

**ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTOR AUDIT REPORT**

For

**AUCKLAND INTERNATIONAL AIRPORT  
LIMITED (AIAL)**

Prepared by: Tara Gannon

Date audit commenced: 14 August 2019

Date audit report completed: 18 September 2019

Audit report due date: 19 September 2019

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## EXECUTIVE SUMMARY

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

The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority.

AIAL's compliance was reliant on Vector as an agent up to 30/09/18, and TENCO as an agent from 01/10/18. I have examined activity since 01/01/18, which includes both agents.

In this report, I have only recorded those matters where issues were discovered or where specific analysis was undertaken.

The audit found six non-compliances, and no recommendations were made. The next audit frequency table indicates that the next audit be due in 12 months. I found that compliance has improved following the change of agent, and is expected to continue to improve. Based on this, I recommend that the next audit be completed in 18 months.

The matters raised are set out in the table below.

## 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)	At least five network updates had an incorrect event date recorded.  At least two pricing updates had an incorrect event date recorded.	Strong	Low	1	Identified
Timeliness of Provision of ICP Information to the registry manager	3.4	7(2) of Schedule 11.1	One ICP did not have a pricing code and ready status recorded prior to initial electrical connection.	Strong	Low	1	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2) of Schedule 11.1	15 ICPs did not have initial electrical connection dates populated within ten business days of initial electrical connection.	Moderate	Low	2	Identified
Changes to registry information	4.1	8 Schedule 11.1	One late address update. 38 late network updates. 68 late pricing updates. 63 late status updates to decommissioned status.	Strong	Low	1	Identified
Distributors to Provide ICP Information to the Registry manager	4.6	7(1) Schedule 11.1	ICPs 0003133794AA351 and 0003133795AAF14 had incorrect initial electrical connection dates, and were corrected during the audit.  DUMML ICP 0000031344AAEF5 had missing distributor unmetered load details, and was corrected during the audit.	Moderate	Low	2	Cleared
Creation of loss factors	8.1	11.2	Current loss factors are based on Vector's 01/04/18 values, not Vector's 01/04/19 values.	Weak	Low	3	Identified
Future Risk Rating						10	

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
		Nil	

## ISSUES

Subject	Section	Issue	Description
		Nil	

## 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

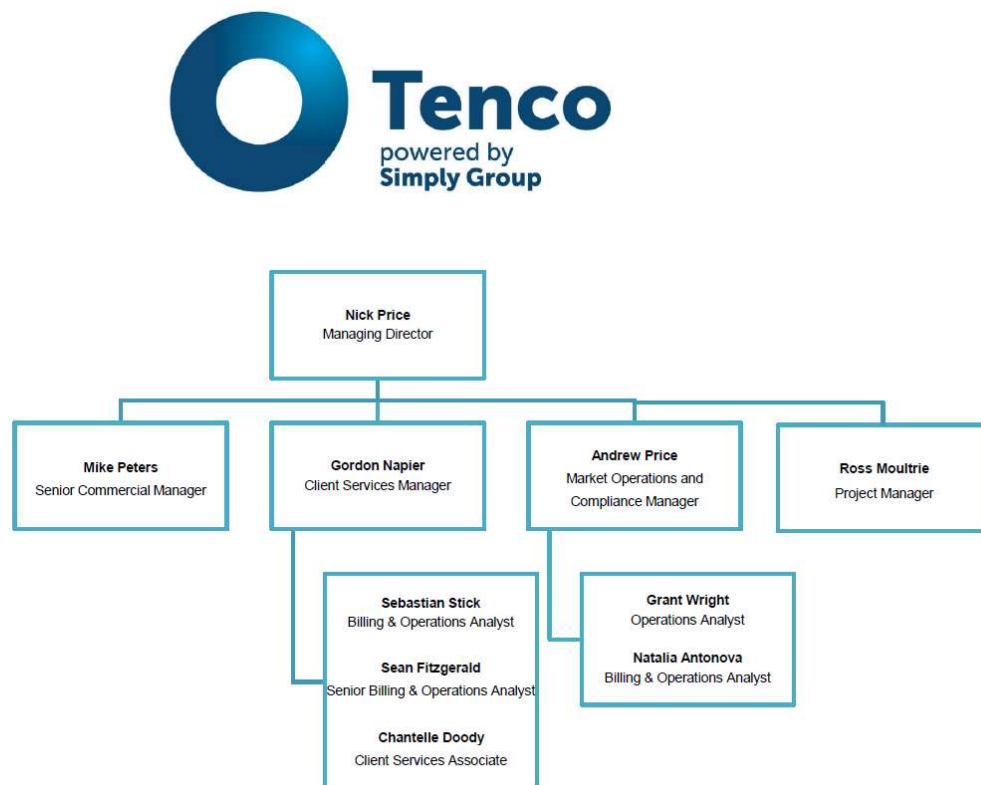
The Electricity Authority website was checked to determine whether AIAL has any Code exemptions in place.

#### Audit commentary

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

### 1.2. Structure of Organisation

TENCO provided an organisation chart:



### 1.3. Persons involved in this audit

Auditor:

**Tara Gannon**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Personnel assisting in this audit were:

Name	Title	Organisation
Grant Wright	Operations Analyst	TENCO
Nick Price	Managing Director	TENCO

### 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 contractor's fulfilment 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

TENCO has performed all AIAL's responsibilities as an agent since 01/10/18, and Vector performed AIAL's responsibilities as an agent up to 30/09/18.

