prior to the audit period. These conditions have been noted in the report.

There were however four (4) areas where PHL was not found to be fully compliant. They were in the general areas of meter calibration verification, monitoring of quality of supply, performance reporting as required under the Network Quality and Reliability Code<sup>1</sup> and IT security policies and practices.

SKM found that PHL has a clear and defined policy regarding revenue meter calibration tests, and that these were clearly defined in each of the two (2) PPA's executed between the Ord Hydro Partnership (OHP). However, we could find no evidence of the policies being implemented. On this matter, SKM has recommended that all revenue meter installations inclusive of check meters be verified for calibration accuracy within the next 6 months.

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<sup>1</sup> Electricity Industry (Network Quality and Reliability of Supply) Code 2005



SKM found no evidence of either any quality of supply monitoring equipment having been installed on the network or of any periodic testing of same. SKM also noted that there had never been any complaints from either of the two (2) customers on the network regarding same. In this instance SKM recommends that quality of supply meters be installed at a convenient locations as close to the customers point of connection as possible, within the next 12 months and the outputs of these meters monitored.

SKM sighted a copy of the published performance report as required under Clause 26 and 27 of the Network Quality and Reliability Code<sup>2</sup>, however it was noted that the report was neither submitted nor published in accordance with the required time frame. We also established that PHL has subsequently been issued with an exemption from the requirements of these Clauses by the Authority for all subsequent years. As such, no corrective actions are recommended.

SKM also found no evidence of any documented IT policy that related to the issuance and security of passwords for the security of computer held information by third parties. SKM found evidence that security measures were in place, but there was no evidence of a written policy on this matter provided during the audit process. Accordingly, we could not attest to a level compliance. We suggest that such a policy should be developed and audited for implementation compliance within the next six (6) months.

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<sup>2</sup> Electricity Industry (Network Quality and Reliability of Supply) Code 2005



## **2. Statement of Independence**

In undertaking this audit and drawing the conclusions that we have, SKM has acted independently, and exercised sound engineering judgement based on our knowledge and experience in the electricity industry both within Australia and off shore. Pacific Hydro Pty Ltd cooperated fully with SKM during this audit.

### **2.1. Professional Scepticism**

At all times the proposed audit was undertaken applying the principles of professional scepticism as defined in Section 6.3.2 of the Audit Guidelines<sup>3</sup>.

That is, SKM as the auditor neither assumed that management (licensee) was dishonest, nor did we assume unquestioned honesty. At all times, we recognised that audit evidence needs to be objectively evaluated to ensure that the audit report is free from material misstatement.

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<sup>3</sup> Audit Guidelines : Electricity, Gas and Water Licenses; Economic Regulation Authority, Western Australia



### **3. Limitations Statement**

SKM has prepared this report based on the information presented by Pacific Hydro Pty Ltd (PHL) and the Ord Hydro Partnership (OHP) in relation to their compliance with the conditions of their licence. This report accurately represents the evidence provided during the interview and inspection process. The audit investigated the systems and processes that the OHP and PHL use and not the accuracy of the data provided. As such, SKM shall not be held liable for loss or damage to third parties due to reliance on the information contained in this report or in supporting documentation.



## 4. Introduction

The Economic Regulation Authority (Authority) granted Pacific Hydro Pty Ltd (PHL) on behalf of Ord River Dam Hydro Partnership<sup>4</sup> (OHP) (Licensee) an Integrated Regional Licence (EIRL4) in accordance with the *Electricity Industry Act 2004 (WA)* on the 30<sup>th</sup> June 2006.

It is a requirement in terms of Clause 23.1 of EIRL4 that OHP appoint an independent expert acceptable to the Authority, to provide the Authority with a performance audit within 24 months after the commencement date, and every 24 months thereafter.

The Authority subsequently granted an extension for the submission date for the performance audit to 12 December 2008.

PHL has appointed Sinclair Knight Merz (SKM) as their auditors to report on OHP's performance compliance with their licence conditions. The professional analysis in this report has been prepared by SKM for the exclusive use of the parties to whom it is addressed. In conducting the analysis in this report, SKM has endeavoured to use what is considered the best information available at the date of publication, including information supplied by OHL and Pacific Hydro Limited (PHL).

In undertaking this audit and drawing the conclusions that we have, SKM has acted independently, and exercised sound engineering judgement based on our knowledge and experience in the electricity industry both within Australia and off shore. Pacific Hydro co-operated fully with SKM during this audit.

### 4.1. Commercial Consideration

The Ord Hydro Scheme was established to generate and transmit the majority of the electricity supply needs of the Argyle Diamond Mine (ADM), and Western Power Corporation (now Horizon Power). Western Power Corporation (Western Power) was the distribution utility that supplied the Kununurra township in north east Western Australia at the time.

Power Purchase Agreements (PPA's) were established between Pacific Hydro and each of the ADM and Western Power. Each of these PPA's contained electricity supply conditions required of Pacific Hydro. Pacific Hydro reports annually to each customer on its performance in accordance with contract conditions.

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<sup>4</sup> The Ord River Dam Hydro Partnership consists of North Western Energy Pty Ltd, Pacific Hydro Group Two Pty Ltd and Energis Australia Pty Ltd, all of which are wholly-owned subsidiaries of Pacific Hydro Pty Ltd. The partnership is collectively referred to as "Ord Hydro Partnership (OHP)" in this document.



The PPA's were established in 1994 with a validity period expiring in 2021 (unless terminated earlier).

Of the two customers Ord Hydro supplies, ADM represents approximately 66% of load requirements.

Annual reporting requirements were structured around penalty or liability clauses defined in the PPA's and generally related the percentage of energy supplied to each customer annually compared to the total contracted amount for the year.

