DISTRIBUTOR AUDIT REPORT



For

ALPINE ENERGY LIMITED ARC SYSTEM MATERIAL CHANGE NZBN: 9429039239013

Prepared by: Brett Piskulic

Date audit commenced: 6 November 2023

Date audit report completed: 22 February 2024

Audit report due date: 23 February 2024

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EXECUTIVE SUMMARY

Alpine Energy Ltd (Alpine Energy) intends to migrate from the ICP database to ARC by 4 March 2024. The system provider is Digital Stock.

Clause 16A.11 requires that if a distributor intends to make a "material" change to systems or processes then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Alpine Energy so that it can be supplied to the Electricity Authority to satisfy the requirements of Clause 16A.11. The audit was conducted in accordance with the Guideline for Distributor Audits V7.2.

Compliance was assessed for all areas which could be impacted by the material change by reviewing process documentation, the results of testing and walking through the ARC processes. No non-compliances were identified, and one recommendation is made to complete further testing of NSP allocation prior to the ARC implementation.

The implementation of ARC is expected to improve efficiency, timeliness, and accuracy because the interface to the registry will be fully automated with all distributor updates originating from ARC. Daily monitoring of the ARC dashboard will allow Alpine Energy to better identify registry discrepancies and potential compliance issues requiring actions to resolve.

Alpine Energy's next audit due date is 4 November 2025, and I recommend that this audit date is retained because future compliance is not expected to be negatively impacted by the material change:

- validation processes to identify failed registry updates and registry discrepancies are robust, and exceptions are expected to be resolved daily,
- existing compliant processes not affected by the material change will not be impacted.

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
			Nil				
Future Risk Rating	0						

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
Notice of NSP for each ICP	4.2	Allocation of NSPs	Prior to go-live conduct testing of NSP allocation once the network model has been added to the test system to ensure the transformer information derived from the GIS allocates the correct NSPs.

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

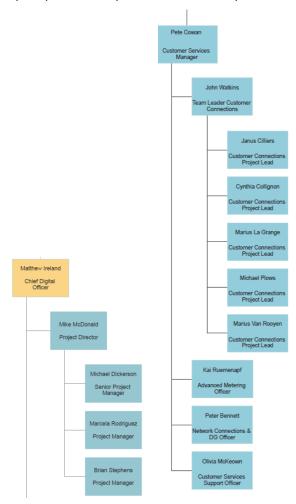
The Electricity Authority website was checked to determine whether Alpine Energy has any code exemptions in place.

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 copies of the relevant parts of the organisation structure:



1.3. Persons involved in this audit

Auditor:

Name	Company	Role
Brett Piskulic	Provera	Auditor

Personnel assisting in this audit were:

Name	Title
Hayden Darling	Head of Customer Future Energy Services
Brian Stephens	Project Manager
David Scarisbrick	Solutions Architect
Peter Bennett	Network Connections & DG Officer
Olivia McKeown	Customer Services Support Officer
Jim Dowling	Digital Stock
Jack Kelly	Digital Stock
Will Finlayson	Digital Stock

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 contractor to conduct field activities on their network:

John Hardie - independent contractor for inspections only.

In the previous audit it was recorded that NETcon Ltd was a contractor for connections and disconnections. Alpine confirmed that the NETcon business was amalgamated with Alpine Energy in October 2023 and the work is now done as Alpine Energy not as a contractor.

Alpine understands their responsibilities under this clause.

1.5. Supplier List

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

1.6. Hardware and Software

Alpine Energy currently 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.

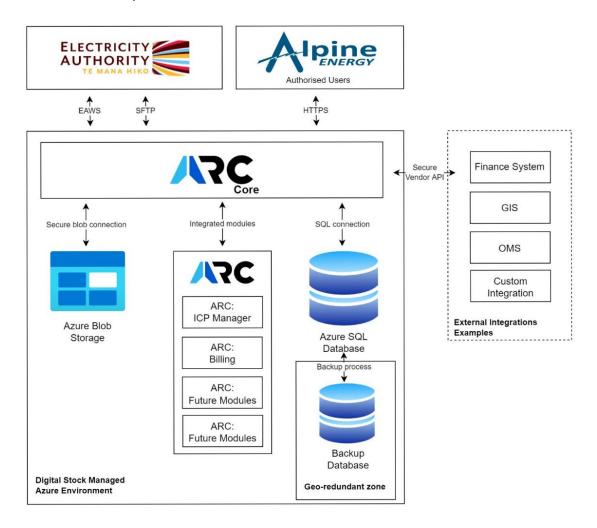
Access to the databases is restricted through network access permissions, and access to the network is restricted using logins and passwords.

Alpine Energy intends to migrate from the current ICP database to ARC on 4 March 2024. The ARC systems will be used for the following functions.

- ICP information management: the core module will manage ICP information and allow it to be validated against the registry,
- Registry communications: the ICP manager module will create and transmit all new and changed ICP information to the registry and facilitate bulk updates where necessary,
- Billing: the billing module will receive trader data and create billing files; the billing process is outside of the scope of this audit, and
- Works: work management module to create, dispatch, and manage service requests; the work management process is outside of the scope of this audit.

Access to ARC will be restricted using logins and passwords, and access to functionality within ARC will be assigned by role. ARC is a cloud-based platform with local and geo-redundancy through Azure. System events are logged and auditable.

