ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

For

KAKARIKI POWER (YESP)

(COMPANY #6557352)

Prepared by: Ewa Glowacka of TEG & Associates

Date audit commenced: 27 April 2022

Date audit report completed: 15 June 2022

Audit report due date: 17-Jun-22

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EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Kakariki Power Limited to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1.

In February 2022 MainPower purchased a majority shareholding in Yes Power Ltd and subsequently changed the name to Kākāriki Power Ltd. The company will use YESP as their four-letter code in the registry.
Kakariki Power utilizes Robotron NZ (acting as its agent) in operating the Robotron energy market platform and providing energy market services. In addition, MainPower will be providing a range of corporate services to Kakariki Power.

At the time of this audit Kakariki Power was trading 45 ICPs. The company accepts both remotely and manually read installations. On 1 June 2022, the company is planning to transfer around 50 ICPs, currently traded as tier 2, to the Robotron platform.

To verify the compliance of switching, registry updates, and the calculation of reconciliation submissions we conducted judgement-based sampling by selecting typical examples of the population.

The audit found 9 non-compliance, no issues and recommendations were raised.

The main issues identified during this audit were related to new connections and NHH ICP (not read remotely)

- Three new installation 0000163211CK2A0, 0000165866CK5FD, and 0000165875CK390 were commissioned by Kakariki Power. The main switchboard accommodating 3 meters for these 3 ICPs was incorrectly wired by a technician. It created a situation where the meter for ICP0000163211CK2A0 was recording volumes which were also recorded by two other meters at ICPs 0000165866CK5FD and 0000165875CK390 for which retailers (CTCT and MERX) were submitting volumes to the reconciliation manager. The two meters for 0000165866CK5FD and 0000165875CK390 became "downstream" meters which meant volumes were incorrectly submitted twice to the market. When the problem was discovered, it was discussed with the Authority and a consultant regarding how to fix it. A decision was made to assign the status "Inactive-reconciled elsewhere" to the ICP 0000163211CK2A0 until the installation is reconfigured. At the time of finalising this report the physical installations were not corrected.

- ICP 0000491990CEBC7 was reconciled as NHH. The installation was not read remotely. To calculate submission volumes Kakariki Power used the CS read (1,120 average daily consumption) for 7 months when a customer read was obtained. After 12 months, Kakariki Power requested an ad-hoc read provided by WELLS, which was used to recalculate submission volumes.
- Incorrect use of the switch response code "AA"

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. Table 1 of the Guidelines for Reconciliation Participant audit provides some guidance on this matter. The Future Risk Rating score is 17 which results in an indicative audit frequency of 12 months. We agree with the result.

The audit period is 01/12/2020 to 31/03/2022.

We thank Kakariki Power staff for their full and complete cooperation in this audit.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	11.2 15.2	Inaccurate information in the registry for a small number of ICPs. Missing volumes for 5 ICPs between July 2021 and March 2022	Moderate	Low	2	Identified
Changes to registry information	3.3	10 of Schedule 11.1	One late "Inactive" status update	Strong	Low	1	Identified
Provision of information to the registry manager	3.5	9 of Schedule 11.1	One late ICP status update to "Active"	Strong	Low	1	Identified
Management of "active" status	3.8	17 of Schedule 11.1	Incorrect management of the "Active" status for 0000163211CK2A0	Weak	Low	3	Identified
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 of Schedule 11.3	Incorrect use of the switch response code "AA"	Moderate	Low	2	Identified
Losing trader provides information - switch move	4.8	10(1) of Schedule 11.3	Incorrect use of the switch response code "AA"	Moderate	Low	2	Identified
Losing trader must provide final information – switch move	4.10	11 of Schedule 11.3	Incorrect use of the switch response code "AA" Incorrect average daily consumption for one ICP	Moderate	Low	2	Identified
Creation if submission information	12.2	15.4	5 ICPs were missing from HHRAGGR and HHRVOLS between July 2021 and March 2022	Weak	Low	3	Identified

Historical estimate reporting to RM	13.3	10 of Schedule 15.3	One NSP (CML0331) did not meet threshold for historical estimate for the 3,7, and 14 revisions	Strong	Low	1	Identified
Future Risk Rating						17	

Future risk rating	0-1	1-3	4-15	16-40	41-55	56+
Indicative audit frequency	36 months	24 months	18 months	12months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Description	Recommendation
			Nil

ISSUES

Subject	Section	Description	Issue
			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.

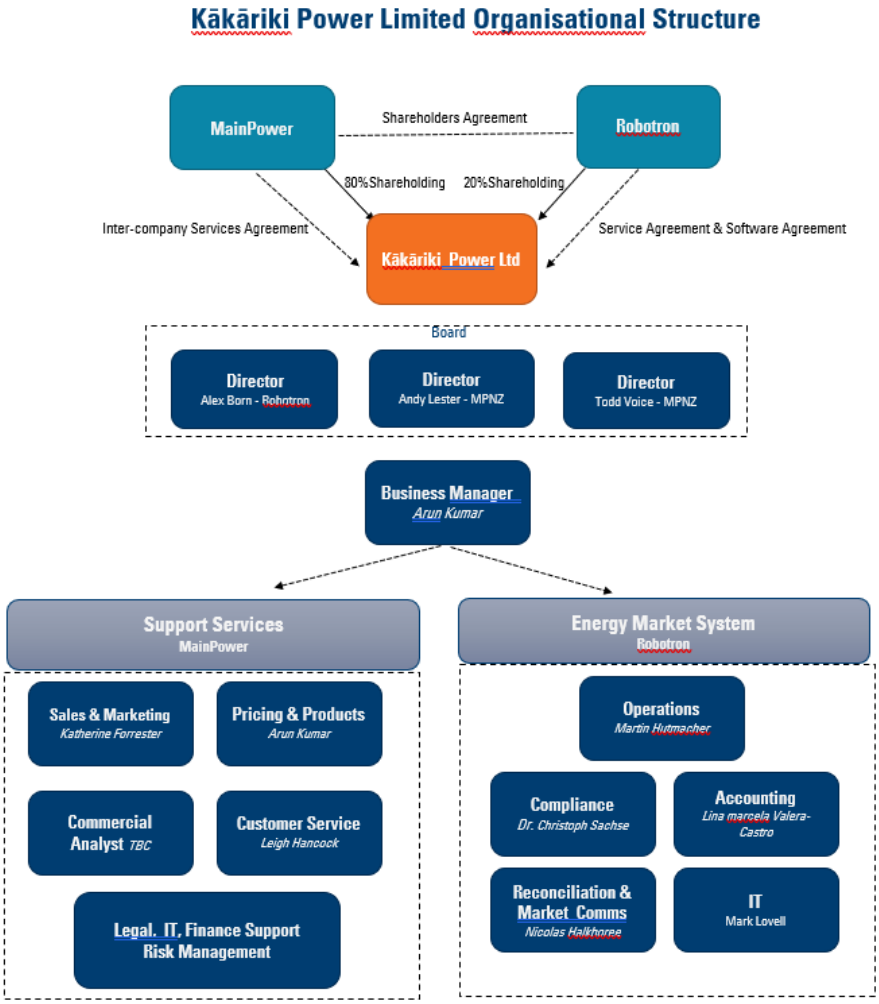
Audit observation

Karkiri Power does not have any exemptions granted to exempt them from compliance with all or any of the clauses.

