

**ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTOR AUDIT REPORT**

For

**ALPINE ENERGY LIMITED**

Prepared by: Rebecca Elliot

Date audit commenced: 2 November 2017

Date audit report completed: 1 December 2017

Audit report due date: 04-Dec-17

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## EXECUTIVE SUMMARY

This Distributor audit was performed at the request of **Alpine Energy Ltd (Alpine)**, to encompass the Electricity Industry Participation Code requirement for an annual audit, in accordance with clause 11.10 of part 11. The audit was carried out at Alpine's premises in Timaru, on November 10<sup>th</sup>, 2017.

The audit was conducted in accordance with the Guideline for Distributor Audits version 7.1, which was produced by the Electricity Authority.

This audit found seven non-compliances and makes six recommendations. The area of registry management appears to have slipped during the audit period with not all errors being corrected. These have no direct impact on reconciliation therefore the audit risk rating is low. The five recommendations made will assist in improving overall compliance.

This year's audit was carried out with operational staff rather than those in the compliance team. As a result, they have a better understanding of the code requirements and how the day to day operation impacts compliance and other participants. I thank Hayden and Peter for their assistance in completing this audit.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of four, which results in an indicative audit frequency of 12 months and I agree with this recommendation.

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Provide complete and accurate information	2.1	11.2(1) and 10.6(1)	Information on the registry not complete and accurate	Moderate	Low	2	Identified
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Errors not corrected as soon as practicable	Moderate	Low	2	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	Late updating of the initial electrical connection date for 32 ICPs	Moderate	Low	2	Identified
Monitoring of "new" & "ready" statuses	3.14	15 Schedule 11.1	Seven ICPs at ICPs at "New" and 25 at "Ready" for more than 24 months not monitored	Weak	Low	3	Identified
Changes to registry information	4.1	8 Schedule 11.1	Registry event updates backdated greater than three days  Two ICPs change of NSP not updated within the required timeframe	Moderate	Low	2	Identified
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	Incorrect NSP for some ICPs	Moderate	Low	2	Identified
Provide ICP Information to the Registry manager	4.6	7(1)(o)&(p) Schedule 11.1	Four active ICPs with no initial electrical connection date incorrectly recorded.	Moderate	Low	2	Investigating

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			Three ICPs with an initial electrical connection date incorrectly recorded.  Three ICPs with distributed generation details missing.				
Future Risk Rating						13	
Indicative Audit Frequency						12 months	

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

## RECOMMENDATIONS

Subject	Section	Recommendation	Description
Changes to registry information	4.1	Change registry file to ensure default event dates are not used. This is mainly relevant for solar generation details	Investigating
Notice of NSP for each ICP	4.2	Check for of NSP mapping be carried out twice yearly.	Identified
Provide ICP Information to the Registry manager	4.6	A check for all ICPs with injection metering is added to the registry discrepancy validation	Identified
		Adopt the recommended unmetered load format	Identified
Management of “decommissioned” status	4.11	Check with traders to confirm if the ICPs at “ready for decommissioning” are at the correct status.	Identified
Creation of Loss Factor	8.1	Review loss factors	Identified

## 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

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

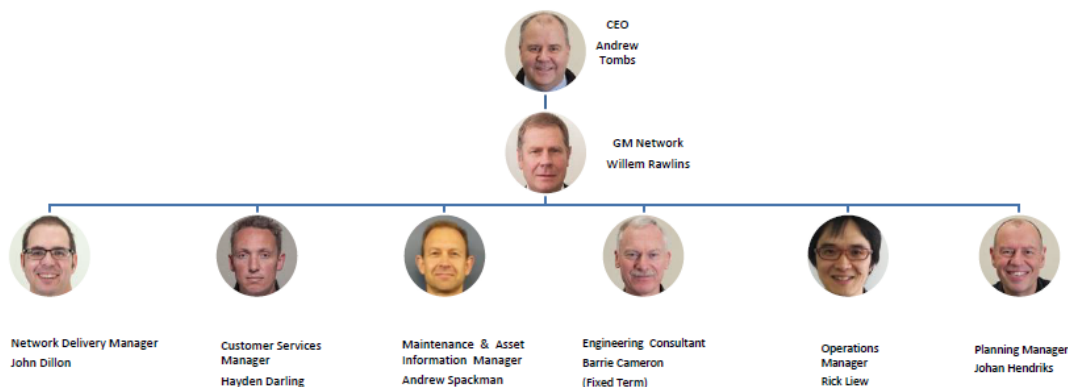
#### Audit commentary

Not applicable

### 1.2. Structure of Organisation

## Network: Leadership Team

	Current Position
	Vacant Position (currently approved)
	Parental Leave Cover
	Secondment
	Fixed-Term / Contractors / Casual



### 1.3. Persons involved in this audit

Auditor:

**Rebecca Elliot**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Alpine personnel assisting in this audit were:



Name	Title
Hayden Darling	Customer Services Manager
Peter Bennett	Metering Officer

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

##### Code reference

Clause 11.2A

##### Code related audit information

*A participant who uses a contractor*

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

##### Audit observation

Alpine Energy provided the list below of sub-contractors authorised to perform electrical connection activities on their network.