Overview of ARC systems:



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 active ICPs
ALPE	ABY0111	ALBURY			CENTRALALPEG	G	1 January 2012	1,691
ALPE	BPD1101	Bells Pond			CENTRALALPEG	G	1 January 2012	808
ALPE	STU0111	STUDHOLME			CENTRALALPEG	G	1 January 2012	3,192
ALPE	TIM0111	TIMARU			CENTRALALPEG	G	1 January 2012	18,347
ALPE	TKA0331	ТЕКАРО А			TKA0331ALPEG	G	1 May 2008	1,017
ALPE	TMK0331	TEMUKA			CENTRALALPEG	G	1 January 2012	7,000
ALPE	TWZ0331	TWIZEL			TWZ0331ALPEG	G	1 May 2008	1,767

There are also three embedded networks connected to Alpine Energy's network.

Dist	NSP POC	Description	Parent	Parent	Balancing Area	Network	Start date
			POC	Network		type	
МОРО	MMP0111	MACKENZIE PARK	TWZ0331	ALPE	MMP0111MOPOE	E	1 May 2008
МОРО	MMT0111	MANUKA TERRACE	TWZ0331	ALPE	MMT0111MOPOE	E	1 May 2008
TENC	TSH0011	Timaru Showgrounds	TIM0111	ALPE	TSH0011TENCE	E	1 October 2022

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

Status	Number of ICPs (Feb 2024)	Number of ICPs (Jun 2023)	Number of ICPs (2022)	Number of ICPs (2021)	Number of ICPs (2021)	Number of ICPs (2020)
New (999,0)	0	0	0	0	0	0
Ready (0,0)	61	62	70	39	58	47
Active (2,0)	33,828	33,706	33,515	33,219	33,086	32,995
Distributor (888,0)	4	4	2	2	2	2
Inactive – new connection in progress (1,12)	32	30	36	36	29	19
Inactive – electrically disconnected vacant property (1,4)	491	502	491	502	475	500
Inactive – electrically disconnected remotely by AMI meter (1,7)	148	140	129	123	112	108
Inactive – electrically disconnected at pole fuse (1,8)	15	12	19	15	9	9
Inactive – electrically disconnected due to meter disconnected (1,9)	2	1	1	2	2	2
Inactive – electrically disconnected at meter box fuse (1,10)	0	1	2	1	3	2
Inactive – electrically disconnected at meter box switch (1,11)	0	0	1	0	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	3	6	3	0	18	24
Inactive – reconciled elsewhere (1,5)	0		0	0	0	0
Decommissioned (3)	2,858	2,719	2,651	2,537	2,529	2,509

1.9. Authorisation Received

A letter of authorisation was provided.

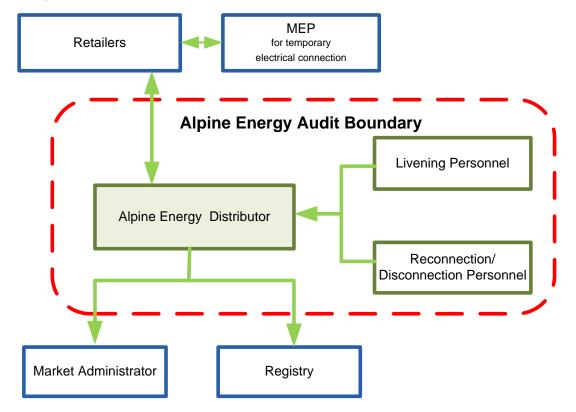
1.10. Scope of Audit

Alpine Energy intends to migrate from the current ICP database to ARC on 4 March 2024. The ARC systems will be used for the following functions.

- ICP information management: the core module will manage ICP information and allow it to be validated against the registry,
- Registry communications: the ICP manager module will create and transmit all new and changed ICP information to the registry and facilitate bulk updates where necessary,
- Billing: the billing module will receive trader data and create billing files; the billing process is outside of the scope of this audit, and
- Works: work management module to create, dispatch, and manage service requests; the work management process is outside of the scope of this audit.

Clause 16A.11 requires that if a distributor intends to make a "material" change to any certified facilities, processes, or procedures then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Alpine Energy so that it can be supplied to the Electricity Authority to satisfy the requirements of 16A.11. The audit was conducted in accordance with the Guideline for Distributor Audits V7.2.

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 2023 by Brett Piskulic of Provera. The audit recorded ten non-compliances and made no recommendations. The current status of the non-compliances 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)	Ten ICPs became active but had no initial electrical connection date populated. Incorrect IECD dates populated for 26,171 active ICPs prior to the requirement to populate this information.	An improvement in compliance is expected with the implementation
Provision of ICP Information to the registry manage	3.3	11.7	Ten ICPs became active but had no initial electrical connection date populated.	of ARC. Compliance will be assessed in the first audit following the
Changes to registry information	on 111	Two late status updates. Three late network updates.	ARC implementation.	
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	Five ICPs had incorrect NSPs.	

Table of Recommendations

Subject	Section	Recommendation	Description	Status
		Nil		

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 considered whether the changes were likely to result in incomplete, incorrect, or misleading information. I viewed documentation and test results and walked through processes in the ARC test system.

