

**ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTOR AUDIT REPORT**

For

**AUCKLAND INTERNATIONAL AIRPORT  
LIMITED (AIAL)**

Prepared by: Rebecca Elliot, Veritek Limited

Date audit commenced: 15 September 2017

Date audit report completed: 22 September 2017

Audit report due date: 04-Oct-17

---

## TABLE OF CONTENTS

Executive summary .....	4
Audit summary .....	5
Non-compliances .....	5
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) .....	9
1.5. Supplier list .....	9
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)) .....	13
3. Creation of ICPs .....	15
3.1. Distributors must create ICPs (Clause 11.4) .....	15
3.2. Participants may request distributors to create ICPs (Clause 11.5(3)) .....	15
3.3. Provision of ICP Information to the registry (Clause 11.7) .....	16
3.4. Timeliness of Provision of ICP Information to the registry (Clause 7(2) of Schedule 11.1) .....	16
3.5. Timeliness of Provision of Initial Energisation Date (Clause 7(2A) of Schedule 11.1) .....	16
3.6. Connection of ICPs (Clause 11.17) .....	18
3.7. Electrical connection of ICPs (Clause 10.28(7)) .....	19
3.8. Electrical connection of ICP that is not an NSP (Clause 10.31) .....	19
3.9. Electrical connection of NSP that is not a point of connection to the grid (Clause 10.30(2)) .....	20
3.10. Definition of ICP identifier (Clause 1(1) Schedule 11.1) .....	20
3.11. Loss category (Clause 6 Schedule 11.1) .....	21
3.12. Management of “new” status (Clause 13 Schedule 11.1) .....	21
3.13. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1) .....	21
3.14. Embedded generation loss category (Clause 7(6) Schedule 11.1) .....	22
4. Maintenance of registry information .....	24
4.1. Changes to registry information (Clause 8 of Schedule 11.1) .....	24
4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1) .....	25
4.3. Customer queries about ICP (Clause 11.31) .....	26
4.4. ICP location address (Clause 2 of 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) ....	28
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) .....	33
4.11.	Management of “decommissioned” status (Clause 20 Schedule 11.1) .....	33
4.12.	Maintenance of price category codes (Clause 23 Schedule 11.1).....	35
5.	Creation and maintenance of loss factors .....	36
5.1.	Updating table of loss category codes (Clause 21 Schedule 11.1) .....	36
5.2.	Updating loss factors (Clause 22 Schedule 11.1) .....	36
6.	Creation and maintenance of NSPs (including decommissioning of NSPs and transfer of ICPs)37	
6.1.	Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1) .....	37
6.2.	Provision of NSP information (Clause 26(1) and (2) Schedule 11.1) .....	37
6.3.	Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1) .....	38
6.4.	Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)38	
6.5.	Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1) .....	39
6.6.	Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1) .....	39
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) and 10.25(3)) .....	40
6.9.	Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2)) .....	41
6.10.	Obligations concerning change in network owner (Clause 29 Schedule 11.1) .....	42
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)) .....	44
6.13.	Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2) .....	44
6.14.	Transfer of ICPs for embedded network (Clause 6 Schedule 11.2).....	45
7.	Maintenance of shared unmetered load .....	46
7.1.	Notification of shared unmetered load ICP list (Clause 11.14(2) and (4)) .....	46
7.2.	Changes to shared unmetered load (Clause 11.14(5)).....	46
8.	Calculation of loss factors .....	47
8.1.	Creation of loss factors (Clause 11.2).....	47
Conclusion	.....	48
Participant response	.....	49

## EXECUTIVE SUMMARY

This Distributor audit was conducted at the request of **Auckland International Airport Ltd (AIAL)** to encompass the Electricity Industry Participation Code requirement for an annual audit, in accordance with clause 11.10 of part 11.

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

AIAL's compliance for registry maintenance is largely reliant on the compliance of Vector, as the contractor. Whilst Vector's audit is greater than seven months old I have undertaken an audit of all activity carried out on behalf of AIAL to ensure that compliance can be determined. Their audit report will be submitted with this report.

The audit found eight non-compliances and two recommendations are made. This is a similar level of non-compliance found in the last two audits. The volume of activity for AIAL is very small compared to Vector's overall workload and this appears to be hindering resolving the non-compliances found for AIAL.

