

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**

For

ALPINE ENERGY LIMITED

Prepared by: Rebecca Elliot

Date audit commenced: 15 January 2021

Date audit report completed: 12 March 2021

Audit report due date: 4 February 2021

TABLE OF CONTENTS

Executive summary	4
Audit summary	5
Non-compliances	5
Recommendations	8
Issues 8	
1. Administrative	9
1.1. Exemptions from Obligations to Comply with Code (Section 11)	9
1.2. Structure of Organisation	9
1.3. Persons involved in this audit	10
1.4. Use of Contractors (Clause 11.2A)	10
1.5. Supplier List	11
1.6. Hardware and Software	11
1.7. Breaches or Breach Allegations	11
1.8. ICP and NSP Data	11
1.9. Authorisation Received	12
1.10. Scope of Audit	13
1.11. Summary of previous audit	14
1.12. Submission of Audit Report (Clause 16A.13)	15
2. Operational Infrastructure	17
2.1. Requirement to provide complete and accurate information (Clause 11.2(1) and 10.6(1)) ..	17
2.2. Requirement to correct errors (Clause 11.2(2) and 10.6(2))	20
3. Creation of ICPs	22
3.1. Distributors must create ICPs (Clause 11.4)	22
3.2. Participants may request distributors to create ICPs (Clause 11.5(3))	22
3.3. Provision of ICP Information to the registry manager (Clause 11.7)	23
3.4. Timeliness of Provision of ICP Information to the registry manager (Clause 7(2) of Schedule 11.1)	24
3.5. Timeliness of Provision of Initial Electrical Connection Date (Clause 7(2A) of Schedule 11.1)	25
3.6. Connection of ICP that is not an NSP (Clause 11.17)	27
3.7. Connection of ICP that is not an NSP (Clause 10.31)	28
3.8. Temporary electrical connection of ICP that is not an NSP (Clause 10.31A)	28
3.9. Connection of NSP that is not point of connection to grid (Clause 10.30)	29
3.10. Temporary electrical connection of NSP that is not point of connection to grid (Clause 10.30(A))	30
3.11. Definition of ICP identifier (Clause 1(1) Schedule 11.1)	30
3.12. Loss category (Clause 6 Schedule 11.1)	31
3.13. Management of “new” status (Clause 13 Schedule 11.1)	31
3.14. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1)	32
3.15. Embedded generation loss category (Clause 7(6) Schedule 11.1)	32
3.16. Electrical connection of a point of connection (Clause 10.33A)	33
4. Maintenance of registry information	34
4.1. Changes to registry information (Clause 8 Schedule 11.1)	34
4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)	38

4.3.	Customer queries about ICP (Clause 11.31).....	39
4.4.	ICP location address (Clause 2 Schedule 11.1).....	39
4.5.	Electrically disconnecting an ICP (Clause 3 Schedule 11.1).....	39
4.6.	Distributors to Provide ICP Information to the Registry manager (Clause 7(1) Schedule 11.1)	40
4.7.	Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1).....	46
4.8.	GPS coordinates (Clause 7(8) and (9) Schedule 11.1).....	46
4.9.	Management of “ready” status (Clause 14 Schedule 11.1).....	47
4.10.	Management of “distributor” status (Clause 16 Schedule 11.1).....	47
4.11.	Management of “decommissioned” status (Clause 20 Schedule 11.1).....	48
4.12.	Maintenance of price category codes (Clause 23 Schedule 11.1).....	50
5.	Creation and maintenance of loss factors	52
5.1.	Updating table of loss category codes (Clause 21 Schedule 11.1).....	52
5.2.	Updating loss factors (Clause 22 Schedule 11.1).....	52
6.	Creation and maintenance of NSPs (including decommissioning of NSPs and transfer of ICPs).....	53
6.1.	Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1).....	53
6.2.	Provision of NSP information (Clause 26(1) and (2) Schedule 11.1).....	53
6.3.	Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1).....	54
6.4.	Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)....	54
6.5.	Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1).....	55
6.6.	Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1).....	55
6.7.	Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2).....	55
6.8.	Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1) and 10.25(3)).....	56
6.9.	Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2)).....	56
6.10.	Obligations concerning change in network owner (Clause 29 Schedule 11.1).....	57
6.11.	Change of MEP for embedded network gate meter (Clause 10.22(1)(b)).....	57
6.12.	Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2).....	58
6.13.	Transfer of ICPs for embedded network (Clause 6 Schedule 11.2).....	58
7.	Maintenance of shared unmetered load	59
7.1.	Notification of shared unmetered load ICP list (Clause 11.14(2) and (4)).....	59
7.2.	Changes to shared unmetered load (Clause 11.14(5)).....	59
8.	Calculation of loss factors	60
8.1.	Creation of loss factors (Clause 11.2).....	60
	Conclusion	63
	Participant response	64

EXECUTIVE SUMMARY

This Distributor audit was conducted at the request of **Alpine Energy Ltd (Alpine Energy)** 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 audit found nine non-compliances and makes six recommendations. The audit confirmed that the ICP database is showing signs of strain with some transactions are not being sent to the registry as expected. Alpine Energy are aware of this and hope to replace the current ICP database. They are currently automating their customer interface workflow which will feed information into the ICP database. This will assist in improving the return of paperwork from the field. A material change audit is planned before the customer interface workflow goes live to ensure that Alpine can meet its code requirements.

The audit found that some corrections identified in the last audit are still to be corrected and not all discrepancies are being identified. I recommend that the audit compliance reporting is used to improve information accuracy and timeliness of registry updates.

The technical loss factor review was completed prior to the last audit and it was expected that these would be updated and come into effect in April 2020. This is still in progress. Examination of UFE indicates that the current loss factors are too high with negative losses continuing to increase. Alpine are working to get the loss factors updated.

The audit identified nine non-compliances and makes six recommendations. The future risk rating indicates that the next audit should be within six months. Given that Alpine will be undertaking a material change within this period and the comments provided by Alpine, I recommend that the next audit be in 12 months' time.

The matters raised are set out in the table below.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Submission of audit report	1.12	16A.13	Audit report not provided to the Authority by the participant by the due date.	Moderate	Low	2	Cleared
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	<p>Six ICPs with no initial electrical connection date recorded.</p> <p>Three ICPs electrically connected during the audit period with no initial electrical connection date recorded.</p> <p>27,000 ICPs with the incorrect initial electrical connection date recorded prior to the date being populated was required.</p> <p>ICP 0004282423ALD60 has incorrect initial electrical connection date populated.</p> <p>Two unmetered load ICPs electrically connected during the audit period with no unmetered load recorded.</p> <p>ICP 0001123465AL1E4 has been decommissioned but has yet to be updated on the registry.</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<p>ICP 0002252075ALB2E has been decommissioned but has a status of ready for decommissioning recorded on the registry.</p> <p>ICP 0001890253AL261 has a status reason code of 2 (Installation Dismantled) applied but should have had 1 (Setup in error) applied.</p> <p>20 network updates had incorrect event dates recorded.</p>				
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Corrections not made as soon as practicable.	Moderate	Low	2	Identified
Provision of ICP Information to the registry manage	3.3	11.7	Six ICPs became active during the audit period but had no initial electrical connection date populated.	Moderate	Low	2	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	44 late initial electrical connection date updates.	Moderate	Low	2	Identified
Changes to registry information	4.1	8 Schedule 11.1	<p>Two late address updates.</p> <p>310 late pricing updates.</p> <p>16 late status updates.</p> <p>29 late network updates.</p> <p>25 late distributed generation updates.</p>	Weak	Low	3	Investigating

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Distributors to Provide ICP Information to the Registry manager	4.6	7(1)(o)&(p) Schedule 11.1	<p>Six electrically connected ICPs with no initial electrical connection date recorded.</p> <p>Three ICPs with the incorrect initial electrical connection date recorded.</p> <p>Incorrect IECD dates populated for a large number of ICPs prior to the requirement to populate this information.</p> <p>ICPs 0004282423ALD60 has the incorrect initial electrical connection date populated.</p> <p>Two unmetered ICPs with no unmetered load details recorded.</p>	Moderate	Low	2	Identified
Management of “decommissioned” status	4.11	20 Schedule 11.1	<p>ICP 0001123465AL1E4 has been decommissioned but has yet to be updated on the registry.</p> <p>ICP 0001890253AL261 has a status reason code of 2 (Installation Dismantled) applied but should have had 1 (Setup in error) applied.</p>	Moderate	Low	2	Identified
Creation of loss factors	8.1	11.2	Loss factors are not accurate in relation to reconciliation losses.	Weak	Medium	6	Identified
Future Risk Rating						23	

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
Requirement to provide complete and accurate information	2.1	Registry validation	Utilise the AC020 reporting to assist with identifying potential data discrepancies.
Distributors to Provide ICP Information to the Registry manager	4.6	Distributed Generation	Monitor the EIEP1 reports to identify ICPs with "I" flow where none is expected and check for any negative values as this may indicate where distributed generation is present without import/export metering installed.
		Distributor unmetered load details	Put a process in place for all unmetered load new connections so that these are loaded when an unmetered load new connection has its initial electrical connection date populated. and check the load details against the application form. Check any discrepancies with the trader.
Management of "decommissioned" status	4.11	Management of "decommissioned" status	Contact the trader for any ICPs that have been moved to this status but for which there has been no request to decommission to ensure that the number pending is managed.
			Investigate to determine correct status of ICP 0001102399AL582.
			Correct the decommission reason for ICP 0001890253AL261 to status 3,1 (set up in error).

ISSUES

Subject	Section	Issue	Description
		Nil	

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

The Electricity Authority website was checked to determine whether Alpine Energy has any code exemptions in place.