### 1.5. Supplier list

TENCO has performed all AIAL's responsibilities as an agent since 01/10/18, and Vector performed AIAL's responsibilities as an agent up to 30/09/18.

### 1.6. Hardware and Software

Hardware and software is discussed in the TENCO and Vector agent audit reports.

### 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 NSPs as at 03/06/19. Active ICP numbers are as at 20/05/19.

Dist	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
AIAL	AKL0331	AUCKLAND AIRPORT	MNG0331	VECT	AKL0331AIALE	E	01/04/99	557

No NSPs were created, decommissioned, or transferred to or from other networks during the audit period.

Status	Number of ICPs (2019)	Number of ICPs (2018)	Number of ICPs (2017)	Number of ICPs (2016)
New (999,0)	-	-	1	1
Ready (0,0)	15	10	9	22
Active (2,0)	557	547	585	571
Distributor (888,0)	-	-	-	-
Inactive – new connection in progress (1,12)	2	4	-	-
Inactive – electrically disconnected vacant property (1,4)	8	10	10	8
Inactive – electrically disconnected remotely by AMI meter (1,7)	1	-	3	1
Inactive – electrically disconnected at pole fuse (1,8)	-	-	-	-
Inactive – electrically disconnected due to meter disconnected (1,9)	5	5	5	3
Inactive – electrically disconnected at meter box fuse (1,10)	-	-	-	-
Inactive – electrically disconnected at meter box switch (1,11)	-	-	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	-	1	8	23
Inactive – reconciled elsewhere (1,5)	-	-	-	-
Decommissioned (3)	324	299	213	187

### 1.9. Authorisation Received

A letter of authorisation was provided.

### 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 audit, in accordance with clause 11.10 of part 11.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority.

TENCO has performed all AIAL's responsibilities as an agent since 01/10/18, and Vector performed AIAL's responsibilities as an agent up to 30/09/18. 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.	TENCO from 01/10/18 Vector up to 30/09/18
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 TENCO will be submitted with this audit, and activity during the Vector managed period was reviewed during this audit.

#### 1.11. Summary of previous audit

The previous audit was conducted in September 2018 by Rebecca Elliot of Veritek Limited. Vector was AIAL's agent at the time of the audit.

The audit recorded eight non-compliances, and made one recommendation. The current status of the non-compliances and recommendation is listed below.

#### **Table of Non-compliances**

Subject	Section	Clause	Non-compliance	Status
Requirement to provide complete and accurate information	2.1	Clause 11.2(1) and 10.6(1)	Registry information not complete and accurate in all instances.	Still existing
Requirement to correct errors	2.2	Clause 11.2(2) and 10.6(2)	Corrections not made as soon as practicable.	Cleared
Timeliness of initial electrical connection date	3.5	7(2A) of Schedule 11.1	The event date population of the registry was performed more than 10 business days after the actual date of initial electrical connection for 68 (89%) ICPs.	Still existing
Changes to registry information	4.1	8 Schedule 11.1	Registry not updated within three days of the event.	Still existing
ICP Location Address	4.4	2 Schedule 11.1	Three ICPs with duplicate addresses.	Cleared

Subject	Section	Clause	Non-compliance	Status
Distributors to Provide ICP Information to the Registry manager	4.6	7(1) Schedule 11.1	Initial electrical connection date not populated for four ICPs and an incorrect date used for six ICPs.	Cleared during the audit
Management of Decommissioned status	4.11	20 Schedule 11.1	Decommissioned status not managed.	Cleared
Creation of loss factors	8.1	11.2	Incorrect loss factors recorded since 1/4/18 when Vector changed the parent network loss factors.	Cleared temporarily. Loss factors are currently based on old Vector loss factors.

**Table of Recommendations**

Subject	Section	Clause	Recommendations	Status
Distributors to Provide ICP Information to the Registry	4.6	7(1) Schedule 11.1	Request paperwork to confirm correct electrical connection date before updating the registry.	Cleared

## 2. OPERATIONAL INFRASTRUCTURE

### 2.1. Requirement to provide complete and accurate information (Clause 11.2(1) and 10.6(1))

#### Code reference

*Clause 11.2(1) and 10.6(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 Parts 10 or 11 is:*

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

#### Audit observation

The management of this process is discussed in the TENCO report. The registry list file as at 20/05/19, event detail report for 01/01/18 to 20/05/19, and NSP table were examined to confirm compliance.

#### Audit commentary

Compliance is recorded in the TENCO audit report in relation to this clause. Data completeness and accuracy was reviewed, and some incorrect event dates were identified.

#### Event dates

Event dates should reflect the date from which the attribute values for the event apply. The 2018 audit found that event dates were not consistently being recorded as the date from which the attribute values of the event should apply.

I found that this issue is still present; for 17 of the 49 ICPs which were initially electrically connected, the record which populated the initial electrical connection date had an event date which differed from the initial electrical connection date. 15 of the 17 records with date discrepancies were created by Vector, and two were created by TENCO. A sample of five of these records were checked, and I confirmed that the event dates were incorrectly set due to manual data processing errors.