The Distributor audit frequency matrix the next recommended audit is due in six months and I agree with this recommendation.

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1)	44 active ICPs with missing initial energisation dates	Weak	Low	3	Identified
Requirement to correct errors	2.2	11.2(2)	Corrections not supplied as soon as practicable	Weak	Low	3	Identified
Timeliness of Provision of Initial Energisation Date	3.5	7(2A) of Schedule 11.1	The event date populated to the registry for IED updates is not the IED date	Weak	Low	3	Identified
Monitoring of “new” & “ready” statuses	3.13	15 Schedule 11.1	ICPs at the “New” and “Ready” for greater than 24 months are not managed	None	Low	3	Identified
Changes to registry information	4.1	8 of Schedule 11.1	Registry not updated within three days of the event	Weak	Low	3	Identified
ICP location address	4.4	2 of Schedule 11.1	3 ICPs with duplicate addresses 1 ICP not readily locatable	None	Low	3	Identified
Distributors to Provide ICP Information to the Registry	4.6	7(1) Schedule 11.1	Initial energisation date not populated for 44 ICPs	Weak	Low	3	Identified
Responsibility	6.8	10.25(3)	Meter not	None	Low	3	Identified

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
for metering information for NSP			certified until May 2017 and not notified to the RM				
Future Risk Rating						24	
Indicative next audit frequency						6 months	

## RECOMMENDATIONS

Subject	Section	Recommendation	Remedial Action
Distributors to Provide ICP Information to the Registry	4.6	Liaise with the retailer for ICP 0000021334AA349 to determine if distributed generation is present or not.	Identified
		Review process to ensure that AIAL are capturing this information and updating the registry accordingly.	Identified

## ISSUES

Subject	Section	Description	Issue

## 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

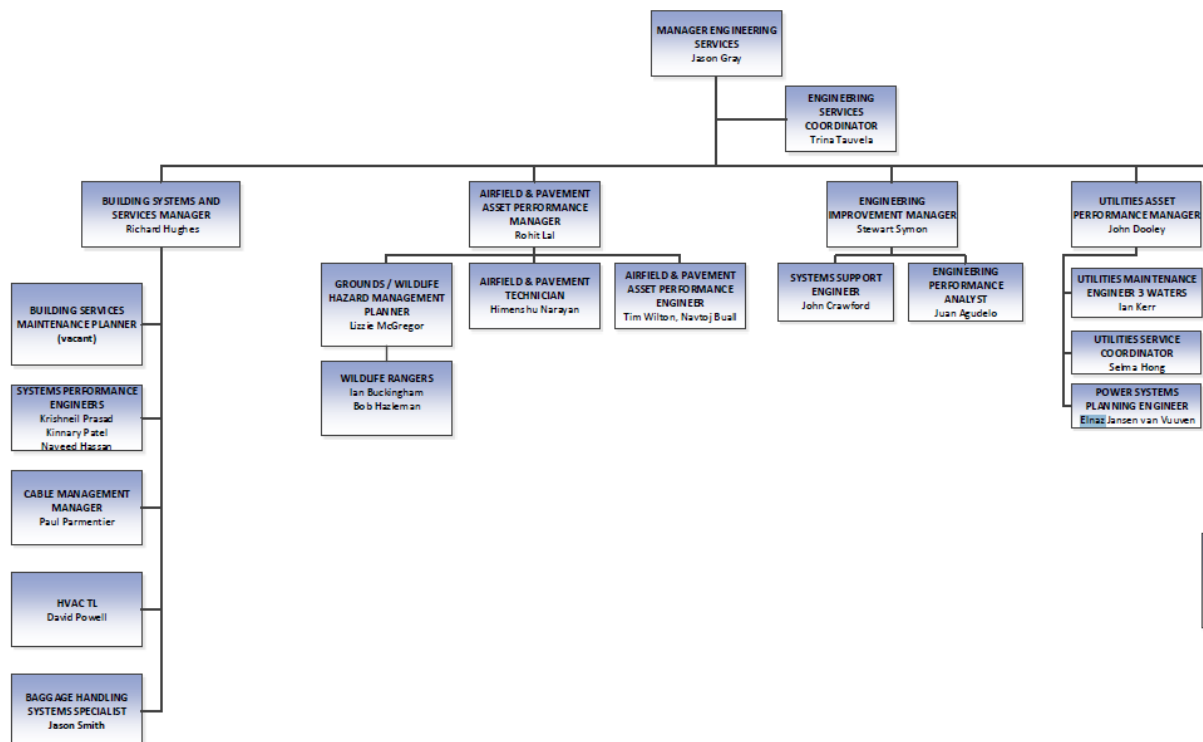
The Authority website was checked to determine whether AIAL has any Code exemptions in place.