Audit commentary

Review of exemptions on the Electricity Authority website confirmed that there are no exemptions in place relevant to the scope of this audit.

1.2. Structure of Organisation

Alpine provided a copy of the relevant parts of the organisation structure:

										Andrew Tombs CEO																													
Damien Whiffen <u>GM Service Delivery</u>										Willem Rawlins <u>GM Asset Management</u>										John Creagh <u>Safety & Risk Manager</u>										Rob Tweedie <u>Regulatory & Commercial Manager</u>									
Rick Liew Operations Manager					Hayden Darling Customer Services Manager					Johan Hendriks Planning Manager					Bruno Lagesse Team Leader Engineering					Andrew Spackman Maintenance & Asset Info Manager					Karla Morrison Safety & Risk Systems Advisor					Nathan Astwood Commercial & Regulatory Analyst									
Charles Hough Team Leader Network Control					Alexandria Edgeler Delivery & Development Process Lead					Bishoy Mikhail Planning Engineer					Ivan Streltsov Electrical Engineer					Jacobus Vermeulen Reliability Engineer					Elizabeth Meyer Safety & Risk Systems Administrator					Tarryn Butcher Commercial & Regulatory Analyst									
David van Eeden Network Controller					Dave Sutton Network Design & Project Manager					Izak Kruger Planning Engineer					Neels Erasmus Electrical Engineer					Richard Smith Maintenance Project Manager					Scott Murray Safety & Risk Operations Advisor														
Ivan Krantz Network Controller					Marius La Grange New Connections Officer					Kyle Fitchat Planning Engineer					Rex McDonald Team Leader O/H Lines					Robyn Hay Asset Information Support																			
Kevin Kemp Network Controller					Marius Van Rooyen New Connections Officer										Daniel Shadbolt Project Engineer					Peggy Liou Tech One Application Support																			
Philip Dawrant Network Controller					Michael Plows New Connections Officer										Ian Clarke Project Engineer					Simon Black TL Supervising Draftsperson																			
Ropate Loiti Network Controller					Michael Rose New Connections Officer										Matheus Le Roux Project Engineer					Brian Purcell Draughting Technician																			
Samantha Abbot Trainee Network Controller					Peter Bennett Metering Officer										Rachael Moore Engineering Support Officer					David Crequer GIS & Draughting Technician																			
Tim Blackman Network Controller					Kai Ruemenapf Advanced Metering Officer															Lorienne Hansen CAD Technician																			
Greg Smart SCADA Communications Engineer																				Reshma Prasad GIS Technician																			
Mark Gilchrist Team Leader Outage Planner																				Tracey Richards Draughting Technician																			
Haidee Rayner Vegetation & Operations Co-ordinator																				Manuele Messeri GIS Administrator																			
John Hyland Senior Outage Planner																				Amit Bhandari GIS Technician																			
Rene Kemp Operations Support																				Juliana Talen GIS Technician																			
																				Leslie Becker GIS Technician																			
Thomas Oldfield Operations System Technician																				Roger Farmer GIS Senior Network Data Office																			
																				Sam Appleton GIS Graduate																			
																				Vidhya Mithundas GIS Technician																			

1.3. Persons involved in this audit

Veritek Auditors:

Name	Role
Rebecca Elliot	Lead Auditor
Claire Stanley	Supporting Auditor

Personnel assisting in this audit were:

Name	Title
Hayden Darling	Customer Services Manager
Peter Bennett	Metering Officer
Tarryn Butcher	Commercial and Regulatory Analyst

1.4. Use of Contractors (Clause 11.2A)

Code reference

Clause 11.2A

Code related audit information

A participant who uses a contractor

- *remains responsible for the 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

The use of contractors was discussed with Alpine Energy.

Audit commentary

Alpine engages the following contractors to work on their network.

- John Hardie - independent contractor
- Net Con Ltd

Alpine understands that they are responsible for code compliance.

1.5. Supplier List

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

1.6. Hardware and Software

Alpine Energy uses the following systems:

- Microsoft Access database and VB application for the ICP database, which is used to maintain registry information,
- Microsoft SQL Server and VB.Net application for the G.E.M.A. GIS, and
- AXOS for billing.

Access to the databases is restricted through network access permissions, and access to the network is restricted using logins and passwords.

The ICP database and GIS are fully backed up every night, with incremental backups every 15 minutes. The GIS is backed up as part of Alpine Energy's virtual systems and the ICP database is backed up to a physical server in a separate location.

Alpine intends to change the customer interface and move the management of all customer and contractor interactions to be online. This does not include replacing the current Access database initially, but they recognise it is nearing the end of its life and hope to replace it at some time in the future. The customer interface piece of work will act a workflow tool to prompt the responsible party to complete the allocated action. A material change audit is planned before the customer interface goes live to ensure that Alpine can meet its code requirements.

1.7. Breaches or Breach Allegations

The Electricity Authority confirmed that there have been no alleged breaches for Alpine Energy.

1.8. ICP and NSP Data

Alpine Energy has responsibility for the NSPs in the table below. There have been no changes to the NSPs during the audit period.

Dist	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
ALPE	ABY0111	ALBURY			CENTRALALPEG	G	1/01/2012	1,644
ALPE	BPD1101	Bells Pond			CENTRALALPEG	G	1/01/2012	631
ALPE	STU0111	STUDHOLME			CENTRALALPEG	G	1/01/2012	3,260
ALPE	TIM0111	TIMARU			CENTRALALPEG	G	1/01/2012	18,074
ALPE	TKA0331	TEKAPO A			TKA0331ALPEG	G	1/05/2008	969
ALPE	TMK0331	TEMUKA			CENTRALALPEG	G	1/01/2012	6,852
ALPE	TWZ0331	TWIZEL			TWZ0331ALPEG	G	1/05/2008	1,652

There are also two embedded networks connected to Alpine Energy's network. There have been no changes to the NSPs during the audit period.

Dist	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date
MOPO	MMP0111	MACKENZIE PARK	TWZ0331	ALPE	MMP0111MOPOE	E	1/05/2008
MOPO	MMT0111	MANUKA TERRACE	TWZ0331	ALPE	MMT0111MOPOE	E	1/05/2008

A summary of Alpine Energy's ICPs by status is shown in the table below:

Status	Number of ICPs (2021)	Number of ICPs (2020)	Number of ICPs (2019)	Number of ICPs (2018)
New (999,0)	0	0	0	0
Ready (0,0)	58	47	38	36
Active (2,0)	33,086	32,995	32,742	32,576
Distributor (888,0)	2	2	2	2
Inactive – new connection in progress (1,12)	29	19	19	26
Inactive – electrically disconnected vacant property (1,4)	475	500	502	499
Inactive – electrically disconnected remotely by AMI meter (1,7)	112	108	79	55
Inactive – electrically disconnected at pole fuse (1,8)	9	9	12	9
Inactive – electrically disconnected due to meter disconnected (1,9)	2	2	0	0
Inactive – electrically disconnected at meter box fuse (1,10)	3	2	1	0
Inactive – electrically disconnected at meter box switch (1,11)	0	0	1	0
Inactive – electrically disconnected ready for decommissioning (1,6)	18	24	2	14
Inactive – reconciled elsewhere (1,5)	0	0	0	0
Decommissioned (3)	2,529	2,509	2,528	2,441

1.9. Authorisation Received

A letter of authorisation was provided.

1.10. Scope of Audit

This Distributor audit was conducted at the request of **Alpine Energy Ltd (Alpine Energy)** to encompass the Electricity Industry Participation Code requirement for an audit in accordance with clause 11.10 of part 11.

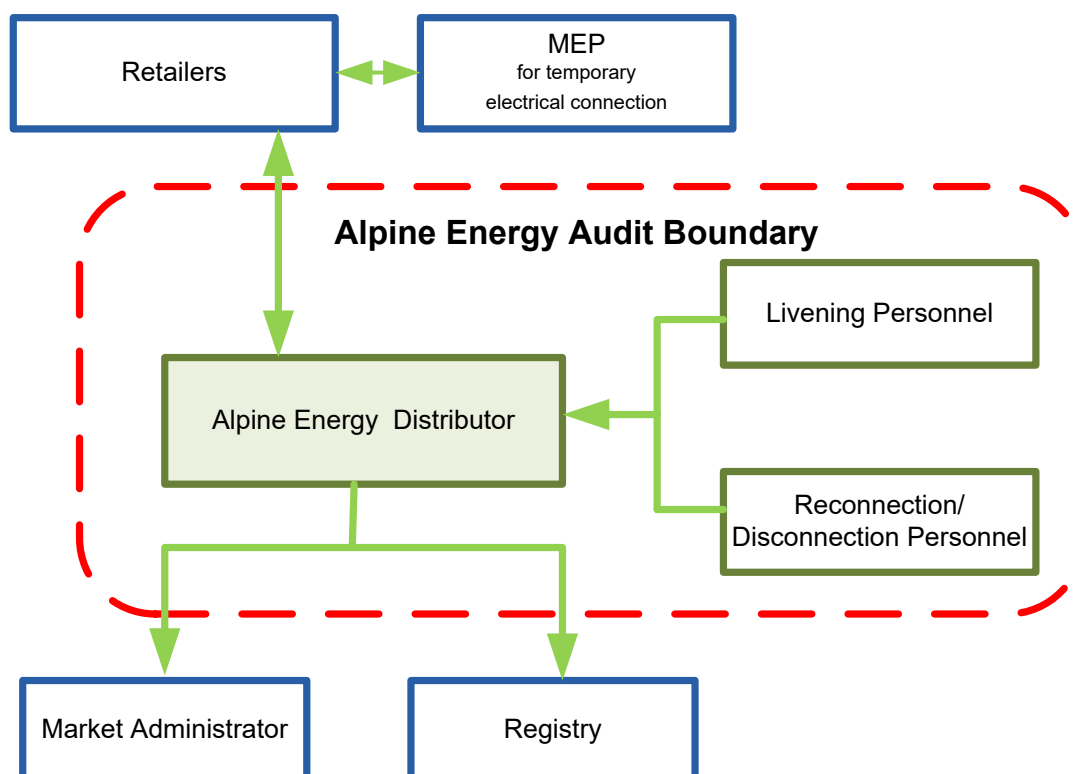
The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority.

