

**ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTOR AUDIT REPORT**



For

**AUCKLAND INTERNATIONAL AIRPORT  
LIMITED (AIAL)**

Prepared by: Steve Woods, Veritek Limited

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## 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 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 has changed contractor from Vector to TENCO. A material change was completed in relation to this change in January 2019.

AIAL's compliance is reliant on the compliance of TENCO, as the contractor. In this report, I have only recorded those matters where issues were discovered or where specific analysis was undertaken.

recorded those matters where issues were discovered or where specific analysis was undertaken.

The audit found seven non-compliances and one recommendation is made. TENCO has a good record of managing registry maintenance on behalf of network owners. This is evident in the audit risk rating score which has reduced from 23 to 9. The Distributor audit frequency matrix shows the next recommended audit is due in 12 months. I have considered this result in conjunction with the response from AIAL's responses and recommend that the next audit is in 24 months to reflect that many of the issues are resolved and the change of agent has improved compliance.

The matters raised are detailed in the tables 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) and 10.6(1)	Initial electrical connection date not populated for six ICPs.	Moderate	Low	2	Cleared
Timeliness of Provision of ICP Information to the registry manager	3.4	7(2) of Schedule 11.	Information not provided to the registry prior to electricity being traded for one ICP.	Strong	Low	1	Cleared
Timeliness of initial electrical connection date	3.5	7(2A) of Schedule 11.1	23 ICPs did not have initial electrical connection dates populated within ten business days of initial electrical connection.	Strong	Low	1	Identified
Changes to registry information	4.1	8 Schedule 11.1	Registry not updated within three days of the event for a small number of events.	Strong	Low	1	Cleared
ICP Location Address	4.4	2 Schedule 11.1	Six active ICPs with addresses that are not readily locatable.	Moderate	Low	2	Identified
Distributors to Provide ICP Information to the Registry manager	4.6	7(1) Schedule 11.1	Initial electrical connection date not populated for six ICPs.	Strong	Low	1	Cleared
Responsibility for metering information for NSP that is not a POC to the grid	6.8	10.25(1)	One meter recertification not notified to the RM within 20 days of meter recertification.	Strong	Low	1	Identified
Future Risk Rating						9	

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
ICP location address	4.4	Populate the GPS co-ordinates for ICPs where physical address details are not readily locatable.

## ISSUES

Subject	Section	Issue	Remedial action
		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

Not applicable

### 1.3. Persons involved in this audit

Auditor:

Name	Company	Role
Steve Woods	Veritek Limited	Lead Auditor
Rebecca Elliot	Veritek Limited	Supporting Auditor

Personnel assisting in this audit were:

Name	Title	Organisation
Nick Price	Managing Director	TENCO
Andrew Price	Market Operations and Compliance Manager	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

AIAL has changed contractors from Vector to TENCO during the audit period. A material change was completed in relation to this change in January 2019. TENCO performs all AIAL's responsibilities.

#### 1.5. Supplier list

All activities covered by the scope of this audit are conducted by TENCO.

#### 1.6. Hardware and Software

TENCO manages a database called END (Embedded Network Database), which contains all relevant embedded network data.

A spreadsheet is used to create ICP identifiers. The checksum is created by the "checksum" tool provided by Vector.

Salesforce hosts all the ICP information, and registry information is imported daily. A daily registry validation is performed within Salesforce and any discrepancies are managed using the salesforce dashboard.

This is detailed further in the TENCO agent 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 as of 1 March 2021:

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
AIAL	AKL0331	AUCKLAND AIRPORT	MNG0331	VECT	AKL0331AIALEN	EN	1/11/2019	538

The network start date has been reset during the audit period, but this is not a new network.



