



Audit Report for the Performance Audit of the Ord Hydro Integrated Regional License Conditions



Final Rev A
October 2011



The Asset Partnership Pty Ltd
Suite 1, 2 Culdees Road
Burwood NSW 2136
Australia
Email: mail@assetpartnership.com
www.assetpartnership.com

Table of Contents

1	Executive Summary.....	4
2	Statement of Independence	6
3	Limitations Statement.....	7
4	Scope of the Audit.....	9
4.1	<i>Audit Objectives</i>	9
4.2	<i>Audit Methodology</i>	9
4.3	<i>Audit Participants</i>	10
5	Actions from the Previous Audit.....	11
6	Performance Summary	12
7	Observations	30
8	Recommendations	49
9	Changes to the Licence	50
	Appendix A. Statement of Non-occurrence from Pacific Hydro	51
	Appendix B. Post-audit Implementation Plan	62

Document History

Revision	Date Issued	Reviewed By	Approved By	Date Approved
1 st Draft	10/8/2011	Darren Sexton	Darren Sexton	30/8/2011
2 nd Draft	1/9/2011	Darren Sexton	Darren Sexton	1/9/2011
Final	4/10/2011	Shirin Renaud	Darren Sexton	13/10/2011
Final Rev A	14/10/2011			

Distribution of Copies

Revision	No. of Copies	Issued to
1 st Draft	1 electronic	Darren Sexton
2 nd Draft	1 electronic	Darren Sexton
Final	1 electronic	Darren Sexton
Final Rev A	1 electronic	Darren Sexton

1 Executive Summary

Under section 13 of the Electricity Industry Act 2004 (WA) and as a condition of its current Integrated Regional License (EIRL4), Pacific Hydro appointed The Asset Partnership to conduct an independent Performance Audit. The primary purpose of this audit is to ensure Ord Hydro is demonstrating a sufficient level of compliance with the conditions within its Integrated Regional Licence.

The Ord Hydro, operating under the management of Pacific Hydro, operates a 30 MW hydro electric power station located in the Kimberley Region of Western Australia. Ord Hydro supplies power to two primary customers, Argyle Diamond Mine and Horizon Power. Horizon Power then retails power to the township of Kununurra.

The previous Performance Audit, dated 16 December 2008, resulted in a twelve month extension to the standard two yearly requirement for such audits. There have been no major changes to the business since the previous audit.

Following approval by the Economic Regulation Authority on 18th May 2011 to conduct the Performance Audit, The Asset Partnership developed an audit plan in accordance with the Audit Guidelines¹. This plan, approved by the Authority in July 2011, was then carried out in August 2011 in accordance with the Audit Guidelines.

During the audit it was identified that there were some obligations that were not applicable, i.e. the compliance obligation does not apply to the licensee's business operations. The reasons for the "not applicable" determination for these obligations are noted in section 8 of this report. Similarly there were obligations that were not rated as a result of no activity having taken place during the audit period relevant to the obligation. These are also noted in the section 8 with a Statement of Non-Occurrence from Pacific Hydro in Appendix A.

As a result of the Performance Audit there is one recommendation summarised in Table 1 below:

¹ Audit Guidelines: Electricity, Gas and Water Licences, dated August 2010

Licence Condition Reference	Issue	Recommendation	Post Audit Action Plan
103. A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	Significant improvements have been made to the asset management system over the last couple of years. Pacific Hydro's Asset Management Framework and Codes have been developed along with many supporting procedures. No evidence was found of notification of these changes to the Authority	Formally provide the Authority with the details of the improvements to Pacific Hydro's Asset Management System	Write letter to ERA outlining improvements to the Asset Management System over past 3 years

Table 1 – Summary of Recommendations

Overall Ord Hydro demonstrated minimal non-compliance with its licence conditions with only one recommendation resulting from the audit. It is The Asset Partnership's opinion that Ord Hydro is currently being managed responsibly in relation to the compliance with its licence conditions.

2 Statement of Independence

Pacific Hydro and Ord Hydro cooperated fully with all questions asked of them during this Performance Audit. The Asset Partnership has acted independently and exercised professional and engineering judgement while undertaking the audit. Professional scepticism was exercised at all times during the audit and evidence was gathered as appropriate in accordance with the Audit Guidelines: Electricity, Gas and Water Licences 2010.

3 Limitations Statement

The Asset Partnership has undertaken this audit and prepared this report in alignment with the requirements set out by the Economic Regulation Authority and based on the information presented by Pacific Hydro and Ord Hydro. This report accurately represents the evidence provided during the review. While the audit sort evidence regarding compliance with licence conditions, it was not the intention of the audit to validate the accuracy of any data provided. As such, The Asset Partnership shall not be held liable for loss or damage to third parties due to reliance on the information contained in this report.

4 Definitions

For the purpose of this audit report:

“ADM” means Argyle Diamond Mine

“Comms” means communications

“CT” means Current Transformer

“OSY” means Ord Switch Yard

“PPA” means Power Purchase Agreement

“VT” means Voltage Transformer

5 Scope of the Audit

5.1 Audit Objectives

Under section 13 of the Electricity Industry Act 2004 (WA) and as a condition of its current Integrated Regional License, Pacific Hydro must provide the Authority with a performance audit within 24 months after the commencement date, and every 24 months thereafter.