The audit was carried out via zoom on February 5th, 2021.

The table below shows the tasks under clause 11.10(4) of Part 11, which Alpine Energy is responsible for. There are no other agents who assist with these tasks:

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

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

I reviewed the previous audit conducted in October 2019 by Tara Gannon of Veritek Limited. The audit recorded eight non-compliances and made four recommendations. The current status of the non-compliances and recommendations is listed below.

Table of Non-compliance

Subject	Section	Clause	Non-compliance	Status
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	Some information was not accurate.	Still existing
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	16 ICPs which became active during the audit period had late initial electrical connection date updates.	Still existing
Temporary electrical connection of ICP that is not an NSP	3.8	10.31A	Temporary electrical connection conducted by Alpine Energy for a purpose other than testing metering.	Cleared
Changes to registry information	4.1	8 Schedule 11.1	13 late address updates. 53 late network updates. 27 late pricing updates. Three late status updates.	Still existing
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	Two ICPs temporarily had an incorrect NSP recorded.	Cleared
Distributors to Provide ICP Information to the Registry manager	4.6	7(1)(o)&(p) Schedule 11.1	Some information was not accurate.	Still existing
Management of "decommissioned" status	4.11	20 Schedule 11.1	ICP 0001890253AL261 has a status reason code of 2 (Installation Dismantled) applied but should have had 1 (Setup in error) applied. ICP 0002252075ALB2E has been decommissioned but has a status of ready for decommissioning recorded on the registry.	Still existing
Creation of loss factors	8.1	11.2	Loss factors are not accurate in relation to reconciliation losses.	Still existing

Table of Recommendations

Subject	Section	Recommendation	Description	Status
Requirement to provide complete and accurate information	2.1	Registry validation	Identify and check instances where trader or MEP information is inconsistent with distributor information.	Updated recommendation made in this audit
Monitoring of “new” & “ready” statuses	3.14	Monitoring of “new” & “ready” statuses	Keep records to confirm that traders have been contacted about ICPs at “new” or “ready” status for over 24 months.	Cleared
Notice of NSP for each ICP	4.2	NSP mapping	Check of NSP mapping to be carried out periodically.	Cleared
Distributors to Provide ICP Information to the Registry manager	4.6	Distributor unmetered load details	Update the unmetered load details to include the wattage, on hours and description where this is known and not included in the existing description.	Not adopted

1.12. Submission of Audit Report (Clause 16A.13)

Code reference

Clause 16A.13

Code related audit information

A participant must give the final audit report to the Authority no later than the date by which the audit is due to be completed.

Audit commentary

The audit report was not completed by the due date to the Authority, due to the late provision of information which caused the audit itself to be delayed.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 1.12</p> <p>With: Clauses 16A.13</p> <p>From: 04-Feb-21</p> <p>To: 12-Feb-21</p>	<p>Audit report not provided to the Authority by the participant by the due date.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate as the delay was due to staff leave over Christmas</p> <p>The audit risk rating is low as the audit report was completed as quickly as possible once the Christmas period had passed.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Due to receiving an extended review period from the previous Audit, it shifted our current Audit to early February which meant we needed to be aligned with a January session with Auditors which we just couldn't quite co-ordinate. We also had internal date confusion around the recommended 16 month review period from our last audit which meant an April review. In hindsight I would have preferred to stick with a 12 month review period. I have advised the EA of our late upload of our Audit		28/2/21	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Future planning with the set dates and audit review periods, turn around times of the Audit process time, review, commentary and updates		28/2/21	

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

I walked through the process to ensure that registry information is complete, accurate and not misleading or deceptive, including viewing reports used to resolve discrepancies.

The registry list file as at 31/12/20 and the combined audit compliance reports for the period from 01/10/20 to 31/12/20 were examined to confirm compliance.

Audit commentary

Registry synchronisation

ICP information is maintained in the ICP database. When data maintained by the distributor on the registry is updated in the ICP database, the update is automatically sent to the registry.

Acknowledgement files are imported into the database, and reports are run to identify any failed updates each morning and at 3pm. Issues are investigated and corrected. It was noted that not all updates are being sent to the registry as expected. Alpine are aware of this and hope to replace the ICP database. I recommend below that the audit compliance reporting is used to assist with identifying such incidents in the meantime.

Notification files are reviewed daily to identify status changes such as a retailer moving a new connection to “active” status, or an existing ICP to “ready for decommissioning” status. These changes are provided to the metering officer, who follows up paperwork for new connections, and checks and follows up applications for decommissioning. The ICP database and registry are updated as necessary.

Updates to metering details for new connections are reviewed twice weekly.

Registry and data validation

The ICP notifications database is used to check the data held in Alpine Energy’s systems against the registry information daily. Discrepancies are identified and resolved.

All open contractor jobs are checked daily, to confirm whether they have been completed. Paperwork is followed up if necessary, so that the ICP database and registry can be updated. Where possible contractors are now providing completed jobs electronically.

As noted in the last audit there are no regular checks to identify trader or MEP information which is inconsistent with distributor information. Inconsistencies could indicate that distributor information requires review or update, such as:

- addition of trader unmetered load details, where no distributor unmetered load is recorded,
- addition of a trader profile which is used for distributed generation (e.g., PV1 or EG1), where no distributor generation is recorded, and
- addition of meters with flow direction I, where no distributor generation is recorded.

There is now discrepancy reporting available from the registry and I recommend that Alpine Energy use to check for data discrepancies.

Recommendation	Description	Audited party comment	Remedial action
Registry validation	Utilise the AC020 reporting to assist with identifying potential data discrepancies.	We have begun running these reports within the Metering Team to help show the errors/discrepancies, I have been in touch with the EA regarding additional training for these staff members for Registry reporting specifically on reporting	Identified

While investigating distributed generation discrepancies, we found ICP 0006613896ALC38 which is active on the registry but is not recorded in Alpine Energy's database. Alpine have investigated this and corrected it. Alpine has been running checks on Active ICP in the registry vs the ICP database and have identified 14 ICP, but have not been able to pinpoint the exact reason for this discrepancy yet. This is further evidence that the ICP database reliability needs review. Alpine are monitoring these variances and working with IT to correct this.

Initial electrical connection dates

The audit compliance reporting identified nine ICPs with no initial electrical connection date recorded. These were examined and found:

- three ICPs were incorrectly recorded as "active" on the registry by the trader when they were not electrically connected and the meter was certified using a load bank - the trader has been advised of this, and
- six ICPs electrically connected with no initial electrical connection date, this is recorded as non-compliance below and in **sections 3.3** and **4.6**.

Three ICPs were found to have date variances between the meter certification, the first active date and the initial electrical connection date. The incorrect date has been supplied to Alpine Energy by the field contractor in all cases. These have since been corrected and Alpine have reminded the field contractors of the importance of accuracy in returned paperwork.

As found in the last audit, there are 27,000 ICPs all electrically connected before the code requirement came into effect on 29/08/13 that have an initial electrical connection date populated of 04/10/02. Removing the initial electrical connection date for these ICPs was discussed. There is a reluctance to run a bulk update in the system without understanding other impacts that may result, by deleting the date in the initial electrical connection field in the ICP database. Therefore, Alpine cannot correct this until the database is replaced.

I rechecked the ICP 0004282423ALD60 electrically connected during the last audit report with an incorrect initial electrical connection date and found that this has not been corrected. I recommend in **section 4.6** that this is corrected.

Unmetered load

Two new unmetered load ICPs were electrically connected during the audit period. The unmetered load details were not recorded on the registry. The code requires that these details are recorded by the Distributor "if known". As these are new connections it is expected for these details to be known. I recommend in **section 4.6**, that a check be put in place to ensure these details are captured as part of the new connection process.

Decommissioning

ICP 0001123465AL1E4 has been decommissioned but has yet to be updated on the registry. This is detailed in **section 4.11**.

I rechecked the two ICPs with a status of “ready for decommissioning” detailed in the last audit. One ICP has been decommissioned. ICP 0001102399AL582 is still at “ready for decommissioning” status. I recommend this is investigated in **section 4.11**.

The last audit recorded that ICP 0001890253AL261 had a status reason code of 2 (Installation Dismantled) applied but should have had 1 (Setup in error) applied. I recommend in **section 4.11** that this is corrected before the full audit is completed.

Event dates

Event dates should reflect the date from which the attribute values for the event apply.