A list file was provided as of March 2021:

Status	Number of ICPs 2021	Number of ICPs 2018	Number of ICPs 2017
New (999,0)	0	0	1
Ready (0,0)	4	10	9
Active (2,0)	538	547	585
Distributor (888,0)	0	0	0
Inactive – new connection in progress (1,12)	0	4	0
Inactive – electrically disconnected vacant property (1,4)	18	10	10
Inactive – electrically disconnected remotely by AMI meter (1,7)	3	0	3
Inactive – electrically disconnected at pole fuse (1,8)	0	0	0
Inactive – electrically disconnected due to meter disconnected (1,9)	8	5	5
Inactive – electrically disconnected at meter box fuse (1,10)	0	0	0
Inactive – electrically disconnected at meter box switch (1,11)	0	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	0	1	8
Inactive – reconciled elsewhere (1,5)	0	0	0
Decommissioned (3)	356	299	213

#### 1.9. Authorisation Received

TENCO provided an email 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 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.

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
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.

### 1.11. Summary of previous audit

AIAL's previous audit conducted in August 2018 by Rebecca Elliot of Veritek Limited was reviewed. The current status of the issues found in that audit are detailed below:

#### Table of Non-Compliance

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.	Still existing

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.	Still existing Cleared
Management of Decommissioned status	4.11	20 Schedule 11.1	Decommissioned status not managed.	Still existing
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

#### Table of Recommendations

Subject	Section	Recommendation	Status
Distributors to Provide ICP Information to the Registry	4.6	Request paperwork to confirm correct electrical connection date before updating the registry.	Still existing

## 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 of March 2021 and the combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm compliance.

#### Audit commentary

Compliance is recorded for TENCO.

Examination of the list file found no discrepancies. The audit compliance report found six ICPs with no initial electrical connection dates recorded. These are all historic and prior to TENCO managing the registry functions. These have been passed to TENCO to populate.

The issue of an incorrect event date being applied was not evident in this audit.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: 11.2(1)  From: 01-Aug 18 To: 31-Jan-21	Initial electrical connection date not populated for six ICPs.  Potential impact: Low  Actual impact: Low  Audit history: Multiple  Controls: Moderate  Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as moderate as there is room for improvement.  The impact is low because of the low number of ICPs affected.
Actions taken to resolve the issue	
Completion date	
Remedial action status	

There were 6 ICP's identified as not having an IED which went Active between Sept-2013 and Feb-2016 when Vector were providing the registry functions, the IED for 1 of these has since been populated, the other 5 are now all decommissioned and Registry does not allow the back population of the IED to these given they are now decommissioned.	18/03/2021	Cleared
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
The provision of IED's to Registry is now via Tenco as the Registry Agent on behalf of AIAL, Tenco has a reliable and robust process for ensuring that these are populated accurately and on time and there is no non-compliance in this area since Tenco took on the Registry Functions.	01/10/2018	

## 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.

### Audit commentary

As discussed in the TENCO agent report, there are processes in place to identify and resolve registry discrepancies. Incorrect information is normally corrected daily, or as soon as possible upon discovery.

### Audit outcome

Compliant

## 2.3. Removal or breakage of seals (Clause 48(1A) and 48(1B) of Schedule 10.7)

### Code reference

*Clause 48(1A) and 48(1B) of Schedule 10.7*

### Code related audit information

*If the distributor provides a load control signal to a load control switch in the metering installation, the distributor can remove or break a seal without authorisation from the MEP to bridge or un-bridge the load control device or load control switch – as long as the load control switch does not control a time block meter channel.*

*If the distributor removes or breaks a seal in this way, it must:*

- *ensure personal are qualified to remove the seal and perform the permitted work and they replace the seal in accordance with the Code,*
- *replace the seal with its own seal,*
- *have a process for tracing the new seal to the personnel,*

- *notify the metering equipment provider and trader.*

#### **Audit observation**

The TENCO process for bridging control devices was examined.

#### **Audit commentary**

This clause was implemented alongside a number of changes made to the Code on 1 February 2021.

Two active ICPs were identified on the PR255 list file as having certified load devices present. The process was discussed with TENCO and AIAL and no bridging has occurred, and none is expected.