The Asset Partnership was engaged to conduct the independent audit for the period between the 1st July 2008 and the 30th June 2011. An Audit Plan dated July 2011 was developed in accordance with the Audit Guidelines: Electricity, Gas and Water Licences August 2010.

The purpose of the Performance audit is to ensure the licensee is compliant with all relevant licence conditions. The conditions and obligations tested during the audit were derived from the Electricity Compliance Reporting Manual dated May 2011.

5.2 Audit Methodology

For each obligation/condition, the audit assessed Ord Hydro's compliance rating according to the scale described in Table 2 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

Table 2 – Operational Performance Compliance Rating Scale

Recommendations are required where a compliance rating of 1, 2 or 3 is given.

5.3 Audit Participants

The performance audit was conducted largely at Ord Hydro's Kununurra office over a two day period starting Tuesday 2nd August. Ord Hydro representatives present during the review were Darren Sexton (Executive Manager Operations, Australia) and Brian Walter (Ord Hydro Manager).

The Asset Partnership audit team consisted of Stephen Young and David Wiley. Both review team members were involved during the entire two day review.

Prior to the audit a list of documents were collected that were deemed relevant as evidence required for compliance rating. These documents are listed under each obligation in section 8 of this audit report.

6 Actions from the Previous Audit

There were three actions recommended during the previous audit to address identified non-conformances. These recommendations are listed in Table 3 below:

Ref Item No	Recommendation	Licensee Action	Documents/Evidence Gathered	Further Action Required
1	All revenue meter installations inclusive of check meters be verified for calibration accuracy within the next 6 months	All revenue and check meters have been tested	Calibration certificates	Nil
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	Areva quality of supply meters have been installed to each customer connection point	8 already installed, 2 to be commissioned. Monitored on-line through wireless connection. 1 sighted in the Kununurra switchyard	Nil
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.	IT password security policy has been implemented	IT Password Policy	Nil

Table 3 - Previous Audit Recommendations

It is The Asset Partnership's opinion that all recommendations have been responded to in the appropriate manner inline with the intentions of the previous auditor.

7 Performance Summary

Table 4 contains a summary of The Asset Partnership’s assessment of Ord Hydro’s compliance rating.

Obligation No.	Operating Area	Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk (low, medium, high)	Adequacy of existing controls (S=strong, M=moderate, W=weak)	Compliance Rating							
							1	2	3	4	5	N/A	N/R	
	Section 12 Electricity Act													
101.	A licensee must, not less than once every 24 months, provide the Authority with a performance audit conducted by an independent expert acceptable to the Authority.	Integrated Regional Licence condition 23.1	3	C	High	S						✓		
102.	A licensee must provide for an asset management system.	Integrated Regional Licence condition 24.1	3	C	High	S				✓				
103.	A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	Integrated Regional Licence condition 24.2	1	B	Low	S		✓						
104.	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.	Integrated Regional Licence condition 24.3	2	B	Medium	S					✓			
105.	A licensee must pay to the Authority the prescribed	Integrated Regional	2	C	Medium	M					✓			

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	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.	Licence condition 4.1																
106.	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.	Integrated Regional Licence condition 5.1	2	B	Medium	M					✓							
107.	A licensee must pay the costs of taking an interest in land or an easement over land.	Integrated Regional Licence condition 5.1	2	C	Medium	S					✓							
Section 13 Electricity Licences																		
119.	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.	Integrated Regional Licence condition 21	2	B	Medium	S					✓							
121.	A licensee must comply, and require its auditor to comply, with the Authority's standard audit guidelines dealing with the performance audit.	Integrated Regional Licence condition 23.2	1	B	Low	S					✓							
122.	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.	Integrated Regional Licence condition 24.4	1	B	Low	S					✓							
123.	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.	Integrated Regional Licence condition 25.1a	2	C	Medium	M												✓
124.	A licensee must provide the Authority, in the manner prescribed, any information the Authority requires in connection with its functions under the Electricity Industry Act.	Integrated Regional Licence condition 26.1	1	B	Low	M												✓
125.	A licensee must publish any information it is directed by	Integrated Regional	1	B	Low	M												✓

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	the Authority to publish, within the timeframes specified.	Licence condition 27.1																	
126.	Unless otherwise specified, all notices must be in writing.	Integrated Regional Licence condition 28.1	1	B	Low	S								✓					
Section 15 Electricity Industry Metering Code																			
330.	A network operator must treat all Code participants that are its associates on an arms-length basis.	Integrated Regional Licence condition 5.1	2	C	Medium	S													✓
331.	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.	Integrated Regional Licence condition 5.1	2	C	Medium	S													✓
332.	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.	Integrated Regional Licence condition 5.1	2	B	Medium	M								✓					
333.	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 metering point in the manner prescribed.	Integrated Regional Licence condition 5.1	1	B	Low	M								✓					
336.	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	Integrated Regional Licence condition 5.1	2	C	Medium	S								✓					

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	electricity industry practice, hinder unauthorized access and enable unauthorized access to be detected.													
376.	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.	Integrated Regional Licence condition 5.1	1	C	Low	S							✓	
377.	A network operator must ensure that its registry complies with the Code and the prescribed clause of the market rules.	Integrated Regional Licence condition 5.1	1	C	Low	M							✓	
379.	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.	Integrated Regional Licence condition 5.1	1	C	Low	M								✓
380.	A Code participant must not knowingly permit the registry to be materially inaccurate.	Integrated Regional Licence condition 5.1	1	C	Low	M								✓
382.	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.	Integrated Regional Licence condition 5.1	1	C	Low	M								✓
383.	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.	Integrated Regional Licence condition 5.1	1	C	Low	M								✓
386.	A network operator must have security devices and methods in place that ensure that energy data held in its	Integrated Regional	2	C	Medium	S							✓	

