ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT

For

WAIPA NETWORKS LIMITED

Prepared by: Steve Woods

Date audit commenced: 26 May 2021

Date audit report completed: 30 July 2021

Audit report due date: 04-Aug-21

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EXECUTIVE SUMMARY

This Distributor audit was performed at the request of **Waipa Networks Ltd (Waipa),** to encompass the Electricity Industry Participation Code requirement for an audit in accordance with clause 11.10 of part 11. The audit was carried out at Waipa's premises in Te Awamutu, on July 10th, 2020.

The audit was conducted in accordance with the Guideline for Distributor Audits version 7.2, which was produced by the Electricity Authority.

This audit found ten non-compliances and makes two recommendations. This is an improvement on the 13 identified in the last audit. The audit compliance report is now being used to identify and resolve discrepancies; however further improvements can be made to the overall registry management processes. Two recommendations are made in relation to discrepancy management.

The loss factor issue for the embedded network has now been resolved.

The next audit frequency table indicates that the next audit be due in six months. I have considered this result in conjunction with Waipa's responses, and I recommend an audit period of 12months to reflect improvements during the audit period and to allow sufficient time to resolve the matters raised.

The matters raised are shown in the tables below.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	Registry information not complete and accurate in all instances.	Moderate	Medium	4	Identified
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Errors not corrected as soon as practicable.	Moderate	Medium	4	Identified
Provision of ICP Information to the registry manager	3.3	11.7	14 ICPs electrically connected but the initial electrical connection date had not been populated. The incorrect event date was used for 13 ICPs when the IECD was populated prior to the on-site audit.	Moderate	Low	2	Identified
Timeliness of ICP Information to the registry manager	3.4	7(2) of Schedule 11.1	Ten ICPs not updated to "ready" prior to electricity being traded.	Moderate	Low	2	Identified
Timeliness of initial electrical connection date	3.5	7(2A) of Schedule 11.1	94 initial electrical connection dates not updated within ten business days.	Moderate	Low	2	Identified
Connection of an ICP that is not an NSP	3.6	11.17	No trader recorded as accepting responsibility on the registry prior to electrical connection.	Moderate	Low	2	Identified
Timeliness of registry updates	4.1	8 of schedule 11.1	Seven address events, one network event, 386 pricing updates, 51 decommission status updates and 167 distributed generation updates were updated more than three business days after the event date.	Moderate	Low	2	Identified
ICP location address	4.4	2 & 7 (1)(a) of schedule 11.1	657 ICPs with addresses that are not readily locatable.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Distributor to provide ICP information	4.6	7(1) of Schedule 11.1	Chargeable capacity incorrectly recorded on the registry when it is being derived from the retailer billing files. 24 ICPs with distributed generation details incorrect or missing. 13 ICPs with the initial electrical connection date missing. 2 ICPs with an incorrect initial electrical connection date populated. 9 ICPs with unmetered load discrepancies.	Moderate	Low	2	Identified
Updating table of loss category codes	5.2	21 Schedule 11.1	One changed loss factor not notified two months in advance of coming into effect.	Strong	Low	1	Identified
Future Risk Rating						23	
Indicative Next Audit Frequency						6 months	

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

RECOMMENDATIONS

Subject	Section	Recommendation	Next Action
Distributed generation	4.6	Monitor the high-risk database and the EG records in EIEP files to identify ICPs with generation recorded.	Identified
Decommissioned ICPs	4.11	Monitor the event detail report or list file to identify changes to “ready for decommissioning” by traders.	Identified

ISSUES

Subject	Section	Issue	Next Action
		Nil	

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

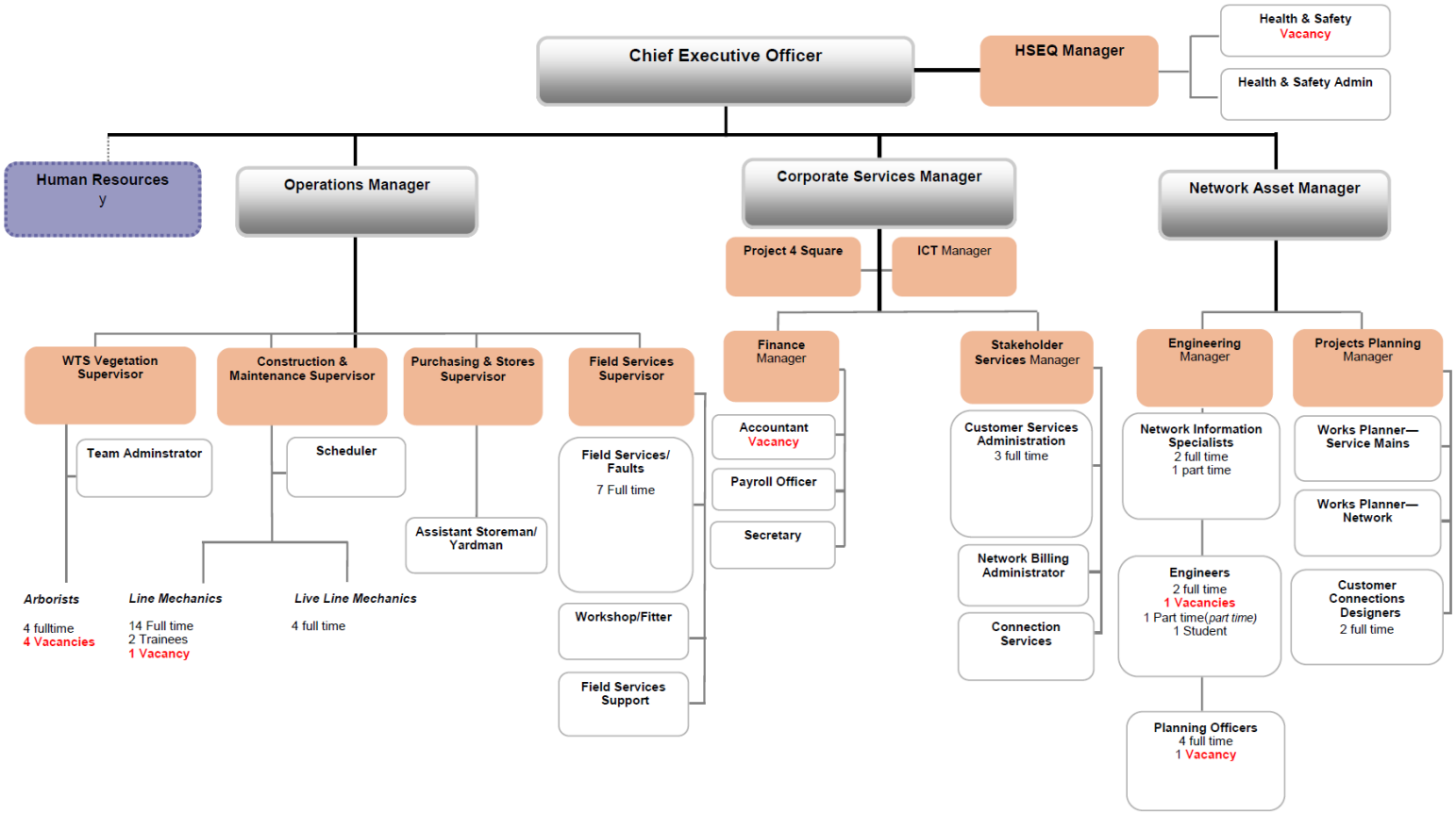
The Authority website was checked to determine whether there are any code exemptions in place.