#### Audit commentary

Review of exemptions on the Authority website confirmed that there are no exemptions in place for AIAL.

### 1.2. Structure of Organisation

AIAL provided an organisational structure:



### 1.3. Persons involved in this audit

Auditor:

**Rebecca Elliot**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Personnel assisting in this audit were:

Name	Title	Organisation
Elnaz van Vuuren	Power Systems Engineer	AIAL
Richard Green	Director	Business Engagement Ltd



#### 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

Vector performs all AIAL 's registry maintenance responsibilities.

#### 1.5. Supplier list

Activities covered by the scope of this audit, are conducted by Vector.

#### 1.6. Hardware and Software

This is covered off in Vector's report.

#### 1.7. Breaches or Breach Allegations

AIAL has not had any breach allegations relevant to this audit recorded by the Electricity Authority.

#### 1.8. ICP and NSP Data

Review of the NSP table showed AIAL had the following NSP:

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
AIAL	AKL0331	AUCKLAND AIRPORT	MNG0331	VECT	AKL0331AIALE	EN	1/10/10	585

Status	Number of ICPs 2017	Number of ICPs 2016	Number of ICPs 2015
Distributor	0	0	0
New	1	1	0
Ready	9	22	16
Active (2,0)	585	571	553
Inactive - new connection in progress (1,12)	0	0	7
Inactive – vacant (1,4)	10	8	7
Inactive - reconciled elsewhere (1,5)	0	0	0
Inactive – AMI remote disconnection (1,7)	3	1	0
Inactive – de-energised due to meter disconnected (1,9)	5	3	0
Inactive – at pole fuse(1,8)	0	0	0
Inactive – de-energised at meter box switch (1,10)	0	0	0
Inactive - at meter box switch (1,11)	0	0	0
Inactive – ready for decommissioning (1,6)	8	23	3
Decommissioned (3)	213	187	183

#### 1.9. Authorisation Received

AIAL provided a letter of authorisation to Veritek, permitting the collection of data from other parties for matters directly related to the audit.

#### 1.10. Scope of Audit

This Distributor audit was performed at the request of AIAL, to encompass the Electricity Industry Participation Code requirement for an annual audit, in accordance with clause 11.10 of part 11.

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

The scope of the audit is shown in the table below:

Functions Requiring Audit Under Clause 11.10(4) of Part 11	Contractors Involved in Performance of Tasks
The creation of ICP identifiers for ICPs.	Vector
The provision of ICP information to the registry and the maintenance of that information.	

The creation and maintenance of loss factors.	
---	--

The audit report for Vector will be submitted with this audit.

### 1.11. Summary of previous audit

AIAL provided a copy of their previous audit conducted in October 2016 by Rebecca Elliot of Veritek Limited. The current status of these has been updated below:

## Table of Non-Compliance

Subject	Section	Clause	Non compliance	Status
Provide complete and accurate information	1.6	11.2 of Part 11	Known missing initial energisation dates from the 2015 audit not corrected as soon as practicable.	Still existing
Provision of ICP Information to the Registry	2.2	11.7 of Part 11 & 7(2) of Schedule 11.1	ICP updated to registry after becoming active.	Cleared
Connection of ICPs	2.3	11.17 of Part 11	One ICP created after electrical connection had occurred.	Cleared
Monitoring of "New" & "Ready" statuses	2.4	15 of schedule 11.1.	ICPs at Ready greater than 24 months not being monitored.	Still existing
Changes to Registry	3.1	8 of schedule 11.1	36 backdated events.	Still existing
Initial Energisation date	3.4	7(1)(p) & (2) of schedule 11.1	No initial energisation dates populated for the 28 ICPs energised and the 35 ICPs identified last year still without dates populated.	Still existing
Responsibility for Metering Information on NSP	5.1	10.25 of part 10	Expired meter certification on embedded NSP AKL0331.	Still existing

## Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Remedial action
Monitoring of "New" & "Ready" statuses	2.3	15 of schedule 11.1.	Review process of monitoring ICPs at new and ready.	Still existing
Initial energisation date	3.4	7(1)(p) & (2) of schedule 11.1	Review process to ensure that AIAL are capturing this information and updating the registry accordingly.	Still existing

## 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

I examined a registry list file to confirm compliance. The Vector audit report does not cover this requirement.

#### Audit commentary

AIAL capture the required information in the first instance and rely on Vector to update information on the registry. The response provided to the Authority from the last audit indicated that the issues were resolved. Examination of the list file for this audit found the initial energisation date was missing for 44 active ICPs. I recommend in **Section 4.6** that this process is reviewed. This is recorded as non-compliance.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: 11.2(1)  From: 01-Sep-16 To: 31-Aug-17	44 active ICPs with missing initial energisation dates.  Potential impact: None  Actual impact: None  Audit history: Multiple  Controls: Weak  Breach risk rating:		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	This issue has been evident in the last 2 audits and is an issue for Vector, hence controls are weak.  The audit risk rating is low as the missing information has no direct impact on settlement.		
Actions taken to resolve the issue		Completion date	Remedial action status
See remedial actions noted in Section 4.6		31/10/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
See preventative actions noted in Section 4.6		Ongoing	

## 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

I examined a registry list file to confirm compliance. The Vector audit report does not cover this requirement.

### Audit commentary

Examination of the list file found the initial energisation date was missing for 44 active ICPs. This was evident in the last audit and corrections have not been made as soon as practicable. This is recorded as non-compliance.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: 11.2(2) From: 01-Sep-16 To: 31-Aug-17	Corrections not supplied as soon as practicable. Potential impact: None Actual impact: None Audit history: Multiple Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	This issue has been evident in the last 2 audits and is an issue for Vector, hence controls are weak. The audit risk rating is low as the missing information has no direct impact on settlement.		
Actions taken to resolve the issue		Completion date	Remedial action status
See remedial actions noted in Section 4.6		31/10/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
See preventative actions noted in Section 4.6		Ongoing	

### 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 is discussed in the Vector contractor report. Examination of the registry list file found 13 ICPs created during the audit period.

##### Audit commentary

The new ICPs were created in accordance with this clause.

##### 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 is discussed in the Vector contractor report. Examination of the registry list file found 13 ICPs created during the audit period.

##### Audit commentary

This clause requires Distributors to create ICPs within three business days of the request. This clause also assumes that ICP requests will be made by traders, however the process for embedded networks managed by Vector is different and ICP requests are made by embedded network management therefore this clause does not apply.

##### Audit outcome

Not applicable

### 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 is discussed in the Vector contractor report.

AIAL's 13 new ICPs were checked to confirm compliance.

#### **Audit commentary**

Compliance is recorded for Vector. All information recorded on the registry was correct.

#### **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 is discussed in the Vector contractor report.

The event detail file was checked to determine the timeliness of the provision of ICP information.

#### **Audit commentary**

Compliance is recorded for Vector. A check of the event detail file confirmed that all ICPs were updated as soon as practicable, and prior to energisation in all cases.

#### **Audit outcome**

Compliant

### 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 is discussed in the Vector contractor report.

The event detail file was checked to determine the timeliness of the provision of the initial energisation date.

### **Audit commentary**

Non-compliance was recorded for Vector. There were 13 ICPs made active during the audit period. The initial energisation date was populated for four of these ICPs. ICP 0003133790AA25B was updated on the registry on 3/2/17 with an effective date of 17/1/17 but with the correct initial energisation date of 25/1/17. This is not the correct effective date to use as per the date dictionary description from the registry:

*The Event Date defines the date from which the attribute values of the event should apply. There is no end date. The state defined by the attribute values of an event for an ICP continues until a new event of the same type supersedes it. By convention, all events are deemed to occur at 0:00:00 on the day of the Event Date and to end at 23:59:59 on the day before the Event Date of the next event of the same type.*

There were another 48 initial energisation dates populated. These were all updated on 10/2/17 for an effective date of the 10/2/17 but the initial energisation dates were from 2014 - 2017. The population of an incorrect effective date is recorded as non-compliance.

