

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**



For

WAIPA NETWORKS LIMITED

Prepared by: Rebecca Elliot

Date audit commenced: 20 June 2019

Date audit report completed: 3 August 2018

Audit report due date: 08-Aug-19

TABLE OF CONTENTS

Executive summary	4
Audit summary	5
Non-compliances	5
Recommendations	6
Issues 6	
1. Administrative	7
1.1. Exemptions from Obligations to Comply with Code (Section 11)	7
1.2. Structure of Organisation	8
1.3. Persons involved in this audit.....	9
1.4. Use of contractors (Clause 11.2A)	9
1.5. Supplier list.....	9
1.6. Hardware and Software	10
1.7. Breaches or Breach Allegations.....	10
1.8. ICP and NSP Data	10
1.9. Authorisation Received	11
1.10. Scope of Audit	11
1.11. Summary of previous audit	12
Table of Non-Compliance.....	12
Recommendations	13
2. Operational Infrastructure	14
2.1. Requirement to provide complete and accurate information (Clause 11.2(1) and 10.6(1))	14
2.2. Requirement to correct errors (Clause 11.2(2) and 10.6(2))	17
3. Creation of ICPs.....	18
3.1. Distributors must create ICPs (Clause 11.4)	18
3.2. Participants may request distributors to create ICPs (Clause 11.5(3))	18
3.3. Provision of ICP Information to the registry manager (Clause 11.7)	19
3.4. Timeliness of Provision of ICP Information to the registry manager (Clause 7(2) of Schedule 11.1)	19
3.5. Timeliness of Provision of Initial Electrical Connection Date (Clause 7(2A) of Schedule 11.1)	20
3.6. Connection of an ICP that is not an NSP (Clause 11.17).....	22
3.7. Connection of ICP that is not an NSP (Clause 10.31).....	22
3.8. Temporary electrical connection of ICP that is not an NSP (Clause 10.31A)	23
3.9. Connection of NSP that is not point of connection to grid (Clause 10.30)	24
3.10. Temporary electrical connection of NSP that is not point of connection to grid (Clause 10.30(A))	24
3.11. Definition of ICP identifier (Clause 1(1) Schedule 11.1)	25
3.12. Loss category (Clause 6 Schedule 11.1).....	25
3.13. Management of “new” status (Clause 13 Schedule 11.1).....	26
3.14. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1).....	27
3.15. Embedded generation loss category (Clause 7(6) Schedule 11.1)	27
4. Maintenance of registry information.....	29
4.1. Changes to registry information (Clause 8 Schedule 11.1)	29

4.2.	Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)	31
4.3.	Customer queries about ICP (Clause 11.31)	32
4.4.	ICP location address (Clause 2 Schedule 11.1)	32
4.5.	Electrically disconnecting an ICP (Clause 3 Schedule 11.1)	33
4.6.	Distributors to Provide ICP Information to the Registry manager (Clause 7(1) Schedule 11.1)	34
4.7.	Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1)	40
4.8.	GPS coordinates (Clause 7(8) and (9) Schedule 11.1)	41
4.9.	Management of “ready” status (Clause 14 Schedule 11.1)	41
4.10.	Management of “distributor” status (Clause 16 Schedule 11.1)	42
4.11.	Management of “decommissioned” status (Clause 20 Schedule 11.1)	42
4.12.	Maintenance of price category codes (Clause 23 Schedule 11.1)	44
5.	Creation and maintenance of loss factors	46
5.1.	Updating table of loss category codes (Clause 21 Schedule 11.1)	46
5.2.	Updating loss factors (Clause 22 Schedule 11.1)	46
6.	Creation and maintenance of NSPs (including decommissioning of NSPs and transfer of ICPs)	47
6.1.	Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1)	47
6.2.	Provision of NSP information (Clause 26(1) and (2) Schedule 11.1)	47
6.3.	Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1)	48
6.4.	Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)	48
6.5.	Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1)	49
6.6.	Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1)	49
6.7.	Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2)	50
6.8.	Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1) and 10.25(3))	50
6.9.	Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2))	51
6.10.	Obligations concerning change in network owner (Clause 29 Schedule 11.1)	51
6.11.	Change of MEP for embedded network gate meter (Clause 10.22(1)(b))	52
6.12.	Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2)	52
6.13.	Transfer of ICPs for embedded network (Clause 6 Schedule 11.2)	53
7.	Maintenance of shared unmetered load	54
7.1.	Notification of shared unmetered load ICP list (Clause 11.14(2) and (4))	54
7.2.	Changes to shared unmetered load (Clause 11.14(5))	54
8.	Calculation of loss factors	55
8.1.	Creation of loss factors (Clause 11.2)	55
Conclusion	57
Participant response	58

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 9th, 2019.

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

Waipa has maintained a similar level of accuracy during the audit period. Four of the seven recommendations made in the last two audits are yet to be actioned. I have repeated these in this audit to maintain visibility. The monitoring of the initial electrical connection dates has been deployed but this is not identifying all the expected ICPs. I recommend that this is reviewed.

Two areas of opportunity are noted.

1. The management of distributed generation appears to be disjointed and I recommend that the process be reviewed, and a business owner be assigned to ensure that this process is managed effectively.
2. The decommissioning and initial electrical connection date updates are writing to the registry with the same event date instead of the actual event date. This indicates that changes made in magiQ are not being tested effectively to ensure that such changes comply with the code.

MagiQ is undergoing a three stage upgrade to a new operating system which is due to be completed by January 2020. No functionality is expected to be changed during this time. Waipa intend to review the registry interaction functionality once this is completed.

This audit found seven non-compliances and makes four recommendations. This is a reduction of two non-compliances as there were no backdated new connections during the audit period. The next audit frequency table indicates that the next audit be due in 12 months. I have considered this result in conjunction with the response from Waipa's responses and I agree with the recommendation.