Audit commentary

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

1.2. Structure of Organisation

Waipa provided a copy of their organisational structure:



WAIPA NETWORKS

May 21

1.3. Persons involved in this audit

Auditors:

Name	Company	Role
Steve Woods	Veritek Limited	Auditor

Waipa personnel assisting in this audit were:

Name	**Title**
Clara Ruscoe	Customer Services Administrator
Kerry Watson	Stakeholder Services Manager
Lucy Stanley	Customer Services Administrator

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

Audit observation

Waipa were asked to provide the details of any sub-contractors authorised to perform electrical connection activities on their networks.

Audit commentary

Activities covered by the scope of this audit, including fieldwork and inspection are conducted by Waipa employees.

1.5. Supplier list

Waipa does not use any sub-contractors.

1.6. Hardware and Software

Waipa continues to use magiQ, formally Napier Computer Systems (NCS) as their hardware and software supplier.

The interface between magiQ and the registry is largely automated. The unmetered load fields are populated manually on the registry, and Waipa are working on a system change that will allow this process to be automated. The loss category code automatically defaults to the 400V value, which applies for almost all customers. For larger customers, Waipa updates the loss category code on the registry manually.

MagiQ cannot process reversals from the registry. Waipa staff review notifications from the registry to identify any reversals and process them manually in magiQ.

The magiQ database is backed up to another server in the Waipa complex and a cloud based real time back up service is in place.

1.7. Breaches or Breach Allegations

Waipa has not had any breach allegations related to the scope of this audit recorded by the Electricity Authority during the audit period.

1.8. ICP and NSP Data

The table below lists the relevant NSPs, and their associated balancing areas. Waipa added a new embedded solar power based network within their network during the audit period.

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
WAIP	CBG0111	Cambridge			CBG0111WAIPG	G	01/05/2008	13,182
WAIP	TMU0111	Te Awamutu			TMU0111WAIPG	G	01/07/2016	14,625
WAIP	TPH0111	Te Pahu	TMU0111	WAIP	TMU0111WAIPG	I	02/11/2019	-
LAKE	LAK0111	36 Lake Street Cambridge	CBG0111	WAIP	LAK0111LAKEE	E	20/09/2019	66

There are two embedded networks connected to the Cambridge NSP.

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date
TENC	TCO0011	95 SWAYNE ROAD CAMBRIDGE	CBG0111	WAIP	TCO0011TENCE	E	16/04/2018
WAIK	OAK0111	OAKLANDS	CBG0111	WAIP	OAK0111WAIKE	E	1/05/2008

There have been no NSPs created or decommissioned during the audit period.

Waipa provided a list file for both the WAIP and LAKE network codes as of 31 May 2021. A summary of this data by "ICP status" is as follows.

Waipa				
Status	**Number of ICPs May 2021**	**Number of ICPs May 2020**	**Number of ICPs May 2019**	**Number of ICPs 2018**
New (999,0)	56	40	34	36
Ready (0,0)	13	19	7	15
Active (2,0)	27,807	27,312	26,923	26,471
Distributor (888,0)	3	4	5	5
Inactive – new connection in progress (1,12)	53	23	26	61
Inactive – electrically disconnected vacant property (1,4)	397	384	374	371
Inactive – electrically disconnected remotely by AMI meter (1,7)	50	27	32	31
Inactive – electrically disconnected at pole fuse (1,8)	7	6	5	5
Inactive – electrically disconnected due to meter disconnected (1,9)	18	16	12	7
Inactive – electrically disconnected at meter box fuse (1,10)	-	1	1	-
Inactive – electrically disconnected at meter box switch (1,11)	-	-	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	42	56	42	24
Inactive – reconciled elsewhere (1,5)	-	-	-	-
Decommissioned (3)	2,838	2,744	2,671	2,594

LAKE Embedded Network				
Status	Number of ICPs May 2021	Number of ICPs May 2020	Number of ICPs May 2019	Number of ICPs 2018
Active (2,0)	66	62	-	-
Inactive – new connection in progress (1,12)	1	3	-	-
Inactive – electrically disconnected remotely by AMI meter (1,7)	1	-	-	-

1.9. Authorisation Received

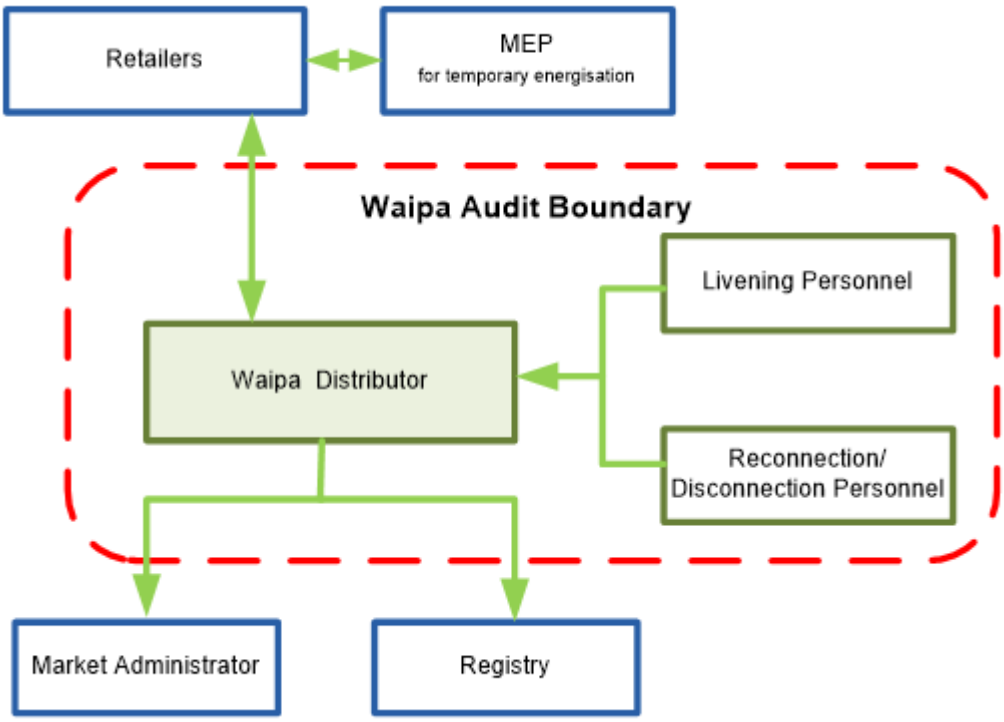
Waipa provided a letter of authorisation to Veritek, permitting the collection of data from other parties for matters directly related to the audit.

1.10. Scope of Audit

This Distributor audit was performed at the request of Waipa Ltd, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11. The audit was carried out at Waipa's premises in Te Awamutu, on July 13th, 2021.

The audit was conducted in accordance with the Guideline for Distributor Audits version 7.2, which was produced by the Electricity Authority.