### **Audit outcome**

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: 7(2A) of Schedule 11.1  From: 01-Sep-16 To: 31-Aug-17	The event date populated to the registry for IED updates is not the IED date. Potential impact: None Actual impact: None Audit history: Multiple Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are recorded as weak as level of error is high and this has been evident in the AIAL audit since this requirement came into effect.  There is no impact on settlement, therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
The identified ICPs have been investigated. The registry has been updated to align the effective date and the IED date.		21/9/17	Identified
The 48 IEDs populated on 10/2/17 was a remedial action from the previous audit relating to 2014 – 2015.		No further action	
Preventative actions taken to ensure no further issues will occur		Completion date	
AIAL will monitor its activities to ensure its obligations are being met.		Ongoing	

### 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 is discussed in the Vector contractor report. The registry list was examined to determine compliance.

#### **Audit commentary**

Compliance is recorded for Vector. Review of the registry list confirmed that a trader is recorded for the nine ICPs that are at the “ready” status. The registry list does not record any shared unmetered load.

#### **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 registry list was reviewed to identify any new connections of ICPs that are also NSPs.

#### **Audit commentary**

AIAL will not electrically connect an ICP without a reconciliation participant accepting responsibility. Examination of the list file confirmed this.

#### **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 is discussed in the Vector contractor report. The event detail file for 1 September 2016 – 31 August 2017, and the registry list were examined to determine compliance.

#### **Audit commentary**

Vector’s processes are robust in relation to this clause as an ICP will not be electrically connected without the agreement from the trader, who in turn has agreement with an MEP for the ICP. The list file confirmed that all ICPs at the “Ready” status had a trader nominated.

### 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

No new NSPs have been electrically connected during the audit period; therefore compliance was not assessed.

### 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 ICP creation process is discussed in the Vector contractor report.

### Audit commentary

### 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 active ICP only has a single loss category, which clearly identifies the relevant loss factor.

#### 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 ICP creation process is discussed in the Vector contractor report. The event detail file for 1 September 2016 – 31 August 2017, and the registry list were examined to determine compliance.

#### Audit commentary

Compliance is recorded for Vector.

Most ICPs are created at “Ready”. The list file identified ICP 0003133740AAF19 has been at the “New” status since 23/10/15.

#### 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

Monitoring of new and ready status is discussed in the Vector contractor report. The list file as at 31/8/17 was examined.

#### Audit commentary

Compliance is recorded for Vector.

An examination of the list file found four ICPs at the “Ready” status for greater than 24 months. This was checked with AIAL and found that these are not being managed and these get reviewed during each audit.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.13 With: 15 Schedule 11.1 From: 01-Sep-16 To: 31-Aug-17	ICPs at the “New” and “Ready” for greater than 24 months are not managed Potential impact: Low Actual impact: None Audit history: Multiple Controls: None Breach risk rating:		
Audit risk rating	Rationale for audit risk rating		
Low	There is no process in place to manage ICPs at these statuses as they age. The volume of ICPs affected is low therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
The 4 ICPs have been investigated. Changes are updated on the registry.		21/9/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
A new process to monitor ICPs at “New” & “Ready” on a monthly basis has been established.		30/9/17	

#### 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:*
  - o *the unique loss category code assigned to the ICP*
  - o *the ICP identifier of the ICP*
  - o *the NSP identifier of the NSP to which the ICP is connected*
  - o *the plant name of the embedded generating station.*

### **Audit observation**

The list file as at 31/8/17 was examined. AIAL does not supply any embedded generators; therefore compliance was not assessed.

### **Audit outcome**

Not applicable

## 4. MAINTENANCE OF REGISTRY INFORMATION

### 4.1. Changes to registry information (Clause 8 of 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 management of this process is discussed in the Vector contractor report. I also examined the event detail report for 01/09/2016 – 31/08/2017 to identify late changes to registry information during the audit period.