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

Section 16 Electricity Industry (Network Quality and Reliability of Supply) Code												
459.	A distributor or transmitter must, as far as reasonably practicable, ensure that electricity supply to a customer's electrical installations complies with prescribed standards.	Integrated Regional Licence condition 5.1	2	B	Medium	M					✓	
460.	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.	Integrated Regional Licence condition 5.1	1	C	Low	S						✓
461.	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.	Integrated Regional Licence condition 5.1	2	B	Medium	M				✓		
462.	A distributor or transmitter must, so far as reasonably practicable, reduce the effect of any interruption on a customer.	Integrated Regional Licence condition 5.1	1	B	Low	M				✓		
463.	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.	Integrated Regional Licence condition 5.1	2	C	Medium	M					✓	
465.	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.	Integrated Regional Licence condition 5.1	1	B	Low	M				✓		
466.	The average total length of interruptions of supply is to be calculated using the specified method.	Integrated Regional Licence condition 5.1	1	C	Low	S					✓	
467.	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.	Integrated Regional Licence condition 5.1	1	C	Low	M						✓

8 Observations

Observations for each review criteria are summarised in Table 5 below.

Obligation No.	Operating Area	Operating Licence Reference	Observations	Compliance Rating
Section 12 Electricity Act				
101.	A licensee must, not less than once every 24 months, provide the Authority with a performance audit conducted by an independent expert acceptable to the Authority.	Integrated Regional Licence condition 23.1	Performance Audit of the Ord Hydro Integrated Regional License Conditions by SKM dated 16th December 2008 sighted	5
102.	A licensee must provide for an asset management system.	Integrated Regional Licence condition 24.1	Pacific Hydro Asset Management Framework and Codes sighted. Very comprehensive high level framework for managing assets over their lifecycles	4
103.	A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	Integrated Regional Licence condition 24.2	Significant improvements have been made to the asset management system over the last couple of years. Pacific Hydro's Asset Management Framework and Codes have been developed along with many supporting procedures. No evidence was found of notification of these changes to the Authority	2
104.	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.	Integrated Regional Licence condition 24.3	Ord Hydro Asset Management System Review by ARMS dated December 2008 sighted	5
105.	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	Integrated Regional Licence condition 4.1	Payment notice sighted for licence fee	5

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	each anniversary of that day during the term of the licence.			
106.	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.	Integrated Regional Licence condition 5.1	Ord Hydro - Incidents.xls sighted which logs each interruption occurrence. ADM's maximum allowed unplanned interruption is 158 hours (6 occurrences) per year. The actual achieved for the year was less than 45 hours (4 occurrences).Sighted facsimile to customer notifying outage reason and duration	4
107.	A licensee must pay the costs of taking an interest in land or an easement over land.	Integrated Regional Licence condition 5.1	Easement payment dated 25/6/10 sighted	5
Section 13 Electricity Licences				
119.	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.	Integrated Regional Licence condition 21	Annual Report "PH2010 Annual Report 30.09.10.pdf" sighted which states that the audit was conducted in accordance with Australian Accounting Standards (and complies with international reporting standards). It also states that Pacific Hydro' financial report is in compliance with Australian accounting Standards	5
121.	A licensee must comply, and require its auditor to comply, with the Authority's standard audit guidelines dealing with the performance audit.	Integrated Regional Licence condition 23.2	ERA letter dated 18th May 2011 giving approval of auditor, and ERA letter sent 27th July 2011 giving approval of audit and review plan sighted	5
122.	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.	Integrated Regional Licence condition 24.4	Statement of compliance in auditor's report	5
123.	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.	Integrated Regional Licence condition 25.1a	Did not occur during audit period	N/R
124.	A licensee must provide the Authority, in the manner prescribed, any information the Authority requires in	Integrated Regional Licence condition 26.1	Did not occur during audit period	N/R

	connection with its functions under the Electricity Industry Act.			
125.	A licensee must publish any information it is directed by the Authority to publish, within the timeframes specified.	Integrated Regional Licence condition 27.1	Did not occur during audit period	N/R
126.	Unless otherwise specified, all notices must be in writing.	Integrated Regional Licence condition 28.1	Facsimile sighted notifying ADM of planned outage	5
Section 15 Electricity Industry Metering Code				
330.	A network operator must treat all Code participants that are its associates on an arms-length basis.	Integrated Regional Licence condition 5.1	No Code participants were associates during the audit period	N/R
331.	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.	Integrated Regional Licence condition 5.1	No Code participants were associates during the audit period	N/R
332.	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.	Integrated Regional Licence condition 5.1	Meter calibrations sighted ADM Main SEL 734P and KNX T1 Main SEL 734P dated Oct 2010	5
333.	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 metering point in the manner prescribed.	Integrated Regional Licence condition 5.1	All revenue meters have accumulation readouts and are manually read from the meter and entered into the Energy.xls spreadsheet on a monthly basis	5
336.	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	Integrated Regional Licence condition 5.1	Sighted a meter at the Kununurra switchyard and at the power station. Sighted Argyle Diamond Mine 132kV switchyard schematic showing the 11kV Supply Tariff Meters	5