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



1.11. Summary of previous audit

I reviewed the previous audit report, completed in August 2020 by Rebecca Elliot of Veritek Limited. The findings are detailed in the table below:

Table of Non-Compliance

Subject	Section	Non-Compliance	Status
Requirement to provide complete and accurate information	2.1	Registry information not complete and accurate in all instances.	Still existing
Requirement to correct errors	2.2	Errors not corrected as soon as practicable.	Still existing
Timeliness of ICP Information to the registry manager	3.4	Three ICPs not updated to "Ready" prior to electricity being traded.	Still existing
Timeliness of initial electrical connection date	3.5	15 initial electrical connection dates not updated within ten business days.	Still existing
Monitoring of "New" and "Ready status	3.14	Monitoring not conducted of ICPs at "new" or "ready status.	Cleared
Timeliness of registry updates	4.1	Seven address events, one network event, 59 pricing updates, 33 decommission status updates and 47 distributed generation updates were updated more than three business days after the event date. One NSP update backdated more than eight business days.	Still existing
Notice of NSP for each ICP	4.2	One ICP with incorrect NSP.	Cleared
ICP location address	4.4	66 ICPs with addresses that are not readily locatable.	Still existing
Distributor to provide ICP information	4.6	Chargeable capacity incorrectly recorded on the registry when it is being derived from the retailer billing files. 97 ICPs with distributed generation details incorrect or missing. 74 ICPs with the initial electrical connection date missing. 1 ICP with an incorrect initial electrical connection date populated. 9 ICPs with unmetered load discrepancies.	Still existing
Provision of information to registry after the trading of electricity at the ICP commences	4.7	1 late price code update.	Cleared
Management of "decommissioned" status	4.11	No process in place for management of decommissioned status.	Cleared
Updating table of loss category codes	5.1	Less than two months' notice provided of a new loss category.	Cleared
Creation of loss factors	8.1	Loss factors not accurately calculated for 65 ICPs on the LAKE embedded network.	Cleared

Recommendations

Subject	Section	Recommendation	Status
Requirement to provide complete and accurate information	2.1	Use the audit compliance reporting weekly to ensure data accuracy.	Cleared

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 11.2(1) and 10.6(1)

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Parts 10 or 11 is:

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

Audit observation

Waipa's data management processes were examined. The list file as of 31 May 2021 and the audit compliance reports for both the WAIP and LAKE Distributor codes for the period 1 June 2020 to 31 May 2021 were examined to confirm compliance.

Audit commentary

Files are transferred between magiQ and the registry daily via SFTP. When a change to a registry field is made in magiQ it is automatically added to a registry update file generated overnight. There are two exceptions to this; unmetered load and loss factors other than LV are processed manually.

Waipa uses the audit compliance report to identify discrepancies. This is checked on a weekly basis.

Analysis of the list file and audit compliance report found information that was not complete and accurate. These are recorded in **sections 4.1, 4.2, 4.4** and **4.6**. Specific examples are:

- some incorrect event dates for registry updates,
- 657 ICPs with addresses that are not readily locatable,
- 24 ICPs with distributed generation details incorrect or missing,
- 13 ICPs with the initial electrical connection date missing,
- two ICPs with an incorrect initial electrical connection date, and
- nine ICPs with unmetered load discrepancies.

Improvements have been made to the processes for management of discrepancies, but further improvements are required to fully meet the requirements of this clause.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clauses 11.2(1) and 10.6(1) From: 01-Jun-20 To: 31-May-21	Registry information not complete and accurate in all instances. Potential impact: High Actual impact: Medium Audit history: Twice Controls: Moderate Breach risk rating: 4
Audit risk rating	**Rationale for audit risk rating**
Medium	Controls are rated as moderate because validation steps are now in place, but improvements are required. The risk rating is medium as the corrections not actioned may have a direct impact on reconciliation.

Actions taken to resolve the issue	Completion date	Remedial action status
We will increase discrepancy reporting including increased scrutiny of unmetered load and initial electrical connection details.	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We will increase discrepancy reporting including increased scrutiny of unmetered load and initial electrical connection details.	Ongoing	

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

Waipa's data management processes were examined. The list file as of 31 May 2021 and the audit compliance report for the period 1 June 2020 to 31 May 2021 were examined to confirm compliance.

Audit commentary

Waipa uses the audit compliance report for validation, and this is checked weekly to identify and resolve discrepancies.

As discussed in several sections in the report, corrections are occurring but often they are made well after the event date. The processes have improved during this audit period, but further improvement is required to fully meet the requirements of this clause.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.2 With: Clauses 11.2(2) and 10.6(2) From: 01-Jun-20 To: 31-May-21	Errors not corrected as soon as practicable. Potential impact: High Actual impact: Medium Audit history: Three times Controls: Moderate Breach risk rating: 4
Audit risk rating	**Rationale for audit risk rating**
Medium	Controls are rated as moderate because validation steps are now in place, but improvements are required. The risk rating is medium as the corrections not actioned may have a direct impact on reconciliation.

Actions taken to resolve the issue	Completion date	Remedial action status
We will increase frequency of discrepancy reporting and ensure any identified are dealt with sooner.	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We will increase frequency of discrepancy reporting and ensure any identified are dealt with sooner.	Ongoing	

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

I checked Waipa's process in relation to removal or breakage of seals to ensure compliance.

Audit commentary

Waipa has not changed their process following the introduction of this Code change. Personnel used by Waipa engaged in bridging or un-bridging control devices are approved by the Metering Equipment Provider and are working under the relevant Approved Test House. The management of seals is also conducted under the Approved Test House.

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 queries 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

I checked all relevant communication methods to ensure compliance is achieved.

Audit commentary

The website contains a prominent message in the customer complaints section. The IVR messages for the general and faults lines contain appropriate details. All email signatures contain appropriate details.

Audit outcome

Compliant

3. CREATION OF ICPS

3.1. Distributors must create ICPs (Clause 11.4)

Code reference

Clause 11.4

Code related audit information

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

Audit observation

The new connection process was examined in detail and is described in **section 3.2**. A sample of 15 new connection applications using the typical case methodology, of the 677 created were checked from the point of application through to when the ICP was created.

Audit commentary

The process is robust and has good controls in place.

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 in detail. 15 new connection applications of the 677 (673 WAIP and four LAKE) ICPs created during the audit period were checked from the point of application through to when the ICP was created. The sample was selected using the diverse characteristics methodology covering both network codes, five different participants and across the audit period to confirm the process and controls worked in practice.

Audit commentary

The majority of new connection applications are received from electricians with requests from Retailers being a rare occurrence, and this clause only applies to those applications received from Retailers. During the Covid-19 lockdown Waipa moved to an editable pdf application form which is available on its website to remove the need for paper copies. Paper copies are still received, and these are manually transferred to an electronic form once received.

ICPs are created at the "new" status on receipt of an 'Application for Network Connection' from a retailer, a customer, or their agent (normally the electrician). The agent must provide the pole or pillar box number on the application form. This ensures that the correct property is connected. Engineering approval is then sought from the planning department, and this is documented on the 'New Connection Site Visit Check List' form which is saved along with the application. A site visit is carried out to confirm the address and

that fuses are available. The application is then forwarded to the nominated retailer for confirmation that they will take responsibility for the ICP. Retailers send a confirmation email to Waipa, or a service request for metering and electrical connection. Either response serves as confirmation of a retailer's responsibility and an approval to liven as required by clause 11.17 of part 11.

The sample of new connections checked were all requested by electricians, builders or customers; therefore, the three business days timeframe is not applicable. In all 15 examples, the ICPs were created within three business days.

Audit outcome

Compliant

3.3. Provision of ICP Information to the registry manager (Clause 11.7)

Code reference

Clause 11.7

Code related audit information

The distributor must provide information about ICPs on its network in accordance with Schedule 11.1.

Audit observation

The new connection process for populating all required registry fields was examined. The list file was examined for all ICPs created during the audit period, and the audit compliance reports for the period 1 June 2020 to 31 May 2021 were evaluated. 677 ICPs (673 WAIP and four LAKE) were created during that period.

A diverse sample of 15 new connections were chosen covering five different participants and across the audit period to confirm the process and controls worked in practice.

Audit commentary

Updates to the registry occur on a nightly basis. The process for updating the registry is automated for all fields except for unmetered load and the loss category code. There were seven WAIP ICPs and seven LAKE ICPs where the initial electrical connection date has not been populated. These were examined and found:

- one WAIP ICP is now decommissioned,
- the remaining six WAIP ICPs now have the IECD populated, but the event date is the same as the input date, which is incorrect, and
- all seven LAKE ICPs now have the IECD populated but the event date is the same as the input date, which is incorrect.