#### Audit commentary

Non-compliance is recorded in the Vector contractor report in relation to updates on their network. The event detail report found:

#### Address events

There were 35 address events during the audit period; all were updated within three business days.

#### Network Events

There were 18 network events during the audit period (excluding the updating of initial energisation dates) and all were updated within three business days. Initial energisation date updates are discussed in **section 3.5**.

#### Pricing Events

There were 41 pricing events during the audit period. 23 (56%) of these were updated within three business days. The remaining 18 (44%) were updated more than three business days and are recorded as non-compliance below.

#### Status Events

There were six status events during the audit period. These related to the decommissioning of ICPs. All were updated to the registry more than three business days. These were all checked on the registry and these were not delayed by the retailer. This is recorded as non-compliance below.

#### Audit outcome

Non-compliant



Non-compliance	Description		
Audit Ref: 4.1 With: 8 Schedule 11.1  From: 01-Sep-16 To: 31-Aug-17	Registry not updated within three days of the event. Potential impact: None Actual impact: None Audit history: Multiple Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are weak as almost half of the pricing updates to the registry were late. The audit risk rating is low as the volume of ICPs affected were small and therefore the impact on settlement will be low.		
Actions taken to resolve the issue		Completion date	Remedial action status
The 18 pricing events updated more than three business days that are recorded as non-compliant are now historic. AIAL does not disagree that these were non-compliant		Not applicable	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
A closer AIAL inter-department focus including pricing events has been introduced recently to ensure backdating does not occur. AIAL will monitor its new processes closely to ensure its obligations are being met.		Ongoing	

#### 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**

This is an unlikely event given that AIAL has only one NSP. I examined the event detail report for the audit period of 01/09/2016 – 31/08/2017 to confirm that no ICPs had had a change of NSP during the audit period.

#### **Audit commentary**

Review of the event detail report confirmed that there was no change of NSP during the audit period.

#### **Audit outcome**

Compliant

### **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 examined.

#### **Audit commentary**

AIAL does not receive direct requests for ICP identifiers, but if they were received these would be provided immediately.

#### **Audit outcome**

Compliant

### **4.4. ICP location address (Clause 2 of 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 list file was analysed and the Vector contractor report was reviewed.

#### **Audit commentary**

Non-compliance is recorded in Vector's report. A check of AIAL's list file found that three ICPs that have duplicate addresses and one ICP that is not readily locatable. Two of the duplicated addressed ICPs were created during the audit period.

#### **Audit outcome**

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: 2 Schedule 11.1 From: 01-Sep-16 To: 31-Aug-17	3 ICPs with duplicate addresses. 1 ICP not readily locatable. Potential impact: None Actual impact: None Audit history: None Controls: None Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as there is no process in place to ensure duplicate addresses are not created. The audit risk rating is low as this affects four of 585 ICPs that AIAL are responsible for.		
Actions taken to resolve the issue		Completion date	Remedial action status
The 3 identified 'duplicate address' ICPs within the international and domestic terminals have been updated on the registry to include a "unit" name thereby ensuring location.		21/9/17	Identified
The registry has been updated for the 1 identified 'not readily locatable' ICP to now show the actual address		21/9/17	
Preventative actions taken to ensure no further issues will occur		Completion date	
AIAL will monitor its activities to ensure population of the registry for new ICPs includes the use of readily locatable addresses.		Ongoing	

#### 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

This was reviewed in the Vector contractor report.

### Audit commentary

Compliance is recorded in the Vector contractor report.

### 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

The management of this process is discussed in the Vector contractor report.

The list file was examined to check for the population of all required information and its alignment with the trader where appropriate e.g. distributed generation, unmetered load if known and shared unmetered load.

#### Audit commentary

All registry information aligned with the exception of:

- 11 ICPs created and energised during the audit period but have no initial energisation date recorded. Non-compliance is recorded in the Vector contractor report in relation to the population of the initial energisation date. The response provided to the Authority from the last audit indicated that in relation to this issue that it was resolved. I repeat last year's recommendation to maintain visibility of this issue. This is recorded as non-compliance below.