Audit commentary

User training

Alpine staff have been involved in user acceptance testing and have had training on the system. Full training is scheduled to be completed between 26 February and 1 March 2024, prior to implementation. User documentation is being created and is expected to be available from 23 February 2024. A high-level process map was made available and reviewed during the audit.

Data entry and registry synchronisation

All the required registry fields are stored within ARC. Preventative controls are in place to help to ensure data is complete and accurate including:

- mandatory fields, field content requirements and character limits, which are consistent with the Registry Functional Specification,
- use of pick/drop down lists displaying valid options for the field where appropriate,
- automatic population of valid data in dependent fields, for instance updating the installation type when distributed generation information is entered,
- suggested values where users begin entering address information,
- validation of new ICP numbers and addresses against existing ICP numbers and addresses to prevent duplicates from being created, and
- validation against other related information stored in ARC for distributed generation, and NSP information.

ARC's ICP records contain panes displaying status, address, network, pricing and trader information. Each of these panes has its own event date. Event dates can be manually entered and edited for address, network, pricing, and decommissioned status events. If the event date is more than the maximum allowable business days before the entry date a text "audit note" is required to be entered explaining why the update is late. Status updates to new, ready, active, inactive and distributor status are created on import of the registry notification files at midnight each night, and the registry status event date is applied.

Users can enter or change address, network, pricing, and/or decommissioned status data though the edit function from the panes in an ICP record. The current information is displayed, and the user can add/update information in each field. The event date defaults to the current day and can be changed as

required by the user. Saving the changes triggers an automatic registry update for the event type. The registry sync status changes to "awaiting confirmation" until a registry acknowledgement file is received indicating whether the update was a success or failure:

- if successful, the registry sync status will change to "up to date" and the registry event number will be populated, and
- if a failure, the registry sync status will change to "failure" and the reason for the failure will be displayed on the ICP's record; the number of failures is also displayed on the ARC Dashboard, and the affected ICP records can be reviewed and resolved by clicking on the failure type.

Status updates to "new" (999), "ready" (000), "active" (002) and "inactive" (001) status are imported from registry notification files with the registry event date. Updates to new and ready are triggered by ARC sending events to the registry which cause the registry to automatically update the status as certain information is populated. Updates to "active" and "inactive" statuses are triggered by trader registry updates.

Full event history for each ICP can be viewed in ARC. Users can modify a record to create an update effective from the record's event date or later. A warning will display if the user attempts to enter an event date earlier than the current record's original event date, alerting the user that they must adjust a historic record. Any record can be reversed or replaced by selecting the record and applying the reverse or replacement option. Applying a change to attributes with the same event date as an existing record will result in a replacement update.

Because all registry updates are expected to originate from ARC and be processed immediately, registry and ARC records are expected to be the same except where a registry acknowledgement indicates an update has failed, or a registry notification has not yet been imported for statuses updated by the registry or traders. The reconcile ICPs process synchronises ARC with the registry and is scheduled overnight each night. The process requests an event detail (EDA) file from the registry for events in the last three years. The records in the EDA are matched to ARC based on the registry event ID, which is populated when an acknowledgement file is received for each registry update.

- ARC events with event IDs which match the EDA will be updated to match the registry attributes for the event.
- Registry event IDs not found in ARC will be added.
- ARC events that have not been updated in the registry (and therefore do not have an event ID) will remain unchanged and continue to appear as registry synchronisation errors for resolution.

Data validation

Alpine Energy will use the ARC Dashboard for validation, including:

- **New ICPs requiring EDB approval** to identify ICPs where Alpine Energy needs to enter further information and approve the ICP before it can be created on the registry,
- New ICP, requiring trader approval to identify ICPs where trader approval is pending before the ICP can move to ready status on the registry,
- ICPs with a pricing change requiring approval to identify ICPs where pricing approval is pending,
- Active ICPs with no electrically connected date to identify ICPs which have moved to "active" status but do not have an initial electrical connection date populated,
- Ready ICPs with no electrically connected date to identify ICPs which are at "ready" status which have not yet been electrically connected,
- ICP that are inactive and ready for decommissioning to identify ICPs where traders have assigned 1,6 "inactive ready for decommissioning" status which have not been decommissioned,
- ICPs with new, ready or awaiting status to identify all new ICPs which have not yet been claimed and moved to 1,12 "inactive new connection in progress" or 2,0 "active" status,

- ICPs with any current fields failing to synch with registry to identify any ICP events where event status is "failure" indicating that the registry was unable to be updated, and
- **Distributed generation out of sync** to identify ICPs where there is a discrepancy between the AARC and registry information.

Selecting any of the dashboard items will display the affected ICPs, and the user can then access the data causing the exception and take action as necessary. Alpine Energy intends to review the Dashboard items daily as part of each user's regular work.

Alpine Energy plans to continue with their existing processes to review the ACO20 distributor audit compliance reports regularly after implementation of ARC to confirm the validity of the ARC dashboard process and expects to see a reduction in the number of issues identified in the audit compliance reports.

System migration process

An initial registry synchronisation will be carried out to retrieve and store all current and historic ICP event data. Non-registry data (such as notes, jobs, engineering and billing data) will be provided to Digital Stock by Alpine Energy. Current and historic data will be migrated to the ARC system using the user interface where possible, and via database migrations where not possible. Once this is complete, the regular reconcile ICPs process will begin to be run which will ensure that ARC and the registry are consistent.

