

**ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTOR AUDIT REPORT**

For

**Aurora Energy Limited**



Prepared by: Steve Woods

Date audit commenced: 2 August 2017

Date audit report completed: 11 September 2017

Audit report due date: 10-Oct-17

## TABLE OF CONTENTS

Executive summary .....	4
Audit summary .....	5
Non-compliances .....	<b>Error! Bookmark not defined.</b>
Recommendations .....	6
Issues 6	
1. Administrative .....	7
1.1. Exemptions from Obligations to Comply With Code (Section 11) .....	7
1.2. Structure of Organisation .....	7
1.3. Persons involved in this audit .....	8
1.4. Use of contractors (Clause 11.2A) .....	8
1.5. Supplier list .....	8
1.6. Hardware and Software .....	9
1.7. Breaches or Breach Allegations .....	9
1.8. ICP and NSP Data .....	9
1.9. Authorisation Received .....	10
1.10. Scope of Audit .....	10
1.11. Summary of previous audit .....	11
Table of Non-Compliance .....	11
Table of Recommendations .....	11
2. Operational Infrastructure .....	12
2.1. Requirement to provide complete and accurate information (Clause 11.2(1)) .....	12
2.2. Requirement to correct errors (Clause 11.2(2)) .....	12
3. Creation of ICPs .....	13
3.1. Distributors must create ICPs (Clause 11.4) .....	13
3.2. Participants may request distributors to create ICPs (Clause 11.5(3)) .....	13
3.3. Provision of ICP Information to the registry (Clause 11.7) .....	14
3.4. Timeliness of Provision of ICP Information to the registry (Clause 7(2) of Schedule 11.1) .....	14
3.5. Timeliness of Provision of Initial Energisation Date (Clause 7(2A) of Schedule 11.1) .....	15
3.6. Connection of ICPs (Clause 11.17) .....	17
3.7. Electrical connection of ICPs (Clause 10.28(7)) .....	17
3.8. Electrical connection of ICP that is not an NSP (Clause 10.31) .....	18
3.9. Electrical connection of NSP that is not a point of connection to the grid (Clause 10.30(2)) .....	18
3.10. Definition of ICP identifier (Clause 1(1) Schedule 11.1) .....	19
3.11. Loss category (Clause 6 Schedule 11.1) .....	19
3.12. Management of “new” status (Clause 13 Schedule 11.1) .....	20
3.13. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1) .....	20
3.14. Embedded generation loss category (Clause 7(6) Schedule 11.1) .....	21
4. Maintenance of registry information .....	23
4.1. Changes to registry information (Clause 8 Schedule 11.1) .....	23
4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1) .....	24
4.3. Customer queries about ICP (Clause 11.31) .....	26
4.4. ICP location address (Clause 2 Schedule 11.1) .....	26
4.5. ICP de-energisation (Clause 3 Schedule 11.1) .....	27

4.6.	Distributors to Provide ICP Information to the Registry (Clause 7(1) Schedule 11.1) ....	27
4.7.	Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1) .....	30
4.8.	GPS coordinates (Clause 7(8) and (9) Schedule 11.1) .....	31
4.9.	Management of “ready” status (Clause 14 Schedule 11.1) .....	31
4.10.	Management of “distributor” status (Clause 16 Schedule 11.1) .....	32
4.11.	Management of “decommissioned” status (Clause 20 Schedule 11.1) .....	32
4.12.	Maintenance of price category codes (Clause 23 Schedule 11.1).....	34
5.	Creation and maintenance of loss factors .....	35
5.1.	Updating table of loss category codes (Clause 21 Schedule 11.1) .....	35
5.2.	Updating loss factors (Clause 22 Schedule 11.1) .....	35
6.	Creation and maintenance of NSPs (including decommissioning of NSPs and transfer of ICPs)36	
6.1.	Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1) .....	36
6.2.	Provision of NSP information (Clause 26(1) and (2) Schedule 11.1) .....	36
6.3.	Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1) .....	37
6.4.	Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)37	
6.5.	Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1) .....	38
6.6.	Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1) .....	38
6.7.	Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2) .....	39
6.8.	Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1)&(3)) .....	39
6.9.	Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2)) .....	40
6.10.	Obligations concerning change in network owner (Clause 29 Schedule 11.1) .....	41
6.11.	Electrically connecting NSP that is not point of connection to grid (Clause 10.30(1))....	42
6.12.	Change of MEP for embedded network gate meter (Clause 10.22(1)(b)) .....	42
6.13.	Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2) .....	42
6.14.	Transfer of ICPs for embedded network (Clause 6 Schedule 11.2).....	43
7.	Maintenance of shared unmetered load .....	44
7.1.	Notification of shared unmetered load ICP list (Clause 11.14(2) and (4)) .....	44
7.2.	Changes to shared unmetered load (Clause 11.14(5)).....	44
8.	Calculation of loss factors .....	45
8.1.	Creation of loss factors (Clause 11.2).....	45
Conclusion	.....	46
Participant response	.....	46
Appendix A - Template for non-compliance, issues and recommendations.	.....	47
Non-compliance	.....	47
Recommendation.....		47
Issue	47	

## EXECUTIVE SUMMARY

This Distributor audit was performed at the request of Aurora Energy to encompass the Electricity Industry Participation Code requirement for an annual audit, in accordance with clause 11.10 of part 11. The audit was carried out at Aurora's premises in Dunedin on August 2<sup>nd</sup> 2017.

Aurora self-performs all activities covered by the scope of this audit.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.1, which was produced by the Electricity Authority.

Nine non-compliances are recorded, all with an audit risk rating of low. Four of the issues found relate to a small number of late registry updates and a further two relate to a small number of registry errors.

The number of ICPs at new or ready for longer than 24 months has increased and there is currently no communication between Aurora and traders with regard to these ICPs.

Four ICPs had incorrect NSPs recorded on the registry, leading to minor settlement issues due to submission by traders occurring against the incorrect NSPs.

In most cases the controls are rated as moderate or strong and some small changes to reporting should help with eliminating some of the issues found.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of 17, which results in an indicative audit frequency of 12 months. Considering this result along with the proposed solutions to the matters raised, I believe 12 months is an appropriate recommendation.

The matters raised are shown in the table below:

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Provision of registry information	3.4	7(2) of Schedule 11.1	Late update to Ready for one ICP.	Moderate	Low	2	Identified
Population of IED	3.5	7(2A) of Schedule 11.1	10 late initial energisation date updates.	Strong	Low	1	Identified
Monitoring of new and ready ICPs	3.13	15 Schedule 11.1	Traders not notified of ICPs at new or ready for more than 24 months.	None	Low	3	Identified
Changes to registry information	4.1	8 Schedule 11.1	Updates to registry backdated greater than 3 business days of the event.	Moderate	Low	2	Identified
NSP accuracy	4.2	7(1)(b) of Schedule 11.1	Four ICPs with incorrect NSPs.	Moderate	Low	2	Cleared
Registry accuracy	4.6	7(1)(k)&(p) of Schedule 11.1	Four ICPs with incorrect IED or status.	Moderate	Low	2	Identified
Provision of price category codes	4.7	7(3) of Schedule 11.1	13 ICPs with price category codes updated later than 10 business days.	Strong	Low	1	Identified
Decommissioned status	4.11	20 of Schedule 11.1	One ICP not updated to decommissioned.	Strong	Low	1	Cleared
Notify RM of certification expiry	6.8	10.25(3) of Part 10	RM not notified of certification date for Heritage Estate.	Weak	Low	3	Cleared
Future Risk Rating						17	
Indicative Audit Frequency						12 months	

Future risk rating	0-1	2-5	6-8	9-20	21-29	30+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

## RECOMMENDATIONS

Subject	Section	Recommendation	Description

## ISSUES

Subject	Section	Recommendation	Description

## 1. ADMINISTRATIVE

### 1.1. Exemptions from Obligations to Comply With Code (Section 11)

#### Code reference

*Section 11 of Electricity Industry Act 2010.*

#### Code related audit information

*Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.*

#### Audit observation

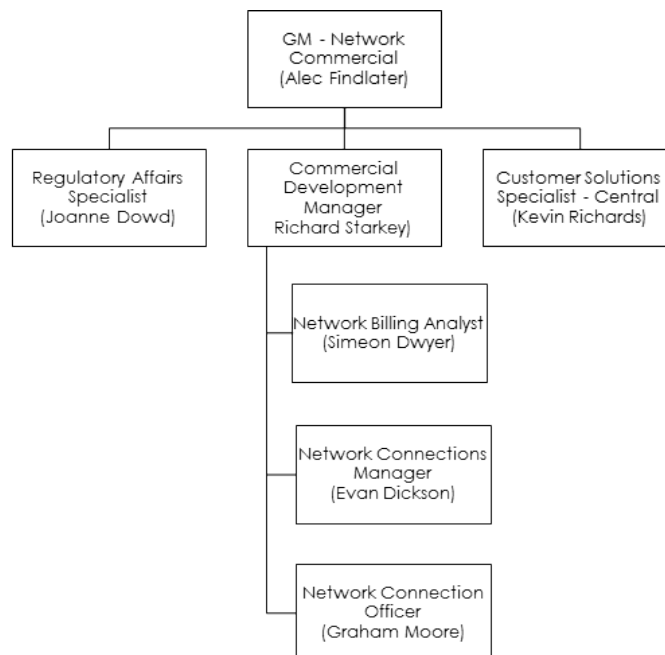
I checked the Authority's website to identify any exemptions in place.