Audit commentary

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

1.2. Structure of Organisation



1.3. Persons involved in this audit

Name	Title	Company
Nicolas Halkhoree	Business Analyst	Robotron
Christoph Sachse	IT Business Analyst	Robotron
Arun Kumar	Business Manager	Kakariki Power
Grant Redman	Strategy & Business Development Manager	MainPower
Ewa Glowacka	Electricity Authority Approved Auditor	TEG & Associates

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

- *remains responsible for the contractor's fulfilment of the participant's Code obligations*
- *cannot assert that it is not responsible or liable for the obligation due to something the agent has or has not done*

Audit observation

Kakariki Power uses Robotron as an agent to fulfil their obligations to obtain certification. WELLS provides readings on an ad-hoc basis if a meter can't be read remotely.

Audit commentary

Kakariki Power uses Robotron as its agent. Meter readings are received from MEPs. WELLS provides readings on an ad-hoc basis if a meter can't be read remotely.

1.5. Hardware and Software

Robotron uses the robotron*esales system. There is a cloud-based application, written and maintained by Robotron NZ.

The Oracle database is stored in Sydney where it is regularly backed up. There is also a copy of raw metering data stored in NZ.

1.6. Breaches or Breach Allegations

There have been no alleged breaches relevant to the scope of this audit during the audit period.

Check with Compliance.

1.7. ICP Data

Metering Category	(06/04/2022)	(2020)	(2019)	(2018)

1	44	143	188	26
2	1	10	4	0
3	1	0	0	0
4	0	0	0	0
5	0	0	0	0
9	0	0	0	0
blank	0	1	0	0

Status	Number of ICPs (06/04/2022)	Number of ICPs (2020)	Number of ICPs (2019)	Number of ICPs (2018)
Active (2,0)	45	154	192	26
Inactive – new connection in progress (1,12)	0	1	0	0
Inactive – electrically disconnected vacant property (1,4)	0	1	0	0
Inactive – electrically disconnected remotely by AMI meter (1,7)	0	0	0	0
Inactive – electrically disconnected at pole fuse (1,8)	0	0	0	0
Inactive – electrically disconnected due to meter disconnected (1,9)	0	0	0	0
Inactive – electrically disconnected at meter box fuse (1,10)	0	0	0	0
Inactive – electrically disconnected at meter box switch (1,11)	0	0	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	0	0	0	0
Inactive – reconciled elsewhere (1,5)	1	0	0	0
Decommissioned (3)	1	1	1	0

1.8. Authorisation Received

An authorisation letter was received.

1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Kakariki Power, to support their application for renewal of certification in accordance with clauses 5

and 7 of schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.1.

The audit was carried out at Robotron's premises in Christchurch on 27 and 28 April 2022.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Relevant to audit	Agents Involved in Performance of Tasks
(a) - Maintaining registry information and performing customer and embedded generator switching	✓	
(b) – Gathering and storing raw meter data	✓	
(c)(iii) - Creation and management of HHR and NHH volume information	✓	
(d)(i) – Calculation and delivery of ICP days under clause 15.6	✓	
(d)(ii) - delivery of electricity supplied information under clause 15.7	✓	
(d)(iii) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8	✓	
(e) – Provision of submission information for reconciliation	✓	

1.10. Summary of previous audit

Kakariki Power provided a copy of their previous audit completed in December 2020 by Steve Woods. The summary table below shows the status of the non-compliances raised in the previous audit. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-Compliance	Comments
Relevant information	2.1	11.2	Inaccurate HHR data, where ARC is the MEP, due to there only being one decimal place	Cleared
Changes to registry information	3.3	10 of Schedule 11.1	Some late status and trader updates	Still exists
Provision of information to the registry manager	3.5	9 of Schedule 11.1	One new connection not updated to the registry within 5 business days.	Still exists
ANZSIC codes	3.6	9(1)(k) of Schedule 11.1	One incorrect ANZSIC code	Cleared
Losing trader response to switch request	4.2	3 and 4 Schedule 11.3	Incorrect use of the AA switch response code.	Still exists

and event dates - standard switch				
Losing trader must provide final information - standard switch	4.3	5 of Schedule 11.3	At least two average daily consumption errors.	Cleared
Retailers must use the same readings	4.4	6(1) of Schedule 11.3	One incorrect RR reading	Cleared
Gaining trader informs registry of switch request - switch move	4.7	9 Schedule 11.3	Three late NT files.	Cleared
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	One late AN file.	Cleared
Losing trader determines a different date - switch move	4.9	10(2) Schedule 11.3	Incorrect use of the AA switch response code.	Still exists
Losing trader must provide final information – switch move	4.10	11 of Schedule 11.3	26 late CS files At least three average daily consumption errors	Cleared
Gaining trader changes to switch meter reading – switch move	4.11	17 of Schedule 11.3	One late AC file	Cleared
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	Six ICPs not read during the period of supply	Cleared
NHH meters 90% read rate	6.10	9(1) and (2) Schedule 15.2	Seven ICPs not read in the 4- month period	Cleared
ICP days	11.2	15.6	ICP days incorrect for nine NSPs for files sent in one month	
Electricity supplied information	11.3	15.7	Error in electricity supplied file for May 2020.	Cleared
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHRAGGR files do not contain electricity supplied information Errors in aggregates files for 14 ICPs	Cleared
Creation of submission information	12.2	15.4	10 HHR ICPs missing from HHR aggregates and HHR vols files between January and July 2020 due to system issues.	Still exists
Allocation of submission information	12.3	15.5	Incorrect NSP for one ICP for May 2020	Cleared

Historical estimate reporting to RM	13.3	10 of Schedule 15.3	Two NSPs did not meet the 90% threshold for HE for the 7-month revision. Between November 2019 and June 2020 three NSPs did not meet the 80% threshold for HE.	Still exists

2. OPERATIONAL INFRASTRUCTURE

2.1. Relevant information (Clause 10.6, 11.2, 15.2)

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide is:

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

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

To assess compliance with these clauses we examined the process of validating information in the registry. The LIS file dated 06/04/2022 was examined to identify any inaccuracies. The Event Detail (EDA) file for the period of audit and the Audit Compliance report were examined to determine how quickly Kakariki Power provide information to the registry, and correct information which is identified as inaccurate and confirm that all information is correct and not misleading.