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	metering installation must meet the functionality requirements prescribed.			
338.	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.	Integrated Regional Licence condition 5.1	Sighted schematic showing meters at the customer's switching (document 07-E-002)	5
339.	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.	Integrated Regional Licence condition 5.1	No additional charges were imposed during the audit period	N/R
340.	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.	Integrated Regional Licence condition 5.1	No non-compliant meters used during the audit period	N/R
341.	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.	Integrated Regional Licence condition 5.1	All equipment connected to comms has been supplied by Telstra and assumed to be compliant.	5
342.	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.	Integrated Regional Licence condition 5.1	Switchyard at Kununurra and Argyle Tourist Village was sighted with padlocked and barbed wire fencing.	4
343.	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.	Integrated Regional Licence condition 5.1	SEL-734 meters installed comply with Type 2 requirements	5
344.	For a metering installation used to supply a customer with requirements above 1000 volts that require a VT	Integrated Regional Licence condition 5.1	Both customer's consumption is over 750 MWh	N/A

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	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.			
345.	If compensation is carried out within the meter then the resultant metering system error must be as close as practicable to zero.	Integrated Regional Licence condition 5.1	SEL-734 meters do not provide the functionality for compensation	N/A
346.	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.	Integrated Regional Licence condition 5.1	Programming CT and VT ratios which would result in errors. Calibration records indicate minimal error.	5
347.	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.	Integrated Regional Licence condition 5.1	SCADA reads the meter every hour and the meter reading can be taken at any time	5
348.	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.	Integrated Regional Licence condition 5.1	No metering repairs undertaken within the audit period	N/R
349.	A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	Integrated Regional Licence condition 5.1	No malfunctions of metering installations occurred within the audit period	N/R
350.	A network operator must ensure that each metering installation complies with, at least, the prescribed design requirements.	Integrated Regional Licence condition 5.1	Metering design standards verified to meet minimum required specifications during the previous audit. Meter design has not been changed in the audit period.	N/R
351.	A network operator must ensure that instrument transformers in its metering installations comply with the relevant requirements of any applicable	Integrated Regional Licence condition 5.1	Metering design standards verified to meet minimum required specifications during the previous audit. Design has not changed within	N/R

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	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.		the audit period	
352.	A network operator must provide isolation facilities, to the standard of good electricity industry practice, to facilitate testing and calibration of the metering installation.	Integrated Regional Licence condition 5.1	Maintainers are able to short the CT and open the VT before metering is removed for testing	5
353.	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.	Integrated Regional Licence condition 5.1	Designs sighted. No changes made outside of documented drawings	5
354.	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.	Integrated Regional Licence condition 5.1	Check metering sighted at the Kununurra switchyard. Schematic shows Lake Argyle Village and ADM check meter	5
355.	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.	Integrated Regional Licence condition 5.1	No partial check metering installed	N/A
356.	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.	Integrated Regional Licence condition 5.1	Meter calibrations sighted. Accuracy well within the 1.5% requirement (typically less than 0.2%) which is also less than the PPA specified 0.5%	5
357.	If, under clause 3.14(2) of the Code, a metering installation uses metering class CTs and VTs that do not comply with the prescribed requirements, then the network operator must either (or both) install meters of a higher class accuracy or apply accuracy	Integrated Regional Licence condition 5.1	All CT's and VT's comply with error requirements as sighted in the calibration data and specifications (0.5 CT/VT for type 2)	5

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	calibration factors within the meter in order to achieve the overall accuracy requirements prescribed.			
358.	A network operator must ensure that a Type 1 metering installation to Type 5 metering installation on the network has the facilities and functionality prescribed.	Integrated Regional Licence condition 5.1	Type 1 metering used where type 2 would satisfy minimum functionality	5
360.	If a device is used as a data logger, the energy data for a metering point on the network must be collated in trading intervals within the metering installation unless it has been agreed between the network operator and the Code participant that energy data may be recorded in sub-multiples of a trading interval.	Integrated Regional Licence condition 5.1	Revenue meters are not being used as a data logger	N/A
361.	A network operator or a user may require the other to negotiate and enter into a written service level agreement in respect of the matters in the metrology procedure dealt with under clause 3.16(4) of the Code.	Integrated Regional Licence condition 5.1	PPAs are currently in place until 2021. No further service level agreement required	N/A
362.	A network operator may only impose a charge for the matters dealt with in the metrology procedure in accordance with the applicable service level agreement between it and the user.	Integrated Regional Licence condition 5.1	No charges imposed during the audit period	N/R
364.	A network operator must, if reasonably requested by a Code participant, provide enhanced technology features in a metering installation.	Integrated Regional Licence condition 5.1	No such requests made during the audit period	N/R
365.	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.	Integrated Regional Licence condition 5.1	No enhanced technology features requested during the audit period	N/R
367.	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.	Integrated Regional Licence condition 5.1	Meters not being used as a data logger	N/A