The sample checked confirmed all other information was provided in accordance with Schedule 11.1.

Timeliness of provision of information is discussed in **sections 3.4** and **3.5** below.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: Clauses 7(2) of Schedule 11.1 From: 31-Mar-15 To: 31-May-21	14 ICPs electrically connected but the initial electrical connection date had not been populated. The incorrect event date was used for 13 ICPs when the IECD was populated prior to the on-site audit. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as moderate as they will mitigate risk most of the time but there is room for errors to occur. The risk rating is low as the number of ICPs affected is small.

Actions taken to resolve the issue	Completion date	Remedial action status
These have now been corrected.	Completed	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We will increase frequency of discrepancy reporting and ensure any identified are dealt with sooner.	Ongoing	

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

Code reference

Clause 7(2) of Schedule 11.1

Code related audit information

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

Audit observation

The new connection process was examined. The audit compliance reports for WAIP and LAKE for the period from 1 June 2020 to 31 May 2021 were checked to determine the timeliness of the provision of ICP information for Waipa's new connections.

Audit commentary

Waipa's process is designed to update ICPs to "ready" prior to electrical connection. Waipa field staff use an app which enables quicker workflows and allows updates from the field to be delivered directly to Waipa office staff upon completion in the field. All but ten were updated to the "ready" status prior to electrical connection. All ten were created in NCS prior to electrical connection but there was a delay for all ten between data entry in NCS and registry population. There was a 1-week period in August 2020 where registry updates were not operating as expected and there is also an issue where the batch registry updates occur nightly and are after midnight, which adds one day to the update period.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.4 With: Clauses 7(2) of Schedule 11.1 From: 18-Sep-20 To: 29-Apr-21	Ten ICPs not updated to "ready" prior to electricity being traded. 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	Controls are rated as moderate as they will mitigate risk most of the time but there is room for errors to occur. The risk rating is low as the number of ICPs affected is small.

Actions taken to resolve the issue	Completion date	Remedial action status
There was a one off issue however it has highlighted issues with our existing system so we are investigating alternatives.	August 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We have scheduled a new ICP Management system as part of our ICT systems project.	August 2022	

3.5. Timeliness of Provision of Initial Electrical Connection Date (Clause 7(2A) of Schedule 11.1)

Code reference

Clause 7(2A) of Schedule 11.1

Code related audit information

The distributor must provide the information specified in subclause (1)(p) to the registry manager no later than 10 business days after the date on which the ICP is initially electrically connected.

Audit observation

The process for populating of the initial electrical connection date was examined. The audit compliance reports for WAIP and LAKE for the period from 1 June 2020 to 31 May 2021 were checked to determine the timeliness of the provision of ICP information for Waipa's new connections.

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

Audit commentary

The initial electrical connection date is updated as part of the new connection process and as Waipa often act as the metering agent as well as the livening agent, the majority of ICPs electrically connected are

known and updated accordingly. When Waipa is not the metering agent there are sometimes delays in updating the registry.

677 (673 WAIP and four LAKE) new ICPs have been created during the audit period. Of those, 562 (558 WAIP and four LAKE) have been electrically connected. The audit compliance reports identified 94 ICPs (70 WAIP and 24 LAKE) where the IECD was updated later than 10 business days. 52 of these related to ICPs electrically connected prior to 1 June 2020. A diverse characteristic sample of 11 of these were checked and found:

- three were due to processing errors where the job was closed off, but the IECD was not populated,
- late field notification caused five late updates,
- two LAKE updates were late because the registry report from NCS did not upload as expected, and
- one large commercial new connection was electrically connected without Waipa's knowledge, because the ICP is not physically connected to the network and it's unknown who conducted the electrical connection.

This audit found 14 ICPs where the initial electrical connection date had not been populated. The ICPs with a missing initial electrical connection date are recorded as non-compliance in **sections 3.3** and **4.6**.

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

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.5 With: Clause 7(2A) of schedule 11.1 From: 01-Jun-20 To: 31-May-21	94 initial electrical connection dates not updated within ten business days. Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as moderate as they will mitigate risk most of the time but there is room for errors to occur. The risk rating is low this has no direct impact on reconciliation.

Actions taken to resolve the issue	Completion date	Remedial action status
IECD dates have now been updated.	Completed.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We have scheduled a new ICP Management system as part of our ICT systems project but will increase discrepancy reporting in the meantime.	August 2022	

3.6. Connection of an 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 **section 3.2**.

The registry list as of 31 May 2021 and audit compliance reports for 1 June 2020 to 31 May 2021 were examined to determine compliance.

Audit commentary

The design of the new connections process includes a step where the trader accepts responsibility in accordance with this clause. Review of the registry list confirmed that a trader is recorded for all active and inactive ICPs, and a proposed trader is recorded for all "new" and "ready" ICPs.

The audit compliance reports identified ICP 0007331013WA9FF was not created on the registry until after it was electrically connected. This is recorded as non-compliance below.

This clause requires that a distributor must not connect an ICP across which unmetered load is shared unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load. Waipa does not allow or intend to allow any new shared unmetered load connections. Review of the registry list confirmed there is no shared unmetered load connected to any Waipa ICP.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.6 With: Clause 11.17 From: 07-Sep-20 To: 08-Sep-20	No trader recorded as accepting responsibility on the registry prior to electrical connection. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**

Low	Controls are rated as moderate as they will mitigate risk most of the time but there is room for errors to occur. The risk rating is low this has no direct impact on reconciliation.

Actions taken to resolve the issue	**Completion date**	**Remedial action status**
This was a process issue which was practically compliant (ie the Retailer had accepted responsibility) but not technically.	Completed.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We are investigating a new ICP Management system and will look at the possibility of live updates.	August 2022	

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 in relation to ICPs that are not also NSPs on Waipa's network. The event detail report for the period from 1 June 2020 to 31 May 2021 was examined.

Audit commentary

Waipa creates the ICPs at the "new" status on receipt of an 'Application for Network Connection' from a retailer, a customer, or their agent (normally the electrician). They are changed to the "ready" status once the retailer sends a confirmation email to Waipa, or a service request for metering and electrical connection.

Analysis of the registry list with history for 1 June 2020 to 31 May 2021 confirmed that all ICPs with "ready" status had a proposed retailer recorded.

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 **section 3.2**. The event detail file and registry list were examined to determine compliance.

Audit commentary

Any ICPs that are temporarily electrically connected follow the same process as those of all other new connections. ICP 0007289059WAEAE was electrically connected on 9 February 2021 to enable network testing and metering certification to occur. The network testing failed, therefore the ICP was left inactive until 10 February 2021 when the issue was rectified, and permanent electrical connection was made. This appears to be temporary electrical connection and the process followed was compliant. However, the IECD should be 9 February 2021 not 10 February 2021, which is recorded as non-compliance in **section 4.6**.

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

The NSP table was examined.

Audit commentary

Two new NSPs have been created by Waipa during the audit period. One is the LAKE embedded network and the second an interconnection with the WEL network.

NSP	NSP start date
LAK0111	20/09/2019
TPH0111	02/11/2019

The information required by this clause was provided on time.

Audit outcome

Compliant

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

Code reference

Clause 10.30A and 10.30B

Code related audit information

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

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

A distributor may only electrically connect an NSP if:

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

Audit observation

The NSP table was examined.

Audit commentary

Two new NSPs were created during the audit period as described in **section 3.9**. Waipa confirmed that the NSPs were not temporarily electrically connected.

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:

yyyyyyyyyyxxccc where:

- *yyyyyyyyyy 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 market administrator.*

Audit observation

The process for the creation of ICPs was examined.