The process to find and correct incorrect information was examined. The registry validation process was examined in detail in relation to the achievement of this requirement.

Audit commentary

To meet compliance with the above clauses, Robotron monitors registry notification files and conducts a check at the end of the month against the LIS and EDA reports.

Incorrect registry and submission files information are listed below:

Section	Description
3.3	• Registry information updates were greater than 5 business days from the event date.
3.5	• One late ICP status update to “Active”
3.8	• Incorrect management of the “Active” status for 0000163211CK2A0
12.2	• 5 ICPs were missing from HHRAGGR and HHRVOLS between July 2021 and March 2022
13.3	• One NSP (CML0331) did not meet threshold for historical estimate for the 3,7, and 14 revisions

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: clause 11. From: 01-Dec-20 To: 31-Mar-22	Inaccurate information in the registry for a small number of ICPs. Missing volumes for 5 ICPs between July 2021 and March 2022 Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating:2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. Audit Risk Rating is recorded as low as the impact on settlement outcomes and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Processes have been reviewed and updated where list file is checked against the Kakariki Power's records and Audit Compliance Report are checked monthly.	Jun 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Processes have been reviewed and updated where list file is checked against the Kakariki Power's records and Audit Compliance Report are checked monthly.	Jun 2022	

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

If an obligation exists to provide information in accordance with Part 15, a participant must deliver that information to the required person within the timeframe specified in the Code, or, in the absence of any such timeframe, within any timeframe notified by the Authority. Such information must be delivered in the format determined from time to time by the Authority.

Audit observation

Processes for the provision of information were reviewed and observed throughout the audit.

Audit commentary

Kakariki Power is compliant with regard to the timeliness of information and the format of information in accordance with Part 15. The company provided many examples to support this statement.

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

Transmissions and transfers of data related to metering information between reconciliation participants or their agents, for the purposes of the Code, must be carried out electronically using systems that ensure the security and integrity of the data transmitted and received.

Audit observation

To assess compliance with these clauses we examined the process of validating information in the registry. The LIS file was examined to identify any inaccuracies. The Event Detail (EDA) file for the audit period was reviewed.

Audit commentary

The process for data transmission between Robotron and MEPs is a fully automated process. All read and volume data is transferred via SFTP.

We traced a sample of data for two ICPs per MEP (FCLM, MTRX, and NGCM) from the source files to robotron*esales to confirm the data transmission process. All volumes matched.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

Each reconciliation participant must ensure that a complete audit trail exists for all data gathering, validation, and processing functions of the reconciliation participant.

The audit trail must include details of information:

- *provided to and received from the registry manager*
- *provided to and received from the reconciliation manager*
- *provided and received from other reconciliation participants and their agents.*

The audit trail must cover all archived data in accordance with clause 18.

The logs of communications and processing activities must form part of the audit trail, including if automated processes are in operation.

Logs must be printed and filed as hard copy or maintained as data files in a secure form, along with other archived information.

The logs must include (at a minimum) the following:

- *an activity identifier (clause 21(4)(a))*
- *the date and time of the activity (clause 21(4)(b))*
- *the operator identifier for the person who performed the activity (clause 21(4)(c)).*

Audit observation

During this audit we checked the audit trail for all data gathering, validation, and corrections. We viewed audit trails in robotron*esales for a small sample of events.

Audit commentary

Robotron sends and receives data, to and from the registry. It is an automated process. Each upload is recorded by robotron*esales. Some updates are done using the registry website which has its own audit trail.

Reconciliation files are uploaded via the RM portal, which records date, time and a participant's login details. Metering data provided by MEPs is automatically uploaded by the software. robotron*esales records a complete audit trail for all data gathering and communication with the registry. As per this clause requirement, the logs of activities include the date and time of the activity, the operator identifier, and an activity identifier.

Robotron communicates with other participants via email. All emails are archived.

Audit outcome

Compliant

2.5. Retailer responsibility for electricity conveyed - participant obligations (Clause 10.4)

Code reference

Clause 10.4

Code related audit information

If a participant must obtain a consumer's consent, approval, or authorisation, the participant must ensure it:

- *extends to the full term of the arrangement*
- *covers any participants who may need to rely on that consent.*

Audit observation

Kakariki Power provided their Terms and Conditions.

Audit commentary

We reviewed the Terms and Conditions. They cover contractors or agents, networks, the meter owner, and meter reader and any of their employees, for the duration of the contract.

Audit outcome

Compliant

2.6. Retailer responsibility for electricity conveyed - access to metering installations (Clause 10.7(2),(4),(5) and (6))

Code reference

Clause 10.7(2), (4), (5) and (6)

Code related audit information

The responsible reconciliation participant must, if requested, arrange access for the metering installation to the following parties:

- *the Authority*
- *an ATH*
- *an auditor*
- *an MEP*
- *a gaining metering equipment provider.*

The trader must use its best endeavours to provide access:

- *in accordance with any agreements in place*
- *in a manner and timeframe which is appropriate in the circumstances.*

If the trader has a consumer, the trader must obtain authorisation from the customer for access to the metering installation, otherwise it must arrange access to the metering installation.

The reconciliation participant must provide any necessary facilities, codes, keys or other means to enable the party to obtain access to the metering installation by the most practicable means.

Audit observation

Kakariki Power provided their Terms and Conditions.

Audit commentary

We reviewed the Terms and Conditions. Section 11 (Access to Property) of the Terms and Conditions covers access to a customer's property. It covers their agents, a distributor, and any metering service provider.

Audit outcome

Compliant

2.7. Physical location of metering installations (Clause 10.35(1)&(2))

Code reference

Clause 10.35(1)&(2)

Code related audit information

A reconciliation participant responsible for ensuring there is a category 1 metering installation or category 2 metering installation must ensure that the metering installation is located as physically close to a point of connection as practical in the circumstances.

A reconciliation participant responsible for ensuring there is a category 3 or higher metering installation must:

a) if practical in the circumstances, ensure that the metering installation is located at a point of connection; or
b) if it is not practical in the circumstances to locate the metering installation at the point of connection, calculate the quantity of electricity conveyed through the point of connection using a loss compensation process approved by the certifying ATH.

Audit observation

A review of the LIS file showed that Kakariki Power's installations are category 1, 2 (one ICP), and 3 (one ICP).