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

368.	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.	Integrated Regional Licence condition 5.1	No enhanced technology features requested during the audit period	N/R
369.	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.	Integrated Regional Licence condition 5.1	No signals provided during the audit period	N/R
370.	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.	Integrated Regional Licence condition 5.1	No signals provided during the audit period	N/R
371.	A network operator that operates and maintains a pre-payment meter on its network must operate and maintain the pre-payment meter in accordance with good electricity industry practice and, as far as reasonably practicable, minimise any departure from what the requirements of the Code would have been in respect of the pre-payment meter if clause 3.24 were deleted.	Integrated Regional Licence condition 5.1	No pre payment meters exist	N/A
372.	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.	Integrated Regional Licence condition 5.1	All installations have been carried out by Ord Hydro employees who are licensed electricians	5
373.	A network operator must publish a list of registered metering installation providers, including the prescribed details, and at least annually, update the list.	Integrated Regional Licence condition 5.1	All installations have been carried out by Ord Hydro employees who are licensed electricians. There are no small use customers	N/A
374.	A network operator must establish, maintain and administer a metering database containing standing data and energy data for each metering point on its	Integrated Regional Licence condition 5.1	Meter register sighted with all metering points	5

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	network.			
375.	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.	Integrated Regional Licence condition 5.1	Metering database is stored on the network which requires passwords to access as well as access to the building which has security measures in place	5
376.	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.	Integrated Regional Licence condition 5.1	Metering database spreadsheet is backed up daily and restorable within hours	4
377.	A network operator must ensure that its registry complies with the Code and the prescribed clause of the market rules.	Integrated Regional Licence condition 5.1	Metering register sighted and verified to comply with the code and requirements outlined in section 8.3.1 of the Electricity Industry Regulations 2004	4
379.	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.	Integrated Regional Licence condition 5.1	No such disputes during the audit period	N/R
380.	A Code participant must not knowingly permit the registry to be materially inaccurate.	Integrated Regional Licence condition 5.1	No such events during the audit period	N/R
382.	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.	Integrated Regional Licence condition 5.1	No such events during the audit period	N/R
383.	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,	Integrated Regional Licence condition 5.1	No such events during the audit period	N/R

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	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.			
386.	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 practice.	Integrated Regional Licence condition 5.1	Site visit to switchyard in Kununurra and OSY. Security fences with padlocks exist. IT security requires password to access the database and access to the building to access the computer	5
387.	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.	Integrated Regional Licence condition 5.1	Security passwords are not published or provided to other personnel	4
388.	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.	Integrated Regional Licence condition 5.1	Meter database records are retained from March 1995 as sighted in "ENERGY.xls" spreadsheet	5
389.	A network operator must use all reasonable endeavours to accommodate another Code participant's requirement to obtain a metering service and requirements in connection with the negotiation of a service level agreement.	Integrated Regional Licence condition 5.1	No such requirements during the audit period	N/R
390.	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 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.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
391.	A network operator must, for each metering point on its network, obtain energy data from the metering	Integrated Regional Licence condition 5.1	Meters are read at 8am on the first day of every month and transferred to ENERGY.xls	5

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	installation and transfer the energy data into its metering database within the timeframes prescribed.		spreadsheet that morning. This meets the timeframe required by the service level agreement	
392.	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 12 month period.	Integrated Regional Licence condition 5.1	Readings are taken monthly and transferred to the "ENERGY.xls" database	5
396.	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.	Integrated Regional Licence condition 5.1	On occasions when the meter was removed for testing the check meter data was used for data readings. No further substitutions/estimations were undertaken	N/R
397.	A network operator must provide replacement energy data to the user for the metering point and the IMO within the timeframes prescribed.	Integrated Regional Licence condition 5.1	No replacement data used during the audit period	N/R
399.	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.	Integrated Regional Licence condition 5.1	No requirement to provide standing data during the audit period	N/R
401.	If a transfer occurs at a connection point, a network operator must provide an incoming retailer with a copy of the standing data for each metering point associated with the connection point within the timeframes prescribed.	Integrated Regional Licence condition 5.1	No transfers occurred during the audit period	N/R
402.	If a network operator is given a request 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, a network operator must provide a user with a complete set of energy data for a metering point within the timeframes prescribed.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
403.	A network operator must provide a 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, if it is given a request in	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	accordance with the communication rules.			
404.	A network operator must acknowledge receipt of a bulk standing data request from a user and provide the requested standing data within the timeframes prescribed in accordance with the communication rules.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
405.	A network operator that provides energy data to a user or the IMO must also provide the date of the meter reading.	Integrated Regional Licence condition 5.1	Billing Records sighted include a date of and the period of the meter reading	5
416.	An Energy Data Verification Request Form must require a Code participant to provide the information prescribed.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
417.	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 result of the verification and provide the verified energy data within the timeframes prescribed.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
418.	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.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
419.	A test or audit is to be conducted in accordance with the metrology procedure and the applicable service level agreement.	Integrated Regional Licence condition 5.1	Meter calibrations sighted. PPAs specification of test procedures sighted. Procedure is being developed for the rotation of metering to satisfy the testing requirements	5
422.	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.	Integrated Regional Licence condition 5.1	No such events	N/R

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

423.	Any written service level agreement in respect of the testing of the 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.	Integrated Regional Licence condition 5.1	While not explicitly written, the wording in the PPAs imply that the user will not be charged if the meter reading is found to be inaccurate	4
424.	A 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 level agreement.	Integrated Regional Licence condition 5.1	No such events during the audit period	N/R
425.	The original stored error correction data in a meter must not be altered except during accuracy testing and calibration of a metering installation.	Integrated Regional Licence condition 5.1	Monthly Data Readings sighted show no evidence of error corrections	5
426.	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.	Integrated Regional Licence condition 5.1	Check meters are used to validate the revenue meters on a monthly basis then cross checked hourly on SCADA. The meters are then calibrated every 3 years as per PPA requirements. Calibration test records sighted	5
427.	The network operator must 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.	Integrated Regional Licence condition 5.1	The metering database contains check meter readings which are used to validate revenue meter readings. Metering database sighted	5
428.	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.	Integrated Regional Licence condition 5.1	No substitute values used without a check meter during the audit period	N/R
429.	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	Integrated Regional Licence condition 5.1	No loss of energy data during the audit period	N/R