The current ICP database system will continue to run for a period after the ARC implementation with access removed for new connection staff to ensure there are no issues with synchronisation of data. Once the billing module has been implemented the ICP database will be archived and turned off.

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

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

I considered whether the changes were likely to result in incomplete, incorrect, or misleading information. I viewed documentation and test results and walked through processes in the ARC test system.

Audit commentary

The ARC Dashboard will also be used to identify and correct errors as discussed in section 2.1.

Timeliness of corrections depends on people and processes and will be checked during the first audit after implementation.

Audit outcome

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

Code reference

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

Code related audit information

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

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

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

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

2.4. Provision of information on dispute resolution scheme (Clause 11.30A)

Code reference

Clause 11.30A

Code related audit information

A distributor must provide clear and prominent information about Utilities Disputes:

- on their website,
- when responding to gueries from consumers,
- in directed outbound communications to consumers about electricity services and bills.

If there are a series of related communications between the distributor and consumer, the distributor needs to provide this information in at least one communication in that series.

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

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 process to create ICPs using ARC was checked. I viewed documentation and test results and walked through processes in the ARC test system.

Audit commentary

The process is robust and has good controls in place. Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

3.2. Participants may request distributors to create ICPs (Clause 11.5(3))

Code reference

Clause 11.5(3)

Code related audit information

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

Audit observation

The new connection process was examined including a walkthrough of the process in the ARC test system.

Audit commentary

There will be no change to the way Alpine Energy receives new connection requests. These come from customers' agents, normally electricians, who provide a completed Application for Network Connection form on which a retailer is nominated. New connection data will be entered into ARC instead of the ICP database and transferred to the registry. The process for creating new ICPs and entering new connection details is recorded in **section 3.3**.

Future compliance is not expected to be affected by the material change.

Audit outcome

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 create ICPs using ARC was checked. I viewed documentation and test results and walked through processes in the ARC test system.

Audit commentary

The ARC ICP creation process will ensure that ICP information is provided in accordance with Schedule 11.1. All the required registry fields are stored within ARC. Preventative controls are in place to help to ensure data is complete and accurate including mandatory fields, field content requirements and character limits which are consistent with the Registry Functional Specification.

The process to create new ICPs and provide information to the registry is as follows:

- 1. A compliant ICP number will be created within ARC as described in **section 3.11** and will have a blank status recorded.
- 2. Initial address, network and pricing information will be populated in ARC awaiting approval.
- 3. The entered data will be reviewed and approved by an appropriately qualified user by selecting EDB approval. ICPs requiring approval will be accessible from the new ICP Management Approvals pane on the dashboard.
- 4. Following EDB approval, ARC will:
 - a. send an email to the trader requesting their approval, and
 - b. send the ICP, address and network updates to the registry, which will create the ICP on the registry with "new" status. The registry acknowledgement and notification files will be received by ARC and update the ICP status from blank to "new", and the event statuses to successful. If the registry updates fail, the event status will show as failed and the discrepancy will be identified on the dashboard for resolution.
- 5. Once trader approval is received, a trader approval update is completed in ARC which either:
 - c. confirms trader acceptance if they accept, or
 - d. reverts the ICP to requiring EDB approval so that a new trader can be determined if the trader declines.
- 6. Following trader approval ARC will release the pricing record to the registry, which will update the registry status from "new" to "ready". The registry acknowledgement file and notification files will be received by ARC and update the ICP status from "new" to "ready", and the event statuses to successful. If the registry updates fail the event status will show as failed and the discrepancy will be identified on the dashboard for resolution.
- 7. Once the ICP is "ready", the initial electrical connection date may be populated once the ICP is confirmed to be connected. The ICP Livening pane in the ARC dashboard is used to monitor ICPs that are at the "ready" status and have not had an initial electrical connection date entered. ICPs that have moved to "active" status and not had an initial electrical connection date recorded are separately identified in the dashboard and will be monitored daily. The timeliness depends on people and processes and will be checked during the first audit after go-live.

Future compliance is not expected to be affected by the material change.

Audit outcome

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

I considered whether the migration to ARC was likely to result in late provision of registry information. I viewed documentation and test results and walked through processes in the ARC test system.

Audit commentary

The distributor must provide to the registry the information listed in clause 7(2) of schedule 11.1 as soon as practicable, and before electricity is traded at the ICP. Registry updates occur immediately on changes being saved (and approved if necessary) in ARC. The ARC dashboard will be used to identify any unsuccessful updates and monitor new connections to help to ensure that information is entered on time. Timeliness depends on people and processes and will be checked during the first audit after implementation. Future compliance is not expected to be affected by the material change. 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 ten business days after the date on which the ICP is initially electrically connected.

Audit observation

I considered whether the migration to ARC was likely to result in late provision of initial electrical connection dates. I viewed process documentation and test results and walked through the new connection process in ARC.