The physical meter location point is not specifically mentioned in the Terms and Conditions, but the existing practices in the electrical industry achieve compliance.

Audit commentary

Kakariki Power confirmed they do not have any installations to which metering data loss compensation has to be applied.

Audit outcome

Compliant

2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B)

Code reference

Clause 11.15B

Code related audit information

A trader must at all times ensure that the terms of each contract between a customer and a trader permit:

- *the Authority to assign the rights and obligations of the trader under the contract to another trader if the trader commits an event of default under paragraph (a) or (b) or (f) or (h) of clause 14.41 (clause 11.15B(1)(a)); and*
- *the terms of the assigned contract to be amended on such an assignment to—*
- *the standard terms that the recipient trader would normally have offered to the customer immediately before the event of default occurred (clause 11.15B(1)(b)(i)); or*
- *such other terms that are more advantageous to the customer than the standard terms, as the recipient trader and the Authority agree (clause 11.15B(1)(b)(ii); and*
- *the terms of the assigned contract to be amended on such an assignment to include a minimum term in respect of which the customer must pay an amount for cancelling the contract before the expiry of the minimum term (clause 11.15B(1)(c)); and*
- *the trader to provide information about the customer to the Authority and for the Authority to provide the information to another trader if required under Schedule 11.5 (clause 11.15B(1)(d)); and*
- *the trader to assign the rights and obligations of the trader to another trader (clause 11.15B(1)(e)).*

The terms specified in subclause (1) must be expressed to be for the benefit of the Authority for the purposes of the Contracts (Privacy) Act 1982, and not be able to be amended without the consent of the Authority (clause 11.15B(2)).

Audit observation

KAKARIKI POWER provided their Terms and Conditions.

Audit commentary

In the Terms and Conditions section 21is said *"If we commit an event of default (as defined by the Electricity Industry Participation Code), then notwithstanding anything else in this Agreement it is agreed that the Electricity Authority (Authority) shall have the right to:*

(a)assign our rights and obligations under this Agreement to another retailer;"

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

A reconciliation participant must only request the connection of a point of connection if they:

- *accept responsibility for their obligations in Parts 10, 11 and 15 for the point of connection; and*
- *have an arrangement with an MEP to provide 1 or more metering installations for the point of connection.*

Audit observation

The new connection process was examined to evaluate the strength of controls.

The EDA file for the audit period was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

Kakariki Power completed two connections (0000165866CK5FD and 0000165875CK390) during the audit period, and in both cases, they accepted their obligations and they had an arrangement with the MEPs.

Audit outcome

Compliant

2.10. Temporary Electrical Connection of an ICP (Clause 10.33)

Code reference

Clause 10.33(1)

Code related audit information

A trader may temporarily electrically connect a point of connection, or authorise a MEP to temporarily electrically connect a point of connection, only if:

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
    - *the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within 2 business days of electrical connection*
    - *if the ICP has metered load, 1 or more certified metering installations are in place*
    - *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*

Audit observation

The EDA file for the audit period was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

Kakariki Power did not conduct or authorise any temporary electrical connection.

Audit outcome

Compliant

2.11. Electrical Connection of Point of Connection (Clause 10.33A)

Code reference

Clause 10.33A(1)

Code related audit information

A reconciliation participant may electrically connect or authorise the electrical connection of a point of connection only if:

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
    - *the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within 2 business days of electrical connection*
    - *if the ICP has metered load, 1 or more certified metering installations are in place*
    - *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the electrical connection.*

Audit observation

The new connection and reconnection processes were discussed. The Audit Compliance report for the audit period was examined to identify any uncertified metering installations. It was discussed with Kakariki Power staff.

Audit commentary

Kakariki Power traded two new connections. Both installations were category 2 and had certified metering installed.

All reconnected ICPs had certified metering installations.

Audit outcome

Compliant

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

Before providing the registry manager with any information in accordance with clause 11.7(2) or clause 11.18(4), a trader must ensure that it, or its customer, has made any necessary arrangements for the provision of line function services in relation to the relevant ICP

Before providing the registry manager with any information in accordance with clause 11.7(2) or clause 11.18(4), a trader must have entered into an arrangement with an MEP for each metering installation at the ICP.

Audit observation

The LIS file for 01/12/20 to 31/03/22 was reviewed to identify all networks Kakariki Power has traded on during the audit period.

Audit commentary

Kakariki Power has arrangements in place for line function services where they intend to trade. MEP arrangements are in place with all relevant MEPs.

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

A reconciliation participant must ensure it has an arrangement with the relevant MEP prior to accepting responsibility for an installation.

Audit observation

The LIS file for 01/12/20 to 31/03/22 was reviewed to identify the MEPs for Kakariki Power ICPs during the audit period.

The process to ensure an arrangement is in place with the metering equipment provider before an ICP can be created or switched in was discussed with Kakariki Power staff.

Audit commentary

Kakariki Power demonstrated that arrangements are in place with all relevant MEPs.

Audit outcome

Compliant

2.14. Connecting ICPs then withdrawing switch (Clause 10.33A(5))

Code reference

Clause 10.33B

Code related audit information

If a trader connects an ICP it is in the process of switching and the switch does not proceed or is withdrawn the trader must:

- *restore the disconnection, including removing any bypass and disconnecting using the same method the losing trader used*
- *reimburse the losing trader for any direct costs incurred*

Audit observation

This was discussed during the audit with Kakariki Power staff. The registry files were checked.

Audit commentary

According to the company policy, Kakariki Power ensures that a switch is in progress, before initiating a reconnection. If an ICP was reconnected as part of the switching process and the switch was later withdrawn, Kakariki Power would restore the disconnection and reimburse the losing trader for any direct costs incurred, if requested

Audit outcome

Compliant

2.15. Electrical disconnection of ICPs (Clause 10.33B)

Code reference

Clause 10.33B

Code related audit information

Unless the trader is recorded in the registry or is meeting its obligation under 10.33A(5) it must not disconnect or electrically disconnect the ICP, or authorise the metering equipment provider to disconnect or electrically disconnect the ICP.

Audit observation

This was discussed with Kakariki Power. The LIS, EDA files and registry were checked.

Audit commentary

Kakariki Power advised any disconnection activity involving Kakariki Power ICPs that has taken place during the audit period met this code requirement.

Registry checks confirmed Kakariki Power was the trader of record for each ICP at the time of each disconnect event.