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	or error within 24 hours after detection.			
430.	Substitution or estimation of energy data is to be required when energy data is missing, unavailable or corrupted, including in the circumstances described.	Integrated Regional Licence condition 5.1	No loss of energy data during the audit period	N/R
431.	A network operator must review all validation failures before undertaking any substitution.	Integrated Regional Licence condition 5.1	No validation failures during the audit period	N/R
432.	A network operator that determines that there is no possibility of determining an actual value for a metering point must designate an estimated or substituted value for the metering point to be a deemed actual value for the metering point.	Integrated Regional Licence condition 5.1	No loss of energy data during the audit period	N/R
433.	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.	Integrated Regional Licence condition 5.1	No loss of energy data during the audit period	N/R
434.	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 practice.	Integrated Regional Licence condition 5.1	No such replacements during the audit period	N/R
435.	A network operator that 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), must replace the first value with the second value if doing so would be consistent with good electricity industry practice.	Integrated Regional Licence condition 5.1	No such replacements during the audit period	N/R
436.	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, estimated or substituted value is available (second value), must replace the first value with the second value if doing so would be consistent with good	Integrated Regional Licence condition 5.1	No such replacements during the audit period	N/R

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	electricity industry practice or the user and its customer jointly request it to do so.			
437.	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.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
438.	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.	Integrated Regional Licence condition 5.1	No estimated data during the audit period	N/R
440.	If a network operator makes an election for the electricity networks corporation to be its metering data agent in relation to a network, then, except to the extent that the metering data agency agreement provides otherwise, the parties must undertake the activities prescribed.	Integrated Regional Licence condition 5.1	Ord Hydro does not have a meter data agent	N/A
443.	An 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.	Integrated Regional Licence condition 5.1	Ord Hydro does not have a meter data agent	N/A
444.	Except to the extent that the metering data agency agreement provides otherwise, the costs which may be recovered by the electricity networks corporation for acting as the network operator's metering data agent must not exceed the amounts prescribed.	Integrated Regional Licence condition 5.1	Ord Hydro does not have a meter data agent	N/A
445.	A network operator must, in relation to its network, comply with the agreements, rules, procedures, criteria and processes prescribed.	Integrated Regional Licence condition 5.1	PPAs sighted with compliance of a selected sample of requirements verified	5
448.	Code participants must use reasonable endeavours to	Integrated Regional	Emails from ADM (Adam Kouzens) and Horizon	4

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	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 with the Code.	Licence condition 5.1	Power (Colin Lee) sighted	
449.	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.	Integrated Regional Licence condition 5.1	No change of contact details during the audit period	N/R
452.	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.	Integrated Regional Licence condition 5.1	No disclosure of confidential information during the audit period	N/R
453.	A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.	Integrated Regional Licence condition 5.1	No such events	N/R
454.	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.	Integrated Regional Licence condition 5.1	No metering disputes occurred in the audit period	N/R
455.	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.	Integrated Regional Licence condition 5.1	No metering disputes occurred in the audit period	N/R
456.	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	Integrated Regional Licence condition 5.1	No metering disputes occurred in the audit period	N/R

	resolve the dispute by negotiations in good faith.			
457.	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.	Integrated Regional Licence condition 5.1	No Metering disputes occurred in the audit period	N/R
458.	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.	Integrated Regional Licence condition 5.1	No evidence of parties acting in a manner contrary to the requirement	4
Section 16 Electricity Industry (Network Quality and Reliability of Supply) Code				
459.	A distributor or transmitter must, as far as reasonably practicable, ensure that electricity supply to a customer's electrical installations complies with prescribed standards.	Integrated Regional Licence condition 5.1	Arevas (Quality of Supply Meters) have been installed various locations. No evidence of quality of supply complaints	5
460.	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.	Integrated Regional Licence condition 5.1	No such disconnections during the audit period	N/R
461.	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.	Integrated Regional Licence condition 5.1	ADM Reconciliation report dated July 2011 sighted which outlines the number and duration of outages as well within the PPA limits (44hours and 43 minutes achieved against 158 hours requirement in PPA). "Events_100702.xls" spreadsheet sighted containing SCADA events were inspected and compared against interruption facsimiles. Insignificant discrepancy was found.	4
462.	A distributor or transmitter must, so far as reasonably practicable, reduce the effect of any interruption on a	Integrated Regional Licence condition 5.1	As above the duration has been minimised and therefore the effect minimised on ADM. Planned	4