I also found two pricing code updates entered by Vector had incorrect event dates applied:

ICP	Price code	Event Date	Correct event date
0003133717AAADB	2A	1/09/2015	01/05/2018
0003133785AA5B9	1	24/11/2016	01/05/2018

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11.2(1)  From: 03-Jul-18 To: 03-Dec-18	At least five network updates had an incorrect event date recorded. At least two pricing updates had an incorrect event date recorded. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Strong controls are now in place, and a very small number of exceptions were identified since 01/10/18.  The impact of the incorrect effective date for the initial electrical connection update is low. The correct initial electrical connection date was applied.		
Actions taken to resolve the issue		Completion date	Remedial action status
AIAL has appointed Tenco from the 01/10/2018 as its Embedded Network Services Manager including all Registry functions – part of the decision to change provider was to improve our level of compliance.		01/10/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As above the appointment of a new services provider will assist AIAL in meeting its compliance obligations as Tenco is a specialist provider in the secondary network space and is setup and resourced to manage compliance for its secondary network clients.		01/10/2019	

## 2.2. Requirement to correct errors (Clause 11.2(2) and 10.6(2))

### Code reference

*Clause 11.2(2) and 10.6(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

Processes to provide information were reviewed and observed throughout the audit, and as part of Tenco's agent audit.

### Audit commentary

The 2018 audit found that some corrections were not processed as soon as practicable. I found that the previously recorded addressing issues, missing initial electrical connection dates, and incorrect reconciliation types have been cleared.

TENCO have processes in place to identify and resolve registry discrepancies. Incorrect information is normally corrected daily, or as soon as possible upon discovery. I saw evidence of incorrect information being corrected promptly during the audit.

**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 is discussed in the TENCO audit report.

The registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 were reviewed to identify all new connections during the period and check that ICPs were created as required by this clause.

##### Audit commentary

Compliance is recorded for TENCO. Examination of the registry list found 66 ICPs were created during the audit period. ICPs were created in accordance with this clause for all new connections.

##### 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 TENCO audit report. ICP requests are made by embedded network management or traders. If the request is not made by a trader this rule does not apply.

A sample of five new connections were checked to confirm compliance.

##### Audit commentary

Compliance is recorded in the TENCO audit report in relation to this clause.

The new connections checked were requested by the customer, not the trader.

##### Audit outcome

Compliant

### 3.3. Provision of ICP Information to the registry manager (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 TENCO audit report.

The registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 were reviewed to identify all new connections during the period and check that information was provided as required by this clause.

#### Audit commentary

Information was provided as required by this clause for all ICPs created during the audit period.

#### Audit outcome

Compliant

### 3.4. Timeliness of Provision of ICP Information to the registry manager (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 registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 were examined to determine the timeliness of the provision of ICP information for new connections.

#### Audit commentary

The distributor must provide to the registry the information listed in clause 7(1) of schedule 11.1 as soon as practicable, and before electricity is traded at the ICP.

49 of the 66 new ICPs were electrically connected during the period.

- All 49 ICPs had a proposed trader and address recorded prior to being initially electrically connected.
- 48 ICPs had pricing information and ready status recorded prior to being initially electrically connected. One ICP had pricing information and ready status recorded three business days after initial connection, and is recorded as non-compliance below.

#### Audit outcome

Non-compliant



Non-compliance	Description		
Audit Ref: 3.4 With: Clause 7(2) of Schedule 11.1  From: 04-Sep-18 To: 07-Sep-18	One ICP did not have a pricing code and ready status recorded prior to initial electrical connection. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Strong controls are now in place, no late updates have been identified since TENCO became an agent on 01/10/18. The impact is low, because the proposed trader and ready status were recorded within three business days of initial electrical connection.		
Actions taken to resolve the issue		Completion date	Remedial action status
AIAL has appointed Tenco from the 01/10/2018 as its Embedded Network Services Manager including all Registry functions – part of the decision to change provider was to improve our level of compliance.		01/10/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As above the appointment of a new services provider will assist AIAL in meeting its compliance obligations as Tenco is a specialist provider in the secondary network space and is setup and resourced to manage compliance for its secondary network clients.		01/10/2018	

### 3.5. Timeliness of Provision of Initial Electrical Connection 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 subclause (1)(p) to the registry manager no later than 10 business days after the date on which the ICP is initially electrically connected.*

#### Audit observation

The new connection process is discussed in the TENCO audit report.

The registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 were examined to determine the timeliness of the provision of initial electrical connection date information for new connections.

A typical sample of five late updates were checked, to determine the reasons for the late updates.

#### Audit commentary

49 of the 66 ICPs created during the audit period were electrically connected.

34 of the ICPs had the initial electrical connection date populated on the registry within ten business days of electrical connection, and 15 ICPs had initial electrical connection dates populated between 14 and 66 business days after initial electrical connection. 13 of the 15 late updates were made by Vector, and two were made by TENCO.

Review of a typical sample of five late updates confirmed that they were caused by late confirmation that the ICP was electrically connected.