#### **4.2. Transmission System**

The transmission system from the Ord Hydro generation plan consists of a single circuit line from the generation facility at the base of the Ord dam wall to a Tee point substation. From this station, two single circuit single conductor radial lines run in different directions, one each to the ADM and the Horizon substation in Kunnanurra.

Each of the customers' substations contains multiple standby and base load diesel generators as specified in the PPA's.

## 5. Audit Scope

This audit was undertaken in accordance with the Performance Audit Plan for the Ord Hydro Partnership as approved by the Authority on 30 October 2008.

### 5.1. Scope and Objective

The objective of the audit was to undertake a systematic, independent and documented audit process for obtaining audit evidence and evaluating objectively it to determine the extent to which OHP operates its Integrated Regional Licence operations.

The audit identified any areas where improvement is required and recommends corrective action as necessary and developed in the Post Audit Implementation Plan with PHL.

The audit followed a risk-based audit approach to focus on the systems and effectiveness of processes used to ensure compliance with the standards, outputs and outcomes required by the license conditions.

The scope of the audit covered the following areas:

- Risk assessment – the risks posed by non-compliance with license standards and development of a risk-based audit plan to focus on the higher risk areas, with less intensive coverage of medium and low risk areas;
- Process compliance – the effectiveness of systems and procedures in place throughout the audit period;
- Outcome compliance – the actual performance against standards prescribed in the license throughout the audit period;
- Output compliance - the existence of the output from systems and procedures throughout the audit period( that is, proper records exist to provide assurance that procedures are being consistently followed and controls are being maintained);
- Integrity of performance reporting – the completeness and accuracy of the performance reporting to the ERA; and
- Compliance with any individual license conditions – any specific requirements imposed by the ERA or specific issues for follow-up that are advised by the ERA.

This audit covers the period from the first issue of licenses which is 30 June 2006 to 30 June 2008.



As PHL has no small use customers as defined by the definitions in the licence, is not part of nor connected to the SWIS and is a closed system, no conditions have been included relating to:

- a. Customer Service Charter;
- b. Electricity Industry Customer Transfer Code 2004;
- c. Electricity Industry (Obligation to Connect) Code;
- d. Code of conduct for the Supply of Electricity to Small Use Customers 2004; and
- e. Electricity Networks access Code.

## 6. Audit Methodology

### 6.1. Risk Assessment

The preliminary risk assessment is based on the ERA's Audit Guidelines: Electricity, Gas and Water licenses and our initial understanding of the operations of OHP is shown below.

The assessment was based on the following criteria.

### 6.2. Consequence Ratings

Rating		Consequence of non-compliance			
		Supply quality	Supply reliability	Consumer protection	Breaches of legislation or other licence conditions
1	Minor	<p>Minor public health or safety issues.</p> <p>Breach of quality standards minor - minimal impact on customers.</p>	<p>System failure or connection delays affecting only a few customers.</p> <p>Some inconvenience to customers.</p>	<p>Customer complaints procedures not followed in a few instances.</p> <p>Nil or minor costs incurred by customers.</p>	<p>Licence conditions not fully complied with but issues have been promptly resolved.</p>
2	Moderate	<p>Event is restricted in both area and time eg, supply of service to one street is affected for up to one day.</p> <p>Some remedial action is required.</p>	<p>Event is restricted in both area and time eg supply of service to one street is affected for up to one day.</p> <p>Some remedial is required.</p>	<p>Lapse in customer service standards is clearly noticeable but manageable.</p> <p>Some additional cost may be incurred by some customers.</p>	<p>Clear evidence of one or more breaches of legislation or other licence conditions and/or sustained period of breaches.</p>
3	Major	<p>Significant system failure.</p> <p>Life-threatening injuries or widespread health risks.</p> <p>Extensive remedial actions required</p>	<p>Significant system failure.</p> <p>Extensive remedial action required.</p>		



### 6.3. Likelihood Ratings

A	Likely	Non-compliance is expected to occur at least once or twice a year
B	Probable	
C	Unlikely	

### 6.4. Inherent Risk Rankings

Likelihood		Consequence		
		1. Minor	2. Moderate	3. Major
A. Likely	A	Medium	High	High
B. Probable	B	Low	Medium	High
C. Unlikely	C	Low	Medium	High

### 6.5. Level of Existing Controls

Level		Description
S	Strong	Strong controls that are sufficient for the identified risks
M	Moderate	Moderate controls that cover significant risks; improvements could be made
W	Weak	Controls are weak or non-existent and have minimal impact on the risks



## 6.6. Audit Priority

Adequacy of existing controls				
Inherent Risk		<b>Strong</b>	<b>Moderate</b>	<b>Weak</b>
	<b>High</b>	Audit priority 2	Audit priority 2	Audit priority 1
	<b>Medium</b>	Audit priority 4	Audit priority 4	Audit priority 3
	<b>Low</b>	Audit priority 5	Audit priority 5	Audit priority 5



## 7. Performance Summary

SKM found that PHL was generally in compliance with the performance areas audited in this study. All fees that were required to be paid were paid in full in a timely manner and all reports required by the Economic Regulation Authority (Authority), required to be published or provided to the Minister, had been provided or published within the specified time frame or within extended time frames approved by the Authority.

There were also a number of conditions that could not be tested as the occurrence of the event to be audited had not occurred or been triggered during the audit period, or prior to the audit period. These conditions have been noted in the report.

There were however four (4) areas where PHL was not found to be fully compliant. They were in the general areas of meter calibration verification, monitoring of quality of supply, performance reporting as required under the Network Quality and Reliability Code<sup>5</sup> and IT security policies and practices.