The last audit found some incorrect event dates applied. In this audit I found 20 of the 340 initial electrical connection dates had an incorrect event date applied. The event date is entered in the ICP database and the incorrect event date was applied in these instances. I checked a sample of five of these and found three had subsequently had a corrected network event date loaded but the incorrect event was not reversed off the registry. The application the incorrect event date is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 2.1</p> <p>With: Clauses 11.2(1) and 10.6(1)</p>	<p>Six ICPs with no initial electrical connection date recorded.</p> <p>Three ICPs electrically connected during the audit period with no initial electrical connection date recorded.</p> <p>27,000 ICPs with the incorrect initial electrical connection date recorded prior to the date being populated was required.</p> <p>ICP 0004282423ALD60 has incorrect initial electrical connection date populated.</p> <p>Two unmetered load ICPs electrically connected during the audit period with no unmetered load recorded.</p> <p>ICP 0001123465AL1E4 has been decommissioned but has yet to be updated on the registry.</p> <p>ICP 0002252075ALB2E has been decommissioned but has a status of ready for decommissioning recorded on the registry.</p> <p>ICP 0001890253AL261 has a status reason code of 2 (Installation Dismantled) applied but should have had 1 (Setup in error) applied.</p> <p>20 network updates had incorrect event dates recorded.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
<p>From: 01-Sep-19</p> <p>To: 31-Dec-20</p>	

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate with areas of improvement identified.</p> <p>The audit risk rating is low as the discrepancies identified have little or no direct impact on reconciliation.</p>		
Audit Comments for reference		Completion date	Remedial action status
We have since the audit continued to tidy up the highlighted errors, as well as added registry report information to the metering team to assist with error notifications. We also have a number of on-going issues that are historical with our current ICP database, 27,000 ICPs with the incorrect initial electrical connection date that requires a fix that in the past nobody would fix due to the potential impact of the system crashing.			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We have already addressed a number of these issues, we are still heavily reliant on our external contractors completing paper based information in the field and returning it timely. We are in the process of updating to an electronic format but it will take time to implement correctly. In the short time we are using our staff to manually keep track of each job to ensure correct and timely document processing]		Started for some parts. Electronic processes mid year. ICP data base update sometime away	

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 Energy's data management processes were examined. The registry list file as at 31/12/20 was examined to confirm compliance.

Audit commentary

Alpine Energy have processes in place to identify and resolve registry discrepancies as described in **section 2.1**. Discrepancies found in the last audit are still evident in this audit indicating that corrections are not being carried out as soon as practicable. I have recommended in the relevant sections of the report that these be corrected.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: Clauses 11.2(2) and 10.6(2) From: 01-Sep-19 To: 31-Dec-20	Corrections not made 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	The controls are rated as moderate with areas of improvement identified. The audit risk rating is low the number discrepancies not corrected.		
Actions taken to resolve the issue		Completion date	Remedial action status
The Metering Team are now running the registry reporting and have picked up on a few errors some dating back to 2013 which they are working through the notes that have been previously entered against the ICPs and are fixing the errors.		Started February	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
On going reporting by the Metering Team to keep on top of any issues arising. As well as no single person role dependency		Started but monitoring required	

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.

A sample was checked from the point of application through to when the ICP was created, including:

- 15 new connection applications of the 350 created between 01/09/19 and 30/09/20, and
- ten new connection applications of the 80 created between 01/10/20 and 31/12/20.

Audit commentary

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

The distributor is responsible for creating the ICP for the point of connection for an embedded network to its parent network. There have been no new embedded networks created during the audit period.

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 process to request and create ICPs was reviewed, and a diverse sample was checked to determine whether the ICP had been created within three business days of a request by a trader, including:

- 15 new connection applications of the 350 created between 01/09/19 and 30/09/20, and
- ten new connection applications of the 80 created between 01/10/20 and 31/12/20.

ICP requests are usually made by the customer's agent. If the request is not made by a trader this rule does not apply.

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. These are now received electronically.

Network engineers evaluate each application to ensure network capacity is available at the requested location. The application is then returned to the new connection's personnel where an ICP identifier is created in the ICP database and moved to "ready" status once approval from the trader is received. The registry is automatically updated from the ICP database, and Outlook tasks are used to manage and monitor new connections in progress.

The new connections checked were requested by the customer or customer's agent, not the trader. All the ICPs were created within three business days of the date the request was received.

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 process to request and create ICPs was reviewed, and a diverse sample was checked from the point of application through to when the ICP was created, to confirm the process and controls worked in practice including:

- new connection applications of the 350 created between 01/09/19 and 30/09/20, and
- ten new connection applications of the 80 created between 01/10/20 and 31/12/20.

Audit commentary

Alpine Energy has a fully automated registry update process to ensure all information listed in this clause is provided to the registry. Information was provided as required by this clause for all ICPs created during the audit period. There were nine newly electrically connected ICPs with no initial electrical connection dates recorded. These were checked and found:

- three ICPs were incorrectly recorded as "active" on the registry by the trader when they were not electrically connected and the meter was certified using a load bank - the trader has been advised of this, and
- six ICPs electrically connected with no initial electrical connection date, this is recorded as non-compliance below and in **sections 2.1** and **4.6**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.3 With: Clause 11.7 From: 01-Sep-19 To: 31-Dec-20	Six ICPs became active during the audit period but had no initial electrical connection date populated. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate as this is usually captured but there is room for improvement. The vast majority of initial electrical connection dates were populated. The impact on participants is minor because this field is used to validate other fields against.		
Actions taken to resolve the issue		Completion date	Remedial action status
This is again our paper based system relying on external contractors to complete and return the NCA paperwork timely. Our Electronic system will resolve this for us.		Mid to late Year	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
In the short term we have our staff registering and checking on all NCA paperwork being supplied to contractors and chasing them if it's delayed in the return. We are also in the process of Metering Team staff running registry reports to show the errors/discrepancies.		Completed In progress	

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

Code reference

Clause 7(2) of Schedule 11.1

Code related audit information

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

Audit observation

The registry list for 31/12/20 and the combined registry compliance audit reports covering the period from 1/9/19 to 30/9/20 and 1/10/20 to 31/12/20 were examined to determine the timeliness of the provision of ICP information for new connections.

Audit commentary

The distributor must provide to the registry the information listed in clause 7(1) of schedule 11.1 as soon as practicable, and before electricity is traded at the ICP. The date being used as the “ready” event date is the date the customer signed and dated the Network Application form.

297 of the 350 ICPs created between 01/09/19 and 30/09/20 were electrically connected, and 55 of the 80 ICPs created between 1/10/20 to 31/12/20 were electrically connected

The combined audit compliance report confirmed that the required information was provided for all ICPs prior to electricity being traded.

The timeliness of provision of initial electrical connection dates is discussed separately in **section 3.5**.

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 initial electrical connection dates was examined.

The combined registry compliance audit reports covering the period from 1/09/19 to 30/09/20 and 1/10/20 to 31/12/20 were examined to determine the timeliness of the provision of the initial electrical connection dates for the 430 completed new connections.

A typical sample of 20 late updates were checked to determine why they were delayed.

Audit commentary

All network and meter connections are now completed on the same day by the same contractor. Smartco have changed their contractor to Delta from 01/01/20 so that the previous issue where new connections required two contractors has been resolved.

Alpine Energy updates the initial electrical connection date to match the date work was completed, as detailed on the returned job. As part of this process any information which has changed from the initial application (e.g., clarification of address or pricing information) is updated.

As described in **section 2.1**, notification files are reviewed to identify status changes to “active” where ICPs do not have an initial electrical connection date recorded. These changes are provided to the metering officer, who follows up the paperwork and updates the ICP database and registry as necessary, but it appears that not all ICPs are being identified in this process. I recommend in **section 2.1** that the AC020 reporting is used to assist with this.

Event detail report period	Electrically connected ICPs	On time updates	Late updates	Comments
01/09/19 to 30/09/20	314	314 (92.35%)	26 (7.6%)	The sample of ten checked found that all were late due to late notification from the contractors. This is expected to improve with the proposed workflow portal planned by Alpine.
01/10/20 to 31/12/20	116	98 (84.48%)	18 (15.5%)	The sample of ten checked found that: <ul style="list-style-type: none"> • three were late due to late notification from contractors, and • seven were due to the update in the ICP database not flowing to the registry and these weren't identified until they were late.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1 From: 01-Sep-19 To: 31-Dec-20	44 late initial electrical connection date updates. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate as the missing dates weren't being identified causing them to be late. This is expected to improve with the use of the audit compliance reporting recommended in section 2.1 . Most initial electrical connection dates were populated on time. The impact on participants is minor because this field is used to validate other fields against.		
Audit Comments for reference		Completion date	Remedial action status
Late paperwork returns from our contractors has caused issues, and the lack of reporting from our systems to metering staff has made it difficult to stay compliant with Paper work returns We have outlined the process and required time frames for completed paperwork from our contractors.		Completed	Identified
Preventative actions that were planned		Completion date	
We have since the Audit put in additional controls in place with allocating NCA tasks to contractors, and monitor all their returns daily. Our planned workflow application tool will control the processes and allocation of work, returns, and have reporting available to.		In place February Coming Months	

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 was examined in **sections 3.1** and **3.2**.

The registry list for 31/12/20, and the combined audit compliance reports for the audit period from 01/09/19 to 31/12/20 were reviewed to determine compliance.

Audit commentary

ICPs will not be electrically connected without the agreement from the trader. Trader acceptance is confirmed during the application process.

All ICPs at “ready” have a proposed trader populated in the registry. Review of the registry list confirmed that no new shared unmetered load was created during the period. Review of the combined audit compliance reports confirmed that all ICPs were made “ready” after the trader had accepted responsibility.

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 registry list for 31/12/20 and the combined audit compliance reports for the audit period from 01/09/19 to 31/12/20 were reviewed to determine compliance.

Audit commentary

ICPs will not be electrically connected without the agreement from the trader, who in turn has agreement with an MEP for the ICP. Trader acceptance is confirmed during the application process.

A sample of 20 new connections were checked, and trader responsibility was consistently accepted prior to electrical connection.

Review of the combined audit compliance reports confirmed that all ICPs which were initially electrically after the trader had accepted responsibility.

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 was examined in **sections 3.1** and **3.2**.