Audit commentary

The process to determine initial electrical connection dates will not change as part of this material change. All network and meter connections are completed on the same day by the same contractor, and an email is sent to Alpine Energy from the contractor's tablet on completion of the job. Initial electrical connection dates will be entered into ARC instead of the ICP database and transferred to the registry. Users will not be able to populate the initial electrical connection date until the ICP has moved to "ready" status. The initial electrical connection date will be added to the network record, and the event date will be updated to match the initial electrical connection date. Registry updates occur immediately on changes being saved in ARC. ARC's dashboard will be used to identify any unsuccessful updates and monitor new connections to help to ensure that information is entered on time. The ICP Livening pane in the ARC dashboard is used to monitor ICPs that are at the "ready" status and have not had an initial electrical connection date entered. ICPs that have moved to "active" status and not had an

initial electrical connection date recorded are separately identified in the dashboard and will be monitored daily.

Timeliness depends on people and processes and will be checked during the first audit after implementation. Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

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. I viewed process documentation and test results and walked through the new connection process in ARC.

Audit commentary

The new connection process ensures that trader acceptance is gained prior to initial electrical connection. Once the initial ICP details are approved allowing the ICP to be created at "new" status, ARC will send an email to the trader requesting their approval. Once trader approval is received, a trader approval update is completed in ARC which either:

- confirms trader acceptance if they accept, or
- reverts the ICP to requiring EDB approval so that a new trader can be determined and contacted if the trader declines; following trader approval ARC will release the pricing record to the registry, which will update the registry status from "new" to "ready" (the ICP can only be connected once it is at "ready" status).

Alpine Energy does not allow or intend to allow any new shared unmetered load connections.

Review of a registry list snapshot for 15 February 2024 confirmed that:

- a trader is recorded for all ICPs with "active" or "inactive" status,
- a proposed trader is recorded for all ICPs with "ready" status, and
- shared unmetered load is not recorded for any ICPs on Alpine Energy's network.

Future compliance is not expected to be affected by the material change.

Audit outcome

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

Code reference

Clause 10.31

Code related audit information

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

Audit observation

The new connection process was examined. I viewed process documentation and test results and walked through the new connection process in ARC.

Audit commentary

The new connection process ensures that trader acceptance is gained prior to initial electrical connection as described in **section 3.6**. ICPs cannot move to "ready" status until trader approval is received.

Alpine Energy does not allow or intend to allow any new shared unmetered load connections.

Future compliance is not expected to be affected by the material change.

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

This process is not affected by the material change.

Audit commentary

All network and meter connections are completed on the same day by the same contractor. Alpine Energy does not allow connection to occur if metering is not installed at the same time.

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

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

Code reference

Clause 10.30

Code related audit information

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

The distributor that initiates the connection under Part 11 and connects the NSP must, within five business days of connecting the NSP that is not a point of connection to the grid, advise the reconciliation manager of the following in the prescribed form:

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

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

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

Code reference

Clause 10.30A and 10.30B

Code related audit information

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

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

A distributor may only electrically connect an NSP if:

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

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

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:

yyyyyyyyyxxccc where:

- yyyyyyyyy 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. I viewed process documentation and test results and walked through the process to create an ICP number in the ARC test system.

Audit commentary

ARC will mirror the existing ICP creation process and will not allow duplicate ICP numbers to be created. ICPs will be created from the following components:

- a four-digit number derived from the street component of the address,
- a unique location number based on the ICP's location on the street,
- leading zeros added to the street and location number to make ten digits; validation is in place to ensure that the street + location code is unique to prevent duplicate ICP numbers,
- the network short code, and
- a check sum automatically generated by ARC.

Once compliant data is entered the user selects create to create the ICP, the ICP is then created in ARC and will be sent to the registry.

Future compliance is not expected to be affected by the material change.

Audit outcome

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 information using ARC was examined. I viewed process documentation and test results and walked through the new connection process in ARC.

Audit commentary

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

The synchronisation processes discussed in **section 2.1** will ensure that loss category data is updated on the registry. Future compliance is not expected to be affected by the material change.

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 process to create ICPs using ARC was checked. I viewed process documentation and test results and walked through the new connection process in the ARC test system.

Audit commentary

Status management will not change as part of this material change, and ICPs will be created at "new" status and move to "ready" status once a trader has accepted responsibility and the ICP is approved and ready for connection. The new connection process is described in **section 3.3.**

If an ICP is created at "ready" status and found to no longer be required, the pricing category can be removed in ARC by reversing the price category entry. Once synchronised with the registry this will return the ICP to "new" status, and then it can be moved to "decommissioned - set up in error" status.

Future compliance is not expected to be affected by the material change.

Audit outcome

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 process to monitor ICPs at "new" and "ready" status was reviewed. I viewed process documentation and test results and walked through the new connection process in the ARC test system.

Audit commentary

ICPs at "new" and "ready" statuses will be monitored through the daily checks of the ARC dashboard. This monitoring will ensure that ICPs are followed up before they reach 24 months at the status.

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

3.15. Embedded generation loss category (Clause 7(6) Schedule 11.1)

Code reference

Clause 7(6) Schedule 11.1

Code related audit information

If the ICP connects the distributor's network to an embedded generating station that has a capacity of 10 MW or more (clause 7(1)(f) of Schedule 11.1):

- The loss category code must be unique; and
- The distributor must provide the following to the reconciliation manager:
 - o the unique loss category code assigned to the ICP,
 - o the ICP identifier of the ICP,
 - o the NSP identifier of the NSP to which the ICP is connected,
 - o the plant name of the embedded generating station.

Audit observation

The registry list was 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 10 MW that require specific loss category codes.

Audit outcome

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

Processes were examined for the connection of ICPs and NSPs.