Audit commentary

When a new ICP is created, the address is manually checked in magiQ to determine whether it is a duplicate, on Quick Maps to confirm its location, and a site visit is carried out to confirm the physical location. The ICP position in relation to other ICPs in the street is determined, as Waipa prefers ICPs to be consecutively numbered. The staff member entering the new connection adds the first four digits to represent Waipa's 'road number' followed by the 'street number'. MagiQ automatically adds the leading zeros, distributor code and a compliant checksum.

MagiQ will allow duplicate ICP numbers to be created, but staff routinely check for duplicates before entering the ICP number.

A sample of 20 new ICPs were checked. All were created in the appropriate format.

Audit outcome

Compliant

3.12. Loss category (Clause 6 Schedule 11.1)

Code reference

Clause 6 Schedule 11.1

Code related audit information

Each ICP must have a single loss category that is referenced to identify the associated loss factors.

Audit observation

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

Audit commentary

Loss factors are determined from the information provided on application for a new connection.

The registry list was examined and all active and inactive ICPs have a single loss category code. Each loss category code clearly identifies the relevant loss factor.

Audit outcome

Compliant

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

Code reference

Clause 13 Schedule 11.1

Code related audit information

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

- *the associated electrical installations are in the construction phase (Clause 13(a) of Schedule 11.1)*

- *the ICP is not ready for activation (Clause 13(b) of Schedule 11.1).*

Audit observation

The new connection process was examined. The list and event detail files were examined in relation to the use of the "new" status.

Audit commentary

The process is unchanged from last audit. ICPs are created at the "new" status upon receipt of an application for network connection from an electrician, retailer, a customer or their agent. The "new" status is only used where the ICP is at the construction phase and is changed to "ready" once a trader has accepted responsibility.

I reviewed a sample of 15 applications for new connections and noted that the forms specified the electricity retailer. Once the new connection is approved by Waipa, it is forwarded to the retailer to confirm that they will take responsibility. The retailer provides confirmation by email, or by making a request for metering and electrical connection. Either response serves as confirmation of a retailer's responsibility and an approval to liven as required by clause 11.17 of part 11.

Examination of the list file and event detail report confirmed the use of the "new" status is compliant. The timeliness of updates to the registry are discussed in **section 3.4**.

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 calendar months or more:

- *the distributor must ask the trader who intends to trade at the ICP whether the ICP should continue to have that status (Clause 15(2)(a) of Schedule 11.1)*
- *the distributor must decommission the ICP if the trader advises that the ICP should not continue to have that status (Clause 15(2)(b) of Schedule 11.1).*

Audit observation

The management of ICPs at the "new" and "ready" statuses was examined. The list file as of 31 May 2021 and the audit compliance reports for 1 June 2019 to 31 May 2021 were examined.

Audit commentary

The audit compliance report identified one ICP at "new" and no ICPs at the "ready" status for more than 24 months. The audit compliance report is now monitored each week to identify and manage ICPs at "new" and "ready". The one ICP at "new" has now been decommissioned because it was created in error.

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

This requirement was discussed, and the list file was examined.

Audit commentary

Waipa has no embedded generation of greater than 10MW connected to its network. There is one embedded generator connected to its network that has its own loss category code of "FT". This is for Fonterra Te Awamutu (0000400202WA9B7) and has a generation capacity of 8MW. Waipa's embedded generation application form has a field to record the capacity to ensure any new generation connections greater than 10MW are identified.

There has been no new embedded generation greater than 10MW added during the audit period.

Audit outcome

Compliant

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

Code reference

10.30C and10.31C

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

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

The connection of streetlight circuits was discussed. The process for connection of new streetlights follows a similar process to other new connections. A trader step is included whereby the form is sent to the trader for approval and new circuits are not connected until approved by the trader.

Audit outcome

Compliant

3.17. 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 1 business day and include the date of bridging in its advice.

Audit observation

I checked whether Waipa has processes in place for meter bridging and notification.

Audit commentary

No examples were identified; however, this could occur in future. Waipa operates under the relevant Approved Test House with regard to metering work and they have a notification process in place to ensure responsible traders are notified if bridging should occur.

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 process to manage ICP changes were examined. The audit compliance report and event detail report for the period from 1 June 2020 to 31 May 2021 were examined. The management of NSP changes was examined.

Audit commentary

Analysis of the audit compliance reports found:

WAIP

Update	Audit period	Late	% Compliance	Average Days
Address	2020	7	98.18	42.37
	2021	**5**	**98.89**	**9.70**
Price Code	2020	27	89.93	N/A
	2021	**386**	**28.39**	**N/A**
Status	2020	34	33.33	43.35
	2021	**51**	**35.44**	**130.62**
Network (excl. new connection & Distributed Generation	2020	1	N/A	N/A
	2021	**3**	**N/A**	**N/A**
Distributed Generation	2020	47	35.62	119.29
	2021	**167**	**21.23**	**420.39**
NSP Changes	2020	1	N/A	N/A
	2021	**0**	N/A	N/A

LAKE

Update	Audit period	Late	% Compliance	Average Days
Address	2020	0	100	0.67
	2021	**0**	**Nil**	**Nil**
Price Code	2020	0	Nil	Nil
	2021	**0**	**Nil**	**Nil**
Status	2020	0	Nil	Nil
	2021	**0**	**Nil**	**Nil**
Network (excl. new connection & Distributed Generation	2020	0	Nil	Nil
	2021	**3**	**N/A**	**N/A**
Distributed Generation	2020	0	Nil	Nil
	2021	**0**	**Nil**	**Nil**
NSP Changes	2020	0	Nil	Nil
	2021	**0**	**Nil**	**Nil**

Address events

The audit compliance reports were examined and recorded five late updates for the WAIP network code. These were examined and found to be late due to streets or street numbers not being allocated when the ICPs were first created.

Network Events

The network events evaluated excluded those relating to the population of the initial electrical connection dates (discussed in **section 3.5**), NSP changes (discussed below) and the initial network events relating to the creation of ICPs.

The audit compliance reports were examined and recorded three late network updates for each network code. These were examined and found to be late due to correction of distributed generation or unmetered load details identified during the last audit.

Addition of distributed generation

The distributed generation process was examined. Applications for the addition of distributed generation are received by Waipa via email for approval. Applications are reviewed and when approval is granted the customer is advised to supply copies of the record of inspection (ROI) and certificate of compliance (COC) on completion of the work. Waipa updates their records and the registry once the ROI and COC are received. Delays in the provision of the ROI and COC result in late updates of Waipa's records and the registry.

The audit compliance reports identified 167 ICPs for WAIP where the distributed generation information was updated later than three business days. A sample made up of five extreme characteristics and ten using typical characteristics were examined and found:

- two of the extreme examples were corrections due to NCS not updating the registry automatically as expected,
- three of the extreme examples were corrections based on queries from retailers,
- seven of the remaining late updates were due to late field notification, and
- three of the remaining updates were due to processing issues, including NCS not updating the registry as expected.

Change of NSP

The process of NSP changes was examined. This is a rare occurrence as the Waipa network has two distinct NSPs. The NSP is determined by the transformer it connects to.

No late NSP changes were recorded in the audit compliance reports. The accuracy of the NSP assignment is examined in **section 4.2**.

Pricing Events

There were 529 pricing events during the audit period for WAIP and none made for LAKE. 143 (28.39%) were updated within three business days. 386 ICPs were updated late. 314 were made over four dates in April and May 2021. A sample of ten ICPs were examined. Six of these selected using the homogeneous characteristics methodology from the bulk updates made in April and May 2021. The remaining four ICPs were selected using the typical case methodology across the audit period. This found:

- six were due to staff workloads when a large number of change requests were received from retailers all for the same date,
- two related to the installation of distributed generation, and the price category was updated at the same time as the distributed generation details were added,
- one change was backdated at the request of the trader, and
- one had the incorrect month in the event date when updated to the registry.