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	customer.		outage timings are developed in conjunction with ADM to minimise the effect of the outages.	
463.	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.	Integrated Regional Licence condition 5.1	PPAs require the customer to provide power via customer owned generators during outages	N/A
465.	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.	Integrated Regional Licence condition 5.1	ADM Reconciliation report dated July 2011 sighted which outlines the number and duration of outages as well within the PPA limits (44hours and 43 minutes achieved against 158 hours requirement in PPA). "Events_100702.xls" spreadsheet sighted containing SCADA events were inspected and compared against interruption facsimiles. Insignificant discrepancy was found.	4
466.	The average total length of interruptions of supply is to be calculated using the specified method.	Integrated Regional Licence condition 5.1	ADM PPA states the requirement is based on the total hour's interruption for a contract year as opposed to the average of the previous 4 financial years as stated in the Code. This PPA was developed and agreed between Ord Hydro and ADM. Similarly, Horizon Power PPA does not specify limits for interruption duration as per the Code.	N/A
467.	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.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
468.	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.	Integrated Regional Licence condition 5.1	No such exclusions or modifications during the audit period	N/R
474.	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	Integrated Regional Licence condition 5.1	Sighted SCADA system which provides monitoring of all relevant inputs and outputs including interruptions and power quality	5

Pacific Hydro

Audit Report for the Performance Audit of Ord Hydro

October 2011

	requirements.			
475.	A distributor or transmitter must keep records of information regarding its compliance with specific requirements for the period specified.	Integrated Regional Licence condition 5.1	While ongoing reports on power quality are not produced, the data is collected and reports can be produced upon request. Sighted trended data on SCADA system	4
476.	A distributor or transmitter must complete a quality investigation requested by a customer in accordance with specified requirements.	Integrated Regional Licence condition 5.1	No such requests during the audit period	N/R
477.	A distributor or transmitter must report the results of an investigation to the customer concerned.	Integrated Regional Licence condition 5.1	No such investigations during the audit period	N/R

Table 5 – Audit Observations

9 Recommendations

The single recommendation resulting from this review is detailed in Table 6 below.

Licence Condition	Compliance Rating	Issue	Recommendation
103. A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	2	Significant improvements have been made to the asset management system over the last couple of years. Pacific Hydro's Asset Management Framework and Codes have been developed along with many supporting procedures. No evidence was found of notification of these changes to the Authority	Formally provide the Authority with the details of the improvements to Pacific Hydro's Asset Management System

Table 6 – Recommendations

10 Changes to the Licence

The Asset Partnership has no recommendations to make with regards to changes to the Licence.

Appendix A. Statement of Non-occurrence from Pacific Hydro

A signed version of this statement was sent to the Authority on 30th August 2011 and subsequently revised on 12 October.

12 October 2011

Paul Reid
Assistant Director Monitoring
Economic Regulation Authority
PO Box 8469
Perth Business Centre WA 6849

Dear Paul,

Re: Licence EIRL 4, Performance Audit

This letter is to provide supporting statements for the performance audit being undertaken by The Asset Partnership 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 Appendix A statements are provided to advise that these events have not occurred or been triggered during the audit period. This letter is an updated version of my letter dated 30 August 2012 which now includes obligation 400.

Yours sincerely

K. Summers
ksummers@pacifichydro.com.au
Tel: 0418 514 473

Appendices:

A. Events Not Occurring or Triggered During Audit Period

Appendix A – Events Not Occurring or Triggered During Audit Period

No.	Ord's Licence Condition	Description	Observations
123.	Electricity Industry Act section 11	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.	Did not occur during audit period
124.	Electricity Industry Act section 11	A licensee must provide the Authority, in the manner prescribed, any information the Authority requires in connection with its functions under the Electricity Industry Act.	Did not occur during audit period
125.	Electricity Industry Act section 11	A licensee must publish any information it is directed by the Authority to publish, within the timeframes specified.	Did not occur during audit period
330.	Integrated Regional Licence condition 5.1	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
331.	Integrated Regional Licence condition 5.1	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 were associates during the audit period
339.	Integrated Regional Licence condition 5.1	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 additional charges were imposed during the audit period

340.	Integrated Regional Licence condition 5.1	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.	No non-compliant meters used during the audit period
348.	Integrated Regional Licence condition 5.1	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.	No metering repairs undertaken within the audit period
349.	Integrated Regional Licence condition 5.1	A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	No metering repairs undertaken within the audit period
350.	Integrated Regional Licence condition 5.1	A network operator must ensure that each metering installation complies with, at least, the prescribed design requirements.	Meter design has not been changed in the audit period
351.	Integrated Regional Licence condition 5.1	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.	Design has not changed within the audit period
362.	Integrated Regional Licence condition 5.1	A network operator may only impose a charge for the matters dealt with in the metrology procedure in accordance with the applicable service level agreement between it and the user.	No charges imposed during the audit period
364.	Integrated Regional Licence condition 5.1	A network operator must, if reasonably requested by a Code participant, provide enhanced technology features in a metering installation.	No such requests made during the audit period
365.	Integrated Regional Licence condition 5.1	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.	No enhanced technology features requested during the audit period

368.	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 and set parameters.	No enhanced technology features requested during the audit period
369.	Integrated Regional Licence condition 5.1	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.	No signals provided during the audit period
370.	Integrated Regional Licence condition 5.1	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.	No signals provided during the audit period
379.	Integrated Regional Licence condition 5.1	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 disputes during the audit period
380.	Integrated Regional Licence condition 5.1	A Code participant must not knowingly permit the registry to be materially inaccurate.	No such events during the audit period
382.	Integrated Regional Licence condition 5.1	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 events during the audit period
383.	Integrated Regional Licence condition 5.1	If a network operator is notified of a change to or inaccuracy in an item of standing data by a Code participant which is 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.	No such events during the audit period