#### **Audit outcome**

Compliant

### 3. CREATION OF ICPS

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

##### Code reference

Clause 11.4

##### Code related audit information

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

##### Audit observation

The new connection process was examined as part of the TENCO report.

The registry list file as of March 2021 and the combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm compliance.

##### Audit commentary

67 ICPs were created during the audit period. 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 TENCO report. ICP requests are made by embedded network management or traders, with most requests are provided by the embedded network management. If the request is not made by a trader this rule does not apply.

67 ICPs were 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 AIAL is different and ICP requests are made by customers to AIAL therefore this clause does not apply.

##### 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 report.

The registry list file as of March 2021 and the combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm compliance.

#### 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 new connection process is discussed in the TENCO report.

The registry list file as of March 2021 and the combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm compliance.

#### Audit commentary

The audit compliance report confirmed that all but one ICP were populated to the registry prior to electricity being traded at the ICP.

ICP 0003133845AAD59 was made “ready” on 7 September 2018 for an electrical connection date of 4 September 2018. This was prior to TENCO managing this network and there have been no backdated ICPs since this one.

#### 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	Information not provided to the registry prior to electricity being traded for one ICP.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong, as they are robust and mitigate risk to an acceptable level.  The audit risk rating is deemed to be low as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
This late update was a result of a delay with the previous Registry Agent, the ICP was requested to be populated to Registry on the 29/08/2018 however Vector did not populate this until the 07/09/2018 which was after the livening date of the 04/09/2018.		07/09/2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
AIAL has changed Registry agent from the 01/10/2018 to Tenco and population to Registry is now completed on time.		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 sub-clause (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 registry list file as of March 2021 and the combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm compliance.

#### Audit commentary

There were 87 initial electrical connection dates updated during the audit period. 63 of these were updated within the required timeframe. 23 were updated late. Nine of these were prior to TENCO managing this network. 14 have taken place since and an extreme sample of five of these were examined and found these were late due to the trader making these active late. This was the first indication that TENCO had that these ICPs were active. TENCO updated these as soon as they were aware.

In the last audit it was found that the incorrect effective date was being applied in some instances. I did not find any evidence of this occurring since TENCO took over the registry management functions.

The accuracy of the initial electrical connection date is discussed in **section 4.6**.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: 7(2A) of Schedule 11.1  From: 01-Aug-18 To: 31-Jan-21	23 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  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as strong, as they are sufficient to prevent the late updates most of the time.  The audit risk rating is deemed to be low as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
AIAL has appointed Tenco from the 01/10/2018 to manage its registry functions which will resolve the non-population of IED's to Registry in a timely fashion.		01/10/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Tenco's process/monitoring is reliant on a trigger of status change or MEP population to Registry to be aware of a new connection occurring, Tenco is however also working with the AIAL engineering services team to receive confirmation of when connections are completed on site to allow timely population of this data.		Ongoing	

### 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 report.

The registry list file as of March 2021 and the combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm 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.

The audit compliance report confirmed that all ICPs were populated to the registry prior to electricity being traded at the ICP with a trader recorded as accepting responsibility for the ICP.

The registry list does not record any shared unmetered load; therefore, compliance is recorded for AIAL.

#### **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 report.

The registry list file as of March 2021 and the combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm compliance.

#### **Audit commentary**

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

#### **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 report.

The registry list file as of March 2021 and the combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm compliance.

#### **Audit commentary**

All electrically connected ICPs had certified meters prior to their initial electrical connection date. TENCO confirmed that no ICPs were temporarily electrically connected.

#### **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 trader responsible for ensuring there is a metering installation for the point of connection.*

*The distributor must that initiates the connection under Part 11 and connects the NSP, 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 on the registry was examined.

#### **Audit commentary**

No new NSPs have been connected during the audit period.

#### **Audit outcome**

Compliant

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

#### Code reference

*Clause 10.30A and 10.30B*

#### 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.*

*A distributor may only electrically connect an NSP if:*

- each distributor connected to the NSP agrees,*
- the trader responsible for delivery of submission information has requested the electrical connection,*
- the metering installations for the NSP are certified and operational metering.*

#### Audit observation

The NSP table on the registry was examined.