The registry list for 31/12/20 and the combined audit compliance reports for the audit period from 01/09/19 to 31/12/20 were reviewed to determine compliance.

Audit commentary

All network and meter connection are now completed on the same day by the same contractor. Smartco have changed their contractor to Delta from 01/01/20 so that the previous issue where new connections required two contractors has been resolved.

No ICPs have been temporarily electrically connected during the audit period.

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 reviewed.

Audit commentary

No new NSPs were created by Alpine Energy during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 10.30(A)

Code related audit information

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

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

Audit observation

The NSP table was reviewed.

Audit commentary

No new NSPs were created by Alpine Energy 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 process for the creation of ICPs was examined and observed.

Audit commentary

ICP numbers are created within the ICP database.

The user creates a new number taking into account the house or lot number, and the sequence of nearby addresses. The database automatically applies the leading zeros, distributor code, and checksum to create a compliant ICP number.

If the new ICP number is not unique, a warning is displayed on screen stating that the ICP number already exists, and the database will automatically replace the first leading zero with a one to make the number unique. At this point the user would enter a unique set of digits to allow the ICP number to be unique without the leading one.

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 as at 31/12/20 was examined to confirm all active ICPs have a single loss category code.

Audit commentary

This is known and assigned at the time of the ICP creation. Each active ICP only has a single loss category, which clearly identifies the relevant loss factor. Loss factors are linked to the load group, which is independently checked as part of the new connections process.

Audit outcome

Compliant

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

Code reference

Clause 13 Schedule 11.1

Code related audit information

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

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

Audit observation

The ICP creation process was reviewed. The registry list for 31/12/20 and event detail report for 01/09/19 to 31/12/20 were examined to determine compliance.

Audit commentary

ICPs on Alpine Energy’s network normally do not require construction and are created when they are ready for activation. ICPs are created at “ready”, and the “new” status is only present if another event is reversed.

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” status was examined. The combined registry compliance audit reports covering the period from 1/09/19 to 31/12/20 were examined to identify any ICPs that had been at “new” and “ready” for more than 24 months.

Audit commentary

Alpine Energy follows up ICPs which are at “new” or “ready” status for more than 18 months every six months, to confirm whether they have been connected and if the ICP is still required.

Because applications are received from the customer or their agent, rather than the trader, Alpine Energy normally follows up with the customer and/or the electrician as well as the trader.

The audit compliance report found nine ICPs that had been at ready for more than 24 months. Alpine Energy had checked with the customer or their agent to confirm that the status was correct and the ICP was still required. The last audit recommended that notes are added to the ICP database of these checks and this has been adopted.

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

Audit observation

The EMI wholesale data set as at 06/11/20 and registry list as at 12/10/20 and 31/12/20 were reviewed to identify any generation stations with capacity of 10 MW or more; and determine compliance.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10.33A(4)

Code related audit information

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

Audit observation

Sub-clause (4) states that no participant may electrically connect a point of connection without the permission of the reconciliation participant. The electrical connection of streetlight circuits which are a point of connection was examined.

Audit commentary

Alpine Energy are aware of their obligation to ensure that the trader has provided approval before streetlights are connected.

Even if a new ICP is not required, a new connection form is mandatory and trader approval is gained as part of the connection process.

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 13th business day and be backdated to the date the change took effect.

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

Audit observation

The management of registry updates was reviewed.

The registry list for 31/12/20 and the combined registry compliance audit reports covering the period from 1/9/19 to 30/9/20 and 1/10/20 to 31/12/20 were examined. A diverse sample of a minimum of five (or all if there were less than ten examples) backdated events by event type were reviewed to determine the reasons for the late updates.

Audit commentary

The table below details the quantity and compliance of registry updates.

Update	Date range	Late	% Compliance	Average Days
Address	2019	13	99.95	1
	1/9/19 to 30/9/20	1	99.97	0.15
	1/10/20 to 31/12/20	1	99.45	1.72
Price Code	2019	27	99.1	N/A
	1/9/19 to 30/9/20	239	90.71	7.7
	1/10/20 to 31/12/20	71	89	10.64
Status	2019	3	94.4	N/A
	1/9/19 to 30/9/20	10	80	4.28
	1/10/20 to 31/12/20	6	68.42	1.74
Network (excl. new connection & Distributed Generation)				
	1/9/19 to 30/9/20	15	N/A	N/A
	1/10/20 to 31/12/20	14	N/A	N/A

Distributed Generation				
	1/9/19 to 30/9/20	19	75.47	2.94
	1/10/20 to 31/12/20	6	64.71	27.76
NSP Changes				
	1/9/19 to 30/9/20		100	NA
	1/10/20 to 31/12/20		100	NA

Address updates

The two late address updates were entered manually on the registry and the event date was missed being changed causing this to appear backdated.

Pricing events

The combined audit compliance reporting found 310 late pricing updates. A typical sample of ten of these events found that these were updates that had not flowed from the ICP database to the registry. A sample of 15 ICPs were checked found:

- eight were due to a trader file requesting pricing changes for 1/11/20 but the file wasn't received until 1/12/20 as these files are auto loaded upon receipt and this caused the pricing updates to be backdated - the auto loading of these files without a date validation will cause Alpine to be non-compliant when the dates requested by the trader are greater than three days,
- three updates were required as the information had failed to send to the registry from the ICP database, this issue is discussed in **section 2.1**,
- two pricing updates were triggered by a Network event, the updates were not required as there was no pricing change,
- one update was the result of late paperwork from the contractor detailing a meter change that affected the price category, and
- one update was late due to a pricing correction.

The reliability of the ICP database appears to be an issue. Alpine are aware of this and ultimately hope to replace the ICP database.

Status events

The decommission process is described in **section 4.11**.

The combined audit compliance reporting found 16 late status updates. A sample of six of these were examined and found that there was a process breakdown. The person responsible was expecting the trader to lodge a decommission request with Alpine but they hadn't done this. I recommend that the audit compliance reporting is adopted in **section 2.1** and this contains a report that flag any ICPs that are pending at the "ready to decommission" status.

Network events (other than NSP changes and Distributed Generation events)

The audit compliance reporting indicated 250 late network events. These were analysed and found that all but 29 of these related to either the updating of distributed generation details (detailed below) or the population of the initial electrical connection date (detailed in **section 3.5**). A sample of 14 late network events were analysed and found that, 13 of these related to the correction of the ICP dedication indicator and one relates to the correction of UML load details that did not match the trader values when checked.

Distributed Generation events

The distributed generation process is described in **section 4.6**. The audit compliance report found 25 late distributed generation updates. A sample of six of the events were checked, and it was identified that:

- three related to corrections; this is reflected in the results for the average days and compliance in the table above, and
- the remaining three were due to late notification, these have all been corrected.

NSP changes

Review of the audit compliance report and registry list confirmed that no NSP changes occurred during the audit period. NSP changes are advised by the GIS team.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.1</p> <p>With: Clause 8 Schedule 11.1</p> <p>From: 01-Sep-19</p> <p>To: 31-Dec-20</p>	<p>Two late address updates.</p> <p>310 late pricing updates.</p> <p>16 late status updates.</p> <p>29 late network updates.</p> <p>25 late distributed generation updates.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Multiple</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are rated as weak as updates from the ICP database are not occurring as expected and pricing events are autoloading without an event date check causing pricing updates to be backdated. The ICP database is becoming unreliable with the potential for errors to occur.</p> <p>The audit risk rating is assessed to be low as the volume of late updates is relatively small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We download the EIEP 4 and EIEP8 files every day when they come in to check them as sometime they need to be corrected before the database will load them successfully (EIEP4) as there might be too many characters i.e. a name might be over 50 characters, we then need to find the errors and upload them into the external data base which then automates them into the ICP database.</p> <p>As we have a known compliance issue with the allowed 3 days on EIEP8 (TARCHG) files, we check the files and if the files are not dated the day we receive them, we manually change the dates as this is out of our control from a compliance point of view, but it does allow us to reject LOWLCA requests when the user is not a LOWLCA, we do this by checking the address and other databases to ensure it is not a business of BNB etc. Once this has been done, we download the files into the external database, which automates the files in the ICP database.</p> <p>There are maintenance and back end files that we receive on a daily basis which are automatically done through the registry gateway and ICP database. MN, NOT REQUEUMAIN files.</p> <p>All these files go to the G:drive with any other reports we request from the registry.</p>		<p>Already part of our manual process</p>	<p>Investigating</p>

Preventative actions taken to ensure no further issues will occur	Completion date	
We currently run a manual process to double check the files, this will form part of the new ICP database and covered off in the material audit.		

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 process to determine the correct NSP was examined. The audit compliance reporting identified four active ICPs where 10% or fewer ICPs on a street have a different NSP and there are fewer than three ICPs with a different NSP. These were examined to determine if the correct NSP has been assigned.

Audit commentary

The NSP for each ICP is notified to the registry as part of the new connection process described in **section 3.2**.

The ICP's connection is traced to the transformer using G.E.M.A. GIS. The transformer is then mapped to the NSP. Placing the ICP in the GIS is mandatory, and the new connection cannot be completed without this step.

Once connection paperwork is received, the as laid drawings are checked to confirm the correct transformer, and the GIS is updated.

NSP changes for more than 14 days are unlikely and occur very rarely. There is a process in place for the network operations and GIS team to advise the registry team if NSP changes occur.

The audit compliance reporting identified four ICPs with potentially the incorrect NSP assigned. These were examined and found all were correctly allocated.

The last audit recommended that the mapping of NSP's is carried out periodically. I recommend in **section 2.1**, that the audit compliance report is reviewed regularly and there is a report available which will address this requirement.