Non-compliance is recorded in **section 2.1** because some initial electrical connection date updates had an incorrect event date.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2) of Schedule 11.1  From: 04-May-18 To: 28-May-19	15 ICPs did not have initial electrical connection dates populated within ten business days of initial electrical connection.  Potential impact: Low  Actual impact: Low  Audit history: Multiple times  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as moderate as they are sufficient to ensure that initial electrical connection dates are updated on time most of the time. Paperwork is often sent to the retailer first, then passed to TENCO, which can cause delays in updating the initial electrical connection date.  The impact is low, because there is no direct impact on settlement. Eight late updates were made within 30 business days of the initial electrical connection date, and all were made within 66 business days.		
Actions taken to resolve the issue		Completion date	Remedial action status
As above the appointment of a new services provider will assist AIAL in meeting its compliance obligations as Tenco is a specialist provider in the secondary network space and is setup and resourced to manage compliance for its secondary network clients. Separately to this the AIAL engineering team also advises Tenco on the IED's where these are available to them.		01/10/2018	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
As above the appointment of a new services provider will assist AIAL in meeting its compliance obligations as Tenco is a specialist provider in the secondary network space and is setup and resourced to manage compliance for its secondary network clients. Tenco is also actively working with AIAL's engineering services team to improve process's including on IED's.	01/10/2018	

### 3.6. Connection of ICP that is not an NSP (Clause 11.17)

#### Code reference

*Clause 11.17*

#### Code related audit information

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

*The distributor must not 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 connect an ICP unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load, and all traders that are responsible for an ICP on the shared unmetered load have been advised.*

#### Audit observation

The new connection process is discussed in the TENCO audit report.

The registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 were examined to determine compliance.

#### Audit commentary

As discussed in the TENCO agent audit report, the new connection process requires applications for new connections to be approved by traders.

Review of the registry list confirmed that a trader is currently recorded for all active ICPs. All new connections during the period had a proposed trader recorded prior to initial electrical connection.

A review of the registry list confirmed that there is no known shared unmetered load on AIAL's network.

#### Audit outcome

Compliant

### 3.7. Connection of ICP that is not an NSP (Clause 10.31)

#### Code reference

*Clause 10.31*

#### Code related audit information

*A distributor must not connect an ICP that is not an NSP unless requested to do so by the trader trading at the ICP, or if there is only shared unmetered load at the ICP and each trader has been advised.*

### Audit observation

The new connection process is discussed in the TENCO audit report. The registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 were examined to determine compliance.

### Audit commentary

As discussed in the TENCO agent audit report, the new connection process requires applications for new connections to be approved by traders. A sample of five of the 49 new connections which were electrically connected during the audit period were reviewed, and were approved to be connected by the trader.

Review of the registry list confirmed that a trader is currently recorded for all active ICPs.

### Audit outcome

Compliant

## 3.8. Temporary electrical connection of ICP that is not an NSP (Clause 10.31A)

### Code reference

*Clause 10.31A*

### Code related audit information

*A distributor may only temporarily electrically connect an ICP that is not an NSP if requested by an MEP for a purpose set out in clause 10.31A(2), and the MEP:*

- has been authorised to make the request by the trader responsible for the ICP; and*
- the MEP has an arrangement with that trader to provide metering services.*

*If the ICP is only shared unmetered load, the distributor must advise the traders of the intention to temporarily connect the ICP unless:*

*advising all traders would impose a material cost on the distributor, and*

*in the distributor's reasonable opinion the advice would not result in any material benefit to any of the traders.*

### Audit observation

The new connection process is discussed in the TENCO audit report. The registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 were examined to determine compliance.

### Audit commentary

All electrically connected ICPs had certified meters prior on their initial electrical connection date. No temporary electrical connections were identified.

### Audit outcome

Compliant

## 3.9. Connection of NSP that is not point of connection to grid (Clause 10.30)

### Code reference

*Clause 10.30*

#### Code related audit information

*A distributor must not connect an NSP on its network that is not a point of connection to the grid unless requested to do so by the reconciliation participant responsible for ensuring there is a metering installation for the point of connection.*

*The distributor must, within five business days of connecting the NSP that is not a point of connection to the grid, advise the reconciliation manager of the following in the prescribed form:*

- *the NSP that has been connected*
- *the date of the connection*
- *the participant identifier of the MEP for each metering installation for the NSP*
- *the certification expiry date of each metering installation for the NSP.*

#### Audit observation

The NSP table was reviewed.

#### Audit commentary

No new NSPs were connected during the period.

#### Audit outcome

Compliant

### 3.10. Temporary electrical connection of NSP that is not point of connection to grid (Clause 10.30(A))

#### Code reference

*Clause 10.30(A)*

#### Code related audit information

*A distributor may only temporarily electrically connect an NSP that is not a point of connection to the grid if requested by an MEP for a purpose set out in clause 10.30A(3), and the MEP:*

- *has been authorised to make the request by the reconciliation participant responsible for the NSP; and*
- *the MEP has an arrangement with that reconciliation participant to provide metering services.*

#### Audit observation

The NSP table was reviewed.

#### Audit commentary

No new NSPs were connected during the period.

#### Audit outcome

Compliant

### 3.11. 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:*

xxxxxxxxxxxccc 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 Authority.

#### **Audit observation**

The ICP creation process is discussed in the TENCO audit report.

#### **Audit commentary**

Compliance is recorded in the TENCO audit report in relation to this clause.

#### **Audit outcome**

Compliant

### **3.12. 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 as at 20/05/19 was examined to confirm whether all active ICPs have a single loss category.

#### **Audit commentary**

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

#### **Audit outcome**

Compliant

### **3.13. 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 was reviewed as part of the TENCO agent audit.

The registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 was examined to determine compliance.

#### **Audit commentary**

Compliance is recorded in the TENCO audit report in relation to this clause.

No ICPs currently have “new” status. 12 ICPs were created at “new” status during the audit period. All have since been moved to “ready” and/or “active” status, except four ICPs which were no longer required and were decommissioned.

#### **Audit outcome**

Compliant

### **3.14. 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 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 TENCO report. The list file as at 20/05/19 was examined.