##### Audit commentary

- John Hardie- independent contractor
- Net Con Ltd

#### 1.5. Supplier list

Alpine Energy has provided the list in **Section 1.4** of sub-contractors authorised to perform electrical connection activities on their network.

#### 1.6. Hardware and Software

Alpine Energy provided the following information that details hardware and software used in the processes being audited:

- Microsoft Access database and VB application for registry maintenance
- Microsoft SQL Server and VB.Net application for the GIS. Backup arrangements are in accordance with standard industry protocols.

#### 1.7. Breaches or Breach Allegations

Alpine has not had any breach allegations recorded by the Electricity Authority during the audit period.

## 1.8. ICP and NSP Data

Alpine Energy has responsibility for the NSPs in the table below. There are two embedded networks connected to Alpine Energy's network.

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
ALPE	ABY0111	ALBURY			CENTRALALPEG	G	1/01/2012	
ALPE	BPD1101	Bells Pond			CENTRALALPEG	G	1/01/2012	
ALPE	STU0111	STUDHOLME			CENTRALALPEG	G	1/01/2012	
ALPE	TIM0111	TIMARU			CENTRALALPEG	G	1/01/2012	
ALPE	TKA0331	TEKAPO A			TKA0331ALPEG	G	1/05/2008	
ALPE	TMK0331	TEMUKA			CENTRALALPEG	G	1/01/2012	
ALPE	TWZ0331	TWIZEL			TWZ0331ALPEG	G	1/05/2008	
MOPO	MMP0111	MACKENZIE PARK	TWZ0331	ALPE	MMP0111MOPOE	E	1/05/2008	
MOPO	MMT0111	MANUKA TERRACE	TWZ0331	ALPE	MMT0111MOPOE	E	1/05/2008	

Alpine Energy provided a list of all ICPs as at October 2017 by way of a registry "list file". A summary of this data by "ICP status" is as follows:

Status	Number of ICPs 2017	Number of ICPs 2016	Number of ICPs 2015
New (999,0)	3	4	4
Ready (0,0)	61	75	69
Active (2,0)	32,299	32,101	31,820
Distributor (888,0)	2	2	2
Inactive – new connection in progress (1,12)	21	30	40
Inactive – electrically disconnected vacant property (1,4)	524	581	436
Inactive – electrically disconnected remotely by AMI meter (1,7)	39	1	0
Inactive – electrically disconnected at pole fuse (1,8)	6	2	0
Inactive – electrically disconnected due to meter disconnected (1,9)	1	0	1
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)	53	54	49
Inactive – reconciled elsewhere (1,5)	0	0	0
Decommissioned (3)	2,226	2,221	2,079

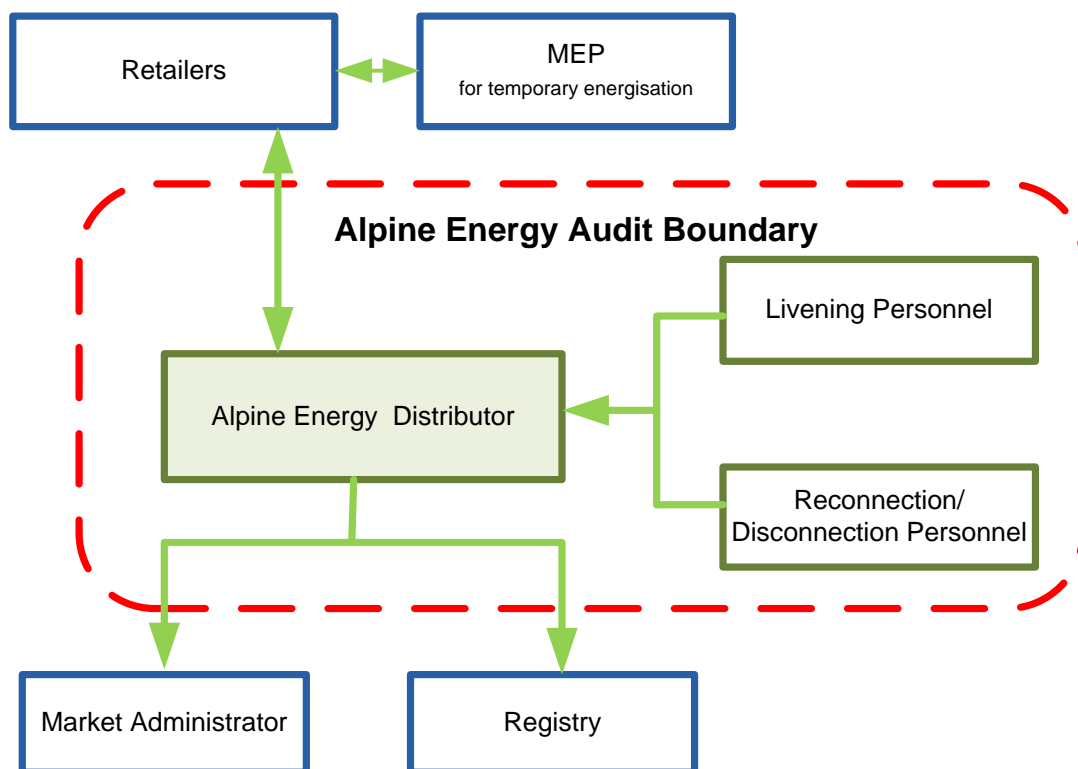
#### 1.9. Authorisation Received

Alpine Energy provided 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 Alpine Energy, to encompass the Electricity Industry Participation Code requirement for an annual audit, in accordance with clause 11.10 of part 11. The audit was carried out at Alpine's premises in Timaru, on November 10<sup>th</sup>, 2017.