SKM found that PHL has a clear and defined policy regarding revenue meter calibration tests, and that these were clearly defined in each of the two (2) PPA's executed between the Ord Hydro Partnership (OHP). However, we could find no evidence of the policies being implemented. On this matter, SKM has recommended that all revenue meter installations inclusive of check meters be verified for calibration accuracy within the next 6 months.

SKM found no evidence of either any quality of supply monitoring equipment having been installed on the network or of any periodic testing of same. SKM also noted that there had never been any complaints from either of the two (2) customers on the network regarding same. In this instance SKM recommends that quality of supply meters be installed at a convenient locations as close to the customers point of connection as possible, within the next 12 months and the outputs of these meters monitored.

SKM sighted a copy of the published performance report as required under Clause 26 and 27 of the Network Quality and Reliability Code<sup>6</sup>, however it was noted that the report was neither submitted nor published in accordance with the required time frame. We also established that PHL has subsequently been issued with an exemption from the requirements of these Clauses by the Authority for all subsequent years. As such, no corrective actions are recommended.

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<sup>5</sup> Electricity Industry (Network Quality and Reliability of Supply) Code 2005

<sup>6</sup> Electricity Industry (Network Quality and Reliability of Supply) Code 2005



SKM also found no evidence of any documented IT policy that related to the issuance and security of passwords for the security of computer held information by third parties. SKM found evidence that security measures were in place, but there was no evidence of a written policy on this matter provided during the audit process. Accordingly, we could not attest to a level compliance. We suggest that such a policy should be developed and audited for implementation compliance within the next six (6) months.



## **8. Post Implementation Plan**

The Post Implementation Plan was developed in conjunction with the Licensee and recorded as corrective actions in the audit results.



## 9. Recommendations

In the performance of this audit, SKM has identified a number of non-conformances (i.e. not fully in conformance). The recommended corrective actions for these non-conformances are:-

- 1) All revenue meter installations inclusive of check meters be verified for calibration accuracy within the next 6 months;
- 2) Quality of supply meters be installed at a convenient locations and as close to the customers point of connection within the next 12 months and the outputs of these meters monitored; and
- 3) An IT policy relating to the issuance and security of passwords for the security of computer held information by third parties should be developed and its implementation audited within the next six (6) months.

## 10. Observations

In developing an audit plan for PHL and the OHP in relation to the management and operation of the Ord Hydro generation and transmission scheme, SKM was of the view that a significant number of the obligation conditions to be audited, were not applicable due to the unique configuration and nature of the associated network. These were highlighted to the Authority in the SKM report “Ord Hydro Performance Audit Plan – 30 June 2006 to 30 June 2008”. Notification of the Authority’s approval of this report and associated audit plan was received on 30 October 2008.

Specifically, obligation conditions relating to the following matters were omitted:

- **Small Use Customers:** As OHP has no small use customers as defined by the definitions in the licence, no conditions have been included relating to:
  - a. Customer Service Charter;
  - b. Electricity Industry Customer Transfer Code 2004; or
  - c. Code of conduct for the Supply of Electricity to Small Use Customers 2004.
- **Third Party Access:** There is no provision nor capacity for third party access to the OHP network;
- **Isolated System:** The OHP network is an isolated network, and whilst all electricity generated and transmitted is renewable from the hydro generation facilities, there is no additional energy generation that could be contracted to also supply additional renewable energy;
- **Covered Network:** The OHP network is not a covered network; and
- **Distribution Network:** OHP does not operate a distribution network.

As the general nature of the network for the Ord Hydro scheme is not likely to change in the future SKM suggests that a formal exemption to the reporting conditions that relate to these obligations would seem appropriate.



## 11. Signatures

### Auditor

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Michael Farr

Date \_\_\_\_\_

Senior Executive and Manager Electricity Networks  
Sinclair Knight Merz  
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Pacific Hydro Pty Ltd

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Kate Summers

Date \_\_\_\_\_

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## **Appendix A Statement of Non-Occurrence from Pacific Hydro Pty Ltd**

5 December 2008

Mr Paul Reid  
Assistant Director, Monitoring  
Economic Regulation Authority  
PO Box 8469  
PERTH BC WA 6849

Writers direct contact  
Email : [ksummers@pacifichydro.com.au](mailto:ksummers@pacifichydro.com.au)  
Mobile 0418 514 473

Dear Paul,

**Re: Licence EIRL 4, Performance Audit**

This letter is to provide supporting statements for the performance audit being undertaken by SKM for the Ord Hydro Scheme and its operation under an Integrated Regional Licence as issued on 30 June 2006.

There are a number of obligations that are required to be audited which at the time of this audit have not occurred or been triggered. These obligations relate to Code items concerning activities or responses such as network development, disputes and others.

The following statements are provided to advise that these events have not occurred or been triggered during the audit period. The items are detailed in the attached table.