Audit outcome

Compliant

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

The distributor must advise a customer (or any person authorised by the customer) or embedded generator of the customer or embedded generator's ICP identifier within 3 business days after receiving a request for that information.

Audit observation

The management of customer queries was examined.

Audit commentary

Alpine Energy occasionally receives 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 determine correct and unique addresses was examined. The registry list for 30/08/19 was reviewed to determine compliance.

Audit commentary

The address is captured at the time of ICP creation. GPS coordinates are recorded for all but 19 ICPs. These all have sufficient address details to confirm their location.

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.

Audit commentary

For new connections, this clause is well understood, and Alpine Energy Network's policy requires each ICP to have its own service fuse. If a historic pre 2002 connection that cannot be isolated is found, the ICPs will be separated.

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

The management of registry information was reviewed.

The registry list as at 31/12/20 and the combined audit compliance reports for the audit period from 1/09/19 to 31/12/20 were reviewed to determine compliance. A sample using the typical characteristics methodology of data discrepancies or all if there were less than ten ICPs were checked.

Audit commentary

Registry data validation processes are discussed in **section 2.1**. All ICP information was checked and confirmed compliant unless discussed below.

NSP information

Assignment of dedicated NSP status was checked.

There is only one NSP each for the TWZ0331ALPEG and TKA0331ALPEG balancing areas, and all ICPs within these balancing areas have a dedicated NSP status of Y.

As reported in the last audit report. The ICPs within balancing area CENTRALALPEG mostly have dedicated NSP set to N. The number of ICPs set to dedicated “N” has grown during the audit period:

NSP	2019 Dedicated NSP = N	2020 Dedicated NSP = N	2019 Dedicated NSP = Y	2020 Dedicated NSP = Y
ABY0111	1606	1627	16	17
BPD1101	604	614	15	15
STU0111	3213	3236	13	14
TIM0111	17834	17903	135	136
TMK0331	6600	6645	196	194

The GIS team still intend to investigate to determine the correct dedicated NSP statuses, as many of the ICPs were set up prior to the implementation of the current GIS system 4-5 years ago. The new GIS can be used to determine connectivity for each ICP, and over time more ICPs are moving to dedicated NSP = “Y”.

We discussed how this is allocated for a new connection and it appears that the NSP dedication is pre-set to “N” and is not selectable. Since this discovery in November 2020, the dedication flag is being manually set to “Y” where appropriate.

Assignment of NSPs was reviewed in **section 4.2**.

Initial Electrical Connection Dates

There were nine ICPs with no initial electrical connection dates recorded. These were checked and found:

- three ICPs were incorrectly recorded as “active” on the registry by the trader when they were not electrically connected, the meter was certified using a load bank and the trader has been advised of this, and
- six ICPs electrically connected with no initial electrical connection date and this is recorded as non-compliance below and in **sections 2.1** and **3.3**.

The audit compliance reporting identified three ICPs with date inconsistencies between the initial electrical connection date, the active date and the meter certification date:

ICP	Earliest meter certification date	Initial Electrically Connection Date	Earliest retailer active date	Correct initial electrical connection date
0004771999AL2E4	17/11/2020	12/11/2020	17/11/2020	17/11/2020
0003730399ALBFB	12/11/2020	11/11/2020	12/11/2020	12/11/2020
0007305925ALD05	12/10/2020	07/10/2020	12/10/2020	12/10/2020

The incorrect date has been supplied to Alpine Energy by the field contractor in all cases. These have since been corrected and Alpine have reminded the field contractors of the importance of accuracy in returned paperwork.

As found in the last audit, there are 27,000 ICPs all electrically connected before the code requirement came into effect on 29/08/13 that have an initial electrical connection date populated of 04/10/02. Removing the initial electrical connection date for these ICPs was discussed. There is a reluctance to run a bulk update in the system without understanding other impacts that may result, by deleting the date in the initial electrical connection field in the ICP database. Therefore, Alpine cannot correct this until the database is replaced. I rechecked the ICP 0004282423ALD60 electrically connected during the last audit report with an incorrect initial electrical connection date and found that this hasn't been corrected.

Distributed Generation

Applications for distributed generation are received; and approved or declined. The result is communicated to the customer and trader. Once installation is complete, it must be inspected and if compliant the inspector will connect it. The inspection date is applied as the event effective date for the addition of distributed generation details.

Reporting has been put in place to identify any smart meters with an "I" channel programmed. Unfortunately, many MEPs are including a "I" channel on all new AMI meters, so this is no longer a good way to identify potential unknown distributed generation. I recommend that the audit compliance report is used in **section 2.1**. This has a report that records any active ICPs where the trader's profile indicates distributed generation is present and the Distributor has none. In addition to this I recommend monitoring the EIEP1 reports to identify any generation on ICPs where none is expected or any with negative values which can also indicate generation on a site with no import export metering.

Recommendation	Description	Audited party comment	Remedial action
Distributed Generation	Monitor the EIEP1 reports to identify ICPs with "I" flow where none is expected and check for any negative values as this may indicate where distributed generation is present without import/export metering installed.	We do a reconciliation with the files we receive from Transpower against the NZXRM files that the retailers report for electricity purchased for loss factors, if there was any inflow generation (other than Opuha) we would be seeing a bigger variance here, which would lead us to investigate, as a sanity check we can add in to do a quick look at the I flows when we do revenue projections.	Partially adopted. Note- the check at NSP level would not necessarily identify DG present on an ICP as the volume of generation is likely to be small hence the recommendation to validate at an ICP level..

Examination of the list file found ICPs with generation capacity have continued to grow as detailed in the table below:

Year	ICPs with distributed generation
2019	397
2020	452

All have generation capacity and fuel type recorded correctly in the registry.

Unmetered load

Part 11 states the distributors must provide unmetered load type and capacity of the unmetered load to the registry “if known”. If distributor unmetered load is populated, it is required to be accurate.

Unmetered load details format

112 active ICPs have a value in the Unmetered load details – Distributor field.

The recommended format was used in 34 ICPs. For the remaining 78 ICPs, the unmetered load is not in a format where the loads can be compared between Alpine Energy and the trader. The last audit recommended that the recommended format be adopted, but this has yet to be adopted.

The 34 ICPs checked found that the unmetered load matched for all.

No unmetered load recorded

Two new unmetered load connections were made during the audit period. Neither had an unmetered load recorded. These were examined and found that they had been missed due to human error. I recommend that a process be put in place to check applications for unmetered load details, and that these are loaded when an unmetered load new connection has its initial electrical connection date populated and the load details are compared to the application form.

Recommendation	Description	Audited party comment	Remedial action
Unmetered load	Put a process in place for all unmetered load new connections so that these are loaded when an unmetered load new connection has its initial electrical connection date populated. and check the load details against the application form. Check any discrepancies with the trader.	These two ICP’s had been discussed with the energy trader via emails around consumption details however it was human error that hadn’t updated this to the Registry. With the Metering Team starting to run registry reports we will pick up these errors earlier going forward	Identified

Non-compliance is recorded below, and in **section 2.1**.

Distributor unmetered load is recorded without trader unmetered load

All 112 active ICPs with distributor unmetered load details recorded also have trader unmetered load details recorded.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.6</p> <p>With: Clause 7(1)(o)&(p) Schedule 11.1</p> <p>From: 01-Oct-19</p> <p>To: 31-Dec-20</p>	<p>Six electrically connected ICPs with no initial electrical connection date recorded.</p> <p>Three ICPs with the incorrect initial electrical connection date recorded.</p> <p>Incorrect IECD dates populated for a large number of ICPs prior to the requirement to populate this information.</p> <p>ICPs 0004282423ALD60 has the incorrect initial electrical connection date populated.</p> <p>Two unmetered ICPs with no unmetered load details recorded.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate as the ICP database issues are hindering Alpine's ability to comply.</p> <p>The audit risk rating is low, as most of this information does not have a direct impact on reconciliation.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>The Metering Team have begun correct registry reporting to identify these errors.</p> <p>The unmetered load information not being populated was unfortunate as it was identified and communicated with the trader however the registry load wasn't filled out or picked up that it was missing</p> <p>The 1999 IECD date for a lot of our ICP's is something we will follow up with our IT and GIS team.</p>		<p>Begun registry reporting in February</p> <p>Ongoing Database issues</p>	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The Metering team are along way forward with the help of Veritek.			

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. The audit compliance reporting and the registry list were reviewed to determine compliance.

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.

All new ICPs created during the audit period had pricing information loaded prior to initial electrical connection.

Audit outcome

Compliant

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

Code reference

Clause 7(8) and (9) Schedule 11.1

Code related audit information

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

Audit observation

The registry list as at 31/12/20 was reviewed to determine compliance.

GPS coordinates for a sample of 50 ICPs were mapped using to determine their accuracy relative to the physical address listed.

Audit commentary

GPS coordinates are optional, but if populated the registry requires New Zealand Transverse Mercator 2000 (NZTM2000) coordinates. GPS coordinates are recorded for all active ICPs.

I plotted a sample of GPS coordinates for 50 ICPs including the maximum and minimum easting and northing coordinates. I found that the coordinates were in NZTM2000 format and were consistent with the other address information available.

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 the “ready” status were reviewed.

The registry list for 31/12/20 and the combined registry compliance audit reports covering the period from 1/09/19 to 31/12/20 were examined.

All ICPs at “ready” status had a single price category assigned and proposed trader identified.

Audit commentary

Alpine Energy’s new connection process ensures that a trader has taken responsibility for ICPs before the status is changed to “ready”.

The ICP database will only allow one price category, and the requirement to ensure that an ICP has a single price category will always be met. The pricing category is selected based on the load group and updated if necessary once connection paperwork is received. The load group is independently checked as part of the new connections process.