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



### 1.11. Summary of previous audit

Alpine provided a copy of the previous audit report, conducted in November 2016 by Steve Woods of Veritek Limited. The findings are detailed in the table below:

#### Table of Non-Compliance

Subject	Section	Clause	Non compliance	Status
Creation of ICPs	2.2	11.5(3) of part 11	ICP not created within 3 business days.	Cleared
Changes to registry information	3.1	8(2)(b) of schedule 11.1	Registry information not updated within 3 business days.	Still existing
Notice of NSP	3.2	7(1)(b) of schedule 11.1	Incorrect NSP for some ICPs.	Still existing
Generation information	3.5	7(1)(c) of schedule 11.1	Incorrect distributed generation details for 3 ICPs.	Still existing
Initial electrical connection date	3.8	7(1)(p) of schedule 11.1	No IED for one ICP. IED populated for 3 ICPs that were not energised. One incorrect IED. Late registry update for 9 ICPs.	Still existing

#### Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Status
Creation of ICPs	2.2	8(2)(b) of schedule 11.1	Ensure a process is in place to notify when ICPs are not going to be created within 3 business days.	Cleared
Changes to registry information	3.1	8(2)(b) of schedule 11.1	Change registry file to ensure default event dates are not used. This is relevant for other fields, such as IED, not just addresses.	Still existing

Subject	Section	Clause	Recommendation for Improvement	Status
		8 of schedule 11.1	Conduct registry validation on a monthly basis.	Cleared
Decommissioned status	3.11	Clause 20 of Schedule 11.1	Investigate 54 ICPs with a status of ready for decommissioning and decommission where appropriate.	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

Alpine's data management processes were examined. The list file as at 31 September 2017, was examined to confirm compliance.

#### Audit commentary

Alpine Energy has a fully automated registry update process to ensure all information listed in this clause is provided to the registry. Alpine Energy data is contained in their connection management system, which is validated against the registry on a regular basis, error logs are created if any fields are different, and these are then investigated. This audit found the discrepancies listed below that have not corrected:

- Two ICPs that have been at "ready" for greater than 24 months have been cancelled in the ICP management system but not updated on the registry. This is discussed in **Section 3.14**.
- Four ICPs at with no initial electrical connection date recorded. This is discussed in **Section 4.6**.
- Three ICPs at new with initial electrical connection dates incorrectly recorded. This is discussed in **Section 4.6**.
- Three ICPs with inspected and approved distributed generation installed but these haven't been updated in the registry. This is discussed in **Section 4.6**.
- ICPs decommissioned in Alpine's system but still pending decommissioning on the registry. This is discussed in **Section 4.11**.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: 11.2(1) and 10.6(1) From: 01-Sep-16 To: 31-Aug-17	Information on the registry not complete and accurate Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Not all errors are being actioned hence control rating of moderate. The audit risk rating is low as the errors have no direct impact on reconciliation		
Actions taken to resolve the issue		Completion date	Remedial action status
We require the validation errors from the registry		30/11/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Implement daily/weekly/monthly validation error system		22/12/17	

## 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

Alpine's data management processes were examined. The list file as at 31 September 2017, was examined to confirm compliance.

### Audit commentary

As detailed in **Section 2.2**, Alpine have registry validation in place but not all errors appear to be being identified and actioned and are therefore not being corrected as soon as practicable.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: 11.2(2) and 10.6(2)  From: 01-Sep-16 To: 31-Aug-17	Errors not corrected as soon as practicable Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Not all errors are being actioned hence control rating of moderate. The audit risk rating is low as the errors have no direct impact on reconciliation		
Actions taken to resolve the issue		Completion date	Remedial action status
We require the validation errors from the registry		30/11/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Implement daily/weekly/monthly validation error system		22/12/17	



### 3. CREATION OF ICPS

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

##### Code reference

Clause 11.4

##### Code related audit information

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

##### Audit observation

The new connection process was examined in detail and is described in **section 3.2** below. Ten new connection applications of the 356 ICPs created were checked from the point of application through to when the ICP was created.

##### Audit commentary

Alpine Energy creates ICPs as required by clause 1 of schedule 11.1. All relevant points of connection have an ICP.

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

##### Audit observation

The new connection process was examined in detail. Ten new connection applications of the 356 ICPs created during the audit period were checked from the point of application through to when the ICP was created. These were selected using the typical characteristic methodology to confirm the process and controls worked in practice. The event detail report for the 12 months of September 2016 -August 2017 was examined for backdated "Ready" statuses. A sample of ten of these were checked to confirm if these were backdated created ICPs. These were selected using the typical characteristic methodology.