#### Audit commentary

No new NSPs have been connected during the audit 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:*

*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 Authority.*

#### Audit observation

The ICP creation process is discussed in the TENCO report.

#### Audit commentary

Compliance is recorded for TENCO. ICPs are created in a spreadsheet. The spreadsheet is used to create unique numbering sets for each network. Each network has its own numbering convention, usually with tenancy or shop numbers incorporated into the ICP number.

The checksum is added manually from the “Checksum” system supplied by Vector for where a group of ICPs is created. For the creation of a single ICP, TENCO uses the checksum facility available on the registry.

**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 was examined to confirm whether 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

**3.13. 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 event detail file, and the registry LIS report for 1 August 2018 to 31 January 2021 were examined to determine compliance.

**Audit commentary**

Compliance is recorded for TENCO.

No ICPs currently have “new” status. Ten ICPs were created at “new” status during the audit period prior to TENCO becoming the AIAL contractor. These ICPs were changed to “ready” once the retailer had been determined.

**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 combined registry compliance audit reports covering the period from 1 August 2018 to 31 January 2021 were examined to confirm compliance.

#### Audit commentary

Compliance is recorded for TENCO.

Examination of the list file found no ICPs at “new” status and four ICPs at “ready” status. Two ICPs have been at “new” or “ready” status for over 24 months. I confirmed that these were still required.

#### 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 of March 2021 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 10.30C and 10.31C)

#### Code reference

*Clause 10.30C and 10.31C*

#### Code related audit information

*A distributor can only disconnect, or electrically disconnect an ICP on its network:*

- *if empowered to do so by legislation (including the Code)*
- *under its contract with the trader for that ICP or NSP*
- *under its contract with the consumer for that ICP*

#### Audit observation

The registry list as of February 2020 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 a residual load 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 eight 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 3 business days after the registry manager has advised the distributor that the ICP is ready to be decommissioned, or 3 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 registry list for March 2021 and the combined registry audit compliance reports covering the period from 1 September 2018 to 31 January 2021 were examined, to identify late changes to registry information during the audit period.

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

There were no late address updates during the audit period; all were updated within three business days.

#### Network Events

There were no late network updates during the audit period; all were updated within three business days.

#### NSP changes

There were no NSP changes made during the audit period.

#### Pricing Events

There were 58 pricing events during the audit period. 48 (83%) were updated within three business days. The remaining ten (17%) of these were not updated within three business days. The late updates all occurred prior to TENCO becoming the contractor.

#### Status Events

49 ICPs were decommissioned during the audit period. 44 (90%) were updated within the required timeframe. Five (10%) were updated late. Four of these occurred before the code changed on 1 November 2018 and would be compliant under the new code.

The late updating of the registry is recorded as non-compliance below.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: 8 Schedule 11.1  From: 04-Sep-18 To: 28-Aug-20	Registry not updated within three days of the event for a very small number of events.  Potential impact: Low  Actual impact: Low  Audit history: Multiple  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as strong, as risk is mitigated to an acceptable level as TENCO have good reporting in place to manage registry updates.  The audit risk rating is low as the volume of ICPs affected is relatively small and therefore the impact on settlement will be low.		
Actions taken to resolve the issue		Completion date	Remedial action status
The backdating of pricing events is a result of the delays with the prior Registry Agent, from 01/10/2018 when Tenco was appointed no backdating of pricing changes beyond 3BD occurs meaning that on a go forward compliance will be maintained. In addition, the decommissioning of ICP's is now monitored daily by Tenco ensuring that as Traders update the status of an ICP AIAL will be compliant with the timeframes required for updating the Registry status of decommissioned ICP's.		01/10/2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
As above a change in Registry Agent from the 01/10/2018 will remove the risk of non-compliance in the area going forward.		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. This is an unlikely event given that AIAL has only one NSP. The audit compliance reporting was examined for any NSP discrepancies.