Audit outcome

Compliant

2.16. Removal or breakage of seals (Clause 48(1C), 48 (1D), 48 (1E), 48 (1F) of Schedule 10.7)

Code reference

Clause 48(1C), 48 (1D), 48 (1E), 48 (1F) of Schedule 10.7

Code related audit information

A trader can remove or break a seal without authorisation from the MEP to:

- *r*eset a load control switch, bridge or unbridge a load control switch – if the load control switch does not control a time block meter channel
- *electrically connect load or generation, of the load or generation has been disconnected at the meter*
- *electrically disconnect load or generation, if the trader has exhausted all other appropriate methods of electrical disconnection*
- *bridge the meter*

A trader that removes or breaks a seal in this way must:

- *ensure personnel are qualified to remove the seal and perform the permitted work and they replace the seal in accordance with the Code*
- *replace the seal with its own seal*
- *have a process for tracing the new seal to the personnel*
- *update the registry (if the profile code has changed)*
- *notify the metering equipment provider*

Audit observation

This was discussed with Kakariki Power staff during the audit.

Audit commentary

According to the company policy, Kakariki Power will never remove or break seals. If a MEP or distributor removes or breaks a seal, Kakariki Power will follow the communication and operational procedure.

Audit outcome

Compliant

2.17. Meter bridging (Clause 10.33C and 2A of Schedule 15.2

Code reference

Clause 10.33C and 2A of Schedule 15.2

Code related audit information

A trader, or a distributor or MEP which has been authorised by the trader, may only electrically connect an ICP in a way that bypasses a meter that is in place ("bridging") if, despite best endeavours:

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

If the trader bridges a meter, the trader must:

- *determine the quantity of electricity conveyed through the ICP for the period of time the meter was bridged*
- *submit that estimated quantity of electricity to the reconciliation manager*
- *within 1 business day of being advised that the meter is bridged, notify the MEP that they are required to reinstate the meter so that all electricity flows through a certified metering installation.*

The trader must determine meter readings as follows:

- *by substituting data from an installed check meter or data storage device*
- *if a check meter or data storage device is not installed, by using half hour data from another period where the trader considers the pattern of consumption is materially similar to the period during which the meter was bridged*
- *if half hour data is not available, a non-half hour estimated reading that the trader considers is the best estimate during the bridging period must be used.*

Audit observation

This was discussed with Kakariki Power staff during the audit. Policies and processes for bridging meters were reviewed.

Audit commentary

Kakariki Power only allows meters to be bridged where an urgent reconnection is required to prevent customer hardship, and it is not possible to reconnect without bridging the meter. Kakariki Power stated that such events did not occur during the audit period.

Audit outcome

Compliant

2.18. Use of ICP identifiers on invoices (Clause 11.30)

Code reference

Clause 11.30

Code related audit information

Each trader must ensure the relevant ICP identifier is printed on every invoice or document relating to the sale of electricity.

Audit observation

This was reviewed during the audit.

Audit commentary

The company provided a sample invoice on which the ICP identifier was printed.

Audit outcome

Compliant

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

Code reference

Clause 11.30A

Code related audit information

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

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

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

Audit observation

This was discussed with Kakariki Power. A copy of the Terms and Conditions and invoice and customer sign up form were provided. The Kakariki Power website was reviewed.

Audit commentary

Clear and prominent information on Utilities Disputes is provided:

- in Kakariki Power's Terms and Conditions
- on Kakariki Power's website
- on Kakariki Power's invoices
- as part of Kakariki Power's email footers for outbound email communications

Audit outcome

Compliant

2.20. Provision of information on electricity plan comparison site (Clause 11.30B)

Code reference

Clause 11.30B

Code related audit information

A retailer that trades at an ICP recorded on the registry must provide clear and prominent information about Powerswitch:

- *on their website*

- *in outbound communications to residential consumers about price and service changes*
- *to residential consumers on an annual basis*
- *in directed outbound communications about the consumer's bill.*

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

Audit observation

This was discussed with Kakariki Power. A copy of an invoice and a customer sign up form were provided. The Kakariki Power website was reviewed.

Audit commentary

Clear and prominent information on Power Switch is provided:

- on Kakariki Power's website
- as part of Kakariki Power's email footers for outbound email communications

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

The following participants must, before assuming responsibility for certain points of connection on a local network or embedded network, obtain an ICP identifier for the point of connection:

a) a trader who has agreed to purchase electricity from an embedded generator or sell electricity to a consumer
b) an embedded generator who sells electricity directly to the clearing manager
c) a direct purchaser connected to a local network or an embedded network
d) an embedded network owner in relation to a point of connection on an embedded network that is settled by differencing
e) a network owner in relation to a shared unmetered load point of connection to the network owner's network
f) a network owner in relation to a point of connection between the network owner's network and an embedded network.

ICP identifiers must be obtained for points of connection at which any of the following occur:

- *a consumer purchases electricity from a trader 11.3(3)(a)*
- *a trader purchases electricity from an embedded generator 11.3(3)(b)*
- *a direct purchaser purchases electricity from the clearing manager 11.3(3)(c)*
- *an embedded generator sells electricity directly to the clearing manager 11.3(3)(d)*
- *a network is settled by differencing 11.3(3)(e)*
- *there is a distributor status ICP on the parent network point of connection of an embedded network or at the point of connection of shared unmetered load. 11.3(3)(f)*

Audit observation

The new connection process was discussed during the audit. We reviewed the EDA files to identify any new connections.

Audit commentary

Kakariki Power completed two new connections (0000165866CK5FD and 0000165875CK390) during the audit period, which later on switched to other traders. Kakariki Power plans to accept new connections in the future.

Audit outcome

Compliant

3.2. Providing registry information (Clause 11.7(2))

Code reference

Clause 11.7(2)

Code related audit information

Each trader must provide information to the registry manager about each ICP at which it trades electricity in accordance with Schedule 11.1.

Audit observation

The EDA file and the Audit Compliance report for the audit period were reviewed in relation to the updating of the registry and to confirm process controls and compliance. It was discussed with Kakariki Power staff. MEP nomination and management of ICP statuses were examined in detail.

Audit commentary

Kakariki Power's processes are designed to ensure that trader information is populated as required by this clause. The update for one ICP was late and was identified as non-compliance in **section 3.3.**

Audit outcome

Compliant

3.3. Changes to registry information (Clause 10 Schedule 11.1)

Code reference

Clause 10 Schedule 11.1

Code related audit information

If information provided by a trader to the registry manager about an ICP changes, the trader must provide written notice to the registry manager of the change no later than 5 business days after the change.

Audit observation

We examined the LIS and EDA files and the Audit Compliance report for the period covered by this audit. It was discussed with the company.

Audit commentary

Status updates to "Inactive"

Robotron updated the status of ICP 0000163211CK2A0 to "Inactive-reconciled elsewhere" late, by 61 business days, going back to 18/04/2021. It is one of the new connections commissioned by Kakariki Power during the audit period.