#### **Audit commentary**

Compliance is recorded for TENCO.

Examination of the list file found no ICPs at “new” status and 15 ICPs at “ready” status. One ICP had been at “ready” status for over 24 months. It was followed up with the trader, and has now been decommissioned.

#### **Audit outcome**

Compliant

### **3.15. 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 registry list as at 20/05/19 was examined to determine compliance.

#### **Audit commentary**

Review of the registry list confirmed that no embedded generation is connected.

#### **Audit outcome**

Compliant

### **3.16. Electrical connection of a point of connection (Clause 10.33A)**

#### **Code reference**

*Clause 10.33A(4)*

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

*No participant may electrically connect a point of connection or authorise the electrical connection of a point of connection, other than a reconciliation participant.*

#### **Audit observation**

Sub-clause (4) states that no participant may electrically connect a point of connection without the permission of the Reconciliation Participant.

The registry list as at 20/05/19 was reviewed to determine compliance.

#### **Audit commentary**

AIAL obtains permission from the trader before electrically connecting ICPs, as discussed in **section 3.2**.

Review of the registry list confirmed that no unmetered load is connected, apart from residual load ICPs and a DUMIL ICP. AIAL does not intend to connect any other unmetered load to the network in the future.

#### **Audit outcome**

Compliant



## 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 give written notice to the registry manager 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 8 business days after the change takes effect.*

*If the change to the NSP identifier is for more than 10 business days, the notification must be provided no later than the 13<sup>th</sup> business day and be backdated to the date the change took effect.*

*In the case of decommissioning an ICP, notification must be given by the later of three business days after the registry manager has advised the distributor that the ICP is ready to be decommissioned, or three business days after the distributor has decommissioned the ICP.*

#### Audit observation

The management of this process is discussed in the TENCO report. I also examined the event detail report for 01/01/18 to 20/05/19 to identify late changes to registry information during the audit period. An extreme case sample of 17 late updates were checked.

Initial population of data for new connections is discussed in **sections 3.4** and **3.5**.

#### Audit commentary

When information that is held by the registry changes, the distributor responsible for that ICP must provide notice to the registry of that change within three business days of that change taking effect. The event detail reports were examined to identify backdated event updates.

#### Address events

23 address updates not relating to initial population of address data for new connections were identified. 21 updates were made within three business days of the event date. The two late updates were checked.

- One address update was one business day late. The update added a unit and street number to the existing address.
- The other late update for ICP 0003133831AA90E on 09/07/18 was not genuine; it occurred due to a registry data processing error. No address information changed with the update.

#### Network events

69 network updates made by AIAL not relating to initial population of data for new connections were identified. 39 updates were made within three business days of the event date and 30 were late. One of the late updates was associated with a decommissioning event, therefore I have recorded the non-compliance in relation to the decommissioning event which is discussed in detail below.

27 of the late updates were made by Vector, and three late updates (including for the decommissioned ICP) were made by TENCO.

An extreme case sample of five updates made more than 30 business days after the event date were checked and found to relate to corrections.

### Pricing events

80 pricing updates not relating to initial population of pricing data for new connections were identified. 12 updates were made within three business days of the event date, and 68 updates were late. 63 of the late updates were made by Vector, and five late updates were made by TENCO.

An extreme case sample of five updates made more than 30 business days after the event date were checked and found to be backdated corrections made at the request of AIAL. Two records has incorrect event dates applied by Vector, and are recorded as non-compliance in **section 2.1**.

### Status events

104 status updates were identified, excluding updates to new and ready for new connections. 39 updates were made within three business days of the event date, or within three business days of the trader's update to ready for decommissioning status where the update occurred after 01/11/18. 63 updates were late; 58 were processed by Vector and five by TENCO.

Six of the late updates were caused by late trader updates to ready for decommissioning status (including two late updates by TENCO), which must be processed prior to decommissioning. These ICPs were decommissioned within three business days of the trader's ready for decommissioning status update.

An extreme case sample of five updates made more than 30 business days after the event date were checked and found to relate to corrections.

### NSP changes

Review of the registry list for 01/01/18 to 20/05/19 confirmed that no NSP changes occurred during the audit period.

### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.1 With: Clause 8 Schedule 11.1  From: 04-Jan-18 To: 29-May-19	One late address update. 38 late network updates. 68 late pricing updates. 63 late status updates to decommissioned status. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1
Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as strong, as they are sufficient to ensure updates are on time most of the time. In most cases checked, the late update was at the request of another party, caused by another party's late provision of information to AIAL or the registry, or was a correction.  The risk is assessed as low as a relatively small proportion of updates were affected.

Actions taken to resolve the issue	Completion date	Remedial action status
AIAL has appointed Tenco from the 01/10/2018 as its Embedded Network Services Manager including all Registry functions – part of the decision to change provider was to improve our level of compliance.	01/10/2018	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
As above the appointment of a new services provider will assist AIAL in meeting its compliance obligations as Tenco is a specialist provider in the secondary network space and is setup and resourced to manage compliance for its secondary network clients. Controls from 1/10/2018 are a lot stronger with Tenco managing compliance via daily refresh to registry. The late update by other market participants does however at times cause non-compliance for us	01/10/2018	

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

##### Code reference

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

##### Code related audit information

*Under Clause 7(1)(b) of Schedule 11.1, the distributor must provide to the registry manager the NSP identifier of the NSP to which the ICP is usually connected.*

*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 management of this process is discussed in the TENCO report.