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	Low	2	Identified
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Errors not corrected as soon as practicable.	Moderate	Low	2	Identified
Timeliness of initial electrical connection date	3.5	7(2A) of Schedule 11.1	19 initial electrical connection dates not updated within ten business days.	Moderate	Low	2	Identified
Timeliness of registry updates	4.1	8 of schedule 11.1	Some price, network, status, and address changes were backdated.	Moderate	Low	2	Identified
ICP location address	4.4	2 & 7 (1)(a) of schedule 11.1	76 ICPs with addresses that are not readily locatable.	Moderate	Low	2	Identified
Distributor to provide ICP information	4.6	7(1) of Schedule 11.1	Distributed generation details incorrect or missing. 13 ICPs with the initial electrical connection date missing. Two ICPs with an incorrect initial electrical connection date populated.	Moderate	Low	2	Identified
Management of "decommissioned" status	4.11	20 Schedule 11.1	ICPs updated via magiQ will be recorded with the incorrect event date unless they are updated on the same day as the decommissioning. All five examples checked were recorded for the incorrect event date.	Weak	Low	3	Identified
Future Risk Rating						15	
Indicative Next Audit Frequency						12 months	

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

RECOMMENDATIONS

Subject	Section	Recommendation	Next Action
Requirement to provide complete and accurate information	2.1	Review the process to manage distributed generation.	We acknowledge the DG process has issues. Shifting of the management of DG to a single business unit was planned following the previous audit however this did not occur.
		Add additional validations to ensure information is complete and accurate.	Additional resource was allocated to start this process however there was a change in personnel. The process is to be reintroduced in coming months.
Initial electrical connection date monitoring	4.6	Check discrepancy report to ensure all active ICPs are being captured.	We will do this
Management of "decommissioned" status	4.11	Review the reporting to manage ICPs to be decommissioned.	We will review this.

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

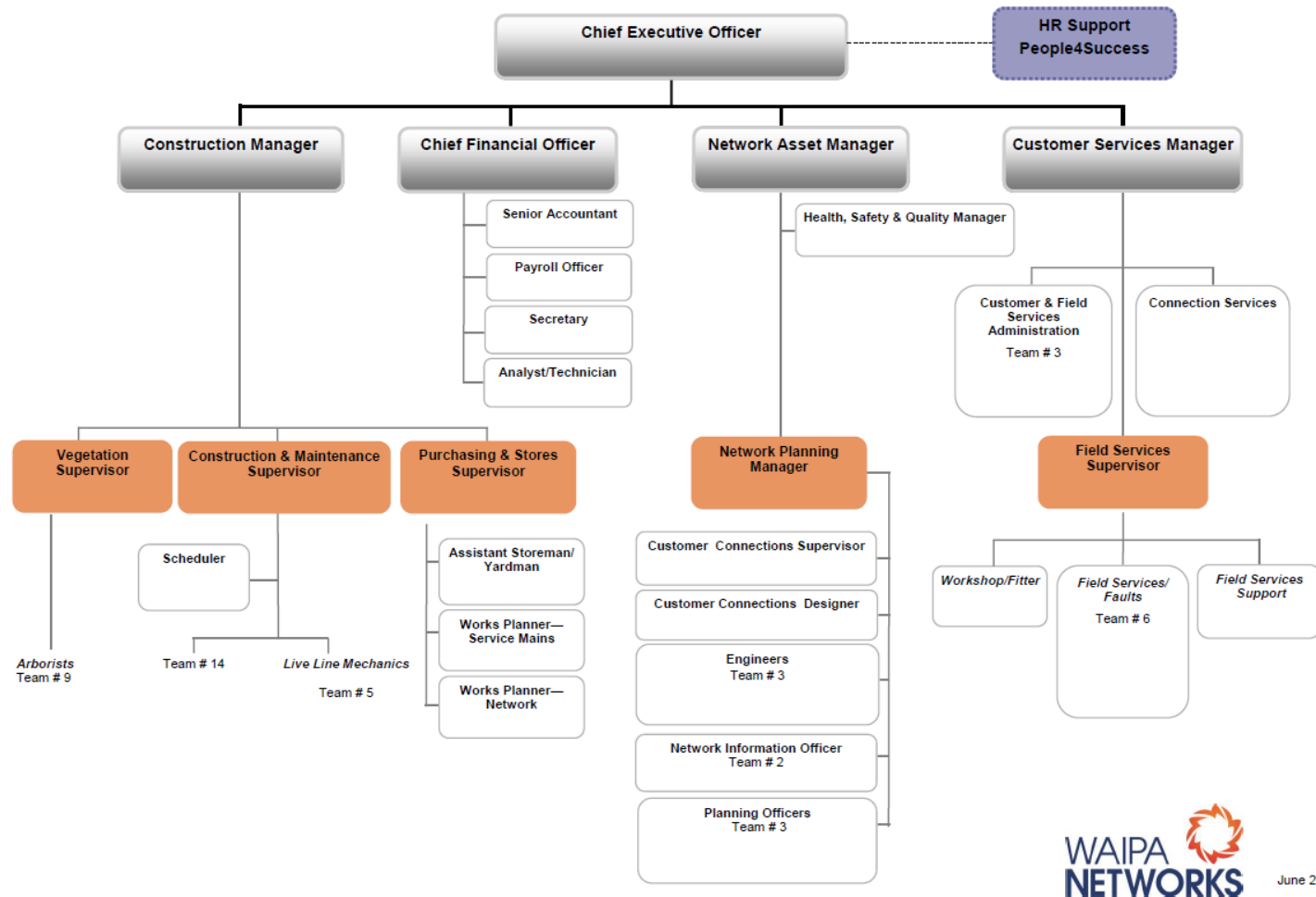
Waipa has no exemptions in place that are relevant to the scope of this audit.

Audit commentary

N/A

1.2. Structure of Organisation

Waipa provided a copy of their organisational structure:



1.3. Persons involved in this audit

Auditors:

Name	Company	Role
Rebecca Elliot	Veritek Limited	Auditor

Waipa personnel assisting in this audit were:

Name	Title
Clara Ruscoe	Customer Services Administrator
Kerry Watson	Customer Service Manager
Lucy Stanley	Customer Services Administrator
Paul Murray	Planning Officer

1.4. Use of contractors (Clause 11.2A)

Code reference

Clause 11.2A

Code related audit information

A participant who uses a contractor

- *remains responsible for the 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. Occasionally, Waipa may use contractors to assist with special projects, or where workload is heavy, but this occurs infrequently.

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 platform magiQ operates on has been updated during the audit period.

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. A tape backup is also performed every business day and couriered offsite to Auckland. These backups are restored periodically to check readability.

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

Waipa has responsibility for the Waipa local network only, consisting of the Cambridge and Te Awamutu points of connection, which are each in their own balancing areas.

The table below lists the relevant NSPs, and their associated balancing areas. There have been no changes 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	12,681
WAIP	TMU0111	Te Awamutu			TMU0111WAIPG	G	01/07/2016	14,242

There are two embedded networks connected to the Cambridge NSP. Waipa are in the process of setting up a new embedded solar power based network within their network. This will be examined in the next audit as it was not established at the time of this audit.