##### Audit commentary

Alpine Energy receives new connection requests from customers' agents, normally electricians, who provide a completed Network Application form on which a retailer is nominated. Network engineers evaluate each application to ensure network capacity is available at the requested location. The application is then returned to the new connections personnel where an ICP identifier is created in the connection management system with a status of "New". The application for connection is then sent to the nominated trader for their approval. This which is provided by sending a written response back to Alpine Energy and a service request (SR) to the metering and livening agent. When the response is received from the trader, the status is changed in the connection management system to "Ready". The registry is automatically populated from this system.

The sample checked found all were provided within three business days. Alpine have adopted the recommendation from the last audit that there is a process in place to notify when ICPs are not going to be created within three business days has been adopted.

#### **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 for populating all required registry fields was examined. The list file was examined for all ICPs created during the audit period.

#### **Audit commentary**

Alpine Energy has a fully automated registry update process to ensure all information listed in this clause is provided to the registry. The data is contained in their connection management system, which is validated against the registry on a regular basis, error logs are created if any fields are different, and these are then investigated. All ICPs created during the audit period were compliant.

#### **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 was examined. The event detail report for the period from the 12 months of September 2016 -August 2017 was examined. 366 ICPs were made "Ready" during that period. These were checked to confirm that they were updated prior to electricity being traded.

#### **Audit commentary**

The date being used as the "ready" event date is the date the customer signed and dates the paperwork. This is not necessarily the date the paperwork was received by Alpine. Analysis found 71 ICPs that have backdated ready dates greater than three days from the registry action date. All were found to have been updated prior to electricity was traded and are compliant.

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

## Audit outcome

Compliant

### 3.5. 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 process for populating of the initial electrical connection date was examined. The event detail report for the period from 12 months of September 2016 -August 2017 was examined. A sample of ten ICPs updated later than ten business days were examined using the extreme case methodology.

#### Audit commentary

After the metering and electrical connection fieldwork is complete, a completed form is provided back to Alpine Energy, and any necessary corrections are made to registry fields, for example, connection capacity or price category code. The initial electrical connection date is populated at this stage.

The initial electrical connection date was populated for 362 ICPs. To calculate the accuracy of updates I have measured the initial electrical connection date against the registry update date. 306 ICPs (85%) were updated within the required timeframe. 56 ICPs (15%) were updated later than ten business days. The sample checked found they were updated late due to the information being provided late back from the field or were found to be missing and updated as part of the registry discrepancy process.

## Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: 7(2A) of Schedule 11.1  From: 01-Sep-16 To: 31-Aug-17	Late updating of the initial electrical connection date for 32 ICPs  Potential impact: None  Actual impact: None  Audit history: Multiple  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The processes in place will mitigate risk hence controls are rated as moderate.  This has no direct impact on submission hence the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Create AEL job tracking spreadsheet		Jan 17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Closer job management and tracking from AEL to FSP and return from FSP to AEL ASAP after completion		Dec 17	

### 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.*

#### Audit observation

The new connection process was examined. The event detail report for the period from 12 months of September 2016 -August 2017 was examined. The list file was examined to confirm that all ICPs at the status of “ready” have a trader nominated.

#### Audit commentary

The new connections process was examined, and the process includes a “trader responsibility” step, where the trader sends a livening request to the livening agent. All ICPs at “Ready” have a proposed trader populated in the registry.

### 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.*

### Audit observation

The new connection process was examined. A registry list was received to identify any new connections of ICPs that are also NSPs.

### Audit commentary

The new connections process is designed to include a “retailer responsibility” step. The new connections process was examined, and the process includes a “trader responsibility” step, where the trader sends an electrical connection request to the livening agent. All ICPs at “Ready” have a proposed trader populated in the registry.

### 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.*

### Audit observation

The new connection process was examined in relation to ICPs that are not also NSPs to Alpine’s network.

### Audit commentary

The new connections process is designed to include a “retailer responsibility” step. The trader engages with the MEP and the MEP will not request a temporary energisation without this.

### 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 5 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 examined and found no new NSPs have been created by Alpine and are not expected to be in the near future

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### 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 examined and found no new NSPs have been created by Alpine and are not expected to be in the near future

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### 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 process for the creation of ICPs was examined. This was checked as part of the other new connection ICPs checked detailed in this section.

#### Audit commentary

The process for the creation of ICPs was examined, and all ICPs are created in the appropriate format.

#### 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 process of allocation of the loss category was examined. The list file was examined to confirm all active ICPs have a single loss category code.

#### Audit commentary

This is known at the time of the ICP creation and this is assigned at the time of the ICP creation. 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 new connection process was examined. The list and event detail files were examined in relation to the use of the “New” status.

### Audit commentary

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

### 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

The management of ICPs at the “new” and “ready” statuses was examined. The list file as at 30<sup>th</sup> September 2017 was examined.

### Audit commentary

The list file contained three ICPs at “New” and 25 at “Ready” for more than 24 months. There is a process in place to send check with traders as to whether an ICP is still required but this does not appear to be being followed in all instances. All ICPs were checked and found:

- 17 ICPs have had an “expiry” email sent to traders. Responses have not been received in all instances and I note that some have not been followed up since 2015.
- Five ICPs have not been followed up.
- Two ICPs have been cancelled in the ICP management system but not updated on the registry. These errors are expected to be picked up through the registry validation process but as reported in **Section 2.1**, not all errors appear to be being examined.