Yours sincerely

K P Summers  
Regulatory Compliance Manager

Obligation No.	Licence condition	Obligations under condition	Description	Comment
92	Integrated Regional Licence condition 5.1	Electricity Industry Act 65(d)	Electricity Networks Corporation and Regional Power Corporation must implement arrangements set out in an approved extension and expansion policy	No extensions or expansion have been undertaken.
103	Integrated Regional Licence condition 20.2	Electricity Industry Act section 12	A licensee must amend the asset management system before an expansion or reduction in generating works, distribution systems and transmission systems and notify the Authority in the manner prescribed, if the expansion or reduction is not provided for in the asset management system.	No expansions or reductions have occurred.
104	Integrated Regional Licence condition 20.3	Integrated Regional Licence condition 20.3	A licensee must not expand the generating works, distribution systems or transmission systems outside the licence area	No expansions or reductions have occurred.
106	Electricity Industry Act section 11	Integrated Regional Licence condition 22.4	A licensee must comply with any individual performance standards prescribed by the Authority	No individual performance standards have been prescribed other those included in this audit.
109	Electricity Industry Act section 11	Integrated Regional Licence condition 25.1	A licensee must report to the Authority in the manner prescribed if a licensee is under external administration or there is a significant	The licensee has not been under external administration, nor has there been a significant change to financial or technical circumstances that could affect its ability to

			change in the circumstances upon which the licence was granted which may affect a licensee's ability to meet its obligations	meet the licence obligations.
111	Electricity Industry Act section 11	Integrated Regional Licence condition 27.2	A licensee must publish any information it is directed by the Authority to publish within the timeframe specified	The licensee has not been directed to publish any information by the authority.
300	Integrated Regional 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	No Code participants were associates during the audit period. (There are no <i>covered services</i> in the East Kimberley Power System).
301	Integrated Regional 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	No code participants are associates.
304	Integrated Regional 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.	There are no interval meters in the network.
305	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 3.3(3)	If a metering installation is required to include a communication link, the link must (where necessary) include a modem and isolation device approved under the relevant	There is no requirement to have a communications link.

			telecommunication regulations to allow the interval energy data to be downloaded in the manner prescribed	
309	Integrated Regional 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	No charges relating to providing, installing, operating or metering installations have been imposed by the licensee.
311	Integrated Regional 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.	There are no devices connected to the telecommunications network.
334	Integrated Regional 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	Enhanced technology features in the metering stations have not been requested.
335	Integrated Regional 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	Enhanced technology features in the metering stations have not been requested, therefore related charges have not been imposed.

337	Integrated Regional 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	No enhanced features are provided on any of the meters.
338	Integrated Regional Licence condition 5.1	Integrated Regional Licence condition 5.1	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 being installed and be able to program the devices and set parameters	No enhanced features are provided on any of the meters.
339	Integrated Regional 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 customers use, a network operator must ensure that signals are isolated by relays or electronic buffers to prevent accidental or malicious damage to the meter	No signals are provided to any customers.
340	Integrated Regional 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 customers with sufficient details of the signal specification to enable compliance with clause 3.23(c) of the Code.	No signals are provided to any customers.

349	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 4.4(1)	A network operator and affected Code participants must liaise together to determine the most appropriate way to resolve a discrepancy between energy data held in a metering installation and data held in the metering database	No such discrepancies have occurred.
350	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 4.5(1)	A Code participant must not knowingly permit the registry to be materially inaccurate	No such discrepancies have occurred.
352	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 4.6(1)	If a 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 then the network operator must update the registry	No such notice has been received.
353	Integrated Regional 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 on 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 practise to determine whether the registry should be updated and update the registry as required	No such notice has been received.

354	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 4.7	A network operator must notify any affected user for a metering point of the updated standing data within the timeframes prescribed where that user would otherwise be entitled to the updated standing data	Such an event has not occurred.
360	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.1(2)	A network operator must expeditiously and diligently process all requests for a service level agreement and negotiate its terms in good faith. A network operator must to the extent reasonably practicable in accordance with good electricity industry practise, permit a Code participant to acquire a metering service which the Code participant wishes to acquire.	No such requests have been received. No service level agreements exist in the network.
368	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.8	A network operator must provide a user with whatever information the network operator has that is necessary to enable the user to comply with its obligations under the Code of Conduct within the time necessary for the user to comply with the obligations	No such requests have been received.
369	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.9	A network operator must provide standing data, provided to or obtained by it under this Code, to users where required to do so under any enactment	No such requests have been received.

383	Integrated Regional 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	No such requests have been received.
387	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.20(4)	If a code participant requests verification of energy data, a network operator must, in accordance with the metrology procedure, use reasonable endeavours to verify energy data and inform the requesting Code participant of the results of the verification and provide the verified energy data within the time frames prescribed.	No such requests have been received.
388	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.21(2)	A network operator must comply with any reasonable request by a Code participant to undertake either a test or an audit of the accuracy of the metering installation or the energy or standing data of the metering installation	No such requests have been received.
392	Integrated Regional 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	No charges for testing or auditing of meters have been imposed.

393	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.21(9)	Any written service level agreement in respect of the testing of metering installations or the auditing of information from the meters associated with the metering installations must include a provision that no charge is to be imposed if the test or audit reveals a non-compliance with this Code which results in energy data errors in the network operator's favour.	No service level agreements exist in the network.  No charges for testing or auditing of meters have been imposed.
402	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.23(1)	A network operator that determines that there is no possibility of determining an actual value for a metering point must designate an estimate or substituted value for the metering point to be a deemed actual value for the metering point.	There has not been an incident where both main and check meters were malfunctioning simultaneously.
405	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.24(1)	A network operator that uses a deemed actual value (first value) for energy data for a metering point and a better quality actual or deemed actual value is available (second value) must replace them with the second value if doing so would be consistent with good electricity industry practise	"Deemed actual" values are not used.
406	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause	A network operator that uses an estimated or substituted value (first value) for energy data for a metering point, and a better quality	"Estimated actual" values are not used.