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

Waipa provided a list file of all ICPs as at 31 May 2019. A summary of this data by “ICP status” is as follows.

Status	Number of ICPs May 2019	Number of ICPs 2018	Number of ICPs 2017
New (999,0)	34	36	1
Ready (0,0)	7	15	17
Active (2,0)	26,923	26,471	25,492
Distributor (888,0)	5	5	1
Inactive – new connection in progress (1,12)	26	61	28
Inactive – electrically disconnected vacant property (1,4)	374	371	389
Inactive – electrically disconnected remotely by AMI meter (1,7)	32	31	18
Inactive – electrically disconnected at pole fuse (1,8)	5	5	4
Inactive – electrically disconnected due to meter disconnected (1,9)	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	24	4
Inactive – reconciled elsewhere (1,5)	-	-	-
Decommissioned (3)	2,671	2,594	2,507

1.9. Authorisation Received

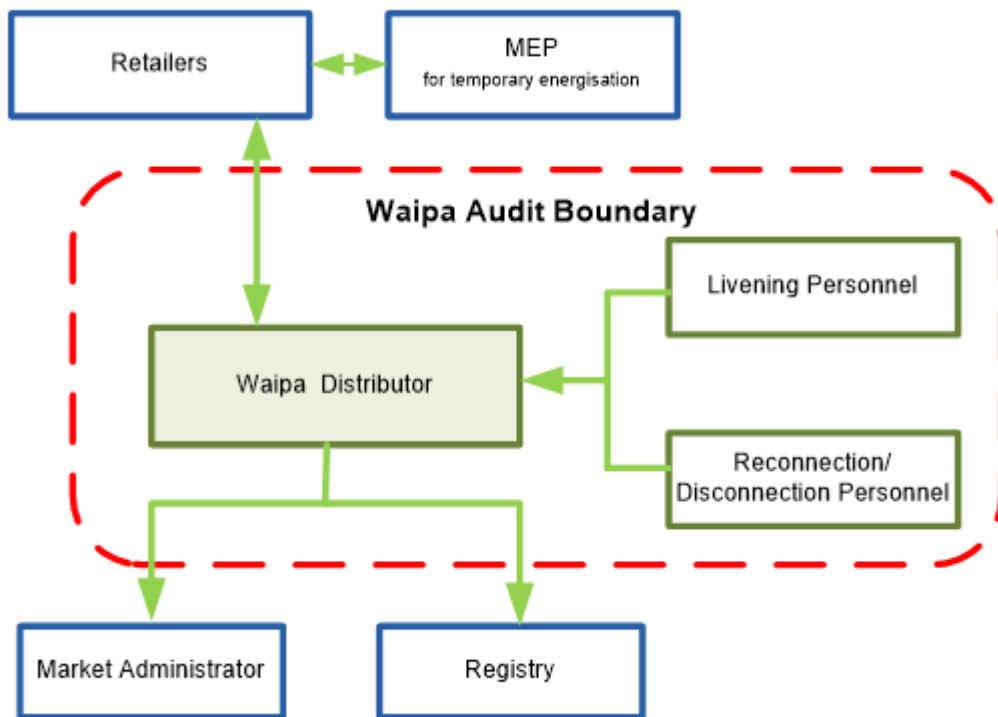
Waipa provided a letter of authorisation to Veritek, permitting the collection of data from other parties for matters directly related to the audit.

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 9th, 2019.

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

Waipa provided a copy of the previous audit report, conducted in July 2018 by Rebecca Elliot of Veritek Limited. The findings are detailed in the table below:

TABLE OF NON-COMPLIANCE

Subject	Section	Clause	Non-Compliance	Status
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	Registry information not complete and accurate in all instances.	Still existing
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Errors not corrected as soon as practicable.	Still existing
Timeliness of ICP information to the Registry Manager	3.4	7(2) of Schedule 11.1	16 ICPs not updated prior to electricity being traded.	Cleared
Timeliness of initial electrical connection date	3.5	7(2A) of Schedule 11.1	31 initial electrical connection dates not updated within ten business days.	Still existing
Connection of an ICP that is not an NSP	3.6	11.17	16 ICPs connected before a trader was recorded on the registry as accepting responsibility.	Cleared
Timeliness of registry updates	4.1	8 of schedule 11.1	Some updates to the registry were made more than three business days after the event date.	Still existing

Subject	Section	Clause	Non-Compliance	Status
ICP location address	4.4	2 & 7 (1)(a) of schedule 11.1	69 ICPs with addresses that are not readily locatable.	Still existing
Distributor to provide ICP information	4.6	7(1) of Schedule 11.1	<p>Distributed generation details incorrect or missing.</p> <p>4 ICPs with the initial electrical connection date missing.</p> <p>8 ICPs with an incorrect initial electrical connection date populated.</p> <p>5 ICPs with incorrect UML load recorded.</p>	<p>Still existing</p> <p>Still existing</p> <p>Still existing</p> <p>Cleared</p>
Management of “decommissioned” status	4.11	20 Schedule 11.1	Eight ICPs decommissioned but not updated on the registry.	Still existing for a different issue

RECOMMENDATIONS

Subject	Section	Recommendation	Status
Requirement to provide complete and accurate information	2.1	Compare the trader profiles used and the PR255 registry report to identify potential distributed generation in the fortnightly check.	Still existing - recommendation has been expanded to review the distributed generation process.
		Add additional validations to ensure information is complete and accurate.	Still existing
Timeliness of ICP information to the Registry Manager	3.4	Review registry file processing time to be on the same day as the processing occurs in MagiQ.	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 at 31 May 2019 was 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. The issue identified in the last audit of files being sent to the registry at 1-15am causing these to breach the three-day update rule was rectified after the last audit. There are two exceptions to this; unmetered load and loss factors other than LV are processed manually. Notification files are reviewed, and an email alert is sent if any data has failed to update.

Waipa have changed the decommissioning of ICPs during the audit period. These updates now flow to the registry however, the operator cannot enter an event date, so the change is applied for the same date as it is updated in magiQ. The sample of five decommissioned ICPs found all had the incorrect event date recorded. This is recorded as non-compliance below.

Waipa have processes in place to check that the data they hold matches the registry. These are largely unchanged during the audit period. Fortnightly, magiQ and registry data is compared, and any discrepancies are investigated and resolved. The review focusses on the following fields:

- conflicting retailer;
- conflicting tariff;
- conflicting status - I note in **sections 4.1** and **4.11** that this check is not functioning as expected in relation to ICPs at the "inactive-ready for decommissioning" status;
- number of records; and
- population of the initial electrical connection date (added post the last audit).