Decommissioning Status Events

The process for monitoring when traders update their status to "ready for decommissioning" is manual and is conducted weekly based on Waipa's list of ICPs where they know they have been decommissioned. This weekly manual process is the main cause of late registry updates. A sample of ten late updates using the typical case methodology were examined and found:

- four were corrections from the last audit, and
- six were due to delays caused by manual identification and processing.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.1 With: Clause 8 Schedule 11.1 From: 01-Jun-20 To: 31-May-21	Five address events, three network events, 386 pricing updates, 51 decommission status updates and 167 distributed generation updates were updated more than three business days after the event date. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as moderate as they will mitigate risk most of the time but there is room for errors to occur. The risk rating is low as the volume of ICPs affected are small.

Actions taken to resolve the issue	Completion date	Remedial action status
The instances of late updates had practical reasons behind them and we do not believe require any changes to procedures or resourcing levels.	N/A	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
The instances of late updates had practical reasons behind them and we do not believe require any changes to procedures or resourcing levels.	N/A	

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 accuracy of NSP information was checked using the audit compliance reports for the period 1 June 2020 to 31 May 2021.

Audit commentary

Waipa's planning department list the transformer number and GXP on each application for network connection. The NSP is determined by selecting the correct "sub" number.

If a sub number is corrected in magiQ the change is not automatically updated on the registry, because the sub number is not a registry field. Users must update the NSP manually on the registry.

The audit compliance report identified two ICPs possibly recorded against the incorrect NSP. These were examined and found to have the correct NSP.

As noted in **section 4.1**, there were no late NSP changes during the audit period.

Audit outcome

Compliant

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

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

Audit observation

The management of customer queries was examined.

Audit commentary

Waipa does receive direct requests for ICP identifiers, and these are provided immediately, by looking up the ICP based on information that the customer provides.

Audit outcome

Compliant

4.4. ICP location address (Clause 2 Schedule 11.1)

Code reference

Clause 2 Schedule 11.1

Code related audit information

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

Audit observation

The process to manage address accuracy was examined and the audit compliance report was analysed to identify ICPs with duplicate addresses or insufficient address information.

Audit commentary

When creating new ICPs, staff check manually to determine if the address is a duplicate.

The audit compliance report is monitored weekly to identify address issues. The audit compliance report identified two ICPs with duplicated address information for WAIP and none were identified for LAKE. These were examined and found Waipa had corrected these prior to finalisation of the audit by the addition of a unit number for one of them.

The list files were also examined. 657 WAIP ICPs were identified with insufficient address details recorded to readily locatable. A typical case sample of 20 ICPs were examined and found the street numbers had been added to 12. The remaining eight are being investigated.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.4 With: Clause 2 Schedule 11.1 From: 01-Jun-20 To: 31-May-21	657 ICPs with addresses that are not readily locatable. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate as they will mitigate risk most of the time but there is room for errors to occur. The risk rating is low as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		**Completion date**	**Remedial action status**
We will continue to work through these to update them.			Identified
Preventative actions taken to ensure no further issues will occur		**Completion date**	
We have scheduled a new ICP Management system as part of our ICT systems project but will increase discrepancy reporting in the meantime.		August 2022	

4.5. Electrically disconnecting an ICP (Clause 3 Schedule 11.1)

Code reference

Clause 3 Schedule 11.1

Code related audit information

Each ICP created after 7 October 2002 must be able to be electrically disconnected without electrically disconnecting another ICP, except for ICPs that are the point of connection between a network and an embedded network, or ICPs that represent the consumption calculated by the difference between the total consumption for the embedded network and all other ICPs on the embedded network.

Audit observation

This was examined as part of the new connection process and proof of process was checked as part of the sample of 20 new connections examined.

Audit commentary

This requirement is well understood by personnel involved in livening and is included in Waipa's Network Connection Standards. The new connections form requires contractors to identify the 'individual service line and connection point to the Network pole/pillar' for all new ICPs and document it on the application for new connection form.

I reviewed a sample of 15 new connections. In all cases the form showed that the ICP would have an individual service line and connection point to the network pole or pillar.

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 one 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. I checked all registry fields for obvious discrepancies using the audit compliance report for the period from 1 June 2020 to 31 May 2021.

Audit commentary

All ICP information was checked and confirmed compliant unless discussed below:

Chargeable Capacity

70 ICPs have chargeable capacity recorded. The chargeable capacity is calculated from the retailer billing received on the 4th of the following month and therefore the chargeable capacity should not be recorded on the registry. This is recorded as non-compliance.

Distributed Generation

Waipa require customers or their agent to submit an application from their website or via their service provider for any distributed generation. The application is reviewed by the planning team and once cleared the connection cost is invoiced. Once payment has been received the installation can go ahead. This includes a check that export/import metering is installed on their application form and confirmation from the Retailer that they will accept the generation. The applicant is asked to provide paperwork on completion of installation and COC and record of inspection.

The audit compliance reports identified five WAIP ICPs with discrepancies and none for LAKE. These were examined and found:

- four examples where field notification has not been received from the solar installer; Waipa is following up on these, and
- ICP 0001947744WA076, where the customer stated the solar installation had been cancelled but there is an EG row in the EIEP1 file showing generation is present.

I recommend two additional checks are conducted for all distributed generation discrepancies. The high-risk database at https://portal.worksafe.govt.nz/search-highrisk/ should be checked to see if there is a record of generation being installed. The EIEP 1 and 3 files should be checked to identify ICPs where the trader has generation recorded but Waipa does not.

Recommendation	Description	Audited party comment	Remedial action
Regarding clause 7(1) Schedule 11.1	Monitor the high-risk database and the EG records in EIEP files to identify ICPs with generation recorded.	We will use the high-risk database as recommended, and have also scheduled an update to our billing system (for September) to check the EIEP1 & 3 files.	Identified

The list files were analysed and found 63 WAIP ICPs and no LAKE ICPs where WAIP has distributed generation recorded, but the trader's profile does not indicate that distributed generation is present. 57 of these ICPs are with Mercury Energy. The remaining six ICPs are with other traders. A sample with diverse characteristics of eight ICPs (including two ICPs with Mercury) were examined and found generation was confirmed as connected in all cases.

Examination of the list files also identified 17 WAIP ICPs and two LAKE ICPs with an installation of B and solar indicated but a generation capacity of zero. A typical characteristic sample of five ICPs for WAIP and both LAKE ICPs were examined and found the details were incorrect and have now been updated.

Initial Electrical Connection Date

As detailed in **section 3.3**, the audit compliance reports identified seven WAIP ICPs and seven LAKE ICPs where the initial electrical connection date had not been populated. Waipa is checking the audit compliance report each week to identify discrepancies. 13 of the 14 ICPs have been corrected and one is now decommissioned.

The audit compliance reports identified five WAIP ICPs with discrepancies between the initial electrical connection date and trader active date or metering certification. These were examined and found:

ICP	Metering Installation Certification Date	Initial Electrically Connected Date	Status Event Date	Comments
0075500042WAC9A	13/05/2021	12/05/2021	13/05/2021	Waipa date incorrect and will be updated.
0000320114WAD50	19/04/2021	17/03/2021	17/03/2021	Waipa date is correct
0007289059WAEAE	09/02/2021	10/02/2021	10/02/2021	Waipa date incorrect and will be updated.
0005299028WA225	22/12/2020	21/12/2020	22/12/2020	Waipa date is correct
0001419855WA487	N/A	30/04/2021	N/A	Waipa date is correct

No discrepancies were identified for the LAKE Distributor code.