#### Audit commentary

Aurora has no exemptions in place that are relevant to the scope of this audit.

### 1.2. Structure of Organisation

Aurora Organisation chart (Network Commercial division)



### 1.3. Persons involved in this audit

Auditor:

**Steve Woods**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Aurora personnel assisting in this audit were:

Name	Title
Richard Starkey	Commercial Development Manager
Evan Dickson	Network Connections Manager
Simeon Dwyer	Network Billing Analyst

### 1.4. Use of contractors (Clause 11.2A)

#### Code reference

*Clause 11.2A*

#### Code related audit information

*A participant who uses a contractor*

- *remains responsible for the contractors fulfillment of the participants Code obligations*
- *cannot assert that it is not responsible or liable for the obligation due to the action of a contractor*
- *must ensure that the contractor has at least the specified level of skill, expertise, experience, or qualification that the participant would be required to have if it were performing the obligation itself.*

#### Audit observation

Aurora subcontracts Delta and independent contractors to conduct field activities. The management and control areas covered by this audit are conducted by Aurora employees. This matter was discussed during the audit to ensure Aurora understands their responsibilities under this clause.

#### Audit commentary

Aurora has maintained responsibility for all of their obligations during the audit period. Compliance is confirmed.

### 1.5. Supplier list

Aurora engages Delta and other independent contractors to conduct field activities.



## 1.6. Hardware and Software

Aurora provided the following information detailing hardware and software used in the processes being audited:

- Aurora connection application database for tracking connection applications
- GTV for ICP creation, line charge billing and source for Registry updates.

Aurora's backup arrangement processes are documented under Aurora's Quality Management System – ISO9001:2008. All data is backed-up in accordance with standard industry protocols.

## 1.7. Breaches or Breach Allegations

Aurora has no breach allegations recorded by the Electricity Authority, which are relevant to this audit.

## 1.8. ICP and NSP Data

Aurora has responsibility for balancing areas in the Otago and Central Otago regions, and the Heritage Estate embedded Network at Te Anau.

The table below lists the relevant NSPs and their associated balancing areas.

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
DUNE	CML0331	CROMWELL			CROMWELDUNEG	G	01/05/08	12,733
DUNE	CYD0331	CLYDE			CLYDE00DUNEG	G	01/05/08	7,115
DUNE	FKN0331	FRANKTON			FRANKTODUNEG	G	01/05/08	13,279
DUNE	HWB0331	HALFWAY BUSH			DUNEDINDUNEG	G	01/05/08	26,645
DUNE	HWB0332	HALFWAY BUSH			DUNEDINDUNEG	G	01/05/08	11,138
DUNE	SDN0331	SOUTH DUNEDIN			DUNEDINDUNEG	G	01/05/08	17,166
DUNE	HER0111	HERITAGE ESTATE	NMA0331	TPCO	HERITGEDUNEE	E	01/05/08	113

Aurora provided a list of all ICPs as at July 2017 by way of a registry "list file". A summary of this data by "ICP status" is as follows.

Status	Number of ICPs (2017)	Number of ICPs (2016)	Number of ICPs (2015)
Active (2,0)	88,189	86,684	85,690
Inactive- new connection in progress (1,12)	112	91	94
Inactive – vacant (1,4)	1,083	1,299	1,265
Inactive – AMI remote disconnection (1,7)	205		
Inactive – -de-energised due to meter disconnected (1,8)	7		
Inactive – - at pole fuse(1,9)	4		
Inactive – de-energised at meter box switch (1,10)	0		
Inactive- at meter box switch (1,11)	0		
Inactive – ready for decommissioning (1,6)	15	26	13
Decommissioned (3)	7,382	7,121	6,834

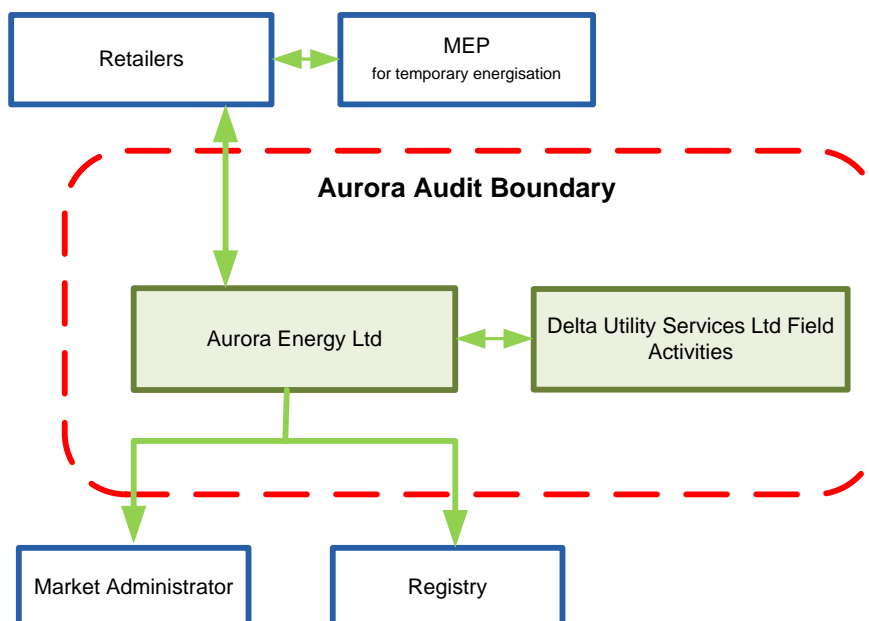
#### 1.9. Authorisation Received

A letter of authorization was not required or sought. Aurora was able to provide all necessary information.

#### 1.10. Scope of Audit

This Distributor audit was performed at the request of Aurora Energy to encompass the Electricity Industry Participation Code requirement for an annual audit, in accordance with clause 11.10 of part 11. The audit was carried out at Aurora’s premises in Dunedin on August 2<sup>nd</sup> 2017.

The scope of the audit is shown in the diagram below, with the Aurora audit boundary shown for clarity.



All activities covered by this audit are conducted at Aurora's head office in Dunedin.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.1, which was produced by the Electricity Authority.

#### 1.11. Summary of previous audit

Aurora provided a copy of their previous audit, conducted in August 2016 by Steve Woods of Veritek Ltd.

The findings of the previous audit are shown in the tables below.

### Table of Non-Compliance

Subject	Section	Clause	Non compliance	Status
Population of IED	2.3	7(2A) of schedule 11.1	Initial energisation date updated later than 10 business days for 9 of 575 ICPs.	Still existing
Monitoring of new and ready statuses	2.8	15 of schedule 11.1	ICPs at New and Ready for more than 24 months, trader not asked whether they are still required.	Still existing
Registry updates	3.1	8 of schedule 11.1	Some price category code, network data corrections and address changes backdated.	Still existing
NSP information	3.2	7(5) of schedule 11.1	Some incorrect NSPs recorded on the registry.	Still existing
Accuracy of IED	3.8	7(1)(p) of schedule 11.1	IED incorrect for 2 ICPs.	Still existing
Decommissioned status	3.11	Clause 20 of Schedule 11.1	Registry not changed to decommissioned for six ICPs.	Still existing

### Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Status
			Nil	

## 2. OPERATIONAL INFRASTRUCTURE

### 2.1. Requirement to provide complete and accurate information (Clause 11.2(1))

#### Code reference

*Clause 11.2(1)*

#### Code related audit information

*A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Part 11 is:*

- a) complete and accurate*
- b) not misleading or deceptive*
- c) not likely to mislead or deceive.*

#### Audit observation

Aurora's data management processes were examined. The list file as at July 2017 was examined to confirm compliance.

#### Audit commentary

Aurora has processes in place to ensure that information is complete and accurate and is not misleading or deceptive. Examination of the list file found no examples of misleading or deceptive information. Aurora makes every effort to ensure data is complete and accurate. Compliance is confirmed.