Other network maintained fields, including address details, NSP details, unmetered details, generation details and loss factor are not checked as part of the fortnightly review. The loss factors are not stored in magiQ.

New unmetered load occurs rarely and there have been no new unmetered load connections during the audit period. Approximately annually a report is run showing all ICPs created in the last 12 months which

have a price code indicating unmetered load. The unmetered load details are checked back to the new connection form.

In this audit I found 50 ICPs where the trader's profile and metering indicate that these ICPs have distributed generation installed but none is recorded by Waipa. Waipa has had an organisation restructure during the audit period and it appears that the check against the EIEP file is no longer being carried out quarterly, and the recommendation made in the last audit that Waipa to compare the profile being used by the traders and the meter channel information from the PR255 registry report has not been actioned. I recommend that the management of distributed generation is reviewed. This process is discussed further in **section 4.6**.

Description	Recommendation	Audited party comment	Remedial action
Provide complete and accurate information	Review the process to manage distributed generation.	We acknowledge the DG process has issues. Shifting of the management of DG to a single business unit was planned following the previous audit however this did not occur.	Investigating

In the last two audits the following additional checks were recommended to be added to the registry discrepancy process. The check for the population of the initial electrical connection date has been added, but the list below has yet to be put in place:

- NSP match;
- UNM flag = Y on the registry with no distributor unmetered details;
- unmetered tariff in magiQ with no distributor unmetered details populated on the registry;
- review address details on the registry quarterly;
- investigate any ICPs with duplicate addresses; and
- investigate any ICPs missing address components (e.g. where unit, number and property name are all blank, or where street number and name are blank) to ensure that address information is sufficient to correctly identify the location.

I repeat the recommendation below:

Description	Recommendation	Audited party comment	Remedial action
Provide complete and accurate information	Add additional validations to ensure information is complete and accurate.	Additional resource was allocated to start this process however there was a change in personnel. The process is to be reintroduced in coming months.	Identified

As detailed in **sections 3.5, 4.1 and 4.11**, analysis of the updating of the registry found that the incorrect event date is being applied in some instances. This is due either to human error when updating information directly in the registry or when magiQ updates an event to the registry e.g. magiQ applies the same effective event date as the date updated in magiQ. This is recorded as non-compliance below.

There were 13 examples identified in **section 3.5** where the initial electrical connection date being populated in magiQ but this has not written to the registry. Waipa are investigating this.

I found that not all errors and omissions are being identified and corrected therefore not all practicable steps have been taken to provide complete and accurate information. This is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clauses 11.2(1) and 10.6(1) From: 01-Jul-18 To: 31-May-19	Registry information not complete and accurate in all instances. 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 discrepancies found have no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have populated the missing DG & Initial Energisation information.		Completed	Identified Sample checked post audit found the registry has not been corrected.
Preventative actions taken to ensure no further issues will occur		Completion date	
The additional validations planned will ensure these are identified earlier.		October 2020	

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 at 31 May 2019 was examined to confirm compliance.

Audit commentary

Waipa have a suite of discrepancy reporting in place as described. Incorrect information is normally corrected as soon as possible upon discovery, but as described in **section 2.1**, not all errors are being identified and therefore they are not corrected as soon as practicable.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: Clauses 11.2(2) and 10.6(2) From: 01-Jul-18 To: 31-May-19	Errors not corrected as soon as practicable. 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 corrections not actioned have no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
The additional validations planned will ensure these are identified earlier.		October 2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The additional validations planned will ensure these are identified earlier.		October 2019	

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 20 new connection applications using the typical case methodology of the 516 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. 20 new connection applications of the 516 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 four different participants, across both NSPs 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.

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 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 live as required by clause 11.17 of part 11.

The sample of new connections checked were all requested by electricians, but I note that all were created within the required timeframe.

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 EDA file for the period 1/06/18 to 31/05/19 was evaluated. 516 ICPs were created during that period.

A diverse sample of 20 new connections were chosen covering four different participants and both NSPs 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. The sample checked confirmed all the 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

Compliant

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

Code reference

Clause 7(2) of Schedule 11.1

Code related audit information

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

Audit observation

The new connection process was examined. The event detail report for the period from 1/06/18 to 31/05/19 was examined.

Audit commentary

Waipa works 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 were updated to the “Ready” status prior to electrical connection. The issue identified in the last audit of the registry update time causing ICPs to be appear backdated has been resolved.

Audit outcome

Compliant

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

Code reference

Clause 7(2A) of Schedule 11.1

Code related audit information

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

Audit observation

The process for populating of the initial electrical connection date was examined. The event detail report and the registry list for 1/06/18 to 31/05/19 were examined to determine the timeliness. The accuracy of the initial electrical connection dates is discussed in **section 4.6**.

All ICPs where an initial electrical connection date was populated but the trader did not record “active” status were identified and checked.

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. A report from the registry is run fortnightly to identify any ICPs with missing initial electrical connection dates and these are then expected to be updated. This audit found 13 ICPs where the initial electrical connection date had not been populated. The date is populated in magiQ but the file hasn’t reached the registry. Waipa are investigating this. The ICPs with a missing initial electrical connection date are recorded as non-compliance in **section 4.6**.

Examination of the event detail report identified 601 initial electrical connection update events. 582 (97%) were updated within ten business days of electrical connection. 19 (3%) ICPs were updated late. A sample of ten ICPs updated later than ten business days were examined using the extreme case methodology. The accuracy of initial electrical connection date is discussed further in **section 4.6**.

The sample checked found:

- four ICPs were missed due to human error;
- three ICPs were late due to Waipa not being the metering agent and therefore they were notified late; and
- three ICPs were new connections on the Lakeland estate, this is a solar powered estate and was expected to be set up as an embedded network owned by Waipa but within the Waipa network. This is a unique situation and Waipa have been working with the Electricity Authority to determine how this should be set up. A way forward has been determined but these installations needed to be lived in and therefore they were created on the Waipa network. They are expected to be transferred to the embedded network once this is established. Waipa were advised late by the living agents of these connections therefore they were updated late.