The timeliness of provision of information on initial electrical connection date is discussed in **section 3.5**.

The missing initial electrical connection dates and incorrect population of initial electrical connection date is recorded as non-compliance.

Unmetered Load

Waipa allows standard unmetered load but does not allow shared unmetered connections to their network. Review of the registry lists confirmed that there was no shared unmetered load and there have been no new unmetered loads connected during the audit period.

MagiQ records an unmetered load information but is not configured to output this information in a suitable format for registry update. The unmetered load information Waipa populates on the registry is entered manually.

The list files were examined and found no LAKE ICPs with unmetered load associated. The WAIP list file found 131 active ICPs where the trader indicates there is unmetered load present. WAIP has unmetered load details for 85 of these ICPs. I compared the kWh value where the description allowed. This identified ten ICPs with a daily kWh difference greater than 0.1 kWh. These were examined and found nine were incorrect and need to be corrected. One is still under investigation.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.6 With: Clause 7(1) Schedule 11.1 From: 01-Jun-20 To: 31-May-21	Chargeable capacity incorrectly recorded on the registry when it is being derived from the retailer billing files. 24 ICPs with distributed generation details incorrect or missing. 13 ICPs with the initial electrical connection date missing. 2 ICPs with an incorrect initial electrical connection date populated. 9 ICPs with unmetered load discrepancies. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as moderate as there is now regular discrepancy reporting in place, but there is room for improvement. The risk rating is low as this has no direct impact on reconciliation.

Actions taken to resolve the issue	Completion date	Remedial action status
We have corrected unmetered load details and followed up with Retailers.	Completed.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Increased reporting will address these sooner.	Ongoing	

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 reports for WAIP and LAKE for the period 1 June 2020 to 31 May 2021 were checked to determine if any price codes were assigned later than ten business days after trading commenced.

Audit commentary

Waipa can confirm these details in most cases prior to electrical connection of the ICP. If any changes are required these are updated as soon as possible. The audit compliance reports did not identify any price category changes relating to post 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 was reviewed to determine compliance.

Audit commentary

Waipa do not populate GPS co-ordinates.

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

I examined the new connections process and reviewed the registry list file from 1 June 2020 to 31 May 2021 to identify that all ICPs at "ready" status had a nominated trader and a single price category recorded.

Audit commentary

Waipa's new connections process as noted in **section 3.2** ensures that a Retailer has taken responsibility for ICPs before the status is changed from the "new" status to the "ready" status. All ICPs with the "ready" status have an expected retailer populated.

Waipa's magiQ system will only allow one price category; therefore, the requirement to ensure that an ICP has a single price category will always be met. This was confirmed by checking the list file. The application form requires the Price Category to be specified.

The audit compliance report identified one ICP at "new" and no ICPs at the "ready" status for more than 24 months. This is discussed further in **section 3.14**.

Audit outcome

Compliant

4.10. Management of "distributor" status (Clause 16 Schedule 11.1)

Code reference

Clause 16 Schedule 11.1

Code related audit information

The ICP status of "distributor" must be managed by the distributor and indicates that the ICP record represents a shared unmetered load installation or the point of connection between an embedded network and its parent network.

Audit observation

The management of ICPs in relation to the use of the "distributor" status was examined. The list file and event detail report for the period from for 1 August 2019 to 31 May 2020 were examined in relation to the use of the "distributor" status.

Audit commentary

Waipa's list file shows four ICPs with an ICP status of "Distributor", and these are points of connection between embedded networks and the Waipa network.

Waipa does not have any shared unmetered load ICPs and has no intention of allowing new shared unmetered load ICPs.

Audit outcome

Compliant

4.11. Management of "decommissioned" status (Clause 20 Schedule 11.1)

Code reference

Clause 20 Schedule 11.1

Code related audit information

The ICP status of "decommissioned" must be managed by the distributor and indicates that the ICP is permanently removed from future switching and reconciliation processes (Clause 20(1) of Schedule 11.1).

Decommissioning only occurs when:

- *electrical installations associated with the ICP are physically removed (Clause 20(2)(a) of Schedule 11.1); or*
- *there is a change in the allocation of electrical loads between ICPs with the effect of making the ICP obsolete (Clause 20(2)(b) of Schedule 11.1); or*
- *in the case of a distributor-only ICP for an embedded network, the embedded network no longer exists (Clause 20(2)(c) of Schedule 11.1).*

Audit observation

The management of ICPs in relation to the use of the "decommissioned" status was examined. The list file and event detail report for the period from for 1 August 2019 to 31 May 2020 were examined in relation to the use of the "decommissioned" status.

Audit commentary

Requests for decommissioning are received from the property owner and sometimes directly from traders. A site verification process is followed to ensure that electrical installations associated with ICPs are physically removed before the "decommissioned" status is used.

Review of the registry list showed there were 42 ICPs at "ready for decommissioning" status. Waipa has a manual process for checking when the trader has updated the registry to "ready for decommissioning". This process can be assisted by checking the list file or event detail report for the "1,6" status, without needing to check each ICP separately.

Recommendation	Description	Audited party comment	Remedial action
Regarding clause 20 Schedule 11.1	Monitor the event detail report or list file to identify changes to "ready for decommissioning" by traders.	We had started this process previously but it had fallen away. We have now reintroduced it as part of our compliance processes.	Identified

A typical case methodology sample of ten ICPS were examined and found that nine are now decommissioned and one is being investigated.

The timeliness of updates to the registry is discussed in **section 4.1**.

Audit outcome

Compliant

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

Code reference

Clause 23 Schedule 11.1

Code related audit information

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

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

A price category code takes effect on the specified date.

Audit observation

The price category code table on the registry was examined.

Audit commentary

Waipa keeps the price category table up to date and there have been no new price category codes created 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

No new loss category codes were created during the audit period.

Audit outcome

Compliant

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

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

If the distributor wishes to replace an existing loss factor on the table on 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

Waipa does not have any loss category codes with more than one loss factor. The loss factor for the LAKE Distributor code was updated during the audit period:

Distributor	Loss Code	Loss Factor	Start date	Updated
LAKE	LL	1.0279	1/04/2021	12/02/2021 9:10:00 AM

This was not notified more than two months in advance of coming into effect. This is recorded as non-compliance below.

The loss factor review process is discussed in **section 8.1**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 5.1 With: Clause 21 of schedule 11.1 From: 01-Feb-21 To: 12-Feb-21	One changed loss factor not notified two months in advance of coming into effect. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong as processes are well mapped. The audit risk rating is low as the number of ICPs affected was small.

Actions taken to resolve the issue	Completion date	Remedial action status
This was a one-off incident.	Completed.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
The LAKE network is being disestablished as of 31/08/21.	31 August 2021	

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

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

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

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

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

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

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

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

Audit observation

The NSP table on the registry was examined.

Audit commentary

Two new NSPs were created during the previous audit period:

NSP	Network Type	Start date
LAK0111	E	20/09/2019
TPH0111	I	2/11/2019

No additional NSPs have been created or changed.

Audit outcome

Compliant

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

Code reference

Clause 26(1) and (2) Schedule 11.1

Code related audit information

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

The request must be made at least 10 business days before the NSP is electrically connected, in respect of an NSP that is an interconnection point between two local networks. In all other cases, the request must be made at least 1 month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table on the registry was examined.