ICP 0000163211CK2A0, it was an "unlucky" installation which was due to a mistake caused by the MEP responsible for this installation. It created a situation where the meter for ICP0000163211CK2A0 was recording volumes which were also recorded by two other meters at ICPs 0000165866CK5FD and 0000165875CK390 for which retailers (CTCT and MERX) were submitting volumes to the reconciliation manager. The two meters for 0000165866CK5FD and 0000165875CK390 became "downstream" meters which meant volumes were incorrectly submitted twice to the market.

ICPs 0000165866CK5FD, and 0000165875CK390 switched out to CTCT and MERX shortly after the installations were electrically connected by Kakariki Power. The fact that Kakariki Power started receiving metering data on 24/08/2021 more than 4 months after commissioning of the electrical connection, resulted in a significant delay in identifying the problem.

Once the problem was discovered Kakariki Power conducted a thorough investigation, discussions were also held with the Authority and a consultant regarding how to correct the problem. A decision was made to assign the status "Inactive-reconciled elsewhere" to the ICP 0000163211CK2A0 until the installation was reconfigured. The registry was updated on 21/10/2021.

The configuration of this installation is in breach of clause 3 of Schedule 11.1 by the network.

There were no other late ICP updates.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: 10 of Schedule 11.1 From: 28-Jul-21 To: 21-Oct-21	One late status update (61 days) Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating:1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong. Only one late update. Audit Risk Rating is recorded as low as the impact on settlement outcomes and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated to avoid late registry updates.	Jun 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Business rules and processes have been reviewed and updated to avoid late registry updates.	Jun 2022	

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

A trader becomes responsible for an ICP when the trader is recorded in the registry as being responsible for the ICP.

A trader ceases to be responsible for an ICP if:

- *another trader is recorded in the registry as accepting responsibility for the ICP (clause 11.18(2)(a)); or*
- *the ICP is decommissioned in accordance with clause 20 of Schedule 11.1 (clause 11.18(2)(b)).*
- *if an ICP is to be decommissioned, the trader who is responsible for the ICP must (clause 11.18(3)):*
    - *arrange for a final interrogation to take place prior to or upon meter removal (clause 11.18(3)(a)); and*

- *advise the MEP responsible for the metering installation of the decommissioning (clause 11.18(3)(b)).*

A trader who is responsible for an ICP (excluding UML) must ensure that an MEP is recorded in the registry for that ICP (clause 11.18(4)).

A trader must not trade at an ICP (excluding UML) unless an MEP is recorded in the registry for that ICP (clause 11.18(5)).

Audit observation

We examined the LIS file, the Audit Compliance report, and the EDA file for the audit period, to identify any rejected MEP nominations and any "Active" ICPs that do not have a MEP recorded in the registry.

The MEP nomination and decommissioning processes were examined and discussed with Kakariki Power staff.

Audit commentary

We confirm that all ICPs had a valid MEP recorded in the registry. Kakariki Power nominates the MEP for new installations before they are electrically connected. There were no MEP nominations rejected during this audit period.

No ICPs were decommissioned during the audit period.

Audit outcome

Compliant

3.5. Provision of information to the registry manager (Clause 9 Schedule 11.1)

Code reference

Clause 9 Schedule 11.1

Code related audit information

Each trader must provide the following information to the registry manager for each ICP for which it is recorded in the registry as having responsibility:

a) the participant identifier of the trader, as approved by the Authority (clause 9(1)(a))
b) the profile code for each profile at that ICP, as approved by the Authority (clause 9(1)(b))
c) the metering equipment provider for each category 1 metering or higher (clause 9(1)(c))
d) the type of submission information the trader will provide to the RM for the ICP (clause 9(1)(ea)
e) if a settlement type of UNM is assigned to that ICP, either:
- *the code ENG if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or*
- *in all other cases, the daily average kWh of unmetered load at the ICP (clause 9(1)(f)(ii)).*
- *the type and capacity of any unmetered load at each ICP (clause 9(1)(g))*
- *the status of the ICP, as defined in clauses 12 to 20 (clause 9(1)(j))*
- *except if the ICP exists for the purposes of reconciling an embedded network or the ICP has distributor status, the trader must provide the relevant business classification code applicable to the customer (clause 9(1)(k)).*

The trader must provide information specified in (a) to (j) above within 5 business days of trading (clause 9(2)).

The trader must provide information specified in 9(1)(k) no later than 20 business days of trading (clause 9(3))

Audit observation

The LIS file and the Audit Compliance report from the audit period was examined to assess compliance. This was discussed with Kakariki Power staff.

Audit commentary

The audit compliance report did not identify any missing data. The Audit Compliance report identified one non-compliance related to the ICP 0000163211CK2A0, which was described previously.

The registry status update was late by 90 business days. It was discussed during the audit. The company provided the following comment:

YESP became aware of meter installation when FCLM updated the registry on 24/08/21 which was a couple of months after meter installation in April 2021. This was when the "Active" flag was set. An earlier email from FCLM on 26/05 was missed due to employee change. Because the Registry entry had been missing and no data had been received, Robotron software could not detect any hint for a meter change.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.5 With: 9 of Schedule 11.1 From: 18-Apr-21 To: 25-Aug-21	One late ICP status update (90 business days) Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating:1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong. Only one late update. Audit Risk Rating is recorded as low as the impact on settlement outcomes and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated to avoid late registry updates.	Jun 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Business rules and processes have been reviewed and updated to avoid late registry updates.	Jun 2022	

3.6. ANZSIC codes (Clause 9 (1(k) of Schedule 11.1)

Code reference

Clause 9 (1(k) of Schedule 11.1

Code related audit information

Traders are responsible to populate the relevant ANZSIC code for all ICPs for which they are responsible.

Audit observation

The process to manage ANZSIC codes was examined. The Audit Compliance report and the LIS file were reviewed to check ANZSIC codes.

We checked a diverse sample of 11 ICPs.

Audit commentary

Analysis of the Audit Compliance report confirmed that no T99 series codes were present.

The accuracy of the ANZSIC codes for 11 ICPs were checked using google street view and they were all correct.

Audit outcome

Compliant

3.7. Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1)

Code reference

Clause 9(1)(f) of Schedule 11.1

Code related audit information

if a settlement type of UNM is assigned to that ICP, the trader must populate:

the code ENG - if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or

the daily average kWh of unmetered load at the ICP - in all other cases (clause 9(1)(f)(ii)).

Audit observation

The process to identify and monitor unmetered load was discussed. The registry files and the Audit Compliance report were reviewed to identify all ICPs with unmetered load.

Audit commentary

Kakariki Power supplied one UML ICP during the audit period. The registry contained the correct daily unmetered load kWh. The ICP switched to Ecotricity.