		5.24(3)	actual, deemed, estimate or substituted value is available (second value), must replace the first value with the second value if doing so would be consistent with good electricity industry practise or the user and its customer jointly request it to do so.	
407	Integrated Regional 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	No such requests have been received.
408	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 5.29	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	"Estimated actual" values are not used.
417	Integrated Regional 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	No final findings have been received from the authority.
424	Integrated Regional 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	No such disputes have occurred.

			dispute under or in connection with the Electricity Industry Metering Code by negotiations in good faith	
425	Integrated Regional 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	No such disputes have occurred.
426	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 8.1(3)	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	No such disputes have occurred.
427	Integrated Regional Licence condition 5.1	Electricity Industry Metering Code clause 8.1(2)	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	No such disputes have occurred.
428	Integrated Regional	Electricity Industry Metering Code clause	The disputing parties must at all times conduct themselves in a manner which is directed	No such disputes have occurred.

	Licence condition 5.1	8.3(2)	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	
429	Integrated Regional 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.	No power quality complaints have been received.
430	Integrated Regional 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	Such a situation has not occurred.
437	Integrated Regional Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply) Code 2005 clause 13(3)	A distributor or transmitter must, on request, provide to an affected customer a free copy of an instrument issued by the Minister and of any notice given under section 14(7) of the Electricity Industry (Network Quality and Reliability of Supply) Code 2005	No such request has been received.
438	Integrated Regional Licence condition 5.1	Electricity Industry (Network Quality and Reliability of Supply)	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	No such agreement has been made.

		Code 2005 clause 15(2)	their agreement.	
446	Integrated Regional 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.	No such request has been received.
447	Integrated Regional 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	No such request has been received.



## Appendix B Performance Audit Results

## Appendix B: Performance Audit Work Sheet

Obligation No.	Description	Adequacy of existing controls (S=strong, M=moderate, W=weak)	Audit Priority (1=highest, 5=lowest)	Verification / Tests	Compliance Rating	Effectiveness	Corrective Actions	Responsible person	Target date
81	A License must, not less than once every 24 months, provide the Authority with a performance audit conducted by an independent expert acceptable to the Authority	S	5	Report sighted - timely submission	5		Nil		
82	A licence must provide for an asset management system.	W	3	Audit report of asset management system	5		Contained in the ARMS Reliability Engineers audit report	George Glab	31/12/2008
83	A licensee must notify details of the asset management system and any substantial changes to it to the Authority	W	3	Details of the AMS reported to the Authority prior to issuance of License - on issues raised	5		Nil		
84	A licensee must provide the Authority with a report by an independent expert as to the effectiveness of its asset management system every 24 months, or such longer period as determined by the Authority.	M	2	Audit report of asset management system - issuance date to the Authority not yet due	5		Nil		
85	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.	S	5	Receipts for each payment	5		Nil		
86	A licensee must take reasonable steps to minimise the extent duration of any interruption, suspension or restriction of the supply of electricity due to an accident, emergency, potential danger or other unavoidable cause.	M	2	Procedures detailed in PPA's Operational logs	5		Nil		
87	A licensee must pay the costs of taking an interest in land or an easement over land	M	5	No interests taken land or easements during the audit period	N/A		Nil		
92	Electricity Networks Corporation and Regional Power Corporation must implement arrangements set out in an approved extension and expansion policy	M	2	No extensions or expansions occurred during the audit period	N/A		Nil		

103	A licensee must amend the asset management system before an expansion or reduction in generating works, distribution systems and transmission systems and notify the Authority in the manner prescribed, if the expansion or reduction is not provided for in the asset management system.	M	2	No extensions or expansions occurred during the audit period	N/A		Nil		
104	A licensee must not expand the generating works, distribution systems or transmission systems outside the licence area	S	5	No extensions or expansions occurred during the audit period	N/A		Nil		
105	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	S	2	Audit results of KPMG	5		Nil		
106	A licensee must comply with any individual performance standards prescribed by the Authority	M	2	No Individual performance standards prescribed by the Authority	N/A		Nil		
107	A licensee must comply and require its auditor to comply with the Authority's standards audit guidelines dealing with performance audit	W	3	Audit Plans approved by the Authority	5		Nil		
108	A licensee must comply, and must require the licensee's expert to comply, with the relevant aspects of the Authority's standard guidelines dealing with the asset management system	W	3	Statements of compliance in auditors report	5		Nil		
109	A licensee must report to the Authority in the manner prescribed if a licensee is under external administration or there is a significant change in the circumstances upon which the licence was granted which may affect a licensee's ability to meet its obligations	W	3	reporting condition did not occur during the Audit Period	N/A		Nil		
110	A licensee must provide the Authority in the manner prescribed any information the Authority requires in connection with its function under the Electricity Industry Act	W	5	Annual report Audit reports	5		Nil		
111	A licensee must publish any information it is directed by the Authority to publish within the timeframe specified	W	5	Audit reports Annual reports Authority web site	N/A		Nil		
112	Unless otherwise specified all notices must be in writing	W	5	N/A	N/A		Nil		

300	A network operator must treat all Code participants that are its associates on an arms-length basis	S	2	No Code participants were associates during the audit period	N/A		Nil		
301	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	S	2	No Code participants were associates during the audit period	N/A		Nil		
302	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.	M	2	Grandfathered condition	N/A		Nil		
303	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 accumulated electricity production or consumption at the meeting point in the manner prescribed.	W	3	All revenue meters confirmed to have a display of accumulated electricity consumption	5		Nil		
304	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	W	3	N/A - No interval meters installed	N/A		Nil		
305	If a metering installation is required to include a communication link, the link must (where necessary) include a modem and isolation device approved under the relevant telecommunication regulations to allow the interval energy data to be downloaded in the manner prescribed	W	3	N/A - No communications links required	N/A		Nil		
306	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 requirement prescribed	S	5	Schematic diagrams site inspections	5		Nil		
307	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).	S	5	PPA's, Meter maintenance records	2	Meters removed and repaired when registers noticed defective	All metering installations to be maintained and checked for calibration in accordance with PPA requirements	Brian Walter	30/06/2009