### Audit outcome

Non-compliant



Non-compliance	Description		
Audit Ref: 3.14 With: 15 Schedule 11.1  From: 01-Sep-16 To: 31-Aug-17	Seven ICPs at ICPs at "New" and 25 at "Ready" for more than 24 months not monitored.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Weak  Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The process in place does not appear to be monitoring these ICPs as per the requirement of this clause, hence the control rating of weak.  This affects a small number of ICPs therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Metering Department to receive Registry notifications		30/11/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Implement systematic registry notifications		22/12/17	

### 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

This requirement was discussed and the list file was examined.

#### Audit commentary

There are no embedded generators with a capacity greater than 10MW that require specific loss category codes.

**Audit outcome**

Not applicable

## 4. MAINTENANCE OF REGISTRY INFORMATION

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

#### Code reference

*Clause 8 Schedule 11.1*

#### Code related audit information

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

*Notification must be given by the distributor within 3 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 14 days, the time within which notification must be effected in accordance with Clause 8(3) of Schedule 11.1 begins on the 15th day after the change.*

#### Audit observation

The process to manage ICP changes were examined. The event detail report for the period from 12 months of September 2016 -August 2017 was examined. I used the extreme case methodology examining a sample of ten late updates or less if there were fewer for any change where the initial analysis could not determine the cause.

NSP changes were examined.

#### Audit commentary

Registry data changes are made in the connection management system, which automatically updates the registry. Examination of the event detail report for the audit period found:

- 66 ICPs were decommissioned. 18 (27%) of these were updated within three business days. The remaining 48 ICPs (73%) were updated greater than three business days. This is discussed further in **section 4.11**.
- 1,261 address events. All were of these were updated within three business days.
- 412 Network Events. This excludes the population of the initial energisation date which is discussed in **section 3.5**. 296 (72%) of these were updated within three business days. The remaining 116 (28%) were backdated greater than three business days. Analysis of these found:
  - 26 of these were to update the distributed generation details.
  - The sample was checked of the remaining 90 ICPs and all were found to be corrections, for example the removing of unmetered load details and a change of transformer created a network event but no details changed on the registry.
- 2,987 price code changes were made. 1,846 (62%) of these were updated within three business days. 1,141 (38%) of those were backdated by more than three business days. Whilst Alpine won't backdate greater than three days as a rule they will if this is a correction. The sample checked found all were corrections with the exception of ICP 0003670106ALE3C which was caused by late paperwork back from the field.

As reported in the last audit, registry data changes made in the connection management system automatically updates the registry, except for status changes. If the file does not contain an event date, the date of the previous update for that field remains as a default. Some of the backdated distributed generation additions are due to this issue. I repeat the last audit's recommendation that the registry file is changed to include an event date to prevent inadvertent "backdating".

Recommendation	Description	Audited party comment	Remedial action
Changes to registry information	Change registry file to ensure default event dates are not used. This is mainly relevant for solar generation details.	Investigate with AEL IT department to make changes to the ICP database regarding default event dates	Investigating

There were no bulk NSP changes, but four late NSP changes were identified. These were all corrections, two related to findings of the last audit.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: 8 Schedule 11.1  From: 01-Sep-16 To: 31-Aug-17	Registry event updates backdated greater than three days Two ICPs change of NSP not updated within the required timeframe Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	I have rated the controls as moderate as the controls in place will mitigate the risk most of the time.  There is a potential minor impact on settlement, hence the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Metering Department to receive Registry errors		30/11/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Ensuring entry is correct on initial entry, review at time of connection (paperwork entry)		27/11/17	

#### 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 new connection process was examined and is described in detail in **Section 3**. I ran a concatenate query across the list file supplied. A sample of ten roads were checked using the extreme case methodology by looking for roads that have less than two ICPs allocated and less than 25% to an NSP.

##### Audit commentary

The transformer is selected when creating the ICP connection point in the GIS system. The operator selects the transformer based on the surrounding ICPs' transformer. The analysis carried out identified 17 roads with 20 ICPs with a potential incorrect NSP. Four of these roads were identified last year and are confirmed to be correctly mapped. The remaining roads were reviewed and found four ICPs on three different roads that are recorded against the incorrect NSP. The remaining ten roads are being investigated. I recommend a periodic check of NSP mapping be put in place to ensure that any human errors are picked up.

Recommendation	Description	Audited party comment	Remedial action
Notice of NSP for each ICP	Check for of NSP mapping be carried out twice yearly.	Quarterly periodic checks of NSP mapping	Identified

##### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.2 With: 7(1),(4) and (5) Schedule 11.1  From: 01-Sep-16 To: 31-Aug-17	Incorrect NSP for some ICPs Potential impact: Medium Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as moderate as the process will mitigate errors most of the time.  The volume of potentially mismapped ICPs is low therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Reviewed and corrected on the Registry		30/11/17	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Quarterly NSP mapping		Dec 17	

#### 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

Alpine Energy does receive direct requests for ICP identifiers and these are provided immediately.