#### Audit outcome

Compliant

### 2.2. Requirement to correct errors (Clause 11.2(2))

#### Code reference

*Clause 11.2(2)*

#### Code related audit information

*If the participant becomes aware that in providing information under this Part, the participant has not complied with that obligation, the participant must, as soon as practicable, provide such further information as is necessary to ensure that the participant does comply.*

#### Audit observation

Aurora's data management processes were examined. The list file as at July 2017 was examined to confirm compliance.

#### Audit commentary

Aurora has a comprehensive suite of discrepancy reports in place. These are managed on a daily basis to ensure that information is complete and accurate and is not misleading or deceptive. Any incorrect data is corrected upon discovery. I did not identify any examples where errors were not corrected as soon as practicable.

#### Audit outcome

Compliant

### 3. CREATION OF ICPS

#### 3.1. Distributors must create ICPs (Clause 11.4)

##### Code reference

*Clause 11.4*

##### Code related audit information

*The distributor must create an ICP identifier in accordance with Clause 1 of Schedule 11.1 for each ICP on the distributor's network. This includes an ICP identifier for the point of connection at which an embedded network connects to the distributor's network.*

##### Audit observation

The new connection process was examined in detail and is described in Section 3.2 below. 20 new connection applications of the 1,607 created were checked from the point of application through to when the ICP was created.

##### Audit commentary

The process in place is robust and has good controls in place. The sample checked in Section 3.2 below confirms this.

##### Audit outcome

Compliant

#### 3.2. Participants may request distributors to create ICPs (Clause 11.5(3))

##### Code reference

*Clause 11.5(3)*

##### Code related audit information

*The distributor, within three business days of receiving a request for the creation of an ICP identifier for an ICP, must either create a new ICP identifier or advise the participant of the reasons it is unable to comply with the request.*

##### Audit observation

The new connection process was examined in detail. 20 new connection applications of the 1,607 created during the audit period were checked from the point of application through to when the ICP was created. These were selected using the typical characteristic methodology to confirm the process and controls worked in practice.

##### Audit commentary

ICP requests are received directly from customers or their agents via the submission of an Aurora Connection Application (ACA). ICPs are created at "New" immediately, whether engineering work is required or not.

The records for 20 ICPs in the Dunedin and Central regions were examined and all 20 were created within three days of the application.

If a quotation is required then it is considered that the application for an ICP is from the date the quote is accepted and consent is provided.

#### **Audit outcome**

Compliant

### **3.3. Provision of ICP Information to the registry (Clause 11.7)**

#### **Code reference**

*Clause 11.7*

#### **Code related audit information**

*The distributor must provide information about ICPs on its network in accordance with Schedule 11.1.*

#### **Audit observation**

The new connection process for populating all required registry fields was examined. The list file was examined for all ICPs created during the audit period.

#### **Audit commentary**

Aurora has a fully automated registry update process to ensure all information listed in this clause is provided to the registry. Aurora data is contained in GTV, which is validated against the registry on a regular basis, error logs are created if any fields are different, and these are then investigated.

#### **Audit outcome**

Compliant

### **3.4. Timeliness of Provision of ICP Information to the registry (Clause 7(2) of Schedule 11.1)**

#### **Code reference**

*Clause 7(2) of Schedule 11.1*

#### **Code related audit information**

*The distributor must provide information specified in Clauses 7(1)(a) to 7(1)(o) of Schedule 11.1 as soon as practicable and prior to electricity being traded at the ICP.*

#### **Audit observation**

The new connection process was examined. The event detail report for the period from January 2017 through to June 2017 was examined.

#### **Audit commentary**

Aurora requires contractors to provide prior notification of their intention to connect and energise an ICP. It is intended that ICP statuses be changed from “New” to “Ready” prior to energisation occurring.

The process for updating the registry is automated for all fields, and the update occurs on a nightly basis. 1,607 ICPs were created during the audit period. ICP 0000505953CE5C0 was at the New status with an energisation date of 25/05/17. The status was Ready in GTV but the registry update had not occurred. The change to Ready was made on 31/07/17. This does not achieve compliance with the requirement to ensure registry updates occur prior to electricity being traded.

#### **Audit outcome**

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.4</p> <p>With: Clause 7(2) of Schedule 11.1</p> <p>From: 25-May-17</p> <p>To: 31-Jul-17</p>	<p>Late update to Ready for one ICP.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>The controls are recorded as Moderate because an improvement can be made to ensure this example is identified.</p> <p>There is no impact on settlement. The impact is that the trader could not change their status to Active and there may have been an ICP days discrepancy. The audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>A staff member updated the status of the ICP from “New” to “Ready” incorrectly in Aurora’s billing and connection management software. This resulted in the “Ready” status not being communicated to the Registry.</p> <p>As this issue was identified during the audit, it has now been corrected.</p>		31 July 2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Aurora has a monthly reconciliation process to identify discrepancies between installation statuses in its billing and connection management system and the Registry. However the reconciliation process will typically concentrate on discrepancies between inactive and active statuses, not inconsistencies between two different inactive statuses (which is the case in this example).</p> <p>Aurora will expand the reconciliation process in order to review the inconsistencies within separate inactive statuses.</p>		September 2017	

### 3.5. Timeliness of Provision of Initial Energisation Date (Clause 7(2A) of Schedule 11.1)

#### Code reference

*Clause 7(2A) of Schedule 11.1*

#### Code related audit information

*The distributor must provide the information specified in sub-clause (1)(p) to the registry no later than 10 business days after the date on which the ICP is initially energised.*

### Audit observation

The new connection process for populating all required registry fields was examined. The event detail report for the period from January 2017 through to June 2017 was examined.

### Audit commentary

There is a requirement to populate the initial energisation date within 10 business days of physical energisation. There were 1,607 initial energisation date updates in the event detail report and ten of them were updated later than 10 business days.

### Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1  From: 21-Oct-16 To: 13-Jun-17	10 late initial energisation date updates.  Potential impact: Low  Actual impact: Low  Audit history: Once  Controls: Strong  Breach risk rating: 1	
Audit risk rating	Rationale for audit risk rating	
<b>Low</b>	Aurora has reporting in place to ensure initial energisation dates are provided by contractors in a timely manner. I consider the controls are strong and the late updates reflect a small percentage of the total number of updates.  There is no impact on settlement. The only potential impact is where a trader may wish to compare their Active date to the IED, so the impact is considered minor, leading to an audit risk rating of low.	
Actions taken to resolve the issue		Completion date
The late initial energisation date updates are either a result of staff errors (information provided but not updated), or late notification of livening reports provided by Authorised Network Inspectors (ANIs).  Where the information was not updated due to a staff error, the dates were updated when it was identified during the monthly reconciliation process, that an ICP in an Active status with a livening report received from an ANI, has no IED stated.  For late notification of livening reports by ANIs, the IED has been inputted when Aurora has received the information from the ANI.		No change
Preventative actions taken to ensure no further issues will occur		Completion date
		Identified



<p>The number of late initial energisation date updates constitute around 0.5% of all IED updates made during the event detail report period.</p> <p>Given it has no impact on settlement, and the small window available to ensure compliance, Aurora does not believe additional measures are required to the monthly reconciliation process.</p>	No change	
---	-----------	--

### 3.6. Connection of ICPs (Clause 11.17)

#### Code reference

*Clause 11.17*

#### Code related audit information

*A distributor must, when electrically connecting an ICP that is not also an NSP, follow the electrical connection process set out in Clause 10.31.*

*The distributor must not electrically connect an ICP (except for an ICP across which unmetered load is shared) unless a trader is recorded in the registry as accepting responsibility for the ICP.*

*In respect of ICPs across which unmetered load is shared, the distributor must not electrically connect an ICP unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load.*

#### Audit observation

The new connection process was examined. The event detail report for the period from January 2017 through to June 2017 was examined.

#### Audit commentary

The new connections process was examined and the process includes a “trader responsibility” step.

For one trader the ACA is scanned and emailed; then an acceptance response is emailed back.

For most traders, the ACA is also scanned and emailed; then a service request is provided to Delta dispatch, which serves as the acceptance for connection and responsibility for the ICP.

Another trader is not provided with the ACA, they will send a service request to Delta dispatch following a customer registration call.

All ICPs that were electrically connected had a trader recorded in the registry as having accepted responsibility.