308	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 practise	W	3	Schematic diagrams Site inspections	5	Nil		
309	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	W	5	No Charges were imposed for this service during the audit period	N/A	Nil		
310	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 to be corrected as soon as practicable	W	5	Billing records; Customer invoices; meter repair records	5	Nil		
311	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.	W	5	No metering devices detected connected to a telecommunications network	N/A	Nil		
312	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 practise, hinder unauthorized access and enable unauthorized access to be detected	W	5	site inspections	5	All metering equipment either sealed or in secured location removed from third parties	Nil	
313	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	W	5	Grandfathered condition	N/A	Nil		
314	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 Type 3 metering installation for active energy only	M	4	N/A - all customers consume more than 750MWhr pa	N/A	Nil		
315	If compensation is carried out within the meter then the resultant metering system error must be as close as practicable to zero	S	5	Meter calibration records	5	Nil		
316	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 specifications or guidelines specified by the National Measurement Institute under the National Measurement Act.	W	1	Meter calibration records	5	Nil		

317	A network operator must ensure that a metering installation on its network permits collection of data within the timeframes and to the level of availability specified	W	1	Site inspections; meter readings		All revenue meters permit the ready collection of accumulated electricity consumption; Meters read as close as practicable to 08:00 on first Monday of the month; 5 No interval readings required	Nil		
318	A network operator must make repairs to the metering installation in accordance with the applicable service level agreement if an outage or malfunction occurs to a metering installation	M	5	Records of meter repairs; billing records; meter reading records	5		Nil		
319	A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable	M	5	N/A - Not part of the SWIS	N/A		Nil		
320	A network operator must ensure that each metering installation complies with, at least, the prescribed design requirements	M	5	PPA's	5		Nil		
321	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	W	3	As installed records of all metering installations	5		Nil		
322	A network must provide isolation facilities to the standard of good electricity industry practise to facilitate testing and calibration of the metering installation	S	4	Site visits	5	Meter test blocks installed at all metering installations	Nil		
323	A network operator must maintain drawings and supporting information to the standard of good electricity industry practise, detailing the metering installation for maintenance and auditing purposes	M	5	Meter installation records	5		Nil		
324	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.	W	5	Site inspections	4	All check meters installed, read and maintained by Ord Hydro	Nil		
325	A partial check metering installation must be physically arranged in a manner determined by the network operator, acting in accordance with good electricity industry practise	M	5	N/A - Not part of the SWIS	N/A		Nil		

326	A check metering installation for a metering point must not exceed twice the error level permitted under clause 3.9 for the revenue metering installation for the metering point, and must be connected in such a way that it measures the same load conditions as the revenue metering installation for the metering point and must be otherwise consistent with the prescribed requirements	W	5	Meter calibration records		5	Check meter errors consistent with revenue meters	Nil		
327	If, under clause 3.14(2) of the Code, a metering installation uses metering class CT's and VT's that do not comply with the prescribed requirements, then the network operator must either (or both) install meters of higher class accuracy or apply accuracy calibration factors within the meter in order to achieve the overall accuracy requirements prescribed	W	5	N/A	N/A		All CT's and VT's comply with error requirements	Nil		
334	A network operator must, if reasonably requested by a Code participant, provide enhanced technology features in a metering installation	W	5	Condition has not occurred during the audit period - Nil to report	N/A			Nil		
335	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	W	5	Condition has not occurred during the audit period - Nil to report	N/A			Nil		
336	Meters containing an internal real time clock must maintain time accuracy as prescribed. Time drift must be measured over a period of 1 month	W	5	No revenue meters contain real time clocks - Nil to report	N/A			Nil		
337	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	W	5	Condition has not occurred during the audit period - Nil to report	N/A			Nil		
338	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 being installed and be able to program the devices and set parameters	W	5	Condition has not occurred during the audit period - Nil to report	N/A			Nil		
339	Where signals are provided from the meter for the user or the user's customers use, a network operator must ensure that signals are isolated by relays or electronic buffers to prevent accidental or malicious damage to the meter	W	5	Condition has not occurred - Nil to report	N/A			Nil		

340	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 customers with sufficient details of the signal specification to enable compliance with clause 3.23(c) of the Code.	W	5	Condition has not occurred - Nil to report	N/A		Nil		
343	A network operator <b>MAY</b> publish a list of registered metering installation providers, including the prescribed details and at least annually update the list	W	3	N/A Not in the SWIS; Isolated network	N/A		Nil		
344	A network operator must establish, maintain and administer a metering database containing standing data and energy data for each metering point on its network	W	3	N/A Not in the SWIS; Isolated network	N/A		Nil		
345	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 unauthorized access and enable unauthorized access to be detected.	M	5	Revenue data base; Meter reading Data; IT policy	3		IT policy and practice developed to hinder and detect unauthorised access with in the next 6 months	Daniel Hayward	30/06/2009
346	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 disaster to rebuild the metering databases and provide energy data to Code participants.	W	3	Data backed up daily (min) from server	5		Nil		
348	The standing data for a metering point must comprise at least the items specified.	W	5	Grandfathered clause	N/A		Nil		
349	A network operator and affected Code participants must liaise together to determine the most appropriate way to resolve a discrepancy between energy data held in a metering installation and data held in the metering database	M	5	Condition has not occurred during the audit period - Nil to report	N/A		Nil		
350	A Code participant must not knowingly permit the registry to be materially inaccurate	M	5	Condition has not occurred during the audit period - Nil to report	N/A		Nil		
352	If a 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 then the network operator must update the registry	W	5	N/A - No standing data - grandfathered condition	N/A		Nil		