Audit commentary

The new connection application process will not change as part of this material change. New connection data will be entered into ARC and transferred to the registry.

Alpine Energy will only connect a point of connection if requested by the trader responsible in the registry. Alpine Energy require a service request providing authorisation to electrically connect an ICP.

Audit outcome

Compliant

3.17. Electrical disconnection of a point of connection (Clause 10.30C and 10.31C)

Code reference

Clause 10.30C and 10.31C

Code related audit information

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

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

Audit observation

The disconnection process was examined.

Audit commentary

The physical disconnection process will not change as part of this material change.

Alpine Energy understand their responsibilities in relation to this clause. They only conduct electrical disconnection for safety, and they only conduct disconnection where ICPs are to be decommissioned.

Future compliance is not expected to be affected by the material change.

Audit outcome

3.18. Meter bridging (Clause 10.33C)

Code reference

Clause 10.33C

Code related audit information

A distributor may only electrically connect an ICP in a way that bypasses a meter that is in place ("bridging") if the distributor has been authorised by the responsible trader.

The distributor can then only proceed with bridging the meter if, despite best endeavours:

- the MEP is unable to remotely electrically connect the ICP,
- the MEP cannot repair a fault with the meter due to safety concerns,
- the consumer will likely be without electricity for a period which would cause significant disadvantage to the consumer.

If the distributor bridges a meter, the distributor must notify the responsible trader within one business day and include the date of bridging in its advice.

Audit observation

The Alpine Energy process for bridging meters was examined.

Audit commentary

Alpine Energy may receive a call from a customer after hours, to investigate 'no power'. Alpine Energy will attend the site and may bridge the meter if required. Alpine Energy informs the trader that the meter has been bridged and requests a Service Request to un-bridge the meter. Alpine monitor these ICPs to ensure the meter is unbridged.

Future compliance is not expected to be affected by the material change.

Audit outcome

4. MAINTENANCE OF REGISTRY INFORMATION

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

Code reference

Clause 8 Schedule 11.1

Code related audit information

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

Notification must be given by the distributor within three business days after the change takes effect, unless the change is to the NSP identifier of the NSP to which the ICP is usually connected (other than a change that is the result of the commissioning or decommissioning of an NSP).

In those cases, notification must be given no later than 8 business days after the change takes effect.

If the change to the NSP identifier is for more than 10 business days, the notification must be provided no later than the 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.

In the case of a change to price category codes, where the change is backdated, no later than three business days after the distributor and the trader responsible for the ICP agree on the change.

Audit observation

The process to maintain ICP information using ARC was checked. I viewed process documentation and test results and walked through the process in the ARC test system.

Audit commentary

ARC's ICP records contain panes displaying status, address, network, and pricing information. Each of these panes has its own event date. Event dates can be manually entered and edited for address, network, pricing, and decommissioned status events. If the event date is more than the maximum allowable business days before the entry date a text "audit note" is required to explain why the update is late. Status updates to new, ready, active, inactive and distributor status are created on import of the registry notification files at midnight each night, and the registry status event date is applied. When address, network, pricing, and/or decommissioned status data is entered or changed, the user enters an event date (which is mandatory) and saves the change to that pane. This triggers an automatic registry update for the event type. The event status changes to "awaiting confirmation" until a registry acknowledgement file is received indicating whether the update was a success or failure.

- If successful, the event status will change to "up to date" and the registry event number will be populated.
- If a failure, the event status will change to "failure" and the reason for the failure will be displayed on the ICP's record. The number of failures is also displayed on the ARC Dashboard, and the affected ICP records can be reviewed and resolved by clicking on the failure type.

I checked each type of distributor registry update and confirmed that the required fields are recorded in ARC, and the field requirements are consistent with the registry. Each registry update type was successfully tested. Timeliness depends on people and processes and will be checked during the first audit after implementation.

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

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 provide NSP information using ARC was checked. I walked through the process in the ARC test system.

Audit commentary

At the time of the audit the process for selecting an NSP from the transformer information derived from the GIS was not able to be demonstrated in the test system as the network model had not been added. Once implemented NSPs will be derived from the transformer site, which is based on a network model structure from the GIS and traces the feeder from the transformer to the correct NSP. It is planned that the network model will be added in the week prior to implementation. Digital Stock were able to demonstrate the functionality in a different system. In the Alpine Energy ARC test system, the user selects the NSP for a new ICP from a dropdown in the Network pane in ARC.

I recommend that further testing is conducted once the network model has been added to the test system ensure NSPs are correctly assigned.

Recommendation	Description	Audited party comment	Remedial action
Notice of NSP for each ICP	Prior to go-live conduct testing of NSP allocation once the network model has been added to the test system to ensure the transformer information derived from the GIS allocates the correct NSPs.	Between the submission of this audit report and our golive of March 4 th , the GIS integration to the UAT environment will be completed and allow us to complete our testing of the network model NSP validation to transformer within ARC. This improvement will mitigate errors that can occur with changes to the network.	Identified

Audit outcome

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

Alpine Energy supply ICP numbers to customers on request, and this process will not be affected by the material change.

Audit commentary

Alpine Energy occasionally receives direct requests for ICP identifiers. ICP identifiers can be provided immediately on request once the address has been confirmed.

Future compliance is not expected to be affected by the material change.