#### Audit outcome

Compliant

### 3.7. Electrical connection of ICPs (Clause 10.28(7))

#### Code reference

*Clause 10.28(7)*

#### Code related audit information

*A network owner must not electrically connect a new point of connection that is to be quantified by metering unless requested to do so by the:*

- *MEP (for a temporary energisation); or*

- *reconciliation participant responsible for ensuring there is a metering installation.*

#### **Audit observation**

The new connection process was examined. The event detail report for the period from January 2017 through to June 2017 was examined.

#### **Audit commentary**

Aurora has a step in the new connections process to ensure a trader accepts responsibility and is recorded in the registry. There are no ICPs without a proposed trader recorded in the registry.

#### **Audit outcome**

Compliant

### **3.8. Electrical connection of ICP that is not an NSP (Clause 10.31)**

#### **Code reference**

*Clause 10.31*

#### **Code related audit information**

*A distributor must not electrically connect an ICP that is not also an NSP unless:*

- *the trader trading at the ICP has requested the electrical connection; or*
- *the MEP who has an arrangement with the trader trading at the ICP has requested temporary energisation of the ICP.*

#### **Audit observation**

The new connection process was examined. The event detail report for the period from January 2017 through to June 2017 was examined.

#### **Audit commentary**

Aurora has a step in the new connections process to ensure a trader accepts responsibility and is recorded in the registry. There are no ICPs without a proposed trader recorded in the registry.

#### **Audit outcome**

Compliant

### **3.9. Electrical connection of NSP that is not a point of connection to the grid (Clause 10.30(2))**

#### **Code reference**

*Clause 10.30(2)*

#### **Code related audit information**

*A distributor must, within five business days of electrically connecting an NSP that is not also a point of connection to the grid, notify the reconciliation manager of the following in the prescribed form:*

- *the NSP electrically connected*
- *the date of the electrical connection*
- *the participant identifier of each MEP*
- *the certification expiry date for each metering installation.*

#### **Audit observation**

Aurora has not created any new NSPs during the audit period.

#### **Audit commentary**

Aurora has not created any new NSPs during the audit period.

#### **Audit outcome**

Not applicable

### **3.10. Definition of ICP identifier (Clause 1(1) Schedule 11.1)**

#### **Code reference**

*Clause 1(1) Schedule 11.1*

#### **Code related audit information**

*Each ICP created by the distributor in accordance with Clause 11.4 must have a unique identifier, called the "ICP identifier", determined in accordance with the following format:*

*xxxxxxxxxxccc where:*

- xxxxxxxxxx is a numerical sequence provided by the distributor*
- xx is a code that ensures the ICP is unique (assigned by the Authority to the issuing distributor)*
- ccc is a checksum generated according to the algorithm provided by the market administrator.*

#### **Audit observation**

The new connection process was examined and a sample of 20 was checked.

#### **Audit commentary**

All ICPs are created in the appropriate format. The sample checked confirmed compliance.

#### **Audit outcome**

Compliant

### **3.11. Loss category (Clause 6 Schedule 11.1)**

#### **Code reference**

*Clause 6 Schedule 11.1*

#### **Code related audit information**

*Each ICP must have a single loss category that is referenced to identify the associated loss factors.*

#### **Audit observation**

The list file was examined to confirm all active ICPs have a single loss category code.

#### **Audit commentary**

Each ICP only has a single loss category, which clearly identifies the relevant loss factor. Each loss category code has a different loss factor for day and night, and summer and winter.

#### **Audit outcome**

Compliant

### 3.12. Management of “new” status (Clause 13 Schedule 11.1)

#### Code reference

*Clause 13 Schedule 11.1*

#### Code related audit information

*The ICP status of “New” must be managed by the distributor to indicate:*

- *the associated electrical installations are in the construction phase (Clause 13(a) of Schedule 11.1)*
- *the ICP is not ready for activation (Clause 13(b) of Schedule 11.1).*

#### Audit observation

The management of ICPs in relation to the use of the “new” status was examined. The list file and event detail report for the period January 2017 to June 2017 were examined in relation to the use of the “new” status. I also checked for ICPs at the new status with an initial energisation date populated.

#### Audit commentary

The new connections process was examined during the audit and it was found that ICPs are created at “New” and the status is intended to be changed to “Ready” before livening occurs or on the same day as livening.

ICP 0000505953CE5C0 was at the New status with an energisation date of 25/05/17. The status was Ready in GTV but the registry update had not occurred. The change to Ready was made on 31/07/17. This is recorded as non-compliance in Section 3.4. Compliance is confirmed for the management of the New status.

#### Audit outcome

Compliant

### 3.13. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1)

#### Code reference

*Clause 15 Schedule 11.1*

#### Code related audit information

*If an ICP has had the status of “New” or has had the status of “Ready” for 24 calendar months or more:*

- *the distributor must ask the trader who intends to trade at the ICP whether the ICP should continue to have that status (Clause 15(2)(a) of Schedule 11.1)*
- *the distributor must decommission the ICP if the trader advises that the ICP should not continue to have that status (Clause 15(2)(b) of Schedule 11.1).*

#### Audit observation

I checked the list file for ICPs at New or Ready for longer than 24 months to confirm that traders had been notified.

#### Audit commentary

There are 75 ICPs at New and 10 at Ready for longer than 24 months. Aurora has not liaised with traders to determine if these ICPs are still required. One ICP is recorded in GTV as energised.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.13 With: Clause 15 Schedule 11.1  From: 01-Aug-15 To: 31-Jul-17	Traders not notified of ICPs at new or ready for more than 24 months. Potential impact: Medium Actual impact: Low Audit history: Once Controls: None Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Aurora does not have a process in place to manage compliance with this clause. There is a potential impact on settlement, in cases where traders do not have the relevant ICPs set up in their systems, so the impact is rated as minor, leading to an audit risk rating of low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Aurora will on a 6-monthly basis identify the ICPs that have been in a "New" or "Ready" Status for 24 months or longer. Aurora will then contact the electrician for each ICP (which is stated on the original connection application) and decommission any ICPs where the electrician states that the ICP is no longer required. Aurora will then advise each trader of the outcome of this process, identifying the ICPs that are still required by the electrician, and the ICPs that Aurora decommissioned.		October 2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
See above.		See above	

### 3.14. Embedded generation loss category (Clause 7(6) Schedule 11.1)

#### Code reference

Clause 7(6) Schedule 11.1

#### Code related audit information

*If the ICP connects the distributor's network to an embedded generating station that has a capacity of 10 MW or more (clause 7(1)(f) of Schedule 11.1):*

- The loss category code must be unique; and
- The distributor must provide the following to the reconciliation manager:
  - the unique loss category code assigned to the ICP
  - the ICP identifier of the ICP
  - the NSP identifier of the NSP to which the ICP is connected
  - the plant name of the embedded generating station.

**Audit observation**

This requirement was discussed and the list file was examined.

**Audit commentary**

There are no embedded generators with a capacity greater than 10MW that require specific loss category codes. There has been no new embedded generation greater than 10MW created during the audit period.

**Audit outcome**

Not applicable

## 4. MAINTENANCE OF REGISTRY INFORMATION

### 4.1. Changes to registry information (Clause 8 Schedule 11.1)

#### Code reference

*Clause 8 Schedule 11.1*

#### Code related audit information

*If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must provide notice to the registry of that change.*

*Notification must be given by the distributor within three business days after the change takes effect, unless the change is to the NSP identifier of the NSP to which the ICP is usually connected (other than a change that is the result of the commissioning or decommissioning of an NSP).*

*In those cases, notification must be given no later than eight business days after the change takes effect.*

*If the change to the NSP identifier is for more than 14 days, the time within which notification must be effected in accordance with Clause 8(3) of Schedule 11.1 begins on the 15th day after the change.*

#### Audit observation

The process to manage ICP changes were examined, with the event detail report for the period from January 2017 through to June 2017. I used the typical case methodology examining a sample of ten late updates for any change where the initial analysis could not determine the cause.

#### Audit commentary

The table below details the quantity and compliance of registry updates. The price code analysis excludes new connections, which have a different allowable duration.

Update	Total	Compliant	Late	% Compliant	Average days
Price codes	2,182	2,024	158	93%	3.3
Address	1,888	1,874	14	99%	0.24
Status (decom)	82	34	48	41%	6.1

To evaluate network events, I excluded all new connections to ensure the initial energisation date changes were not included and I looked at anything greater than eight business days, to ensure NSP changes were excluded. There were two late updates for network events and they related to the addition of distributed generation information.