353	If a network operator is notified of a change to or inaccuracy in an item on 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 practise to determine whether the registry should be updated and update the registry as required	W	5	N/A - No standing data - grandfathered condition	N/A		Nil		
354	A network operator must notify any affected user for a metering point of the updated standing data within the timeframes prescribed where that user would otherwise be entitled to the updated standing data	M	5	N/A - No standing data - grandfathered condition	N/A		Nil		
356	A network operator must have security devices and methods in place that ensure that energy data held in its metering installation and data held in its metering database is secured from unauthorized local or remote access in the manner prescribed, sufficient to the standard of good electricity industry practise	W	3	Revenue data base; Meter reading Data; IT policy	5	Computer is password protected; Genesis is protected; Office is secure; One person office; No remote access	Nil		
357	A network operator must ensure that electronic passwords and other electronic security controls are secured from unauthorized access and are only issued to authorized personnel	M	5	IT policy	3	No evidence of security of passwords or password issuance policy	IT policy and practice to be developed relating to the issuance and security of passwords, with in the next 6 months	Daniel Hayward	30/06/2009
358	A network operator must retain energy data in its metering database for each metering point on its network for at least the periods and with the level of accessibility prescribed	M	5	Metering data base; Billing records	5	Records held for full period of the audit	Nil		
359	A network operator must use all reasonable endeavours to accommodate another Code participant's requirements to obtain a metering service and requirements in connection with the negotiation of a service level agreement	W	5	N/A - Not part of the SWIS; Isolated network	N/A		Nil		
360	A network operator must expeditiously and diligently process all requests for a service level agreement and negotiate its terms in good faith. A network operator must to the extent reasonably practicable in accordance with good electricity industry practise, permit a Code participant to acquire a metering service which the Code participant wishes to acquire.	W	5	Condition has not occurred during the audit period: Not a covered network	N/A		Nil		

361	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 within the timeframes prescribed	M	2	Meter readings Billing records		All revenue meters permit the ready collection of accumulated electricity consumption; Meters read as close as practicable to 08:00 on first Monday of the month; No interval readings required	Nil		
362	A network operator must for each accumulation meter on its network use reasonable endeavours to undertake a meter reading that provides an actual value at least once in any month	M	4	Meter readings Billing records		All revenue meters permit the ready collection of accumulated electricity consumption; Meters read as close as practicable to 08:00 on first Monday of the	Nil		
368	A network operator must provide a user with whatever information the network operator has that is necessary to enable the user to comply with its obligations under the Code of Conduct within the time necessary for the user to comply with the obligations	W	3	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
369	A network operator must provide standing data, provided to or obtained by it under this Code, to users where required to do so under any enactment	W	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
383	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	W	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
385	A network operator must, within 6 months from the date this code applies to the network operator, develop in accordance with the communication rules, an energy data verification request form	W	3	N/A Not in the SWIS; Isolated network	N/A		Nil		
386	An Energy Data Verification Request Form must require a Code participant to provide the information prescribed	W	3	N/A Not in the SWIS; Isolated network	N/A		Nil		
387	If a code participant requests verification of energy data, a network operator must, in accordance with the metrology procedure, use reasonable endeavours to verify energy data and inform the requesting Code participant of the results of the verification and provide the verified energy data with in the time frames prescribed.	W	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
388	A network operator must comply with any reasonable request by a Code participant to undertake either a test or an audit of the accuracy of the metering installation or the energy or standing data of the metering installation	W	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		

389	A test or audit is to be conducted in accordance with the metrology procedure and the applicable service level agreement	W	3	Metrology procedures defined in PPA's	2	All metering installations to be maintained and checked for calibration in accordance with PPA requirements	Brian Walter	30/06/2009
392	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	W	3	Condition/request has not occurred during the audit period - Nil to report	N/A	Nil		
393	Any written service level agreement in respect of the testing of metering installations or the auditing of information from the meters associated with the metering installations must include a provision that no charge is to be imposed if the test or audit reveals a non-compliance with this Code which results in energy data errors in the network operator's favour.	W	5	Condition/request has not occurred during the audit period - Nil to report	N/A	Nil		
394	A network operator must advise the affected parties as soon as practicable of errors detected under a test or audit. The possible duration of errors and must restore the accuracy of the metering installation in accordance with the applicable service level agreement	w	5	Billing records; Customer invoices; meter repair records	4	Nil		
395	The original stored error correction data in a meter must not be altered except during accuracy testing and calibration of metering installation	W	3	Billing records; Customer invoices; meter repair records	5	Nil		
396	A network operator must validate energy data in accordance with this Code applying as a minimum the prescribed rules and procedures and must where necessary, substitute and estimate energy data under this Code applying as a minimum the prescribed rules and procedures	W	3	Billing records; Customer invoices; meter repair records	5	Nil		
397	The network operator must use check metering data were available to validate energy data provided that the check metering data had been appropriately adjusted for differences in metering installation accuracy	M	5	Billing records; Customer invoices; meter repair records	5	Nil		
398	A network operator must prepare substitute values using the prescribed method if a check meter is not available or energy data cannot be recovered from the metering installation within the time required	M	4	Billing records; Customer invoices.	5	Nil		
399	A network operator that detects a loss of energy data or incorrect energy data from a metering installation must notify each affected Code participant of the loss or error within 24 hours after detection	W	5	Billing records; Customer invoices.	5	Nil		