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 provide address information using ARC was checked. I viewed process documentation and test results and walked through the process in the ARC test system.

Audit commentary

ARC requires the user to comply with registry specifications for each address field as well as containing validation to ensure that the address value is unique.

Future compliance is not expected to be affected by the material change.

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 process is not affected by the material change.

Audit commentary

For new connections, this clause is well understood, and Alpine Energy'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.

Future compliance is not expected to be affected by the material change.

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 process to provide complete and accurate ICP information using ARC was checked. I viewed process documentation and test results and walked through the process in the ARC test system.

Audit commentary

Registry synchronisation and data validation

The registry synchronisation and validation processes are discussed in detail in **section 2.1**. I reviewed testing of the inbound and outbound registry update processes, including event reversals and replacements, new connections, decommissions, address, network, and pricing changes, and registry discrepancy reporting and confirmed that these processes are operating as expected in the test system.

Future compliance is not expected to be affected by the material change.

Initial Electrical Connection Dates

The process to determine initial electrical connection dates will not change as part of this material change. All network and meter connections are completed on the same day by the same contractor, and an email is sent to Alpine Energy from the contractor's tablet on completion of the job. Initial electrical connection dates will be entered into ARC instead of the ICP database and transferred to the registry. The ICP Livening pane in the ARC dashboard is used to monitor ICPs that are at the "ready" status and have not had an initial electrical connection date entered. ICPs that have moved to "active" status and not had an initial electrical connection date recorded are separately identified in the dashboard and will be monitored daily.

Future compliance is not expected to be affected by the material change.

Distributed Generation

The distributed generation application process will not change. Once installation is complete, it is inspected and if compliant the inspector will connect it and is required to return the completed NCA, Certificate of Compliance and Record of Inspection to Alpine Energy within three days. The inspection date is applied as the event effective date for the addition of distributed generation details in ARC and the registry.

Alpine Energy has good processes for managing the addition of distributed generation. Implementation of the ARC billing module will enable Alpine Energy to better identify ICPs where traders have applied a generation profile, but network generation information has not been updated.

Future compliance is not expected to be affected by the material change.

Unmetered load

Alpine Energy allows standard unmetered load but does not allow shared unmetered connections to their network. ARC stores the distributor unmetered load in three fields in the Network pane: watts, hours per day and description. These are concatenated with a ";" delimiter when they are sent to the registry, ensuring that the recommended format is applied.

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

4.7. Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1)

Code reference

Clause 7(3) Schedule 11.1

Code related audit information

The distributor must provide the following information to the registry no later than ten 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 process for providing pricing information was examined. I viewed process documentation and test results and walked through the process in the ARC test system.

Audit commentary

The price category and chargeable capacity (if any) are known at the time of the ICP being created and are approved by an appropriately qualified user through the EDB approval process so are recorded correctly in a mandatory field in ARC and the registry.

Timeliness depends on people and processes and will be checked during the first audit after implementation. Future compliance is not expected to be affected by the material change.

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 process for providing GPS information was examined. I walked through the process in the ARC test system.

Audit commentary

GPS location details are updated in ARC from the Alpine Energy GIS system.

I confirmed that the coordinates will continue to be in the NZTM2000 format after the ARC implementation. Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

4.9. Management of "ready" status (Clause 14 Schedule 11.1)

Code reference

Clause 14 Schedule 11.1

Code related audit information

The ICP status of "ready" must be managed by the distributor and indicates that:

- the associated electrical installations are ready for connecting to the electricity supply (clause 14(1)(a) of schedule 11.1); or
- the ICP is ready for activation by a trader (clause 14(1)(b) of schedule 11.1).

Before an ICP is given the "ready" status in accordance with clause 14(1) of schedule 11.1, the distributor must:

- identify the trader that has taken responsibility for the ICP (clause 14(2)(a) of schedule 11.1),
- ensure the ICP has a single price category (clause 14(2)(b) of schedule 11.1).

Audit observation

The management of ICPs in relation to the use of the "ready" status was examined. I viewed process documentation and test results and walked through the process in the ARC test system.

Audit commentary

Alpine Energy's new connections process as detailed in **section 3.3**, ensures that a retailer has taken responsibility for ICPs, and pricing is recorded before the status is changed from "new" to "ready".

Review of a registry list snapshot for 15 February 2024 confirmed that all ICPs at "ready" status had a single price category assigned and proposed trader identified. ICPs at "new" and "ready" statuses will be monitored through the daily checks of the ARC dashboard. This monitoring will ensure that ICPs are followed up before they reach 24 months at the status.

Future compliance is not expected to be affected by the material change.

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. I walked through the process in the ARC test system.

Audit commentary

Alpine Energy's list file shows four ICPs that have an ICP status of "distributor"; all four of these are for embedded networks.

Alpine Energy does not have any shared unmetered load ICPs and has no intention of allowing new shared unmetered load ICPs. ARC will allow ICPs to be recorded with "distributor" status and this was demonstrated in the test system.

Future compliance is not expected to be affected by the material change.

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 process to decommission ICPs using Salesforce was checked. I viewed documentation and test results and walked through the ICP decommissioning process.

Audit commentary

Requests are expected to be made to Alpine Energy where decommissioning is required from the trader or electrician.