##### Audit outcome

Compliant

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

##### **Code reference**

*Clause 2 Schedule 11.1*

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

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

##### **Audit observation**

The process to manage address accuracy was examined and the list file was analysed. The list file was checked to confirm ICP location addresses are readily locatable and a sample of five ICPs were checked using the typical case methodology.

##### **Audit commentary**

The address is captured at the time of ICP creation and the GIS co-ordinates are recorded for all but 28 ICPs. These all have locatable addresses recorded. There were no duplicates. The sample checked using “google earth” and its “streetview” functionality confirmed compliance.

##### **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**

This was examined as part of the new connection process and proof of process was checked as part of the sample of new connections examined.

##### **Audit commentary**

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

##### **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 from metering information*
  - c) *the actual chargeable capacity of the ICP in any other case*
- *the distributor installation details for the ICP determined by the price category code assigned to the ICP (if any), which may be placeholder distributor installation details only if the distributor is unable to assign the actual distributor installation details because the capacity or volume information required to assign the actual distributor installation details cannot be determined before electricity is traded at the ICP (Clause 7(1)(i) of Schedule 11.1)*
- *the participant identifier of the first trader who has entered into an arrangement to sell or purchase electricity at the ICP (only if the information is provided by the first trader) (Clause 7(1)(j) of Schedule 11.1)*
- *the status of the ICP (Clause 7(1)(k) of Schedule 11.1)*
- *designation of the ICP as "Dedicated" if the ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)*



- *if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)*
- *if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)*
- *if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):*
  - a) *the nameplate capacity of the generator; and*
  - b) *the fuel type*
  - c) *the initial electrical connection date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

### **Audit observation**

The new connection and updating of ICP information processes for populating all required registry fields was examined. The list file was examined to check for the population of all required information and its alignment with the trader where appropriate e.g. distributed generation, unmetered load if known and shared unmetered load. All variances were examined in relation to initial electrical connection and distributed generation.

### **Audit commentary**

#### Date of ICP Initial Electrical Connection

I checked the accuracy of the initial energisation date against the active date and meter certification date from the EDA. Four ICPs had no initial electrical connection date recorded and three ICPs at the “New” status had an initial electrical connection date recorded. This is recorded as non-compliance below.

I found 328 ICPs with both initial electrical connection date populated and an active date during the audit period. Of these:

- 3,787 (96%) had matching dates
- 13 (4%) had a different active date. These were checked against the first meter certification recorded and found three instances where the trader had the incorrect date and have since corrected this and the dates now match to Alpine’s date. The paperwork was checked during the site audit for the remaining ten ICPs and found:
  - Five ICPs where I was not able to determine which date is correct. All had an active date and meter certification date earlier than the electrical connection date advised to Alpine from their living agent. It is unclear if these were temporarily energised to certify the meter or the meter was certified using a generator.
  - Three ICPs where the retailer has the incorrect active date.
  - Two ICPs (ICPs 0001632037AL922 and 0007302365AL1CA) where Alpine Energy has recorded the incorrect initial electrical connection date.

#### Distributed Generation

Applications are received and processed and once approved this is notified to the applicant and the trader. Once the installation is installed it must be inspected and if compliant the inspector will connect it. This is then updated on the registry.

Examination of the list file found 250 ICPs with distributed generation recorded by Alpine. Analysis of the List file and the PR255 report identified 18 active ICPs with generation indicated by the presence of an injection channel and the profile the trader has assigned the ICP but Alpine Energy has none recorded. These were reviewed and found:

- Five ICPs have not been updated due to a new MEP sub-contractor operating on Alpine's network who have connected these sites without an inspection being carried out. These are being followed up.
- Five ICPs where there is no distributed generation on site and it appears that the MEP may have an incorrect channel indicated.
- Five ICPs that have since been inspected, confirmed compliant and updated on the registry as part of BAU.
- Three ICPs that have been inspected but the database and therefore the registry have not been updated.

I recommend that a check for all ICPs with injection metering is added to the registry discrepancy validation.

Recommendation	Description	Audited party comment	Remedial action
Provide ICP Information to the Registry manager	A check for all ICPs with injection metering is added to the registry discrepancy validation	Metering Department to receive Registry discrepancy validation report on a monthly basis. BPM has also been modified to ensure injection is after AEL inspection	Identified

#### Unmetered Load

Unmetered load is recorded where known by Alpine Energy but not in a format where the loads can be compared between Alpine Energy and the trader. I recommend that the Electricity Authority's recommended format is adopted where possible:

Information	Format
Connected load	Watts, 4 digits, zero decimal places. Eg 1565
Semi colon separator	:
Running hours per day	Hours to 2 digits, and decimal hours to 1 decimal place Eg 02.5 (ie two and one half hours)
Semi colon separator	:
Other text	Free form as required

Example strings:

- 0110:10.5: Street light corner Rons Rd and Harn St.

This is a 110watt connected capacity street light that runs 10,5 hours per day.

- 1525:01.0: Sewage pump outside 76 Guthries Rd

This is a 1525 watt connected capacity sewage pump that runs 1 hour per day.