In the last audit I noted that 47.3% had an effective event date different to that of the initial electrical connection date. In this audit I found 208 (32%) of the updates with a date mismatch. The event date or effective date should be the same date as the initial electrical connection date. This is recorded as non-compliance in **section 2.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of schedule 11.1 From: 10-Jul-17 To: 30-Jun-18	19 initial electrical connection dates not updated within ten business days. 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 this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
The magiQ system is currently part way through a 3-stage migration to a new operating system. Stage 3 is due to be completed by January 2020. The focus is on ensuring existing systems migrate successfully. Once this has occurred we will be in a position to review the Registry interaction and automated processes. Incorrect or missing information identified during the Audit or validation process will be manually updated on the Registry.		March 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As above.		March 2020	

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 event detail report for the period from 1/06/18 to 31/05/19 was examined. The list file was examined to confirm that all ICPs at the status of “ready” have a trader nominated.

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.

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 a registry list confirmed there is no shared unmetered load connected to any Waipa ICP.

As discussed in **section 3.4**, the issue identified in the last audit causing ICPs to appear to have been backdated has been corrected.

Audit outcome

Compliant

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

Code reference

Clause 10.31

Code related audit information

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

Audit observation

The new connection process was examined in relation to ICPs that are not also NSPs on Waipa’s network. The event detail report for the period from 1/06/18 to 31/05/19 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 1/06/18 to 31/05/19 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. No temporarily connected ICPs were identified.

Audit outcome

Compliant

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

Code reference

Clause 10.30

Code related audit information

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

The distributor must, within 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

No new embedded NSPs have been created by Waipa during the audit period. Waipa are expecting to create a new embedded network within the Waipa network but this had not been completed at the time of this audit and will therefore be examined in the next audit.

Audit outcome

Compliant

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

Code reference

Clause 10.30(A)

Code related audit information

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

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

Audit observation

The NSP table was examined.

Audit commentary

No new embedded NSPs have been created by Waipa.

Audit outcome

Compliant

3.11. Definition of ICP identifier (Clause 1(1) Schedule 11.1)

Code reference

Clause 1(1) Schedule 11.1

Code related audit information

Each ICP created by the distributor in accordance with Clause 11.4 must have a unique identifier, called the “ICP identifier”, determined in accordance with the following format:

xxxxxxxxxxccc where:

- *xxxxxxxxxx is a numerical sequence provided by the distributor*
- *xx is a code that ensures the ICP is unique (assigned by the Authority to the issuing distributor)*
- *ccc is a checksum generated according to the algorithm provided by the market administrator.*

Audit observation

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

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, 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. The sample checked confirmed compliance.

Audit outcome

Compliant

3.12. Loss category (Clause 6 Schedule 11.1)

Code reference

Clause 6 Schedule 11.1

Code related audit information

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

Audit observation

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

Audit commentary

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

The registry list was examined and all ICPs have a single loss category code, except new and decommissioned ICPs which have a blank loss category. 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 20 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 live as required by clause 11.17 of part 11.

Examination of the list file and event detail report confirmed the status is used compliantly. 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 at 31 May 2019 was examined to identify any ICPs which have been at “New” or “Ready” status for more than 24 months.

Audit commentary

Reporting is in place to identify and investigate ICPs which have been at the “New” or “Ready” status for more than 24 months. None were identified.

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

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 event detail report for the audit period from 1/06/18 to 31/05/19 was examined. I used the extreme case methodology examining a sample of ten late updates, or less if there were fewer, for any change where the initial analysis could not determine the cause.

NSP changes were examined.

Audit commentary

The event detail report was analysed, and found:

Address events

There were 599 address events during the audit period; 591 (99%) were updated within three business days. Eight ICPs were updated later than three days of the event. All were checked and found to be corrections where the event date was not updated to the current date of update and therefore, they appear to be backdated. This has no material impact.

Network Events

There were 405 network events during the audit period. This excludes the population of the initial electrical connection date (where it was possible to identify these). This is discussed in **section 3.5. 213** (53%) of these were updated within three business days. The 192 backdated ICPs were examined and found:

- 140 of these relate to the updating of distributed generation details. The sample of ten ICPs checked found these were all corrections that were correctly backdated to the date distributed generation was installed. The accuracy of these updates is discussed in **section 4.6**.
- 17 of these were updated for a variety of reasons. The extreme sample checked found these all related to corrections of network related details. Specifically:
 - six related to corrections or population of missing initial electrical connection dates found via discrepancy reporting; and

- three were corrections to the NSP, these are discussed below.
- Four of these related to the updating of unmetered load details. These were corrections made post the last audit.

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.

Examination of the list file with history identified one NSP change. This was on the boundary between the NSPs and when the transformer was identified it became obvious which NSP the ICP was connected to. The correction was made prior to ICP commencing trading and was therefore compliant.

Examination of the event detail report for the audit period identified three backdated NSP changes. These were examined and found they had been incorrectly assigned and these were backdated to correct. The accuracy of the NSP assignment is examined in **section 4.2**.

Pricing Events

There were 395 pricing events (excluding those related to the creation of ICPs) during the audit period; 191 (48%) were updated within three business days. The remaining 204 ICPs were updated late. This is a similar result to that reported last year. The sample checked found all related to the installation of distributed generation. The price category was updated at the same time as the distributed generation details were added. 56 of the 204 late events occurred on 9/08/2018 which aligns with the distributed generation details being updated. Waipa continue to backdate pricing events, but only if it is found that the customer has been billed incorrectly. This meets the requirement to provide correct and accurate information but does cause a technical non-compliance for the late updating of the registry in these instances.

Decommissioning Status Events-

The code changed on 1 November 2018 for the decommissioning of ICPs for networks. The network is required to update the ICP to decommissioned within three days of the event, or the date that the trader changes the status to "Inactive - ready to decommission", whichever is later. I assessed the decommissioned ICPs dependant on which rule was in effect at the time of decommissioning. There were 80 ICPs decommissioned during the audit period; 52 (75%) were updated within three business days. The sample of late updates to the registry checked found:

- Nine were due to the reporting in place not functioning as expected. Waipa are investigating this to resolve the reporting issue.
- The event date was corrected for ICP 0001065353WAE80.