#### **Audit commentary**

Compliance is recorded for TENCO. The audit compliance reporting all ICPs were correctly mapped.

#### **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 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 file as of March 2021 and the combined audit compliance report covering the audit period were examined.

#### **Audit commentary**

The audit compliance report identified six ICPs with addresses that are not readily locatable. These were reviewed and three have had additional details added so they are readily locatable. The remaining three ICPs relate to temporary points of supply on land development on the Airport grounds. I

recommend that GPS co-ordinates are added to the registry for these using the NZTM2000 standard and these details can be populated in the registry.

Description	Recommendation	Audited party comment	Remedial action
ICP location address	Populate the GPS co-ordinates for ICPs where physical address details are not readily locatable.	AIAL concur with this recommendation and will look to populate the details for these 3 ICP's and others in the future where required.	Identified

The three recorded in the last audit have had details added to make them readily locatable.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: 2 Schedule 11.1 From: 01-Aug-18 To: 31-Jan-21	Six active ICPs with addresses that are not readily locatable. Potential impact: None Actual impact: None Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated moderate as TENCO's processes are robust but they are reliant on AIAL providing address details which has been difficult in the some instances to determines. The audit risk rating is low as this only a small number of ICPs that AIAL are responsible for.		
Actions taken to resolve the issue		Completion date	Remedial action status
3 of the ICP's identified have had updates made to Registry to make the readily locatable, the remaining 3 will have GPS co-ordinates added as recommended shortly.		March-2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As part of the validation of uniqueness we will also ensure that Registry address details are full and complete to ensure that they are readily locatable going forward and look to utilize GPS co-ordinates where required for new development sites.		March-2021	

#### 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 for TENCO.

### 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 of March 2021 and the combined audit compliance reports for the audit period from 1 August 2018 to 31 January 2021 were reviewed to determine compliance for the population of all required information and its alignment with the trader where appropriate e.g., distributed generation, unmetered load, and shared unmetered load.

### **Audit commentary**

Compliance is recorded in the TENCO contractor report. All ICP information was checked and confirmed compliant unless discussed below:

#### Initial electrical connection date

- Six ICPs have no initial electrical connection date recorded. These are all historic and prior to TENCO managing the registry functions. These have been passed to TENCO to populate.
- There were no mismatched initial electrical connection dates.

There is no distributed generation on the AIAL network.

The streetlights on the AIAL network are included as part of the UFE for the network which is settled by difference.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: 7(1) Schedule 11.1  From: 01-Aug 18 To: 31-Jan-21	Initial electrical connection date not populated for six ICPs. Potential impact: None Actual impact: None Audit history: Multiple Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as strong as processes are well documented. 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
There were 6 ICP's identified as not having an IED which went Active between Sept-2013 and Feb-2016 when Vector were providing the registry functions, the IED for 1 of these has since been populated, the other 5 are now all decommissioned and Registry does not allow the back population of the IED to these given they are now decommissioned.		18/03/2021	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
The provision of IED's to Registry is now via Tenco as the Registry Agent on behalf of AIAL, Tenco has a reliable and robust process for ensuring that these are populated accurately and on time and there is no non-compliance in this area since Tenco took on the Registry Functions.		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 Vector contractor report.

The event detail report for the period 1 September 2017 – 24 August 2018 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**

The registry list as of March 2021 was examined.

#### **Audit commentary**

AIAL do not populate GPS co-ordinates 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 of March 2021 and the combined audit compliance reports for the audit period from 1 August 2018 to 31 January 2021 were reviewed to examine all ICPs at "ready" status.

#### **Audit commentary**

Compliance is recorded for TENCO.

The list file contained four 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.

The registry list file for was examined in relation to the use of the 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 contractor report. The list file as of March 2021 and the combined audit compliance report for the period 1 August 2018 to 31 January 2021 were examined in relation to the use of the decommissioned status.

#### **Audit commentary**

Compliance is recorded for TENCO.