Recommendation	Description	Audited party comment	Remedial action
Provide ICP Information to the Registry manager	Adopt the recommended unmetered load format	Adopt the EA recommended format	Identified

There were no unmetered load connections made during the audit period.

Alpine has correctly populated this field. TKA0331 and TWZ0331 are both single NSPs within their own balancing areas. All ICPs are recorded as dedicated. ICPs at other NSPs are mostly non dedicated and some are dedicated.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: 7(1)(o)&(p) Schedule 11.1  From: 01-Sep-16 To: 31-Aug-17	Four active ICPs with no initial electrical connection date incorrectly recorded. Three ICPs with an initial electrical connection date incorrectly recorded. Three ICPs with distributed generation details missing. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as moderate as they will mitigate risk most of the time. The audit risk rating is low as this information does not have a direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Once errors are known we are able to correct		30/11/17	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Metering Department require notification tool		Dec 17	

#### 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 new connection process was examined in detail.

##### Audit commentary

The price category and chargeable capacity (if any) are known at the time of the ICP being created therefore these are recorded correctly in the first instance. Examination of the backdated price events found none related to new connections.

##### 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

Alpine Energy record ICP GPS co-ordinates. The list file was examined, and the GIS co-ordinates are recorded for all but 28 ICPs. These 28 ICPs are discussed in **Section 4.4**. A sample of five ICPs co-ordinates were checked to confirm the correct format is used.

##### Audit commentary

The sample checked confirmed the correct GPS co-ordinate format is used.

##### 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

The management of ICPs in relation to the use of the “ready” status was examined. The list file and event detail report period from 12 months of September 2016 -August 2017 were examined in relation to the use of the “ready” status.

##### Audit commentary

Alpine Energy’s new connections process is well designed, and as noted in **Section 3.2**, Alpine Energy’s process ensures that a trader has taken responsibility for ICPs before the status is changed from “New” to “Ready”.

The connection management system will only allow one price category; therefore, the requirement to ensure that an ICP has a single price category will always be met.

##### 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 management of ICPs in relation to the use of the “distributor” status was examined. The list file and event detail report period from 12 months of September 2016 -August 2017 were examined in relation to the use of the “distributor” status.

##### Audit commentary

Alpine Energy’s list file shows two ICPs that have an ICP status of “Distributor” and both of these are for embedded networks.

Alpine Energy confirms that there is no shared unmetered load on their network.

## 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 ICPs in relation to the use of the “decommissioned” status was examined. The list file and event detail report period from 12 months of September 2016 -August 2017 were examined in relation to the use of the “decommissioned” status. A sample of ten ICPs at the “ready for decommissioning” status using the typical case methodology was checked.

#### Audit commentary

ICP decommissioning processes are well documented. Requests are made directly to Alpine Energy where decommissioning is required. The fieldwork is then carried out and notification comes back to Alpine Energy on standard documentation. The registry is then updated to the decommissioned status. Alpine Energy monitors ICPs that have been physically decommissioned to ensure the retailer changes the status to “ready for decommissioning” so that Alpine Energy can change the status to “decommissioned”. As is evidenced in **Section 4.1**, there are often delays in the trader updating their status and this can lead to physically decommissioned ICPs being on the registry as active or de-energised vacant because Alpine Energy is unable to decommission until the trader has updated their status.

There are 53 ICPs with a status of “ready for decommissioning” in the list file. The sample checked found that Alpine Energy has not received requests for decommissioning from traders for any of these ICPs. I repeat last year’s recommendation that the relevant traders are asked to check the status of all of these ICPs to confirm they are correct and if possible, decommission those ICPs where this is appropriate.

Recommendation	Description	Audited party comment	Remedial action
Management of “decommissioned” status	Check with traders to confirm if the ICPs at “ready for decommissioning” are at the correct status.	Action report as requested for 53 ICP’s, look to decom all. Metering department to receive trader response to “inactive” ready for decommissioning	Identified

The decommissioned ICP 0001632030AL4E8 found in last year’s audit where but the retailer had not changed the status from “Active” has been corrected and is now decommissioned.

### 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 2 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 and Alpine have not created any new price category codes during the audit period.

#### Audit commentary

N/A

### Audit outcome

Not applicable

## 5. CREATION AND MAINTENANCE OF LOSS FACTORS

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

#### Code reference

*Clause 21 Schedule 11.1*

#### Code related audit information

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

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

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

#### Audit observation

The loss category code table on the registry was examined and Alpine have not created any new loss category codes during the audit period.

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

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

#### Code reference

*Clause 22 Schedule 11.1*

#### Code related audit information

*Each loss category code must have a maximum of 2 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 and Alpine have not created updated any loss factors during the audit period.

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable



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

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

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

#### Code reference

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

#### Code related audit information

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

*The request must be made at least 10 business days before the NSP is electrically connected, in respect of an NSP that is an interconnection point between 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 NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period therefore this was not assessed as part of this audit.

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

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

#### **Code reference**

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

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

*If a participant has notified the creation of an NSP on the distributor's network, the distributor must 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. No new balancing areas were created during the audit period, therefore this was not assessed as part of this audit.