Description	Recommendation	Audited party comment	Remedial action
Distributors to Provide ICP Information to the Registry	Review process to ensure that AIAL are capturing this information and updating the registry accordingly.	The process was established after the previous audit and will be reinforced internally and with contractors.	Identified

- 33 ICPs energised prior to the audit period with no initial energisation date populated.
- There has been no unmetered load added during the audit period.
- ICP 0000021334AA349 has had new metering certified on 12/04/17 which indicates there is an injection channel present but AIAL has no distributed generation recorded. I recommend that AIAL liaise with the Retailer to determine if distributed generation is present, or if the meter channel is recorded incorrectly as injection.

Description	Recommendation	Audited party comment	Remedial action
-------------	----------------	-----------------------	-----------------

Distributors to Provide ICP Information to the Registry	Liaise with the retailer for ICP 0000021334AA349 to determine if distributed generation is present or not.	We accept the auditor's recommendations. We will liaise with the retailer and action accordingly	Identified
---	--	--	------------

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.7 With: 7(1) Schedule 11.1  From: 01-Sep-16 To: 31-Aug-17	Initial energisation date not populated for 44 ICPs. Potential impact: None Actual impact: None Audit history: Multiple Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	This is an issue identified in the Vector report with weak controls. The audit risk rating is low as this has no direct impact on settlement.		
Actions taken to resolve the issue		Completion date	Remedial action status
AIAL has commenced a review of the 11 and 33 earlier omitted ICPs identified to populate the IED. 5 of these have already been updated on the registry Regards ICP 0000021334AA349, AIAL will liaise with the retailer to determine if DG is present, or if the meter channel is recorded incorrectly as injection, and update the registry accordingly.		31/10/17  31/10/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Third party obligations associated with timely provision of ICP information will be enforced, with AIAL ensuring this information is updated on the registry to meet its obligations.		Ongoing	

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 management of this process is discussed in the Vector contractor report. The event detail report for the period 01/09/2016 – 31/08/2017 was examined to determine compliance with this clause.

#### **Audit commentary**

Compliance is recorded in the Vector contractor report. Pricing information was updated on the registry before trading of electricity commenced for all ICPs created and energised during the audit period.

#### **Audit outcome**

Compliant

### **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**

AIAL do not populate GPS co-ordinates on the registry; therefore compliance was not assessed.

#### **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**

The management of this process is discussed in the Vector contractor report. The list file and event detail report for 01/09/2016 – 31/08/2017 were examined in relation to the use of the ready status.



#### **Audit commentary**

Compliance is recorded in the Vector contractor report. The list file contained nine ICPs at “ready”. All had a nominated trader and price category recorded.

#### **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**

It is unlikely that AIAL will deal with any ICPs with a “Distributor” status because they do not deal with shared unmetered load, and there are no embedded networks connected to existing embedded networks.

#### **Audit commentary**

#### **Audit outcome**

Not applicable

### **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**

The management of this process is discussed in the Vector contractor report. The list file and event detail report for 01/09/2016 – 31/08/2017 were examined in relation to the use of the decommissioned status.

#### **Audit commentary**

Compliance is recorded in the Vector contractor report. The list file recorded eight ICPs that are at the "inactive - ready for decommissioning" status. These are all awaiting confirmation of being decommissioned. The timeliness of such events is discussed in **Section 4.1**.

#### **Audit outcome**

Compliant

#### **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**

The price category code table on the registry was examined.

##### **Audit commentary**

AIAL has not created any new price category codes during the audit period; therefore compliance was not assessed.

##### **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

The loss category code table on the registry was examined.

#### Audit commentary

AIAL has not created any new price category codes during the audit period; therefore compliance was not assessed.

#### 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

The loss category code table on the registry was examined.

#### Audit commentary

AIAL has not updated or replaced any loss factor codes during the audit period. There was only one loss factor per category code per month.

#### 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 compliance was not assessed.

#### 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, decommissioned or changed during the audit period; therefore compliance was not assessed.

#### **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 balancing areas were changed during the audit period; therefore compliance was not assessed.