On some occasions, traders will request that price category code changes be backdated to match their tariff requirements or the physical characteristics of the installation, for example an upgrade or downgrade of fuse size. Aurora will sometimes backdate, and in all cases the change is made within three days of the date of notification by the trader. Aurora may continue with the current practice, particularly in situations where a refusal to backdate the change will result in customers being financially disadvantaged, or where the price category must match the on-site configuration.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: Clause 8 Schedule 11.1 From: 01-Aug-16 To: 31-Jul-17	Updates to registry backdated greater than 3 business days of the event. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Many of the late updates were as a result of late information from other parties, however four of a sample of 10 backdated price category codes were due to data entry errors, therefore I have recorded the controls as moderate. There is a minor impact on line charge billing where errors were in place. There would be a negative impact on traders and customers if Aurora did not backdate pricing events. The Audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Aurora backdates network pricing events where information that leads to a change in price category or pricing attribute has not been provided, or has not been provided on time by a contractor. It would be disadvantageous to consumers to comply with this requirement in circumstances where Aurora has not applied altered pricing information in error, or where contractors have not provided Aurora information in a timely fashion. Aurora is mindful of this Code requirement and limits any backdating to corrections of pricing information.		No change	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Aurora is mindful of this Code requirement and limits any backdating to corrections of pricing information.		No change	

#### 4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)

##### Code reference

*Clauses 7(1),(4) and (5) Schedule 11.1*

##### Code related audit information

*The distributor must notify the registry of the NSP identifier of the NSP to which the ICP is usually connected under Clause 7(1)(b) of Schedule 11.1.*

*If the distributor cannot identify the NSP that an ICP is connected to, the distributor must nominate the NSP that the distributor thinks is most likely to be connected to the ICP, taking into account the flow of electricity within its network, and the ICP is deemed to be connected to the nominated NSP.*



### Audit observation

The accuracy of NSP information was checked by identifying ICPs with a particular NSP where all other ICPs on the same road had a different NSP.

### Audit commentary

I analysed the list file to identify examples where one ICP on a street had a different NSP to all other ICPs on the same street. There were 34 examples and it was confirmed that four of these had the incorrect NSP recorded. The controls in place to ensure new ICPs have the correct NSP are robust, with the NSP being assigned at the time the ICP is plotted in the GIS. The examples found were all in Central Otago and all were correct in GTV but incorrect on the registry because there was another Network event with a more recent event date so the NSP update did not populate the registry. Validation is in place to ensure NSP accuracy but Aurora intends to check the design of the query because these examples were not identified.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.2 With: Clause 7(1)(b) of Schedule 11.1 From: 16-Dec-13 To: 31-Jul-17	Four ICPs with incorrect NSPs.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are in place to ensure ICPs are allocated to the correct NSP for new connections. The validation report appears to need some change because these four were not identified.  There is a minor impact on settlement. The NSPs in question are in different balancing areas. The audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Aurora performs a monthly reconciliation of the NSPs assigned to ICPs. In this case these ICPs were identified as having an incorrect NSP assigned, but due to the effective date being applied for the correction in Aurora's billing and connection management system, the corrections were not reflected on the Registry as they were not the latest event.  Staff will be reminded of the importance of checking the Registry when correcting errors (such as NSP corrections) to ensure the Registry is displaying the correct information.		26 July 2017	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	

Aurora's monthly reconciliation of NSP information will be expanded to ensure any discrepancies between the NSP in Aurora's billing and connection management system and the Registry are investigated and resolved.	September 2017	
--	----------------	--

#### 4.3. Customer queries about ICP (Clause 11.31)

##### Code reference

Clause 11.31

##### Code related audit information

*The distributor must advise a customer (or any person authorised by the customer) or embedded generator of the customer or embedded generator's ICP identifier within three business days after receiving a request for that information.*

##### Audit observation

The management of customer queries was discussed to confirm policy.

##### Audit commentary

Requests for ICP identifiers are not a common occurrence, however Aurora provides this information if the requesting party has authorisation.

##### Audit outcome

Compliant

#### 4.4. ICP location address (Clause 2 Schedule 11.1)

##### Code reference

Clause 2 Schedule 11.1

##### Code related audit information

*Each ICP identifier must have a location address that allows the ICP to be readily located.*

##### Audit observation

The process to manage address accuracy was examined and the list file was analysed.

##### Audit commentary

All of Aurora's address records on the registry are unique. All ICPs have sufficient information to enable ICPs to be readily located. I checked 20 examples during the audit by using "google earth" and its "streetview" functionality which confirmed compliance.

##### Audit outcome

Compliant

#### 4.5. ICP de-energisation (Clause 3 Schedule 11.1)

##### Code reference

Clause 3 Schedule 11.1

##### Code related audit information

*Each ICP created after 7 October 2002 must be able to be de-energised without de-energisation of another ICP, except for ICPs that are the point of connection between a network and an embedded network, or ICPs that represent the consumption calculated by difference between the total consumption for the embedded network and all other ICPs on the embedded network.*

##### Audit observation

I checked Aurora's policy and documentation in relation to this clause.

##### Audit commentary

For new connections this clause is well understood, and the policy is to allow shared service mains but individual fusing is required. A section in the "network connection inspection form" requires that fusing information be notified.

##### Audit outcome

Compliant

#### 4.6. Distributors to Provide ICP Information to the Registry (Clause 7(1) Schedule 11.1)

##### Code reference

Clause 7(1) Schedule 11.1

##### Code related audit information

*For each ICP on the distributor's network, the distributor must provide the following information to the registry:*

- *the location address of the ICP identifier (Clause 7(1)(a) of Schedule 11.1)*
- *the NSP identifier of the NSP to which the ICP is usually connected (Clause 7(1)(b) of Schedule 11.1)*
- *the installation type code assigned to the ICP (Clause 7(1)(c) of Schedule 11.1)*
- *the reconciliation type code assigned to the ICP (Clause 7(1)(d) of Schedule 11.1)*
- *the loss category code and loss factors for each loss category code assigned to the ICP (Clause 7(1)(e) of Schedule 11.1)*
- *if the ICP connects the distributor's network to an embedded generating station that has a capacity of 10MW or more (Clause 7(1)(f) of Schedule 11.1):*
  - a) *the unique loss category code assigned to the ICP*
  - b) *the ICP identifier of the ICP*
  - c) *the NSP identifier of the NSP to which the ICP is connected*
  - d) *the plant name of the embedded generating station*
- *the price category code assigned to the ICP, which may be a placeholder price category code only if the distributor is unable to assign the actual price category code because the capacity or volume information required to assign the actual price category code cannot be determined before electricity is traded at the ICP (Clause 7(1)(g) of Schedule 11.1)*

- *if the price category code requires a value for the capacity of the ICP, the chargeable capacity of the ICP as follows (Clause 7(1)(h) of Schedule 11.1):*
  - a) *a placeholder chargeable capacity if the distributor is unable to determine the actual chargeable capacity*
  - b) *a blank chargeable capacity if the capacity value can be determined from metering information*
  - c) *the actual chargeable capacity of the ICP in any other case*
- *the distributor installation details for the ICP determined by the price category code assigned to the ICP (if any), which may be placeholder distributor installation details only if the distributor is unable to assign the actual distributor installation details because the capacity or volume information required to assign the actual distributor installation details cannot be determined before electricity is traded at the ICP (Clause 7(1)(i) of Schedule 11.1)*
- *the participant identifier of the first trader who has entered into an arrangement to sell or purchase electricity at the ICP (only if the information is provided by the first trader) (Clause 7(1)(j) of Schedule 11.1)*
- *the status of the ICP (Clause 7(1)(k) of Schedule 11.1)*
- *designation of the ICP as "Dedicated" if the ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)*
- *if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)*
- *if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)*
- *if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):*
  - a) *the nameplate capacity of the generator; and*
  - b) *the fuel type*
  - c) *the initial energisation date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

#### **Audit observation**

Aurora has a fully automated registry update process to ensure all information listed in this clause is provided to the registry. Aurora data is contained in GTV, which is validated against the registry on a regular basis, error logs are created if any fields are different, and these are then investigated. I checked all registry fields for obvious discrepancies using a set of standard queries.

#### **Audit commentary**

The analysis found the following points:

- 16 ICPs at the Ready status with the IED populated. The IED is correct for all 16.
- One Active ICP with blank IED. A "livening report" was available but neither GTV nor the registry was updated.
- One ICP with a Ready status in GTV but a New status on the registry.
- 35 ICPs have solar installed but the trader has not updated the profile to PV1.
- 19 ICPs have a PV1 profile but Aurora does not have generation recorded. Aurora also has reporting of these ICPs and they actively follow up with retailers and contractors. Some of the ICPs were on the list due to timing issues and had been updated by the time of the audit. There

were seven out of a sample of seven where it appears solar generation is installed and energised but Aurora has not approved the energisation because an inspection has not been conducted.