400	Substitution or estimation of energy data is to be required when energy data is missing, unavailable or corrupted including the circumstances described	M	5	Billing records; Customer invoices.	5	Nil		
401	A network operator must review all validation failures before undertaking any substitution	W	3	Billing records; Customer invoices.	5	Nil		
402	A network operator that determines that there is no possibility of determining an actual value for a metering point must designate an estimate or substituted value for the metering point to be a deemed actual value for the metering point.	W	5	Condition/request has not occurred during the audit period - Nil to report	N/A	Nil		
403	A network operator that has designated a deemed actual value for a metering point must repair or replace the meter or one or more of components of metering equipment (as appropriate) at the metering point.	W	5	Billing records; Customer invoices; meter repair records	5	Nil		
404	A network operator that 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) must replace the first value with the second value if doing so would be consistent with good electricity industry practise	W	3	Meter readings Billing records; Meter readings; Records of meter repairs.	5	Nil		
405	A network operator that uses a deemed actual value (first value) for energy data for a metering point and a better quality actual or deemed actual value is available (second value) must replace them with the second value if doing so would be consistent with good electricity industry practise	W	3	Condition/request has not occurred during the audit period - Nil to report	N/A	Nil		
406	A network operator that uses an estimated or substituted value (first value) for energy data for a metering point, and a better quality actual, deemed, estimate or substituted value is available (second value), must replace the first value with the second value if doing so would be consistent with good electricity industry practise or the user and its customer jointly request it to do so.	W	3	Condition/request has not occurred during the audit period - Nil to report	N/A	Nil		
407	A network operator (acting in accordance with good electricity industry practise) must consider any reasonable request from a Code participant for an estimated or substituted value to be replaced	W	3	Condition/request has not occurred during the audit period - Nil to report	N/A	Nil		

408	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	W	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
415	A network operator must, in relation to its network, comply with the agreements, rules, procedures, criteria and processes prescribed.	W	5	PPA's; Audit reports	5		Nil		
417	A network operator must amend any document in accordance with the Authority's final findings	W	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
418	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 a voice communication in connection with the Code	W	5	N/A Not in the SWIS; Isolated network	N/A		Nil		
419	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	M	5	PPA's	5		Nil		
424	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 negotiations in good faith	S	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
425	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	S	4	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
426	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	S	4	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
427	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	S	4	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		

428	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	S	4	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
429	A distributor or transmitter must, as far as reasonably practicable, ensure that electricity supply to a customer's electrical installations complies with prescribed standards.	W	1	Single line diagrams Site inspections	1	No Quatity of Supply (QOS) meters installed; No Quatity of Supply (QOS) complaints received	Quality of Supply (QOS) meters to be installed at a convenient location, within 12 months	Brian Walter	30/11/2009
430	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	S	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
431	A distributor or transmitter must, as far as reasonably practicable, ensure that electricity supply of electricity is maintained and the occurrence and duration of the interruptions is kept to a minimum	M	2	Audit of SCADA records; PPA's reliability requirements; Correspondence to customers regarding outages	5		Nil		
433	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	W	1	PPA's	5		Nil		
432	A distributor or transmitter must, as far as reasonably practicable, reduce the effect of any interruption on a customer	M	2	PPA's	5		Nil		
435	A distributor or transmitter must, as far as reasonably practicable, ensure that customers in specified areas do not have average total lengths of interruptions of supply greater than specified durations	W	1	PPA's	5		Nil		
436	The average total length of interruptions of supply is to be calculated using the specified method	W	1	PPA's	5		Nil		

437	A distributor or transmitter must, on request, provide to an affected customer a free copy of an instrument issued by the Minister and of any notice given under section 14(7) of the Electricity Industry (Network Quality and Reliability of Supply) Code 2005	W	3	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
438	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.	S	5	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
444	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	M	2	Inspections of SCADA system, operations room security, standby arrangements	5		Nil		
445	A distributor or transmitter must keep records of information regarding its compliance with specific requirements for the period specified.	W	1	Performance Audit report; AMP audit report Receipts of payments made	5		Nil		
446	A distributor or transmitter must complete a quality investigation requested by a customer in accordance with specified requirements.	W	3	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
447	A distributor or transmitter must report the results of an investigation to the customer concerned	W	3	Condition/request has not occurred during the audit period - Nil to report	N/A		Nil		
450	A distributor or transmitter must arrange for an 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.	M	4	Performance report as required by section 26 of the Electricity Industry (Network Quality and Reliability) Code 2005	4	Report was submitted late; Exemption subsequently granted for the requirement to prepare and submit such report	Nil		

451	A distributor or transmitter must prepare and publish a report about its performance in accordance with specified requirements.	M	4	Performance report as required by section 26 of the Electricity Industry (Network Quality and Reliability) Code 2006	4	Report was submitted late; Exemption subsequently granted for the requirement to prepare and submit such report	Nil		
452	A distributor or transmitter must give a copy of its report about its performance to the Minister and the Authority within the specified period	M	5	Performance report as required by section 26 of the Electricity Industry (Network Quality and Reliability) Code 2006	4	Report was submitted late; Exemption subsequently granted for the requirement to prepare and submit such report	Nil		



## **Appendix C Contributors and Personnel Interviewed in the Conduct of the Audit**

The following personnel from PHL and the OHP were directly involved in the conduct of this audit. They were either interviewed directly or contributed to the information that was assessed in arriving at the audit findings.

Nigel Baker	Executive Manager, Global Operations
Kate Summers	Regulatory compliance manager
John D'Rozario	Accountant, Operations
Chris Gordon	Finance administration officer
Liz Miles	HR Officer
Jamie Rhine	Network support engineer
Tim Novice	Desktop support engineer
Mike Donovan	Assistant Ord Hydro Manager
Brian Walter	Ord Hydro Manager
Darren Sexton	Manager, Operations
George Glab	Senior operations engineer
Daniel Hayward	Global IT Manager