49 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**.

The issue identified in the last audit where ICPs ready for decommissioning weren't being identified has been resolved since TENCO took over as contractor. There are no ICPs pending decommissioning.

#### **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.

#### **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.

#### 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.

#### Audit commentary

AIAL has updated two loss factor codes during the audit period. Both were notified within the required 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 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.*

*The notice provided to the reconciliation manager must be provided no later than 30 days prior to the intended date of creation or decommissioning.*

*If the intended date of creation or decommissioning changes the distributor must provide an updated notice as soon as possible.*

*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 NSP table on the registry was examined.

#### Audit commentary

No NSPs were created or decommissioned during the audit period, therefore compliance was not assessed.

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

### Audit observation

The NSP table on the registry was examined.

### Audit commentary

No NSPs were created, decommissioned or changed during the audit 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 NSP table on the registry was examined.

### Audit commentary

No balancing areas were changed during the audit 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 NSP table on the registry was examined.

##### Audit commentary

No NSPs were created during the audit 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 three business days after the change takes effect.*

##### Audit observation

The NSP table on the registry was examined.

##### Audit commentary

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 on the registry was examined.

##### Audit commentary

No 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 NSP table on the registry was examined.

##### Audit commentary

AIAL has not acquired any new networks.

##### 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**

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

**Audit commentary**

The process followed by TENCO is compliant. The NSP table was reviewed:

Distributor	NSP POC	Description	MEP	Certification Expiry
AIAL	AKL0331	AUCKLAND AIRPORT	AMCI	12/12/2021

The NSP has been recertified during the audit period. The meter certification expiry date is based on the component earliest expiry date. This has occurred twice during the audit period and found it was notified to the Reconciliation Manager within the required timeframe when notified in February 2020 but was when the next earliest component's expiry date occurred in May 2020.

**Audit outcome**

Non-compliant

Non-compliance	Description
Audit Ref: 6.8 With: Clause 10.25(1)  From: 24-Dec-19 To: 11-Feb-20	One meter recertification not notified to the RM within 20 days of meter recertification.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 1
<b>Audit risk rating</b>	<b>Rationale for audit risk rating</b>



<b>Low</b>	<p>Controls are rated as strong, as they are sufficient to prevent the late updates most of the time.</p> <p>The audit risk rating is deemed to be low as this has no direct impact on reconciliation.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
As soon as the Meter recert details were provided to Tenco by AMS these details were populated to the RM portal.		May-2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Tenco on behalf of AIAL is working proactively to ensure the timely provision of meter recerts to ensure compliance with this Code obligation.		Ongoing	

#### 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 the reconciliation participant for the NSP (Clause 10.25(2)(b)); and*
- *no later than 5 business days after the date of certification of each metering installation, advise the reconciliation manager of*
  - a) the MEP for the NSP (Clause 10.25(2)(c)(i)); and*
  - b) the NSP of the certification expiry date (Clause 10.25(2)(c)(ii)).*

##### Audit observation

The NSP table on the registry was examined.

##### Audit commentary

No NSPs were created during the audit 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

Distributor audit report V13

*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**

The NSP table on the registry was examined.

#### **Audit commentary**

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 NSP table on the registry was examined.

#### **Audit commentary**

AIAL has not acquired any networks.

#### **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**

The NSP table on the registry was examined.

#### **Audit commentary**

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 observation

The registry list 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 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 calculation of loss factors is discussed in the TENCO report.