A network application is completed to decommission the ICP, and a Service Request must be received from the trader, this ensures isolation from the network at the same time as the meter removal. The fieldwork is carried out and notification comes back to Alpine Energy on standard documentation. Alpine Energy monitors ICPs that have been physically decommissioned to ensure the retailer changes the status to "ready for decommissioning". There is no change to this process with the implementation of ARC.

ICPs that are moved to "inactive" and "ready for decommissioning" status by the trader are identified in the ICP Life Cycle pane of the ARC dashboard the following day. These will be picked up by daily dashboard checks and moved to "decommissioned" status by Alpine Energy.

The process for decommissioning new ICPs that are no longer required was demonstrated. ARC will allow an ICP to be decommissioned with the status reason of "set-up in error" if the ICP is in the "new" status. In these cases, the trader and pricing events are reversed, and the status is automatically changed from "ready" to "new" to allow decommissioning to be completed.

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

4.12. Maintenance of price category codes (Clause 23 Schedule 11.1)

Code reference

Clause 23 Schedule 11.1

Code related audit information

The distributor must keep up to date the table in the registry of the price category codes that may be assigned to ICPs on each distributor's network by entering in the table any new price category codes.

Each entry must specify the date on which each price category code takes effect, which must not be earlier than two months after the date the code is entered in the table.

A price category code takes effect on the specified date.

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

Each loss category code must have a maximum of two loss factors per calendar month. Each loss factor must cover a range of trading periods within that month so that all trading periods have a single applicable loss factor.

If the distributor wishes to replace an existing loss factor on the table in the registry, the distributor must enter the replaced loss factor on the table in the registry.

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

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

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

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

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

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

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

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

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

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

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

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

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

Code reference

Clause 26(4) Schedule 11.1

Code related audit information

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

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

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

Compliant

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

Code reference

Clause 27 Schedule 11.1

Code related audit information

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

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

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

Code reference

Clause 10.25(2)

Code related audit information

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

- assume responsibility for being the metering equipment provider (clause 10.25(2)(a)(i)); or
- contract with a metering equipment provider to be the MEP (clause 10.25(2)(a)(ii)); and
- no later than 20 business days after identifying the MEP advise the reconciliation manager in the prescribed form of:
- the reconciliation participant for the NSP (clause 10.25(2)(b)); and
- no later than five business days after the date of certification of each metering installation, advise the reconciliation manager of
 - a) the MEP for the NSP (clause 10.25(2)(c)(i)); and
 - b) the NSP of the certification expiry date (clause 10.25(2)(c)(ii)).

Audit observation

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

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 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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

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

Alpine Energy has not initiated the transfer of any ICPs and is not expecting to in future.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

6.13. Transfer of ICPs for embedded network (Clause 6 Schedule 11.2)

Code reference

Clause 6 Schedule 11.2

Code related audit information

If the notification relates to an embedded network, it must relate to every ICP on the embedded network.

Audit observation

Alpine Energy has not initiated the transfer of any ICPs and is not expecting to in future.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

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

This process is not affected by the material change.

Audit commentary

Alpine Energy has no existing shared unmetered load and does not intend to allow any new shared unmetered load connections. Future compliance is not expected to be affected by the material change.

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

This process is not affected by the material change.

Audit commentary

Alpine Energy has no existing shared unmetered load and does not intend to allow any new shared unmetered load connections. Future compliance is not expected to be affected by the material change.

Audit outcome

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

This process is not affected by the material change.

Audit commentary

Future compliance is not expected to be affected by the material change.

Audit outcome

CONCLUSION

Alpine Energy Ltd (Alpine Energy) intends to migrate from the ICP database to ARC by 4 March 2024. The system provider is Digital Stock.

Clause 16A.11 requires that if a distributor intends to make a "material" change to systems or processes then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Alpine Energy so that it can be supplied to the Electricity Authority to satisfy the requirements of Clause 16A.11. The audit was conducted in accordance with the Guideline for Distributor Audits V7.2.

Compliance was assessed for all areas which could be impacted by the material change by reviewing process documentation, the results of testing and walking through the ARC processes. No non-compliances were identified, and one recommendation is made to complete further testing of NSP allocation prior to the ARC implementation.

The implementation of ARC is expected to improve efficiency, timeliness, and accuracy because the interface to the registry will be fully automated with all distributor updates originating from ARC. Daily monitoring of the ARC dashboard will allow Alpine Energy to better identify registry discrepancies and potential compliance issues requiring actions to resolve.

Alpine Energy's next audit due date is 4 November 2025, and I recommend that this audit date is retained because future compliance is not expected to be negatively impacted by the material change:

- validation processes to identify failed registry updates and registry discrepancies are robust, and exceptions are expected to be resolved daily,
- existing compliant processes not affected by the material change will not be impacted.

PARTICIPANT RESPONSE

We would like to thank Brett at Provera and Jim and Will at Digital Stock for undertaking and participating in the material change audit. We found the process very useful, with good questioning around our processes and the functionality of ARC. Brett's insights have given us and Digital Stock good ideas for continuous improvement to the Dashboard for monitoring other issues that we use other systems for currently, and we are excited to contribute to ARCs ongoing functionality.

We are quite pleased to receive the report highlighting the compliance of ARC with the requirements of the Code. We have no changes or further comments to add to the audit report.

Brian Stephens, Project Manager