Audit outcome

Compliant

3.8. Management of “active” status (Clause 17 Schedule 11.1)

Code reference

Clause 17 Schedule 11.1

Code related audit information

The ICP status of “active” is be managed by the relevant trader and indicates that:

- *the associated electrical installations are electrically connected (clause 17(1)(a))*
- *the trader must provide information related to the ICP in accordance with Part 15, to the reconciliation manager for the purpose of compiling reconciliation information (clause 17(1)(b)).*

Before an ICP is given the "active" status, the trader must ensure that:

- *the ICP has only 1 customer, embedded generator, or direct purchaser (clause 17(2)(a))*
- *the electricity consumed is quantified by a metering installation or a method of calculation approved by the Authority (clause 17(2)(b)).*

Audit observation

The ICP reconnection process was examined. The EDA file for the audit period was analysed. It was discussed with Kakariki Power.

Audit commentary

Registry notification files are reviewed on an ongoing basis to ensure robotron*esales data matches the registry. A full validation occurs between robotron*esales and the registry once per month to ensure status information is correct.

All ICPs in the registry have the status "Active". There is one exception, 0000163211CK2A0, which has the status "Inactive- Reconciled Elsewhere". It is one of the new connections commissioned by Kakariki Power.

It was an "unlucky" installation which was due to a mistake caused by the MEP responsible for this installation. The main switchboard accommodating 3 meters for 3 separate ICPs was incorrectly wired by a technician. It caused that the meter for ICP0000163211CK2A0 was recording volumes which were also recorded by two meters (0000165866CK5FD and 0000165875CK390) for which retailers (CTCT and MERX) were submitting volumes to the reconciliation manager. The two meters for 0000165866CK5FD and 0000165875CK390 became "downstream" meters which was incorrect, volumes were submitted twice to the market.

ICPs 0000165866CK5FD, and 0000165875CK390 switched out to CTCT and MERX shortly after the installations were electrically connected by Kakariki Power. The fact that Kakariki Power started receiving metering data on 24/08/2021, more than 4 months after commissioning of electrical connection, resulted in such delay of identifying a problem.

Kakariki Power conducted a thorough investigation, which took a while, and discovered the problem. discussed discussion was had with the Authority and a consultant regarding how to fix it. A decision was made to assign the status "Inactive-reconciled elsewhere" to the ICP0000163211CK2A0 until the installation is reconfigured.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.8 With: clause 17 of Schedule 11.1 From: 28-Jul-21 To: 21-Oct-21	Incorrect management of the "Active" status for 0000163211CK2A0 Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating:3
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as weak. The process is not well structures and too much reliant on the receiving data from an MEP. Audit Risk Rating is recorded as low as the impact on settlement and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated to avoid late registry updates.	Jun 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Business rules and processes have been reviewed and updated to avoid late registry updates.	Jun 2022	

3.9. Management of "inactive" status (Clause 19 Schedule 11.1)

Code reference

Clause 19 Schedule 11.1

Code related audit information

The ICP status of "inactive" must be managed by the relevant trader and indicates that:

- *electricity cannot flow at that ICP (clause 19(a)); or*
- *submission information related to the ICP is not required by the reconciliation manager for the purpose of compiling reconciliation information (clause 19(b)).*

Audit observation

The LIS file and the Audit Compliance report from the audit period was examined to assess compliance. This was discussed with Kakariki Power staff.

Audit commentary

There is one ICP, 0000163211CK2A0, which has the status "Inactive- Reconciled Elsewhere".

Kakariki Power will conduct disconnections remotely and updates the registry once confirmation of the disconnection is provided by the MEP. There were no ICPs disconnected during the audit period.

Audit outcome

Compliant

3.10. ICPs at new or ready status for 24 months (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 "Ready" for 24 calendar months or more, the distributor must ask the trader whether it should continue to have that status, and must decommission the ICP if the trader advises the ICP should not continue to have that status.

Audit observation

It is a distributor's code obligation to monitor an ICP which has had the status of "New" or "Ready" for 24 calendar months or more. It is expected that a trader be able to respond to such queries from distributors.

Audit commentary

Kakariki Power has not had any queries in relation to "New" or "Ready" ICPs. We checked the registry list file which confirmed there are no ICPs at "Ready" status where Kakariki Power is the proposed trader.

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

4.1. Inform registry of switch request for ICPs - standard switch (Clause 2 Schedule 11.3)

Code reference

Clause 2 Schedule 11.3

Code related audit information

The standard switch process applies where a trader and a customer or embedded generator enters into an arrangement in which the trader commences trading electricity with the customer or embedded generator at a non-half hour or unmetered ICP at which another trader supplies electricity, or the trader assumes responsibility for such an ICP.

If the uninvited direct sale agreement applies to an arrangement described above, the gaining trader must identify the period within which the customer or embedded generator may cancel the arrangement in accordance with section 36M of the Fair Trading Act 1986. The arrangement is deemed to come into effect on the day after the expiry of that period.

A gaining trader must advise the registry manager of a switch no later than 2 business days after the arrangement comes into effect and include in its advice to the registry manager that the switch type is TR and 1 or more profile codes associated with that ICP.

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The standards process was examined and discussed with Kakariki Power. The registry is notified by Robotron in conjunction with Kakariki Power staff.

Audit commentary

Kakariki Power's processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

32 NTTR were sent during the audit period.

Audit outcome

Compliant

4.2. Losing trader response to switch request and event dates - standard switch (Clauses 3 and 4 Schedule 11.3)

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

Within 3 business days after receiving notice of a switch from the registry manager, the losing trader must establish a proposed event date. The event date must be no more than 10 business days after the date of receipt of such notification, and in any 12 month period, at least 50% of the event dates must be no more than 5 business days after the date of notification. The losing trader must then:

- *provide acknowledgement of the switch request by (clause 3(a) of Schedule 11.3):*
- *providing the proposed event date to the registry manager and a valid switch response code (clause 3(a)(i) and (ii) of Schedule 11.3); or*
- *providing a request for withdrawal of the switch in accordance with clause 17 (clause 3(c) of Schedule 11.3).*

When establishing an event date for clause 4, the losing trader may disregard every event date established by the losing trader for an ICP for which when the losing trader received notice from the registry manager under clause 22(a) the losing trader had been responsible for less than 2 months.

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The standards process was examined and discussed with Kakariki Power.

Audit commentary

The exchange of data with the registry is performed via SFTP server. Switching files are downloaded automatically.

Kakariki Power received notifications of 15 standard switches from gaining traders. The Switch Breach Report did not identify any late AN files.