- 34 ICPs had an IED different to the Active date or the certification date. 12 of these were examined confirming the IED was incorrect for one, due to a data entry error, 28/04/17 instead of 28/03/17.
- One ICP at status Ready for Decommissioning which should have been decommissioned.

In summary, the incorrect information found was one Active ICP without an IED, two incorrect statuses and one incorrect IED.

### Audit outcome

#### Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: Clause 7(1)(k)&(p) of Schedule 11.1 From: 19-Aug-15 To: 09-Aug-17	Four ICPs with incorrect IED or status. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Reporting is in place to identify errors but changes may be required to identify the issues mentioned above. There is potentially a minor impact on settlement for the ICP at new instead of ready. The trader was prevented from updating to Active for this ICP. The other points are unlikely to have had an impact on other participants. The audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
The four ICPs with incorrect IED or status were identified during the audit and have been corrected.		August 2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Aurora will review the monthly reconciliation process to ensure that ICPs without IEDs and an Active status, and ICPs with inconsistent statuses between Aurora's billing and connection management system are identified and resolved. Staff will be reminded of the importance of correctly decommissioning ICPs when a livening report states that an ICP has been decommissioned.		September 2017	

#### 4.7. Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1)

##### Code reference

Clause 7(3) Schedule 11.1

##### Code related audit information

The distributor must provide the following information to the registry no later than 10 business days after the trading of electricity at the ICP commences:

- the actual price category code assigned to the ICP (Clause 7(3)(a) of Schedule 11.1)
- the actual chargeable capacity of the ICP determined by the price category code assigned to the ICP (if any) (Clause 7(3)(b) of Schedule 11.1)
- the actual distributor installation details of the ICP determined by the price category code assigned to the ICP (if any) (Clause 7(3)(c) of Schedule 11.1).

##### Audit observation

The new connection process was examined in detail. The pricing changes were checked against the newly connected ICPs identified through the list file.

##### Audit commentary

There were 13 ICPs with changes backdated more than 10 business days. There were various reasons for the changes, including late notification by traders or contractors.

##### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.7 With: Clause 7(3) of Schedule 11.1 From: 07-Feb-17 To: 23-Jun-17	13 ICPs with price category codes updated later than 10 business days. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Price category codes are based on information provided by traders or their agents. Changes are only made if notification is received that the data is incorrect. Controls are recorded as strong.  There is potentially a minor impact on traders because line charge invoicing and customer invoicing will need to be corrected for some ICPs. The audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status

<p>The late pricing code updates are either a result of staff errors (information provided but not updated), or late notification of livening reports provided by Authorised Network Inspectors (ANIs).</p> <p>Where the information was not updated due to a staff error, the pricing code was updated when it was identified during the monthly reconciliation process.</p> <p>For late notification of livening reports by ANIs, the pricing code has been inputted when Aurora has received the information from the ANI.</p>	No change	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
Aurora will continue to perform the monthly reconciliation process to identify missing or inconsistent information.	No change	

#### 4.8. GPS coordinates (Clause 7(8) and (9) Schedule 11.1)

##### Code reference

*Clause 7(8) and (9) Schedule 11.1*

##### Code related audit information

*If a distributor populates the GPS coordinates (optional), it must meet the NZTM2000 standard in a format specified by the Authority.*

##### Audit observation

I checked the list file for ICPs with GPS coordinates recorded.

##### Audit commentary

GPS coordinates are not recorded.

##### Audit outcome

Not applicable

#### 4.9. Management of "ready" status (Clause 14 Schedule 11.1)

##### Code reference

*Clause 14 Schedule 11.1*

##### Code related audit information

*The ICP status of "Ready" must be managed by the distributor and indicates that:*

- *the associated electrical installations are ready for connecting to the electricity supply (Clause 14(1)(a) of Schedule 11.1); or*
- *the ICP is ready for activation by a trader (Clause 14(1)(b) of Schedule 11.1)*

*Before an ICP is given the "Ready" status in accordance with Clause 14(1) of Schedule 11.1, the distributor must:*

- *identify the trader that has taken responsibility for the ICP (Clause 14(2)(a) of Schedule 11.1)*
- *ensure the ICP has a single price category (Clause 14(2)(b) of Schedule 11.1).*

#### **Audit observation**

I examined the new connections process and the list file to determine compliance.

#### **Audit commentary**

The status of Ready is used once the ICP is ready for connection. The new connection process has a step to confirm the trader has taken responsibility. All ICPs only have one price category code.

#### **Audit outcome**

Compliant

### **4.10. Management of “distributor” status (Clause 16 Schedule 11.1)**

#### **Code reference**

*Clause 16 Schedule 11.1*

#### **Code related audit information**

*The ICP status of “distributor” must be managed by the distributor and indicates that the ICP record represents a shared unmetered load installation or the point of connection between an embedded network and its parent network.*

#### **Audit observation**

I checked the list file to confirm compliance.

#### **Audit commentary**

The list file contained six embedded network (LE) ICPs. The details are recorded correctly on the registry.

#### **Audit outcome**

Compliant

### **4.11. Management of “decommissioned” status (Clause 20 Schedule 11.1)**

#### **Code reference**

*Clause 20 Schedule 11.1*

#### **Code related audit information**

*The ICP status of “decommissioned” must be managed by the distributor and indicates that the ICP is permanently removed from future switching and reconciliation processes (Clause 20(1) of Schedule 11.1).*

*Decommissioning only occurs when:*

- *electrical installations associated with the ICP are physically removed (Clause 20(2)(a) of Schedule 11.1); or*
- *there is a change in the allocation of electrical loads between ICPs with the effect of making the ICP obsolete (Clause 20(2)(b) of Schedule 11.1); or*
- *in the case of a distributor-only ICP for an embedded network, the embedded network no longer exists (Clause 20(2)(c) of Schedule 11.1).*

#### **Audit observation**

I examined the physical process for decommissioning ICPs along with the timeliness and accuracy of registry updates.



### Audit commentary

ICP decommissioning processes are well documented. Requests are made either directly to approved contractors or to dispatch. Notification is then made to the relevant retailer. Aurora monitors ICPs that have been physically decommissioned to ensure the retailer changes the status to “ready for decommissioning” so that Aurora can change the status to “decommissioned”. There are often delays in the Trader updating their status and this can lead to physically decommissioned ICPs being on the registry as active or de-energised vacant because Aurora is unable to decommission until the Trader has updated their status.

There were 15 ICPs with a status of “ready for decommissioning” during the audit. Ten of the ICPs have metering removed from the registry. Ten were analysed with the following findings:

- one ICP was physically decommissioned but notification was not provided in order for GTV and the registry to be updated because a field in the inspectors’ database was not populated
- notification of field activities has not been provided for nine ICPs.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.11 With: Clause 20 of Schedule 11.1 From: 19-Aug-15 To: 09-Aug-17	One ICP not updated to decommissioned.  Potential impact: Low  Actual impact: Low  Audit history: Twice  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are in place to manage the decommissioning process and only one ICP had the incorrect status; therefore the controls are rated as strong.  There is no impact on settlement or other parties; therefore the audit risk rating is minor.		
Actions taken to resolve the issue		Completion date	Remedial action status
The ICP mentioned above was identified during the audit process, so has now been correctly reflected as being Decommissioned on the Registry.		9 August 2017	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	

<p>Aurora will review ICPs set at the “Ready to Decommission” status in the Delta Inspectors database, to ensure that there are no data entry issues holding up notification of a physical decommissioning.</p> <p>For independent (non-Delta) ANIs, Aurora will directly query “Ready to Decommission” status ICPs if no decommissioning liveness report has been provided.</p>	<p>September 2017</p>	
--	-----------------------	--

#### 4.12. Maintenance of price category codes (Clause 23 Schedule 11.1)

##### Code reference

*Clause 23 Schedule 11.1*

##### Code related audit information

*The distributor must keep up to date the table in the registry of the price category codes that may be assigned to ICPs on each distributor's network by entering in the table any new price category codes.*

*Each entry must specify the date on which each price category code takes effect, which must not be earlier than two months after the date the code is entered in the table.*

*A price category code takes effect on the specified date.*

##### Audit observation

I checked the price category code table for any new or changed codes during the audit period.

##### Audit commentary

There were no changes during the audit period.

##### Audit outcome

Not applicable

## 5. CREATION AND MAINTENANCE OF LOSS FACTORS

### 5.1. Updating table of loss category codes (Clause 21 Schedule 11.1)

#### Code reference

*Clause 21 Schedule 11.1*

#### Code related audit information

*The distributor must keep the registry up to date with the loss category codes that may be assigned to ICPs on the distributor's network.*

*The distributor must specify the date on which each loss category code takes effect.*

*A loss category code takes effect on the specified date.*

#### Audit observation

I checked the loss category code table for any new codes during the audit period.