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

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

#### **Code reference**

*Clause 26(4) Schedule 11.1*

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

*If a participant notifies the creation of an NSP, or the transfer of an ICP to an NSP that is a point of connection between a network and an embedded network owned by the distributor, the distributor must give notice to the reconciliation manager at least 1 month before the creation or transfer of:*

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

#### **Audit observation**

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

**Audit commentary**

Not applicable

**Audit outcome**

Not applicable

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

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

**Code related audit information**

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

**Audit commentary**

Not applicable

**Audit outcome**

Not applicable

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

*Clause 27 Schedule 11.1*

**Code related audit information**

*If a transfer of an ICP results in an ICP becoming an NSP at which an embedded network connects to a network, or in an ICP becoming an NSP that is an interconnection point, in respect of the distributor's network, the distributor must give written notice to any trader trading at the ICP of the transfer at least 1 month before the transfer.*

**Audit observation**

The NSP table on the registry was examined. Alpine has not had any ICPs that have changed to become an NSP during the audit period, therefore this was not assessed as part of this audit.

**Audit commentary**

Not applicable

**Audit outcome**

Not applicable

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

##### Code reference

*Clause 1 to 4 Schedule 11.2*

##### Code related audit information

*If the distributor wishes to transfer an ICP, the distributor must give written notice to the Authority in the prescribed form, no later than 3 business days before the transfer takes effect.*

##### Audit observation

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

##### Audit commentary

Not applicable

##### Audit outcome

Not applicable

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

##### Code reference

*Clause 10.25(1) and 10.25(3)*

##### Code related audit information

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

- *there is 1 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

All NSPs are connections to the grid, therefore this clause does not apply.

##### Audit commentary

Not applicable

##### Audit outcome

Not applicable

**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**

All NSPs are connections to the grid, therefore this clause does not apply.

**Audit commentary**

Not applicable

**Audit outcome**

Not applicable

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

**Code reference**

*Clause 29 Schedule 11.1*

**Code related audit information**

*If a network owner acquires all or part of a network, the network owner must 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 1 month notification is required before the acquisition (Clause 29(2) of Schedule 11.1).*

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

**Audit observation**

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

**Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

### **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**

Alpine has not created any new embedded networks, therefore this was not assessed as part of this audit.

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

### **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**

Alpine do not own any embedded networks therefore this was not examined.

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

### 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**

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

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

## 7. MAINTENANCE OF SHARED UNMETERED LOAD

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

#### Code reference

*Clause 11.14(2) and (4)*

#### Code related audit information

*The distributor must 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

Alpine Energy has no existing shared unmetered load, and does not intend to allow any new shared unmetered load connections.

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

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

#### Code reference

*Clause 11.14(5)*

#### Code related audit information

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

#### Audit observation

Alpine Energy has no existing shared unmetered load and does not intend to allow any new shared unmetered load connections.

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable



## 8. CALCULATION OF LOSS FACTORS

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

#### Code reference

Clause 11.2

#### Code related audit information

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

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

#### Audit observation

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

#### Audit commentary

Alpine Energy have three different factors; LV, HV (11kV) and HV (33 kV). As noted in Section 5, there have been no changes made to these during the audit period. The high-level analysis I was able to carry out across the 14 month revisions indicates that Alpine Energy’s loss factors are potentially too high although for this to be conclusive more analysis would be required with a wider data set. I recommend that the loss factors are reviewed.

Recommendation	Description	Audited party comment	Remedial action
Creation of loss factors	Review loss factors	AEL to review loss factors	Identified

#### Audit outcome

Unable to determine

## CONCLUSION

This audit found seven non-compliances and makes six recommendations. The area of registry management appears to have slipped during the audit period with not all errors being corrected. These have no direct impact on reconciliation therefore the audit risk rating is low. The five recommendations made will assist in improving overall compliance.

This year's audit was carried out with operational staff rather than those in the compliance team. As a result, they have a better understanding of the code requirements and how the day to day operation impacts compliance and other participants. I thank Hayden and Peter for their assistance in completing this audit.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of four, which results in an indicative audit frequency of 12 months and I agree with this recommendation.

## PARTICIPANT RESPONSE

This was our first Distributor Audit for both Peter and I and the learnings from it have been unmeasurable. Going over the audit material and the requirements of the code and putting it in play with our internal paperwork processes/ICP database, and the registry for tasks we do daily highlighted the importance of detailed record keeping and accurate/timely data entry. With the assistance from Rebecca throughout the audit Peter and I now know where we need to aim to become more compliant on all levels which gives us a clearer picture of where we need to head.

The use of registry reporting through notifications to the Metering Department is the first step to implement. This will quickly allow us to see where the problems are occurring in a timely manner and allow us to resolve immediately. Peter has the contacts to assist with this, and get this under way before the end of 2017.

With the appointment of a new Registry co-ordinator (starts 4/12/17) for the Alpine Group we will all be able to work together with more checks and balances to ensure processes and workflow is improved to assist us with the changes ahead .

Peter has already addressed a number of errors pointed out by Rebecca throughout the audit and together we will look at other items such as the decommissioning status of ICPs, Loss Factors etc. in 2018.

Again thank you to Rebecca for the time she spent with us throughout this audit, we look forward to working together in future.