As discussed in **section 4.11**, Waipa have changed this process so that status update flows from magiQ directly to the registry. The operator cannot enter an event date, so the status change is applied for the same date as it is updated in magiQ. The sample of five decommissioned ICPs found all had the incorrect event date recorded. This is recorded as non-compliance in **section 4.11**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: Clause 8 Schedule 11.1 From: 01-Apr-99 To: 31-May-19	Some price, network, status, and address changes were backdated. 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
We have corrected the 5 Decommission dates.		Completed	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	4 of 5 corrections completed
We will introduce a process into magiQ so the decommission date can be input. This will occur once our OS migration is complete.		March 2020	

4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)

Code reference

Clauses 7(1), 7(4) and 7(5) Schedule 11.1

Code related audit information

Under Clause 7(1)(b) of Schedule 11.1, the distributor must provide to the registry manager the NSP identifier of the NSP to which the ICP is usually connected.

If the distributor cannot identify the NSP that an ICP is connected to, the distributor must nominate the NSP that the distributor thinks is most likely to be connected to the ICP, taking into account the flow of electricity within its network, and the ICP is deemed to be connected to the nominated NSP.

Audit observation

The new connection process was examined and is described in detail in **section 3**. I ran a concatenate query across the list file supplied. I checked for any roads that have less than three ICPs and less than 10% allocated to an NSP.

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.

All ICPs were confirmed to be mapped correctly in the last audit. As noted in **section 4.1**, the NSPs for four ICPs were corrected during the audit period. This is an unusual occurrence. All were corrected upon discovery back to the correct event date. My analysis did not identify any incorrectly mapped. The backdated NSP changes are recorded as non-compliance in **section 4.1**.

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 list file was analysed. The list file was checked to confirm ICP location addresses are readily locatable.

Audit commentary

When creating new ICPs, staff check manually to determine if the address is a duplicate. Waipa's list file was examined and found 33 ICPs with duplicate addresses. Four of these have been created during the audit period. A sample of ten of these using the typical case methodology were examined and found that two of these were caused when a new subdivision was created but the street names were not assigned in the first instance. The ICP is created using the lot number and the nearest street as the address and these are updated once the street names have been confirmed. In these instances, the street number had been updated but not the street name causing these to become duplicate addresses.

43 ICPs do not have a street number, and do not have information in the property name field that would enable the ICP to be readily located. This is a reduction from the 59 ICPs identified in the last audit.

I repeat the last audit's recommendation to develop reporting to identify ICPs with duplicate addresses and ICPs with addresses that do not allow the ICP to be readily locatable in **section 2.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: Clause 2 Schedule 11.1 From: 01-Apr-99 To: 31-May-19	76 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 have updated the ICPs created during the audit period. Historic address details are not being reviewed at this stage.		Completed	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Additional resource was allocated to start a process of regularly reviewing addresses however there was a change in personnel. The process is to be reintroduced in coming months. The rollout of AMI in our area will help provide more accurate location details to Retailers and over time this information used to improve location details in the Registry database.		Ongoing	

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 13 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 20 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 new connection and updating of ICP information processes for populating all required registry fields was examined. The list file and the event detail report were examined to check for the population of all required information and its alignment with the trader where appropriate e.g. Distributed generation, unmetered load if known. All unmetered load variances (where this was possible to calculate) and the accuracy of the initial electrical connection dates were checked. A sample of ten ICPs with distributed generation indicated by the trader or MEP were checked due to the volume of variance identified. The loss category field automatically defaults to the 400V value, which applies for almost all customers. For larger customers, Waipa updates the code on the registry manually.

Audit commentary

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

Chargeable Capacity

74 ICPs have chargeable capacity recorded. A sample of ten of these were examined. 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

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

Year	ICPs with distributed generation
2016	125
2017	218
2018	326
2019	508

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.

Examination of the list file found 50 ICPs where the trader's profile and metering indicate that distributed generation is present, but Waipa has none recorded. A sample of 20 of these were examined and found:

- 11 ICPs where Waipa are aware that the installation has been completed but are awaiting installation paperwork to be returned before the registry is updated;
- seven ICPs where the distributed generation details have been updated in magiQ, but the registry team who update the registry cannot view these details; and
- two ICPs where there has been no confirmation that the distributed generation has been installed.

I also found 83 solar installations that have been changed to installation type "B", the fuel type is populated but the generation capacity is incorrectly recorded as zero. The incorrect or missing distributor generation details are recorded as non-compliance.

Waipa has had an organisation restructure during the audit period and I recommend in **section 2.1**, that this process is reviewed as it would benefit from having a central point of ownership in the organisation.

I checked the distributed generation information populated on the registry against the paperwork provided for a sample of ten ICPs and found:

ICP	Registry effective electrically connected date	High risk register certification date	Registry kW capacity	Installation paperwork kW capacity	Comments
0000104964WAF95	4/07/2017	4/07/2017	0	5	This is an example of the 83 solar installations with zero capacity recorded on the registry.
0000105385WA2C0	17/07/2018	17/07/2018	0	3	This is an example of the 83 solar installations with zero capacity recorded on the registry.
0000100134WA110	2/08/2018	2/08/2018	1.5	6.5	Additional generation capacity has been added but only the additional value is recorded on the registry.
0000111287WA520	24/10/2018	24/10/2018	3.5	3.5	
0000112735WA0F2	18/12/2013	1/10/2014	4.6	4.6	
0000112736WAC32	1/01/2000-1/05/2006	N/A	4.6	N/A	This site was investigated and confirmed to never have had distributed generation installed. The solar has been removed from the registry but not for the entire period.
0000121609WAEDC	13/09/2018	13/09/2018	3.2	3.2	
0000123020WA89E	18/09/2018	24/09/2018	4.4	4.4	Incorrect effective date recorded when compared to the certification date recorded on the high risk register
0000124831WAA1B	7/12/2018	12/12/2018	2.7	2.7	Incorrect effective date recorded when compared to the certification date recorded on the high risk register
0000134938WA5AF	22/03/2019	21/03/2019	3	3	Incorrect effective date recorded when compared to the certification date

ICP	Registry effective electrically connected date	High risk register certification date	Registry kW capacity	Installation paperwork kW capacity	Comments
					recorded on the high risk register

Seven ICPs were found to have variances. This is recorded as non-compliance.

Initial Electrical Connection Date

The list file and event detail report found 511 new ICPs made active during the audit period

498 (98%) had an initial electrical connection date that matched the trader. 13 ICPs had an initial electrical connection date which did not match the earliest active date. All these ICPs were investigated to determine the correct date.