#### Audit commentary

There were no additional codes created during the audit period.

#### Audit outcome

Not applicable

### 5.2. Updating loss factors (Clause 22 Schedule 11.1)

#### Code reference

*Clause 22 Schedule 11.1*

#### Code related audit information

*Each loss category code must have a maximum of two loss factors per calendar month. Each loss factor must cover a range of trading periods within that month so that all trading periods have a single applicable loss factor.*

*If the distributor wishes to replace an existing loss factor on the table on the registry, the distributor must enter the replaced loss factor on the table in the registry.*

#### Audit observation

I checked the loss category code table for any changed factors during the audit period.

#### Audit commentary

Each ICP only has a single loss category, which clearly identifies the relevant loss factor. Each loss category code has a different loss factor for day and night, and summer and winter. There were many loss factor changes during the audit period. The notification date was January 2017 for start dates of May 1<sup>st</sup> and October 1<sup>st</sup> 2017, which achieves compliance with the requirement to provide two months' notice.

Changes to Aurora's loss factors are always effective on the first of any month and all trading periods only have one loss factor.

#### Audit outcome

Compliant

## 6. CREATION AND MAINTENANCE OF NSPS (INCLUDING DECOMMISSIONING OF NSPS AND TRANSFER OF ICPS)

### 6.1. Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1)

#### Code reference

*Clause 11.8 and Clause 25 Schedule 11.1*

#### Code related audit information

*If the distributor is creating or decommissioning an NSP that is an interconnection point between two local networks, the distributor must notify the reconciliation manager of the creation or decommissioning.*

*If the embedded network owner is creating or decommissioning an NSP that is an interconnection point between two embedded networks, the embedded network owner must notify the reconciliation manager of the creation or decommissioning.*

*If the distributor is creating or decommissioning an NSP that is a point of connection between an embedded network and another network, the distributor must notify the reconciliation manager of the creation or decommissioning.*

*If the distributor wishes to change the record in the registry of an ICP that is not recorded as being usually connected to an NSP in the distributor's network, so that the ICP is recorded as being usually connected to an NSP in the distributor's network (a "transfer"), the distributor must:*

- *notify the reconciliation manager*
- *notify the market administrator*
- *notify each affected reconciliation participant*
- *comply with Schedule 11.2.*

#### Audit observation

The NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period; therefore this was not assessed as part of this audit.

#### Audit commentary

The NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period; therefore this was not assessed as part of this audit.

#### Audit outcome

Not applicable

### 6.2. Provision of NSP information (Clause 26(1) and (2) Schedule 11.1)

#### Code reference

*Clause 26(1) and (2) Schedule 11.1*

#### Code related audit information

*If the distributor wishes to create an NSP or transfer an ICP as described above, the distributor must request that the reconciliation manager create a unique NSP identifier for the relevant NSP.*

*The request must be made at least 10 business days before the NSP is electrically connected, in respect of an NSP that is an interconnection point between two local networks. In all other cases, the request must be made at least 1 calendar month before the NSP is electrically connected or the ICP is transferred.*

### Audit observation

The NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period; therefore this was not assessed as part of this audit.

### Audit commentary

The NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period; therefore this was not assessed as part of this audit.

### Audit outcome

Not applicable

## 6.3. Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1)

### Code reference

*Clause 24(1) and Clause 26(3) Schedule 11.1*

### Code related audit information

*If a participant has notified the creation of an NSP on the distributor's network, the distributor must notify the reconciliation manager of the following:*

- *if the NSP is to be located in a new balancing area, all relevant details necessary for the new balancing area to be created and notification that the NSP to be created is to be assigned to the new balancing area*
- *in all other cases, notification of the balancing area in which the NSP is located.*

### Audit observation

The NSP table on the registry was examined. No new balancing areas were created during the audit period; therefore this was not assessed as part of this audit.

### Audit commentary

The NSP table on the registry was examined. No new balancing areas were created during the audit period; therefore this was not assessed as part of this audit.

### Audit outcome

Not applicable

## 6.4. Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)

### Code reference

*Clause 26(4) Schedule 11.1*

### Code related audit information

*If a participant notifies the creation of an NSP, or the transfer of an ICP to an NSP that is a point of connection between a network and an embedded network owned by the distributor, the distributor must notify the reconciliation manager at least one calendar month before the creation or transfer of:*

- *the network on which the NSP will be located after the creation or transfer (Clause 26(4)(a))*
- *the ICP identifier for the ICP that connects the network and the embedded network (Clause 26(4)(b))*
- *the date on which the creation or transfer will take effect (Clause 26(4)(c)).*

#### **Audit observation**

Aurora has not created any embedded networks; therefore this was not assessed as part of this audit.

#### **Audit commentary**

Aurora has not created any embedded networks; therefore this was not assessed as part of this audit.

#### **Audit outcome**

Not applicable

### **6.5. Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1)**

#### **Code reference**

*Clause 24(2) and (3) Schedule 11.1*

#### **Code related audit information**

*The distributor must notify the reconciliation manager of any change to balancing areas associated with an NSP supplying the distributor's network. The notification must specify the date and trading period from which the change takes effect, and be given no later than three business days after the change takes effect.*

#### **Audit observation**

The NSP table on the registry was examined. No balancing areas were changed during the audit period; therefore this was not assessed as part of this audit.

#### **Audit commentary**

The NSP table on the registry was examined. No balancing areas were changed during the audit period; therefore this was not assessed as part of this audit.

#### **Audit outcome**

Not applicable

### **6.6. Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1)**

#### **Code reference**

*Clause 27 Schedule 11.1*

#### **Code related audit information**

*If a transfer of an ICP results in an ICP becoming an NSP at which an embedded network connects to a network, or in an ICP becoming an NSP that is an interconnection point, in respect of the distributor's network, the distributor must notify any trader trading at the ICP of the transfer at least one calendar month before the transfer.*

#### **Audit observation**

One embedded network was connected to Aurora's network during the audit period but Aurora has not become an embedded network owner. The embedded network owner is responsible for this clause.

#### **Audit commentary**

One embedded network was connected to Aurora's network during the audit period but Aurora has not become an embedded network owner. The embedded network owner is responsible for this clause.

#### **Audit outcome**

Not applicable

### **6.7. Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2)**

#### **Code reference**

*Clause 1 to 4 Schedule 11.2*

#### **Code related audit information**

*If the distributor wishes to transfer an ICP, the distributor must notify the market administrator in the prescribed form, no later than three business days before the transfer takes effect.*

#### **Audit observation**

Aurora has not acquired any networks; therefore this was not assessed as part of this audit.

#### **Audit commentary**

Aurora has not acquired any networks; therefore this was not assessed as part of this audit.

#### **Audit outcome**

Not applicable

### **6.8. Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1)&(3))**

#### **Code reference**

*Clause 10.25(1)&(3)*

#### **Code related audit information**

*A network owner must, for each NSP that is not a point of connection to the grid for which it is responsible, ensure that:*

- *there is one or more metering installations (Clause 10.25(1)(a)); and*
- *the electricity is conveyed and quantified in accordance with the Code (Clause 10.25(1)(b)).*

#### **Audit observation**

Aurora is responsible for the metering installation at the point of connection between Heritage Estate and The Power Company. I checked the NSP table to confirm if the metering installation had current certification.

#### **Audit commentary**

Aurora is responsible for the metering installation at the point of connection between Heritage Estate and The Power Company. The NSP table shows that the certification expiry date is 05/02/17 because the required update was not sent to the reconciliation manager.

#### **Audit outcome**

Non-compliant

Non-compliance	Description		
Audit Ref: 6.8 With: Clause 10.25(3) of Part 10 From: 05-Feb-17 To: 14-Aug-17	RM not notified of certification date for Heritage Estate. Potential impact: Medium Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls did not appear to identify this issue; therefore they are recorded as weak. There is no impact on settlement or other parties because the metering is certified; therefore the audit risk rating is minor.		
Actions taken to resolve the issue		Completion date	Remedial action status
Aurora has notified the Reconciliation Manager of the new certification expiry date (14/4/2020) for the Heritage Estate NSP (HER0111).		17 August 2017	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
The MEP for the NSP (Vector/AMS) has stated that they will forward on any future metering certification renewal information to Aurora. This update will alert Aurora to update the Reconciliation Manager.		5 September 2017	

#### 6.9. Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2))

##### Code reference

Clause 10.25(2)

##### Code related audit information

*If the network owner proposes the creation of a new NSP which is not a point of connection to the grid it must:*

- assume responsibility for being the metering equipment provider (Clause 10.25(2)(a)(i)); or
- contract with a metering equipment provider to be the MEP (Clause 10.25(2)(a)(ii)); and
- no later than 20 business days after identifying the MEP advise the reconciliation manager in the prescribed form of:
  - a) the reconciliation participant for the NSP (Clause 10.25(2)(b)(i)); and
  - b) the MEP for the NSP (Clause 10.25(2)(b)(ii)); and
  - c) no later than 20 business days after the data of certification of each metering installation, advise the reconciliation participant for the NSP of the certification expiry date (Clause 10.25(2)(c)).