#### **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 1 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**

The NSP table on the registry was examined. No NSPs were changed during the audit period; therefore compliance was not assessed.

#### **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 compliance was not assessed.

##### **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**

The NSP table on the registry was examined. No ICPs became NSPs during the audit period; therefore compliance was not assessed.

##### **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**

AIAL has not acquired any new networks; therefore compliance was not assessed.

##### **Audit outcome**

Not applicable

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

**Code reference**

*Clause 10.25(1) and 10.25(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))*

*For each NSP covered in 10.25(1) the network owner must, no later than 20 business days after a metering installation at the NSP is recertified notify the reconciliation manager of:*

- *the reconciliation participant for the NSP*
- *the participant identifier of the metering equipment provider for the metering installation*
- *the certification expiry date of the metering installation.*

**Audit observation**

The NSP supply point table was examined.

**Audit commentary**

Distributor	NSP POC	Description	MEP	Certification Expiry
AIAL	AKL0331	AUCKLAND AIRPORT	AMCI	26-05-2014

The NSP metering has not been updated during the audit period. This was subject to Exemption No. 240 which expired on 31/8/16. According to the last audit this was expected to be resolved by 30/11/16. A copy of the current certification was provided. This was recertified on 2/5/17 but this has information has not been provided to the Reconciliation Manager as required by this clause.

**Audit outcome**

Non-compliant



Non-compliance	Description		
Audit Ref: 6.8 With: 10.25(3) From: 01-Sep-16 To: 31-Jul-17	Meter not certified until May 2017 and not notified to the RM Potential impact: Low Actual impact: None Audit history: Once Controls: None Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls as rated as weak as no notification to the RM was provided The audit risk rating is low as the meter is certified.		
Actions taken to resolve the issue		Completion date	Remedial action status
RM will receive notification of the recertified site including: <ul style="list-style-type: none"> <li>the reconciliation participant for the NSP</li> <li>the participant identifier of the metering equipment provider for the metering installation</li> <li>the certification expiry date of the metering installation</li> </ul>		30/9/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
AIAL will initiate a formal arrangement with the MEP to ensure that the RM does receive notification for each NSP recertification from the MEP, or AIAL.		31/11/17	

#### 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 compliance was not assessed.

#### **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 one 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**

AIAL has not acquired any networks; therefore compliance was not assessed.

#### **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**

AIAL has not created any new networks; therefore, compliance was not assessed.

#### **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 event detail report for the period from 01/09/2016 – 31/08/2017 was examined to determine whether there have been any MEP changes during the audit period.

#### **Audit commentary**

There have been no MEP changes during the audit period.

#### **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**

AIAL has not acquired any networks; therefore, compliance was not assessed.

#### **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**

AIAL has not acquired any networks; therefore, compliance was not assessed.

##### **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

There is no shared unmetered load on the AIAL network and none is expected. Examination of the registry list confirmed this.

#### 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

Examination of the registry list confirmed there is no 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

The “Guidelines on the calculation and the use of loss factors for reconciliation purposes v2.1” is still under review by the Loss Factor Review Panel. The calculation of loss factors was reviewed.

#### Audit commentary

AIAL derives loss factors for loss category codes from the published parent network loss factors for similar installations. It is expected that ICPs on embedded networks will have the same loss factor as a similar type of connection on the parent network. Vector has made no changes to their loss factors during the audit period therefore AIAL loss factors are correct.

#### Audit outcome

Compliant

## CONCLUSION

AIAL's compliance for registry maintenance is largely reliant on the compliance of Vector, as the contractor. Whilst Vector's audit is greater than seven months old I have undertaken an audit of all activity carried out on behalf of AIAL to ensure that compliance can be determined. Their audit report will be submitted with this report.

The audit found eight non-compliances and two recommendations are made. This is a similar level of non-compliance found in the last two audits. The volume of activity for AIAL is very small compared to Vector's overall workload and this appears to be hindering resolving the non-compliances found for AIAL.

The Distributor audit frequency matrix the next recommended audit is due in six months and I agree with this recommendation.



#### PARTICIPANT RESPONSE

AIAL appreciates the opportunity to have its distributor processes independently audited. Given the focus on new processes, AIAL is committing to a performance improvement for the next audit.