ICP	Earliest retailer active date	Meter Certification date	Initial Electrical Connection date	Comments
0000715110WA3E9	8/04/2019	4/04/2019	4/04/2019	The Retailer's active date is incorrect.
0000779051WADD5	20/12/2018	20/12/2018	19/12/2018	The Retailer's active date is incorrect.
0001249031WA863	13/02/2019	14/02/2019	14/02/2019	The Retailer's active date is incorrect.
0005302020WAC79	17/05/2019	15/05/2019	15/05/2019	The Retailer's active date is incorrect.
0007151023WA487	19/10/2018	19/10/2018	29/10/2018	Waipa date incorrect due to human error.
0007265134WA1FC	16/05/2019	15/05/2019	15/05/2019	The Retailer's active date is incorrect.
0007265139WAEA7	16/05/2019	15/05/2019	15/05/2019	The Retailer's active date is incorrect.
0007285911WAC96	10/10/2018	10/10/2018	11/10/2018	Fuses were not fitted until 11/10/2018. The meter could not have been certified. Retailer's active date and meter certification date are incorrect.
0007331014WA435	20/11/2018	20/11/2018	21/11/2018	Field tracking of inspectors confirms Waipa's date is correct
0007561001WA1C4	17/12/2018	17/12/2018	12/12/2018	An LMGL meter was certified and livened on 12/12/2018 but was then replaced for an NGCM meter on 17/12/2018. Retailer's first active date is incorrect.
0007561003WA141	14/05/2019	9/05/2019	9/05/2019	The Retailer's active date is incorrect.

ICP	Earliest retailer active date	Meter Certification date	Initial Electrical Connection date	Comments
0007735101WA5EC	21/11/2018	21/11/2018	15/11/2018	This is a CT metered site. Waipa has no visibility in this instance of when the site is electrically connected and so have recorded the date of connection.
9501100022WA1C5	3/07/2018	3/07/2018	2/07/2018	Waipa date incorrect due to human error.

Waipa's date was confirmed to be correct for ten ICPs. Three ICPs were found to have been updated with the incorrect date. This is recorded as non-compliance below.

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

The list file was checked for the population of the initial electrical connection dates since Part 10 came into effect and found:

- 268 ICPs electrically connected prior to Part 10 coming into effect in August 2013. A sample of ten of these were checked and found that the initial electrical connection date populates when distributed generation is added.
- 13 ICPs with no date recorded. These were checked and found that these were not identified in all instances on the discrepancy report. I recommend at the report is checked to ensure all ICPs are identified.

Description	Recommendation	Audited party comment	Remedial action
Initial electrical connection date monitoring	Check discrepancy report to ensure all active ICPs are being captured.	We will do this	Identified

The incorrect population of initial electrical connection and missing initial electrical connection dates 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 list 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.

There are 46 active ICPs with UML flag set to Y, and no distributor unmetered details populated. A sample of ten of these ICPs were checked to determine if Waipa know of this unmetered load. These are all historic and Waipa do not know the load details therefore compliance has been met.

I reviewed the 85 active ICPs which Waipa has populated distributor unmetered load details. In 62 cases, the distributor unmetered load details were in the expected format and I compared the daily kWh with the Retailer's figure and found that these matched to within 0.1kWh for all ICPs.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: Clause 7(1) Schedule 11.1 From: 10-Jul-17 To: 30-Jun-18	Chargeable capacity incorrectly recorded on the registry when it is being derived from the retailer billing files Distributed generation details incorrect or missing 13 ICPs with the initial electrical connection date missing. Three ICPs with an incorrect initial electrical connection date populated. 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
Missing or incorrect IED’s identified during the audit have now been corrected.		Completed	Identified Sample checked post audit found the registry has not been corrected.
Preventative actions taken to ensure no further issues will occur		Completion date	
This will improve with the additional validations planned.		October 2019	

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 list and event detail files were examined to identify any new connections that have either no price category code assigned or changes to price category codes greater than ten days from the first active date.

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 backdated price category changes were checked in **section 4.1** and relate to corrections.

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

The management of ICPs in relation to the use of the "Ready" status was examined. The list file and event detail report for 1/06/18 to 31/05/19 were examined in relation to the use of the "Ready" status.

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, no ICPs are created without a Price Category.

ICPs at "ready" status for more than 24 months are discussed in **section 3.13**. These ICPs are monitored by Waipa and followed up with the retailer.

The timeliness of updates to "ready" is discussed in **section 3.4**.

The records of 20 recently created ICPs were examined and compliance is confirmed.

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 1/06/18 to 31/05/19 were examined in relation to the use of the "distributor" status.

Audit commentary

Waipa's list file shows five ICPs with an ICP status of "Distributor", and these are points of connection between the two 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 1/06/18 to 31/05/19 were examined in relation to the use of the “decommissioned” status. A sample using the typical sample methodology was selected of five decommissioned ICPs. These were checked to confirm that the process was followed. A sample of ten of the ICPs pending decommissioning using the extreme sample methodology were checked.

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. This is the second year that the number of ICPs at this status has increased. The reporting was reinstated but doesn’t appear to be picking up all ICPs at this status, hence the volume is increasing. I recommend that the reporting is reviewed.

Description	Recommendation	Audited party comment	Remedial action
Management of “decommissioned” status	Review the reporting to manage ICPs to be decommissioned.	We will review this.	Identified

Waipa have changed this process so that status update flows from magiQ directly to the registry. The issue identified in the last audit that the ICP was decommissioned in magiQ, but not on the registry was not found in this audit. However, the operator cannot enter an event date, so the changes is applied for the same date as it is updated in magiQ. The sample of five decommissioned ICPs found all had the incorrect event date recorded. This is recorded as non-compliance.

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

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.11 With: Clause 20 Schedule 11.1 From: 01-Jul-18 To: 31-May-19	ICPs updated via magiQ will be recorded with the incorrect event date unless they are updated on the same day as the decommissioning. All five examples checked were recorded for the incorrect event date. Potential impact: Low Actual impact: Low Audit history: Once Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as weak as ICPs at the “inactive-ready for decommissioning are not being monitored and magiQ does not have an event date field available for operators to complete, but records all decommissioned ICPs with the same event date as they were updated in magiQ. The risk rating is low as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
The 5 ICPs identified during the audit have had their decommission dates corrected.		Completed	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	4 of the 5 examples have been corrected and I note that all of the ICPs decommissioned via magiQ will have the incorrect event date.
We will introduce the ability to input a decommission date following our system migration.		March 2020	

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 has not created any new price category codes since 1 June 2016. These changes were reviewed during the last audit.

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

Waipa keep the loss category table up to date and have not created any new loss category codes during the audit period.