The registry list as at 20/05/19 and NSP table were compared to determine compliance.

The registry list for 01/01/18 to 20/05/19 was reviewed to identify any ICPs which had a change of NSP during the audit period.

##### Audit commentary

Compliance is recorded for TENCO.

I compared the registry list and NSP table and confirmed that all active ICPs were mapped to an NSP consistent with the ICP address information.

Review of the registry list for 01/01/18 to 20/05/19 confirmed that no NSP changes occurred 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 3 business days after receiving a request for that information.*

##### Audit observation

The management of customer queries was examined.

##### Audit commentary

AIAL occasionally receives direct requests for ICP identifiers. These are provided immediately, by looking up the ICP based on information that the customer provides.

##### 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 determine correct and unique addresses was examined during the TENCO agent audit. The registry list as at 20/05/19 was reviewed to determine compliance.

##### Audit commentary

Review of the registry list did not identify any duplicate or difficult to locate addresses.

##### Audit outcome

Compliant

#### 4.5. Electrically disconnecting an ICP (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 electrically disconnected without electrically disconnecting 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 the difference between the total consumption for the embedded network and all other ICPs on the embedded network.*

##### Audit observation

The management of this process is discussed in the TENCO report.

### Audit commentary

Compliance is recorded in the TENCO audit report in relation to this clause.

### Audit outcome

Compliant

## 4.6. Distributors to Provide ICP Information to the Registry manager (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 manager:*

- *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 for a billing period from metering information collected for that billing period*
  - c) *if there is more than one capacity value at the ICP, and at least one, but not all, of those capacity values can be determined for a billing period from the metering information collected for that billing period-*
    - (i) *no capacity value recorded in the registry field for the chargeable capacity; and*
    - (ii) *either the term "POA" or all other capacity values, recorded in the registry field in which the distributor installation details are also recorded*
  - d) *if there is more than one capacity value at the ICP, and none of those capacity values can be determined for a billing period from the metering information collected for that billing period-*

- (i) the annual capacity value recorded in the registry field for the chargeable capacity; and
- (ii) either the term "POA" or all other capacity values, recorded in the registry field in which the distributor installation details are also recorded
- e) 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
- the initial electrical connection date of the ICP (Clause 7(1)(p) of Schedule 11.1).

### Audit observation

Processes to ensure information is accurate were examined during the TENCO agent audit. The registry list as at 20/05/19 was reviewed to determine compliance.

For the 49 new connections which were electrically connected during the audit period, the initial electrical connection date, meter certification date, and earliest active date were matched.

I confirmed that all ICPs initially electrically connected by AIAL after 29/08/13<sup>1</sup> had an initial electrical connection date populated.

### Audit commentary

The accuracy of information was reviewed.

### Event dates

At least five network updates and at least two pricing updates had incorrect event dates recorded. This is recorded as non-compliance in **section 2.1**.

### Initial electrical connection dates

The 2018 audit recommended that the initial electrical connection date on the registry is updated once paperwork is provided. This recommendation was implemented with the change of agent to TENCO on

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<sup>1</sup> When the code change requiring initial electrical connection dates came into effect.

01/10/18. TENCO updates the initial electrical connection date using the registry web interface as soon as possible after initial electrical connection is confirmed by the contractor.

The Salesforce Dashboard identifies “active” and “inactive” ICPs without initial electrical connection dates which have certified metering recorded on the registry. The ICPs are checked daily to confirm the electrical connection date, and then the initial electrical connection date is populated.

Initial electrical connection dates were compared to the meter certification date and earliest active date to identify discrepancies. For 48 of the 49 new connections the initial electrical connection date, meter certification date, and earliest active date were aligned. One ICP had matching active and initial electrical connection dates, but the meter certification date was different. I confirmed that the initial electrical connection date was correct.

I rechecked the six ICPs with incorrect initial electrical connection dates identified in the 2018 audit. Four were corrected prior to the audit, and ICPs 0003133794AA351 and 0003133795AAF14 were corrected during the audit.

The two ICPs with incorrect initial electrical connection dates which were not identified and corrected prior to the audit are recorded as non-compliance below.

#### Unmetered load

Two ICPs had unmetered load recorded by the trader but no unmetered load recorded by the distributor on the registry list. Both have since been amended:

- 0000031344AAEF5 has DUML connected, and the distributor unmetered load field was updated to reflect this during the audit.
- 0000031361AAEEF was a vacant ICP which had unmetered load recorded by the trader. The network and trader confirmed that the ICP was no longer required, and it was decommissioned during the audit.

ICP 0000031344AAEF5 which had missing distributor unmetered load which was not identified and corrected prior to the audit is recorded as non-compliance below.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.6 With: Clause 7(1) Schedule 11.1  From: 20-May-19 To: 14-Aug-19	ICPs 0003133794AA351 and 0003133795AAF14 had incorrect initial electrical connection dates, and were corrected during the audit.  DUML ICP 0000031344AAEF5 had missing distributor unmetered load details, and was corrected during the audit.  Potential impact: Low  Actual impact: Low  Audit history: Once  Controls: Moderate  Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as the moderate because most information is correctly recorded. The two initial electrical connection dates occurred during the period when Vector was an agent, and TENCO was not aware corrections were required on hand over.</p> <p>The number of discrepancies is minor and has no direct impact on reconciliation. The errors were corrected.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
As above – upon notification by Tara during the audit the 3 incorrect records were updated – controls are in place via Tenco to ensure that AIAL remain compliant in this area.		01/10/2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
The appointment of Tenco from October-2018 is in part due to AIAL wanting to improve its level of compliance following our previous audit.		01/10/2018	

#### 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 manager 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 TENCO report.