All 58 ICPs at “ready” status had a single price category assigned and proposed trader identified.

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

Processes to manage the distributor status were reviewed.

The registry list for 31/12/20 and event detail report for 01/09/19 to 31/12/20 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 confirmed 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 registry list for 31/12/20 and the combined audit compliance reports for the audit period from 1/09/19 to 31/12/20 were reviewed to determine compliance.

A typical sample of 20 “decommissioned” ICPs was examined. I also examined a typical sample of 20 ICPs at “ready for decommissioning” status.

Audit commentary

Decommissioning

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”. ICPs are not decommissioned unless an application is received.

The sample of ten ICPs checked confirmed that the correct decommissioning date was recorded, or the first available date where previous registry events prevented decommissioning on the physical decommissioning date.

Ready for decommissioning

This audit found 18 ICPs pending decommissioning. This is a similar number to that found in the last audit. The sample of ICPs pending checked found all but one was still pending decommissioning. It appears that the traders are moving ICPs to pending decommissioning and not lodging a request for the ICP to be decommissioned as expected. Hence Alpine are not aware in all instances of these being ready to decommission. I recommend that the trader is contacted for any ICPs that have been moved to this status but for which there has been no request to decommission received to ensure that the number pending is managed.

Recommendation	Description	Audited party comment	Remedial action
Management of “decommissioned” status	Contact the trader for any ICPs that have been moved to this status but for which there has been no request to decommission to ensure that the number pending is managed.	The Metering Team have located the registry report for this “decommissioned” status and are working through the 18 ICP’s they have identified 12 that have been fully decommissioned in our database which haven’t carried through to the registry, the remaining 6 have additional faults that they are working through on.	Identified

ICP 0001123465AL1E4 has been decommissioned but has yet to be updated on the registry. This is recorded as non-compliance below.

The last audit recorded that ICP 0001890253AL261 had a status reason code of 2 (Installation Dismantled) applied but should have had 1 (Setup in error) applied. This is recorded as non-compliance below.

I rechecked the two ICPs with a status of “ready for decommissioning” detailed in the last audit. One ICP has been decommissioned. ICP 0001102399AL582 is still at this status:

ICP	Ready for decommissioning since	2019 Comment
0001102399AL582	16/01/08	This ICP is used annually at Caroline Bay for the Christmas carnival, and disconnected when not in use. Alpine Energy have confirmed with the trader that it is not to be decommissioned, and the trader’s status reason code is incorrect.

I have contacted the trader and they have advised that there were temporary metered supplies each year from 2005 to 2008 when it was decommissioned and there is no metering recorded on the registry. The trader customer notes indicate that this ICP should be decommissioned. I recommend that Alpine investigate this to determine if this is correct.

Recommendation	Description	Audited party comment	Remedial action
Management of “decommissioned” state	Investigate to determine correct status of ICP 0001102399AL582.	We will work with the Trader to confirm the requirements of their customers connection and complete the appropriate paperwork	Investigating

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.11 With: Clause 20 Schedule 11.1 From: 12-Sep-17 To: 30-Sep-20	ICP 0001123465AL1E4 has been decommissioned but has yet to be updated on the registry. ICP 0001890253AL261 has a status reason code of 2 (Installation Dismantled) applied but should have had 1 (Setup in error) applied. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The monitoring of decommissioned ICPs is rated as moderate and I make a recommendation above to improve this. The audit risk rating is low but will need to be reviewed if the number pending continues to grow as this indicates that ICPs are potentially at the incorrect status on the registry.		
Actions taken to resolve the issue		Completion date	Remedial action status
The Metering Team have begun the registry reporting and have the decommission list now to work through as per 4.11		In progress now	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Internal team process management of reporting to confirm what’s outstanding and to action.		Started end of February	

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.

Audit commentary

The price category code table on the registry was examined. Alpine Energy did not create 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

Alpine Energy has completed a loss factor review in February 2020. They ended the four existing loss factors as of 31/03/20 and then added a new start date of 01/04/20 with an end date of 31/03/21 for the same loss factors on 24/02/20. No other changes were made. All updates were made with the correct notification.

The accuracy of the loss factors is discussed in **section 8.1**.

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 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.

Audit commentary

The loss category code table on the registry was examined. Alpine Energy did not update any loss factor values during the audit period.

Audit outcome

Compliant

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

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

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

If the distributor is creating or decommissioning an NSP that is an interconnection point between 2 local networks, the distributor must give written notice to the reconciliation manager of the creation or decommissioning.

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

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

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

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

Audit observation

The NSP table was reviewed.

Audit commentary

Alpine Energy has not created or decommissioned any NSPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 26(1) and (2) Schedule 11.1

Code related audit information

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

The request must be made at least 10 business days before the NSP is electrically connected, in respect of an NSP that is an interconnection point between 2 local networks. In all other cases, the request must be made at least one month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table was reviewed.

Audit commentary

No NSPs have been created or decommissioned 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 was reviewed.

Audit commentary

No balancing area changes have occurred 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 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 was reviewed.

Audit commentary

Alpine Energy has not created any new embedded networks 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 3 business days after the change takes effect.

Audit observation

The NSP table was reviewed.

Audit commentary

No balancing area changes have occurred 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 1 month before the transfer.

Audit observation

The NSP table was reviewed.

Audit commentary

No existing ICPs became NSPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 1 to 4 Schedule 11.2

Code related audit information

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

Audit observation

The NSP table was reviewed.

Audit commentary

Alpine Energy has not initiated the transfer of any ICPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 10.25(1) and 10.25(3)

Code related audit information

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

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

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

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

Audit observation

The NSP table was examined.

Audit commentary

Alpine Energy does not have responsibility for any NSP metering.

Audit outcome

Compliant

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

Code reference

Clause 10.25(2)

Code related audit information

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

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

- c) *no later than 20 business days after the date of certification of each metering installation, advise the reconciliation participant for the NSP of the certification expiry date (Clause 10.25(2)(c)).*

Audit observation

The NSP table was examined.

Audit commentary

Alpine Energy does not have responsibility for any NSP metering.

Audit outcome

Compliant

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

Code reference

Clause 29 Schedule 11.1

Code related audit information

If a network owner acquires all or part of a network, the network owner must give written notice to:

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

At least one month's notification is required before the acquisition (Clause 29(2) of Schedule 11.1).

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

Audit observation

The NSP table was examined.

Audit commentary

Alpine Energy has not initiated any changes of network owner during the audit period.

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 NSP table was examined.

Audit commentary

Alpine Energy do not own any embedded networks therefore there have been no changes of MEP for embedded gate meters.

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 was examined.

Audit commentary

Alpine Energy has not initiated the transfer of any ICPs during the audit period.

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 was examined.

Audit commentary

Alpine Energy has not initiated the transfer of any ICPs during the audit period.

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

Processes for the management of shared unmetered load were discussed. The registry list as at 30/08/19 was reviewed to identify any ICPs with shared unmetered load connected.

Audit commentary

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

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

Processes for the management of shared unmetered load were discussed. The registry list as at 12/10/20 was reviewed to identify any ICPs with shared unmetered load connected.

Audit commentary

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

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

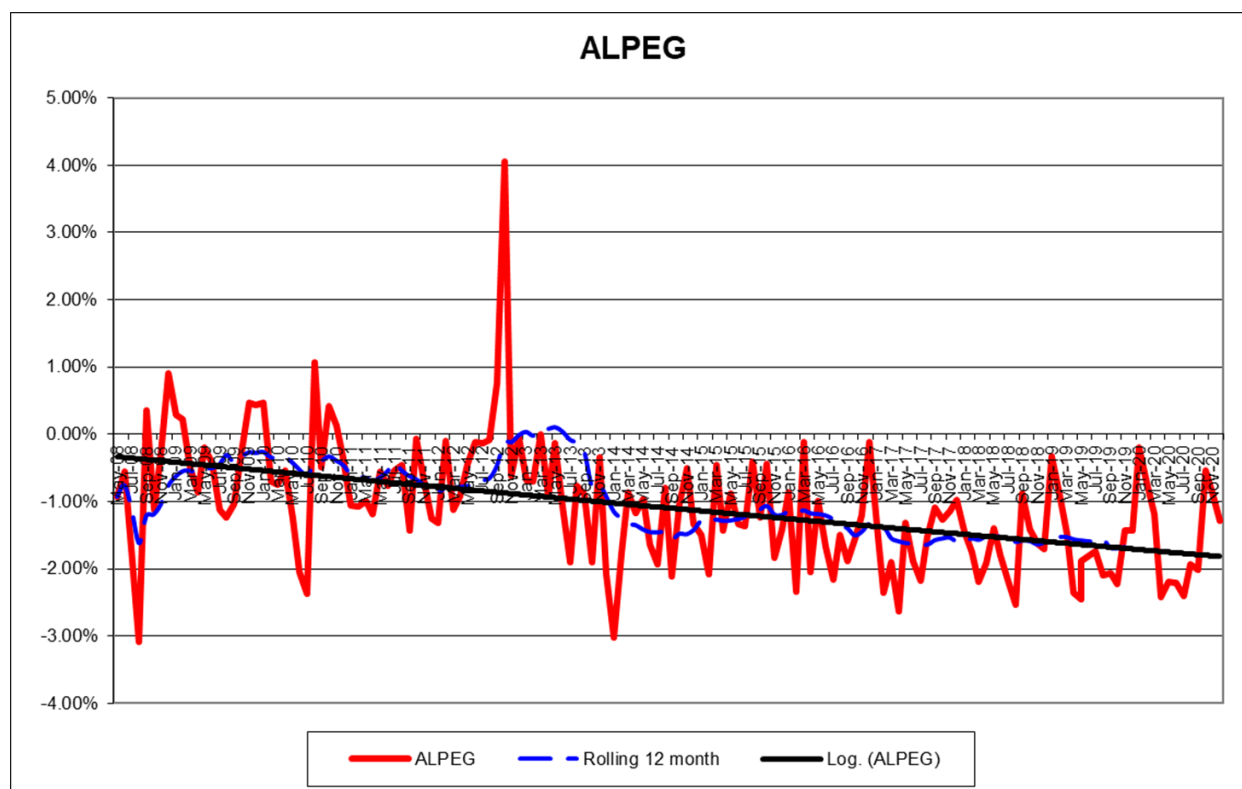
The “Guidelines on the calculation and the use of loss factors for reconciliation purposes” was published on 26/06/18. Loss factor review processes are under consultation, and I checked the Network Technical Losses Calculation Methodology Consultation Paper (31/07/19) against the guideline.