389.	Integrated Regional Licence condition 5.1	A network operator must use all reasonable endeavours to accommodate another Code participant's requirement to obtain a metering service and requirements in connection with the negotiation of a service level agreement.	No such requirements during the audit period
390.	Integrated Regional Licence condition 5.1	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 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.	No such requests during the audit period
396.	Integrated Regional Licence condition 5.1	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.	On occasions when the meter was removed for testing the check meter data was used for data readings. No further substitutions/estimations were undertaken during the audit period
397.	Integrated Regional Licence condition 5.1	A network operator must provide replacement energy data to the user for the metering point and the IMO within the timeframes prescribed.	No replacement data used during the audit period
399.	Integrated Regional Licence condition 5.1	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 requirement to provide standing data during the audit period
400.	Integrated Regional Licence condition 5.1	A network operator must provide a subset of the standing data to a retailer in accordance with the provisions of Annex 4 of the Customer Transfer Code.	No standing data requests occurred during the audit period
401.	Integrated Regional Licence condition 5.1	If a transfer occurs at a connection point, a network operator must provide an incoming retailer with a copy of the standing data for each metering point associated with the connection point within the timeframes prescribed.	No transfers occurred during the audit period

402.	Integrated Regional Licence condition 5.1	If a network operator is given a request 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, a network operator must provide a user with a complete set of energy data for a metering point within the timeframes prescribed.	No such requests during the audit period
403.	Integrated Regional Licence condition 5.1	A network operator must provide a 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, if it is given a request in accordance with the communication rules.	No such requests during the audit period
404.	Integrated Regional Licence condition 5.1	A network operator must acknowledge receipt of a bulk standing data request from a user and provide the requested standing data within the timeframes prescribed in accordance with the communication rules.	No such requests during the audit period
416.	Integrated Regional Licence condition 5.1	An Energy Data Verification Request Form must require a Code participant to provide the information prescribed.	No such requests during the audit period
417.	Integrated Regional Licence condition 5.1	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 result of the verification and provide the verified energy data within the timeframes prescribed.	No such requests during the audit period
418.	Integrated Regional Licence condition 5.1	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 during the audit period
422.	Integrated Regional Licence condition 5.1	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 such events

424.	Integrated Regional Licence condition 5.1	A 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 level agreement.	No such events during the audit period
428.	Integrated Regional Licence condition 5.1	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.	No substitute values used without a check meter during the audit period
429.	Integrated Regional Licence condition 5.1	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.	No loss of energy data during the audit period
430.	Integrated Regional Licence condition 5.1	Substitution or estimation of energy data is to be required when energy data is missing, unavailable or corrupted, including in the circumstances described.	No loss of energy data during the audit period
431.	Integrated Regional Licence condition 5.1	A network operator must review all validation failures before undertaking any substitution.	No validation failures during the audit period
432.	Integrated Regional Licence condition 5.1	A network operator that determines that there is no possibility of determining an actual value for a metering point must designate an estimated or substituted value for the metering point to be a deemed actual value for the metering point.	No loss of energy data during the audit period
433.	Integrated Regional Licence condition 5.1	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.	No loss of energy data during the audit period
434.	Integrated Regional Licence condition 5.1	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 practice.	No such replacements during the audit period

435.	Integrated Regional Licence condition 5.1	A network operator that 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), must replace the first value with the second value if doing so would be consistent with good electricity industry practice.	No such replacements during the audit period
436.	Integrated Regional Licence condition 5.1	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, estimated 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 practice or the user and its customer jointly request it to do so.	No such replacements during the audit period
437.	Integrated Regional Licence condition 5.1	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 during the audit period
438.	Integrated Regional Licence condition 5.1	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.	No estimated data during the audit period
449.	Integrated Regional Licence condition 5.1	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.	No change of contact details during the audit period
452.	Integrated Regional Licence condition 5.1	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.	No disclosure of confidential information during the audit period
453.	Integrated Regional Licence condition 5.1	A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.	No such events

454.	Integrated Regional Licence condition 5.1	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 negotiations in good faith.	No metering disputes occurred in the audit period
455.	Integrated Regional Licence condition 5.1	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 metering disputes occurred in the audit period
456.	Integrated Regional Licence condition 5.1	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.	No metering disputes occurred in the audit period
457.	Integrated Regional Licence condition 5.1	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 Metering disputes occurred in the audit period
460.	Integrated Regional Licence condition 5.1	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.	No such disconnections during the audit period
467.	Integrated Regional Licence condition 5.1	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 requests during the audit period
468.	Integrated Regional Licence condition 5.1	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.	No such exclusions or modifications during the audit period

476.	Integrated Regional Licence condition 5.1	A distributor or transmitter must complete a quality investigation requested by a customer in accordance with specified requirements.	No such requests during the audit period
477.	Integrated Regional Licence condition 5.1	A distributor or transmitter must report the results of an investigation to the customer concerned.	No such investigations during the audit period

Appendix B. Post-audit Implementation Plan

Table 7 below outlines the implementation plan for the recommendation made as a result of the Performance Audit. While the recommendation was developed as part of the audit process, the actions assigned, person responsible and completion date have been developed by the licensee and do not form part of The Asset Partnership's opinion.

Recommendation	Action	Person Responsible	Completion Date
Formally provide the Authority with the details of the improvements to Pacific Hydro's Asset Management System	Write letter to ERA outlining improvements to the Asset Management System over past 3 years	Darren Sexton	31 December 2011

Table 7 – Post-audit Implementation Plan