### **Audit observation**

The NSP table on the registry was examined. No NSPs were created during the audit period; therefore this was not assessed as part of this audit.

### **Audit commentary**

The NSP table on the registry was examined. No NSPs were created during the audit period; therefore this was not assessed as part of this audit.

### **Audit outcome**

Not applicable

## **6.10. Obligations concerning change in network owner (Clause 29 Schedule 11.1)**

### **Code reference**

*Clause 29 Schedule 11.1*

### **Code related audit information**

*If a network owner acquires all or part of a network, the network owner must notify:*

- *the previous network owner (Clause 29(1)(a) of Schedule 11.1)*
- *the reconciliation manager (Clause 29(1)(b) of Schedule 11.1)*
- *the market administrator (Clause 29(1)(c) of Schedule 11.1)*
- *every reconciliation participant who trades at an ICP connected to the acquired network or part of the network acquired (Clause 29(1)(d) of Schedule 11.1).*

*At least 1 calendar month notification is required before the acquisition (Clause 29(2) of Schedule 11.1).*

*The notification must specify the ICPs to be amended to reflect the acquisition and the effective date of the acquisition (Clause 29(3) of Schedule 11.1).*

### **Audit observation**

Aurora has not acquired any networks; therefore this was not assessed as part of this audit.

### **Audit commentary**

Aurora has not acquired any networks; therefore this was not assessed as part of this audit.

### **Audit outcome**

Not applicable

#### 6.11. Electrically connecting NSP that is not point of connection to grid (Clause 10.30(1))

##### Code reference

Clause 10.30(1)

##### Code related audit information

*A distributor must not electrically connect an NSP that is not a point of connection to the grid unless:*

- *a reconciliation participation has requested the electrical connection (Clause 10.30(1)(a)); or*
- *a metering equipment provider (authorised by the trader) has requested the electrical connection for a temporary energisation of the ICP (Clause 10.30(1)(b)).*

##### Audit observation

Aurora has not requested the connection of any NSPs.

##### Audit commentary

Aurora has not requested the connection of any NSPs.

##### Audit outcome

Not applicable

#### 6.12. Change of MEP for embedded network gate meter (Clause 10.22(1)(b))

##### Code reference

Clause 10.22(1)(b)

##### Code related audit information

*If the MEP for an ICP which is also an NSP changes the participant responsible for the provision of the metering installation under Clause 10.25, the participant must notify the reconciliation manager and the gaining MEP.*

##### Audit observation

The MEP has not changed for Heritage Estate.

##### Audit commentary

The MEP has not changed for Heritage Estate.

##### Audit outcome

Not applicable

#### 6.13. Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2)

##### Code reference

Clauses 5 and 8 Schedule 11.2

##### Code related audit information

*The distributor must give the market administrator confirmation that it has received written consent to the proposed transfer from:*

- *the distributor whose network is associated with the NSP to which the ICP is recorded as being connected immediately before the notification (unless the notification relates to the creation of an embedded network) (Clause 5(a) of Schedule 11.2)*

- every trader trading at an ICP being supplied from the NSP to which the notification relates (Clause 5(b) of Schedule 11.2).

*The notification must include any information requested by the Authority (Clause 8 of Schedule 11.2).*

**Audit observation**

Aurora has not acquired any networks; therefore this was not assessed as part of this audit.

**Audit commentary**

Aurora has not acquired any networks; therefore this was not assessed as part of this audit.

**Audit outcome**

Not applicable

**6.14. Transfer of ICPs for embedded network (Clause 6 Schedule 11.2)**

**Code reference**

*Clause 6 Schedule 11.2*

**Code related audit information**

*If the notification relates to an embedded network, it must relate to every ICP on the embedded network.*

**Audit observation**

Aurora has not acquired any networks; therefore this was not assessed as part of this audit.

**Audit commentary**

Aurora has not acquired any networks; therefore this was not assessed as part of this audit.

**Audit outcome**

Not applicable

## 7. MAINTENANCE OF SHARED UNMETERED LOAD

### 7.1. Notification of shared unmetered load ICP list (Clause 11.14(2) and (4))

#### Code reference

*Clause 11.14(2) and (4)*

#### Code related audit information

*The distributor must notify the registry and each trader responsible for the ICPs across which the unmetered load is shared of the ICP identifiers of those ICPs.*

*A distributor who receives notification from a trader relating to a change under Clause 11.14(3) must notify the registry and each trader responsible for any of the ICPs across which the unmetered load is shared of the addition or omission of the ICP.*

#### Audit observation

Aurora does not have any shared unmetered load.

#### Audit commentary

Aurora does not have any shared unmetered load.

#### Audit outcome

Not applicable

### 7.2. Changes to shared unmetered load (Clause 11.14(5))

#### Code reference

*Clause 11.14(5)*

#### Code related audit information

*If the distributor becomes aware of a change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must notify all traders affected by that change or decommissioning as soon as practicable after the change or decommissioning.*

#### Audit observation

Aurora does not have any shared unmetered load.

#### Audit commentary

Aurora does not have any shared unmetered load.

#### Audit outcome

Not applicable

## 8. CALCULATION OF LOSS FACTORS

### 8.1. Creation of loss factors (Clause 11.2)

#### Code reference

*Clause 11.2*

#### Code related audit information

*A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Part 11 is:*

- a) complete and accurate*
- b) not misleading or deceptive*
- c) not likely to mislead or deceive.*

#### Audit observation

Aurora publishes reconciliation losses, which include technical losses and non-technical losses. I reviewed the process and supporting documentation in relation to the calculation of loss factors.

#### Audit commentary

There are different loss factors for summer/winter and day/night. These are revised annually based on historic data over several years. The process achieves compliance with clause 11.2.

#### Audit outcome

Compliant

## CONCLUSION

Nine non-compliances are recorded, all with an audit risk rating of low. Four of the issues found relate to a small number of late registry updates and a further two relate to a small number of registry errors.

The number of ICPs at new or ready for longer than 24 months has increased and there is currently no communication between Aurora and traders with regard to these ICPs.

Four ICPs had incorrect NSPs recorded on the registry, leading to minor settlement issues due to submission by traders occurring against the incorrect NSPs.

In most cases the controls are rated as moderate or strong and some small changes to reporting should help with eliminating some of the issues found.

## PARTICIPANT RESPONSE

Aurora acknowledges the areas of non-compliance identified in the audit report. In response to each non-compliance raised, we have stated the method (whether it be a change in process or a reminder to staff of the correct process) by which these non-compliances will be mitigated in the future.

Much of the process to update information in Aurora's billing and connection management system and onto the Registry is reliant on humans. Therefore errors will occur from time-to-time, whether in the field by Aurora's contractors, or by Aurora staff updating pricing and connection information.

The audit report highlights some specific areas where alterations to the monthly reconciliation processes can provide benefit in highlighting data errors. This process may not stop late notifications but it will identify missing or incorrect data points.

Aurora is putting some further emphasis on the decommissioning process. However much of this process is required as a result of Aurora not having the ability to update the Registry to a Decommissioned status, without a retailer updating the status to "Ready to Decommission" beforehand. Aurora is continually frustrated by retailers not updating the Registry status until after the physical decommissioning has occurred.

## APPENDIX A - TEMPLATE FOR NON-COMPLIANCE, ISSUES AND RECOMMENDATIONS.

### NON-COMPLIANCE

Non-compliance	Description	
Audit Ref: With: From: Click here to enter a date. To: Click here to enter a date.	Potential impact: Choose an item. Actual impact: Choose an item. Audit history: Controls: Choose an item. Breach risk rating:	
Audit risk rating	Rationale for audit risk rating	
Choose an item.		
Actions taken to resolve the issue	Completion date	Remedial action status
		Choose an item.
Preventative actions taken to ensure no further issues will occur	Completion date	

### RECOMMENDATION

Recommendation	Description	Audited party comment	Remedial action

### ISSUE

Issue	Description	Remedial action