The registry list as at 20/05/19 and event detail report for 01/01/18 to 20/05/19 were reviewed to identify all new connections during the period and check that pricing information was provided as required by this clause.

##### Audit commentary

Compliance is recorded in the TENCO audit report in relation to this clause.

As discussed in **section 3.4**, one ICP did not have pricing information recorded on the registry prior to initial electrical connection. Pricing information was recorded two business days after initial connection, and compliance with this clause is achieved.

##### 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

The registry list as at 20/05/19 was examined to confirm compliance.

##### Audit commentary

AIAL does not record GPS coordinates on the registry.

##### Audit outcome

Compliant

#### 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

Processes to manage ICPs at “ready” status were reviewed as part of the TENCO agent audit.

The registry list as at 20/05/19 was reviewed to identify all ICPs at “ready” status.

##### Audit commentary

15 ICPs which have not been electrically connected are at “ready” status.

As discussed in **section 3.14**, one ICP had been at “ready” status for over 24 months. The was followed up with the trader, and has now been decommissioned.

##### 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

The registry list for 01/01/18 to 20/05/19 was reviewed to identify any ICPs at distributor status.

#### Audit commentary

The distributor status was not used at all during the audit period.

#### 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

The management of this process is discussed in the TENCO report. The registry list as at 20/05/19, and event detail report for 01/01/18 to 20/05/19 were reviewed to determine compliance.

#### Audit commentary

The 2018 audit found that the decommissioning process was not being actively managed. This issue has been cleared since TENCO became AIAL’s agent on 01/10/18.

TENCO has a robust process in place for the management of the decommissioning of ICPs. “Ready for decommissioning” ICPs appear on the Salesforce dashboard and are checked each day. TENCO investigate the circumstances for each ICP at “ready for decommissioning” to ensure the ICP is genuinely ready for decommissioning and is not expected to be re-used. No AIAL ICPs are currently at “ready for decommissioning” status.

104 ICPs were decommissioned during the audit period, and the registry was updated in accordance with this clause. The timeliness of updates to decommissioned status are 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 to determine compliance.

##### **Audit commentary**

No price categories were created or amended during the audit period.

##### **Audit outcome**

Compliant

## 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 to determine compliance.

#### Audit commentary

AIAL has not created any new loss category codes during the audit period.

#### Audit outcome

Compliant

### 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 in 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 to determine compliance.

#### Audit commentary

AIAL end dated the VECA4 loss factor code from 31/05/18, and updated the loss factor values for the following codes during the audit period:

Loss factor	Updated from
LF1	01/12/18
LF2	01/12/18

There was a maximum of one loss factor per loss factor category code per month, and all trading periods had a single applicable loss factor.

The loss factor table was updated as required by this clause.

**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 2 local networks, the distributor must give written notice to 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 give written notice to 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 give written notice to 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:*

- *give written notice to the reconciliation manager*
- *give written notice to the Authority*
- *give written notice to each affected reconciliation participant*
- *comply with Schedule 11.2.*

#### Audit observation

The process for the creation and decommissioning of NSPs was reviewed as part of the TENCO agent audit. The NSP table was examined.

#### Audit commentary

Compliance is recorded for TENCO. No NSPs were decommissioned or created during the period.

#### Audit outcome

Compliant

### 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 2 local networks. In all other cases, the request must be made at least 1 month before the NSP is electrically connected or the ICP is transferred.*

### Audit observation

The process to provide NSP information was reviewed as part of the TENCO agent audit. The NSP table was examined.

### Audit commentary

Compliance is recorded for TENCO. No NSPs were created during the period.

### Audit outcome

Compliant

## 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 give written notice to 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 process to provide balancing area information was reviewed as part of the TENCO agent audit. The NSP table was examined.

### Audit commentary

Compliance is recorded for TENCO. No balancing areas were created during the period.

### Audit outcome

Compliant

## 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 give notice to the reconciliation manager at least one 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 process to provide NSP supporting information was reviewed as part of the TENCO agent audit. The NSP table was examined.

#### **Audit commentary**

Compliance is recorded for TENCO. No NSPs were created during the period.

#### **Audit outcome**

Compliant

### **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 give written notice to 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 3 business days after the change takes effect.*

#### **Audit observation**

The process to maintain balancing area information was reviewed as part of the TENCO agent audit. The NSP table was examined.

#### **Audit commentary**

Compliance is recorded for TENCO. No balancing areas were changed during the audit period.

#### **Audit outcome**

Compliant

### **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 give written notice to any trader trading at the ICP of the transfer at least one month before the transfer.*

#### **Audit observation**

The NSP table was examined.

#### **Audit commentary**

No existing ICPs became NSPs during the audit period.

#### **Audit outcome**

Compliant



#### 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 give written notice to the Authority in the prescribed form, no later than three business days before the transfer takes effect.*

##### Audit observation

The ICP transfer process was reviewed as part of the TENCO agent audit. The NSP table and the registry list for 01/01/18 to 20/05/19 were examined.

##### Audit commentary

Compliance is recorded for TENCO. No ICPs were transferred from other networks during the audit period.