Audit commentary

Two new NSPs were created during the previous audit period:

NSP	Network Type	Start date
LAK0111	E	20/09/2019
TPH0111	I	2/11/2019

Written notice was provided to all parties as required by this clause.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

If a participant has notified the creation of an NSP on the distributor's network, the distributor must give written notice to the reconciliation manager of the following:

- *if the NSP is to be located in a new balancing area, all relevant details necessary for the new balancing area to be created and notification that the NSP to be created is to be assigned to the new balancing area,*
- *in all other cases, notification of the balancing area in which the NSP is located.*

Audit observation

The NSP table on the registry was examined.

Audit commentary

Two new NSPs were created during the previous audit period, and correct balancing area information was provided in accordance with this clause.

NSP	Start date	Balancing area
LAK0111	20/09/2019	LAK0111LAKEE
TPH0111	2/11/2019	TMU0111WAIPG

Audit outcome

Compliant

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

Code reference

Clause 26(4) Schedule 11.1

Code related audit information

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

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

Audit observation

The NSP table was examined.

Audit commentary

Waipa added a new embedded solar power based network within their network during the previous audit period.

NSP	Network Type	Start date
LAK0111	E	20/09/2019

Waipa supplied the correct information to the reconciliation manager as required by this clause.

Audit outcome

Compliant

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

Code reference

Clause 24(2) and (3) Schedule 11.1

Code related audit information

The distributor must give written notice to the reconciliation manager of any change to balancing areas associated with an NSP supplying the distributor's network. The notification must specify the date and trading period from which the change takes effect and be given no later than three business days after the change takes effect.

Audit observation

The NSP table 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 one calendar 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 Authority in the prescribed form, no later than three business days before the transfer takes effect.

Audit observation

The NSP table was reviewed.

Audit commentary

Waipa 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 supply point table was examined.

Audit commentary

Waipa added a new embedded solar power based network within their network during the previous audit period.

Distributor	NSP POC	Description	MEP	Certification Expiry
LAKE	LAK0111	36 Lake Street Cambridge	FCLM	20/09/2029

The NSP has a certified metering installation as required by this clause.

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 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

The NSP supply point table was reviewed.

Audit commentary

Waipa added a new embedded solar power based network within their network during the previous audit period.

Distributor	NSP POC	Description	MEP	Certification Expiry
LAKE	LAK0111	36 Lake Street Cambridge	FCLM	20/09/2029

The NSP has a certified metering installation as required by this clause. The information was provided within the required timeframe.

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 notify:

- *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 supply point table was reviewed.

Audit commentary

Waipa have not initiated any changes of network owner.

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 supply point table was examined.

Audit commentary

Waipa own one embedded network and there have been no changes of MEP for embedded gate meter.

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 supply point table was reviewed.

Audit commentary

Waipa 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 supply point table was reviewed.

Audit commentary

Waipa 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

The list file was examined, and the streetlight audits of the network were assessed.

Audit commentary

Waipa does not intend to allow any new shared unmetered load connections. Review of a registry list confirmed there is no shared unmetered load connected to any Waipa ICPs.

Audit outcome

Compliant

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

Code reference

Clause 11.14(5)

Code related audit information

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

Audit observation

The list file was examined, and the streetlight audits of the network were assessed.

Audit commentary

As detailed in **section 7.1** above, Waipa have no shared unmetered load connections on their network.

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

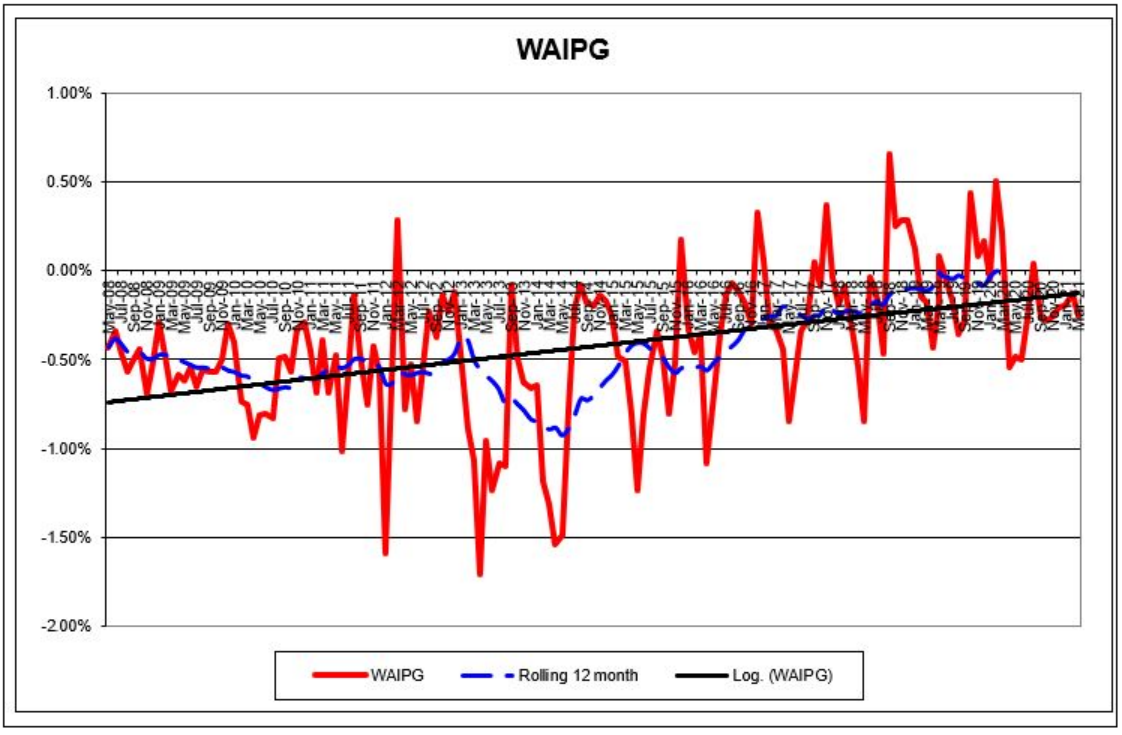
The "Guidelines on the calculation and the use of loss factors for reconciliation purposes" was published on 26 June 2018. I have assessed Waipa's process and compliance against the guidelines recommended thresholds. I assessed the loss factor accuracy looking for any rolling UFE that was greater than +/- 1% (as indicated in the guideline).

Audit commentary

Changes to loss factors are detailed in **section 5** of this report.

Waipa's management of loss factors has not changed during the audit period. Waipa reviews loss factors annually and provided information on their methodology to calculate loss factors, and their latest loss factor review calculations.

I was provided by the Electricity Authority the reconciliation losses (UFE) which indicate they are tracking within the +/- 1% threshold:



Waipa's process will ensure that any future loss factor adjustments are made in a timely fashion.

During the previous audit, a new loss category code of "LL" with a loss factor of "1" was created with a start date of 1 September 2019 and had been applied to all 65 ICPs on the LAKE embedded network. The loss category code applied to the LE ICP for the LAKE network is "HV" which has a loss factor of "1.04". The loss category code applied to other typical low voltage ICPs on the Waipa network is "LV", with a loss factor of "1.069". It was expected that ICPs on the LAKE network would have similar losses to other low voltage ICPs on the Waipa network. Non-compliance was recorded and Waipa has since updated the loss factor to account for losses within the embedded network.

Audit outcome

Compliant

CONCLUSION

This audit found ten non-compliances and makes two recommendations. This is an improvement on the 13 identified in the last audit. The audit compliance report is now being used to identify and resolve discrepancies; however further improvements can be made to the overall registry management processes. Two recommendations are made in relation to discrepancy management.

The loss factor issue for the embedded network has now been resolved.

The next audit frequency table indicates that the next audit be due in six months. I have considered this result in conjunction with Waipa's responses, and I recommend an audit period of 12months to reflect improvements during the audit period and to allow sufficient time to resolve the matters raised.

PARTICIPANT RESPONSE