#### Audit commentary

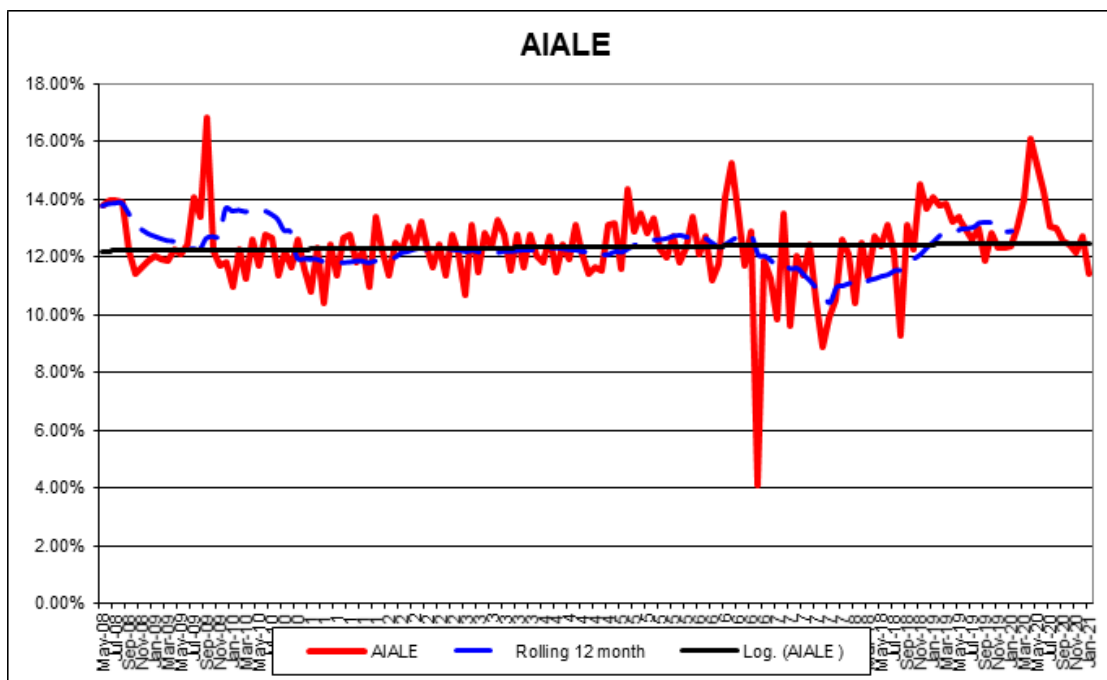
Compliance is recorded for TENCO.

TENCO 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.

To do this, TENCO determines the gateway loss factor from the LE ICP's loss factor, then determines the local network loss factor which would be likely to apply to the embedded network ICPs if they were connected to the local network. TENCO then calculates the overall loss factor and multiplies this by the local network loss factor to determine the value for each embedded network loss factor code.

TENCO maintains the internal loss factors in the registry, and within their pricing schedules which are issued to retailers. This indicated that UFE is stepped through the process and confirmed that the loss factors were calculated and assigned as expected. I checked the calculations and confirmed that these to be correct.

I checked the UFE for the AIAL network and the losses are not within the +/-1% guidelines:



UFE for this network includes the unmetered streetlight load and as this network is settled by difference compliance is confirmed.

#### Audit commentary

Compliant

## CONCLUSION

AIAL has changed contractor from Vector to TENCO. A material change was completed in relation to this change in January 2019.

AIAL's compliance is reliant on the compliance of TENCO, as the contractor. In this report, I have only recorded those matters where issues were discovered or where specific analysis was undertaken.

The audit found seven non-compliances and one recommendation is made. TENCO has a good record of managing registry maintenance on behalf of network owners. This is evident in the audit risk rating score which has reduced from 23 to 9. The Distributor audit frequency matrix shows the next recommended audit is due in 12 months. I have considered this result in conjunction with the response from AIAL's responses and recommend that the next audit is in 24 months to reflect that many of the issues are resolved and the change of agent has improved compliance.

## PARTICIPANT RESPONSE

Tenco on behalf of AIAL have reviewed the above audit report on the 22/03/2021 and are in agreeance with the findings contained within in.

We would note that most of the noncompliance above is caused by late updates (or no updates in some cases) by the previous Registry Agent and that since a change of Registry Agent was made on the 01/10/2018 the level of non-compliance in respect of registry functions has reduced significantly and we request that this be taken into account when the next recommended audit date is set.