##### Audit outcome

Compliant

#### 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 advise 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

Processes to ensure that meters are present and certified were reviewed as part of the TENCO agent audit. The NSP table was examined, and notifications were reviewed.

##### Audit commentary

Compliance is recorded for TENCO.

The NSP table was reviewed:

Distributor	NSP POC	Description	MEP	Certification Expiry
AIAL	AKL0331	AUCKLAND AIRPORT	AMCI	09/02/19

The NSP has current meter certification. Meter certification details were changed for AKL0331 on 04/02/19, and notification was provided within 20 business days of the certification date.

TENCO submitted a code change request on 29/05/19, asking the Authority to consider including embedded network gate meter details on the registry, so that the MEP can maintain these details. The request is under consideration.

#### **Audit outcome**

Compliant

### **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**

Processes to ensure that meters are present and certified were reviewed as part of the TENCO agent audit. The NSP table was examined.

#### **Audit commentary**

Compliance is recorded for TENCO. No NSPs were created during the period.

#### **Audit outcome**

Compliant

### **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 give written notice to:*

- *the previous network owner (Clause 29(1)(a) of Schedule 11.1)*
- *the reconciliation manager (Clause 29(1)(b) of Schedule 11.1)*
- *the Authority (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 month's 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**

Processes for management of network owner changes were reviewed as part of the TENCO agent audit. The NSP table was examined.

#### **Audit commentary**

Compliance is recorded for TENCO. AIAL has not acquired any networks.

#### **Audit outcome**

Compliant

### **6.11. 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 advise the reconciliation manager and the gaining MEP.*

#### **Audit observation**

The management of this process is discussed in the TENCO report. The NSP table 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**

Compliant

### **6.12. 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 Authority 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**

The management of this process is discussed in the TENCO report. The NSP table and the registry list for 01/01/18 to 20/05/19 were examined.

#### **Audit commentary**

Compliance is recorded for TENCO.

AIAL has not acquired any networks during the period. Review of the registry list confirmed that all ICPs with event start dates after 01/01/18 were new connections, and no ICPs had been transferred from existing networks to AIAL.

#### **Audit outcome**

Compliant

### **6.13. 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**

Processes for management of ICP transfers were reviewed as part of the TENCO agent audit. The NSP table was examined.

#### **Audit observation**

Compliance is recorded for TENCO. AIAL has not acquired any networks.

#### **Audit outcome**

Compliant

## 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 give written notice to the registry manager 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 give written notice to the registry manager 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

The registry list for 01/01/18 to 20/05/19 was examined to determine compliance.

#### Audit commentary

Examination of the registry list confirmed that no shared unmetered load is connected.

#### Audit outcome

Compliant

### 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 give written notice to all traders affected by that change or decommissioning as soon as practicable after the change or decommissioning.*

#### Audit observation

The registry list for 01/01/18 to 20/05/19 was examined to determine compliance.

#### Audit commentary

Examination of the registry list confirmed that no shared unmetered load is connected.

#### Audit outcome

Compliant

## 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 process for the management of loss factors was discussed.

#### Audit commentary

AIAL calculate the loss factors based on the loss factors for the parent network. The loss factors are provided to TENCO, who maintain the information on the registry.

It is expected that ICPs on embedded networks will have the same loss factor as a similar type of connection on the parent network.

The 2018 audit recorded non-compliance because AIAL's loss factors were not based on Vector's loss factors at the time. Following the 2018 audit, the loss factors were updated effective from 01/12/18 to be consistent with the 01/04/18 Vector loss factor codes.

Vector's loss factors were updated again on 01/04/19, but AIAL's loss factors have not been adjusted to reflect these new values. This is recorded as non-compliance below, and TENCO intends to follow this up with AIAL.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 8.1 With: Clause 11.2  From: 01-Apr-19 To: 14-Aug-19	Current loss factors are based on Vector's 01/04/18 values, not Vector's 01/04/19 values.  Potential impact: Medium  Actual impact: Low  Audit history: Once  Controls: Weak  Breach risk rating: 3
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	Controls are rated as weak. The loss factors were reviewed following the 2018 audit. AIAL intended to monitor changes to Vector's loss factor codes and adjust their own, but this did not occur.  The audit risk rating is low as UFE is allocated to participants; therefore there is no adverse impact on settlement but traders may use published losses in pricing decisions. The variance found was minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Loss Factors will be updated from the 01/12/2019 (2 months' notice required in registry) following confirmation from Anthony at AIAL that Tenco are now responsible for the management of losses on a go forward including updating from Dec-2019 and then again in May annually assuming that changes from the local network (VECT) do come through.	10/09/2018	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
As above AIAL have authorised Tenco on a go forward to manage and update the AIAL losses as they do for other clients annually upon any changes made by local network companies.	10/09/2018	

## CONCLUSION

AIAL's compliance was reliant on Vector as an agent up to 30/09/18, and TENCO as an agent from 01/10/18. I have examined activity since 01/01/18, which includes both agents.

In this report, I have only recorded those matters where issues were discovered or where specific analysis was undertaken.

The audit found six non-compliances, and no recommendations were made. The next audit frequency table indicates that the next audit be due in 12 months. I found that compliance has improved following the change of agent, and is expected to continue to improve. Based on this, I recommend that the next audit be completed in 18 months.



## PARTICIPANT RESPONSE

TENCO have reviewed this report on behalf of AIAL, and their comments are contained within its body.