I reviewed the rolling UFE report provided by the Authority.

Audit commentary

Alpine Energy has four different factors: AOP (generation), LV, HV (11kV) and HV (33 kV). There have been no changes to the loss factor values since 1999 for A11, A33 and ALV, and since 2006 for AOP.

As detailed in the last audit, Alpine Energy completed the review of its loss factors. New loss factors were expected to be loaded to the registry in April 2020, but these haven't been updated as yet. The UFE graph supplied by the Electricity Authority indicates that the combined loss factors are likely to be too high as they fall outside of the +/-1% threshold expected:



They have continued to track towards -2%. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 8.1 With: Clause 11.2 From: 01-Dec-18 To: 31-Dec-20	Loss factors are not accurate in relation to reconciliation losses. Potential impact: Medium Actual impact: Medium Audit history: Twice Controls: Weak Breach risk rating: 6		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls are rated as weak as the loss factors haven't been updated within the indicated timeframe whilst losses continue to be too high. UFE is allocated to participants; therefore, there is no adverse impact on settlement; however, traders may use published losses in pricing decisions, therefore the use of inaccurate loss factors could lead to incorrect pricing, which is considered to have a medium impact.		
Actions taken to resolve the issue		Completion date	Remedial action status
Alpine has done a lot of work in working out the loss factors and has built a model using our EIEP files and Transpower files, to assist the engineers to getting to our Technical Losses. We also do a reconciliation between the Transpower file (what Transpower generates vs the RM file (what the retailers purchase from the NZX) which would help with the reconciliation losses Our calculations have shown an improvement in our loss factors, given our reconciliation losses are less than .002% on average a month. We have noticed that some months there are retailers that are overestimating TOU on the EIEP files.		We will have the new categories and loss factors updated for the next financial year, to ensure the new financial year this is on the registry after notifying retailers within the required timeframe as per the code	Identified
Preventative actions that were planned		Completion date	

<p>Alpine has done a lot of work in working out the loss factors and has built a model using our EIEP files and Transpower files, to assist the engineers to getting to our Technical Losses.</p> <p>We also do a reconciliation between the Transpower file (what Transpower generates vs the RM file (what the retailers purchase from the NZX) which would help with the reconciliation losses</p> <p>Our calculations have shown an improvement in our loss factors, given our reconciliation losses are less than .002% on average a month.</p> <p>We have noticed that some months there are retailers that are overestimating TOU on the EIEP files.</p> <p>We have also split out some loss factors. (Projected loss factors moving forward).</p> <p>ALV 1.047 Total Alpine network general (non SS) load at 0.4 kV customer service lines segment</p> <p>A11 1.019 Total Alpine network general (non SS) load at 11 kV HV network segment</p> <p>A33 1.02 Total Alpine network general (non SS) load at 33 kV HV network segment</p> <p>AOP 0.969 Opuha Site Specific Generator injecting at sub transmission segment</p> <p>A11SS1 1.004 Fonterra Studholme Site Specific Load supplied via 11 kV HV network segment (W297)</p> <p>A11SS2 1.012 Fonterra Studholme Site Specific Load supplied via 11 kV HV network segment (W367)</p> <p>AMP1 1.005 Mountain Power embedded network Site Specific Load at 11 kV HV network segment (MP1)</p> <p>AMP4 1.01 Mountain Power embedded network Site Specific Load at 11 kV HV network segment (MP4)</p>	<p>We will have the new categories and loss factors updated for the next financial year, to ensure the new financial year this is on the registry after notifying retailers within the required timeframe as per the code</p>	
---	---	--

CONCLUSION

The audit found nine non-compliances and makes six recommendations. The audit confirmed that the ICP database is showing signs of strain with some transactions are not being sent to the registry as expected. Alpine Energy are aware of this and hope to replace the current ICP database. They are currently automating their customer interface workflow which will feed information into the ICP database. This will assist in improving the return of paperwork from the field. A material change audit is planned before the customer interface workflow goes live to ensure that Alpine can meet its code requirements.

The audit found that some corrections identified in the last audit are still to be corrected and not all discrepancies are being identified. I recommend that the audit compliance reporting is used to improve information accuracy and timeliness of registry updates.

The technical loss factor review was completed prior to the last audit and it was expected that these would be updated and come into effect in April 2020. This is still in progress. Examination of UFE indicates that the current loss factors are too high with negative losses continuing to increase. Alpine are working to get the loss factors updated.

The audit identified nine non-compliances and makes six recommendations. The future risk rating indicates that the next audit should be within six months. Given that Alpine will be undertaking a material change within this period and the comments provided by Alpine, I recommend that the next audit be in 12 months' time.

PARTICIPANT RESPONSE

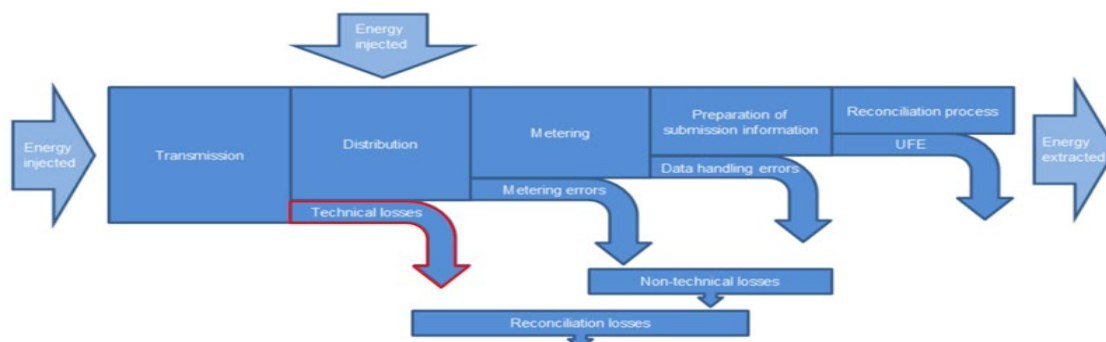
Our previous Audit (2019) was one of the best we have had and we were really happy with the results and the direction we were taking. Our 2021 Distribution Audit clearly identifies a number of short comings with our changed resources and processes at that time and leading up to this Audit compared to 2019. This Audit highlighted a small number of reoccurring themes that has increased our breach risk score, however this has also allowed us to quickly action some changers, particularly around resourcing and reporting to correct the errors and get on top of the issues. We have also changed our NCA issuing to our field service providers to keep a controlled timeline on the returned paperwork which is working a lot better.

We do have an aged ICP database system which is being addressed by our IT and Management Teams. There have been some errors within our database that weren't picked up until the Audit which have now been identified and addressed. We are well through a material change to our online Network Application process that will remove a large portion of the current process within our current ICP system. This will then only leave our current database as an ICP information holding system which we can then look to upgrading.

With regards to the loss factors: *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*

Process Map:



We have built a loss factor model that would allow us to work out technical loss factors by using our TOU data, which led to confusion around the finalisation of the loss factors as we believed this would ultimately lead to the “true and accurate” loss factors, that need to be reported on in the registry and therefore we have held back with the update so that we can ensure they are correct.

We have been analysing the data we receive from Transpower monthly and reconciling it against the NZXRM files that we receive and taking the current loss factors into account, there is less than .002% difference in the volumes, which we believe, the technical loss factors and reconciliation loss factors below are accurate, in saying that there are some retailers that are over estimating what they have purchased and we have found that we are sometimes around -.001% on the variance.

Given where we are, we are stress testing if the new loss factors, will have any impact on DPP and the new prices that have been set going forward ,to ensure that we do not breach, any other regulatory obligations or requirements by the Commerce Commission

Below are the technical loss factors we have calculated, as noted it goes further than our previous loss factors which will reflect a more accurate UFE graph moving forward.

ALV	1.047	Total Alpine network general (non SS) load at 0.4 kV customer service lines segment
A11	1.019	Total Alpine network general (non SS) load at 11 kV HV network segment
A33	1.02	Total Alpine network general (non SS) load at 33 kV HV network segment
AOP	0.969	Opuha Site Specific Generator injecting at sub transmission segment
A11SS1	1.004	Fonterra Studholme Site Specific Load supplied via 11 kV HV network segment (W297)
A11SS2	1.012	Fonterra Studholme Site Specific Load supplied via 11 kV HV network segment (W367)
AMP1	1.005	Mountain Power embedded network Site Specific Load at 11 kV HV network segment (MP1)
AMP4	1.01	Mountain Power embedded network Site Specific Load at 11 kV HV network segment (MP4)

Given where we are in the process, we are stress testing the new loss factors for any impact on DPP obligations and pricing for 2021, to ensure that we do not breach any regulatory obligations or requirements by the Commerce Commission.

Below is the methodology we have used.