Audit outcome

Compliant

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

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

If the distributor wishes to replace an existing loss factor on the table 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. No loss factors have been changed since 1 July 2016. The loss factor review process is discussed in **section 8.1**.

Audit outcome

Compliant

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

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

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

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

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

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

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

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

Audit observation

The NSP table on the registry was examined.

Audit commentary

No NSPs were created or decommissioned during the audit period.

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

No NSPs were created or decommissioned during the audit period.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

Audit observation

The NSP table on the registry was examined.

Audit commentary

No NSPs were created or decommissioned during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 26(4) Schedule 11.1

Code related audit information

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

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

Audit observation

The NSP table was examined.

Audit commentary

Waipa has not created any new embedded networks during the audit period.

Audit outcome

Not applicable

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

Code reference

Clause 24(2) and (3) Schedule 11.1

Code related audit information

The distributor must give written notice to the reconciliation manager of any change to balancing areas associated with an NSP supplying the distributor's network. The notification must specify the date and trading period from which the change takes effect and be given no later than 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 is not responsible for any metering installations in accordance with 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:*
 - a) the reconciliation participant for the NSP (Clause 10.25(2)(b)(i)); and*
 - b) the MEP for the NSP (Clause 10.25(2)(b)(ii)); and*
 - c) no later than 20 business days after the data of certification of each metering installation, advise the reconciliation participant for the NSP of the certification expiry date (Clause 10.25(2)(c)).*

Audit observation

The NSP supply point table was reviewed.

Audit commentary

Waipa have not connected any new NSPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 29 Schedule 11.1

Code related audit information

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

Audit outcome

Compliant

6.12. Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2)

Code reference

Clauses 5 and 8 Schedule 11.2

Code related audit information

The distributor must give the Authority confirmation that it has received written consent to the proposed transfer from:

- *the distributor whose network is associated with the NSP to which the ICP is recorded as being connected immediately before the notification (unless the notification relates to the creation of an embedded network) (Clause 5(a) of Schedule 11.2)*
- *every trader trading at an ICP being supplied from the NSP to which the notification relates (Clause 5(b) of Schedule 11.2).*

The notification must include any information requested by the Authority (Clause 8 of Schedule 11.2).

Audit observation

The NSP 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

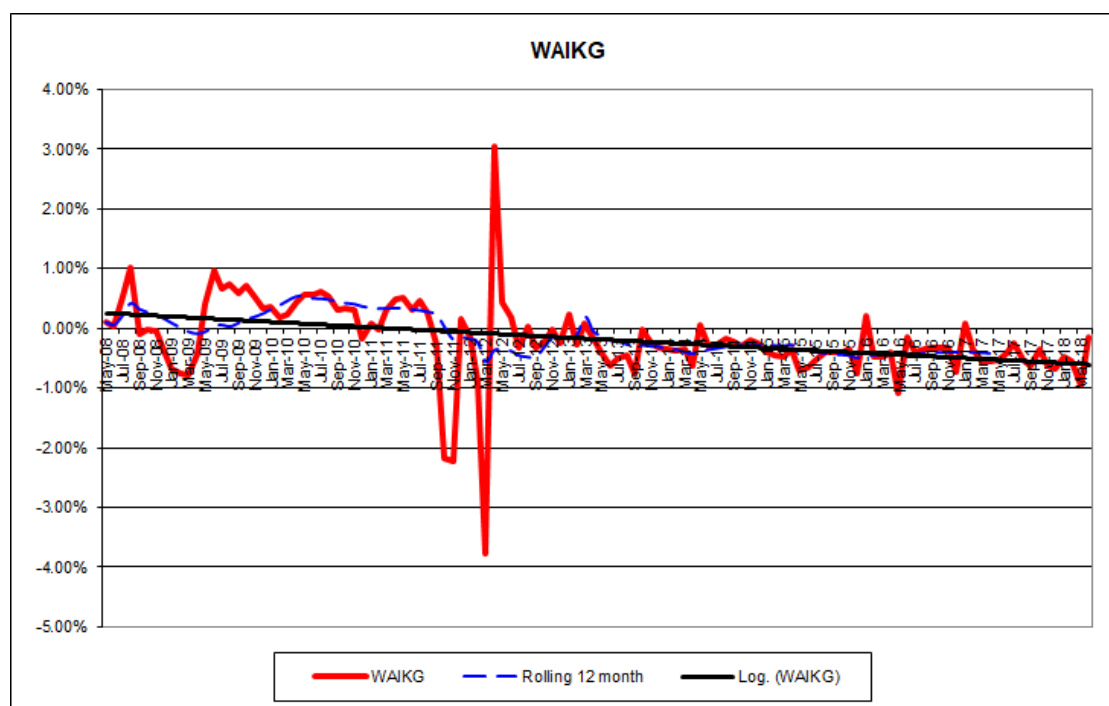
The “Guidelines on the calculation and the use of loss factors for reconciliation purposes” was published on 26 June 2018. I have assessed Waipa’s process and compliance against the guidelines recommended thresholds. I assessed the loss factor accuracy looking for any rolling UFE that was greater than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

Audit commentary

The loss factor table was examined. There have been no changes to loss factors since 1 July 2016.

Waipa’s management of loss factors hasn’t 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 which indicate losses are tracking within the +/- 1% threshold:



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

Audit outcome

Compliant

CONCLUSION

Waipa has maintained a similar level of accuracy during the audit period. Some recommendations made in the last two audits are yet to be actioned. I have repeated these in this audit to maintain visibility. The monitoring of the initial electrical connection dates has been deployed, but this is not identifying all the expected ICPs. I recommend that this is reviewed.

Two areas of opportunity are noted.

1. The management of distributed generation appears to be disjointed and I recommend that the process be reviewed, and a business owner be assigned to ensure that this process is managed effectively.
2. The decommissioning and initial electrical connection date updates are writing to the registry with the same event date instead of the actual event date. This indicates that changes made in magiQ are not being tested effectively to ensure that such changes comply with the code.

MagiQ is undergoing a three stage upgrade to a new operating system which is due to be completed by January 2020. No functionality is expected to be changed during this time. Waipa intend to review the registry interaction functionality once this is completed.

This audit found seven non-compliances and makes four recommendations. This is a reduction of two non-compliances as there were no backdated new connections during the audit period. The next audit frequency table indicates that the next audit be due in 12 months. I have considered this result in conjunction with the response from Waipa's responses and I agree with the recommendation.

PARTICIPANT RESPONSE

Waipa has reviewed this report and their comments are recorded in the body of the report. No further comments were provided.