The clause requires that in a 12-month period a trader is to establish a proposed event date that is no more than 5 BD for at least 50% of switches away. Kakariki Power provided the evidence that for 100% of standard switches a proposed event date was 5 BD or less.

Kakariki Power sent 14 AN files to gaining traders. All of them were with the response code "AA", which is incorrect. The reason code "AD" should be used as Kakariki Power supplies ICPs with smart meters. It was identified as non-compliance. Robotron meant to change the system, but it was overlooked.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.2 With: clauses 3 and 4 of Schedule 11.3 From: 01-Dec-20 To: 31-Mar-22	Incorrect use of the switch response code "AA" Potential impact: None Actual impact: None Audit history: Once previously Controls: Moderate Breach risk rating:2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because it was identified as non-compliance in the previous audit Audit Risk Rating is recorded as low as the impact on settlement and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Switch AN response code changed to "AD" for AMI metering, "AA" for non-AMI metering and will be overridden for other applicable AN response.	Apr 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Switch AN response code changed to "AD" for AMI metering, "AA" for non-AMI metering and will be overridden for other applicable AN response.	Apr 2022	

4.3. Losing trader must provide final information - standard switch (Clause 5 Schedule 11.3)

Code reference

Clause 5 Schedule 11.3

Code related audit information

If the losing trader provides information to the registry manager in accordance with clause 3(a) of Schedule 11.3 with the required information, no later than 5 business days after the event date, the losing trader must complete the switch by:

- *providing event date to the registry manager (clause 5(a)); and*
- *provide to the gaining trader a switch event meter reading as at the event date, for each meter or data storage device that is recorded in the registry with accumulator of C and a settlement indicator of Y (clause 5(b)); and*
- *if a switch event meter reading is not a validated reading, provide the date of the last meter reading (clause 5(c)).*

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The standards process was examined and discussed with Kakariki. Robotron interacts with the registry on behalf of Kakariki Power.

The accuracy of the content of the CS files was confirmed by checking 5 CS files sent to a gaining trader.

Audit commentary

CS files with average daily kWh over 100 kWh (2 ICPs) were identified. There were no ICPs with average daily kWh equal "0".

The accuracy of the content of the CS files was confirmed by checking a sample of 7 records. The content checked included:

- correct identification of meter readings and correct date of last meter reading
- accuracy of meter readings
- accuracy of average daily consumption
- read type flag

The information recorded in the files was correct. The calculation of average daily consumption is using the last two reads which is normally one day. All readings were correctly labelled as actuals.

Audit outcome

Compliant

4.4. Retailers must use same reading - standard switch (Clause 6(1) and 6A Schedule 11.3)

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

The losing trader and the gaining trader must both use the same switch event meter reading as determined by the following procedure:

- *if the switch event meter reading provided by the losing trader differs by less than 200 kWh from a value established by the gaining trader, the gaining trader must use the losing trader's validated meter reading or permanent estimate (clause 6(a)); or*
- *the gaining trader may dispute the switch meter reading if the validated meter reading or permanent estimate provided by the losing trader differs by 200 kWh or more. (clause 6(b)).*

If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within 4 calendar months of the registry manager giving the gaining trader written notice of having received information about the switch completion, provide to the losing trader a changed switch event meter reading supported by 2 validated meter readings.

- *the losing trader can choose not to accept the reading, however must advise the gaining trader no later than 5 business days after receiving the switch event meter reading from the gaining trader (clause 6A(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 6A(b)).*

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The standards process was examined and discussed with Kakariki. Robotron interacts with the registry on behalf of Kakariki Power.

We conducted sampling of the 2 RR files sent by Kakariki Power.

Audit commentary

Switch reads are checked by comparing actual AMI data to the switch read to determine whether a RR file is required. Sometimes an AMI midnight read may not be available and so it's derived by deducting the sum of the trading periods for that day to determine the expected start read.

Kakariki Power issued 2 RR files for standard switches. One of them was accepted and one was rejected because the difference between the CS read and the RR read was less than 1 kWh because some retailers truncate and some round.

Kakariki Power did not receive any RR files for standard switches.

According to the Switch Breach report, there were no late RR files

Audit outcome

Compliant

4.5. Non-half hour switch event meter reading - standard switch (Clause 6(2) and (3) Schedule 11.3)

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

If the losing trader trades electricity from a non-half hour meter, with a switch event meter reading that is not from an AMI certified meter flagged Y in the registry: and

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 6(2)(b);*
- *the gaining trader within 5 business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading.*

Audit observation

The EDA file was reviewed to identify all read change requests and acknowledgements where above clauses are applicable.

Audit commentary

Other retailers cannot issue read change requests to Kakariki Power under clause 6(2) and (3) of Schedule 11.3 because Kakariki Power mainly trades HHR ICPs.

Audit outcome

Compliant

4.6. Disputes - standard switch (Clause 7 Schedule 11.3)

Code reference

Clause 7 Schedule 11.3

Code related audit information

A losing trader or gaining trader may give written notice to the other that it disputes a switch event meter reading provided under clauses 1 to 6. Such a dispute must be resolved in accordance with clause 15.29 (with all necessary amendments).

Audit observation

There were no disputes with a losing trader. If such a situation were to occur in the future it would be resolved in accordance with this clause.

Audit commentary

Kakariki Power stated that they will not decline to accept another traders' validated meter reading or permanent estimate if they are reasonable and appropriate in the applicable circumstances. The company will also provide a reasonable explanation to the other participant where it does decline to accept their validated meter reading or permanent estimate.

Audit outcome

Compliant

4.7. Gaining trader informs registry of switch request - switch move (Clause 9 Schedule 11.3)

Code reference

Clause 9 Schedule 11.3

Code related audit information

The switch move process applies where a gaining trader has an arrangement with a customer or embedded generator to trade electricity at an ICP using non half-hour metering or an unmetered ICP, or to assume responsibility for such an ICP, and no other trader has an agreement to trade electricity at that ICP, this is referred to as a switch move and the following provisions apply:

If the "uninvited direct sale agreement" applies, the gaining trader must identify the period within which the customer or embedded generator may cancel the arrangement in accordance with section 36M of the Fair Trading Act 1986. The arrangement is deemed to come into effect on the day after the expiry of that period.

In the event of a switch move, the gaining trader must advise the registry manager of a switch and the proposed event date no later than 2 business days after the arrangement comes into effect.

In its advice to the registry manager the gaining trader must include:

- *a proposed event date (clause 9(2)(a)); and*
- *that the switch type is "MI" (clause 9(2)(b); and*
- *one or more profile codes of a profile at the ICP. (clause 9(2)(c))*

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The switch move process was examined and discussed with Kakariki Power. The registry is notified by Robotron in conjunction with Kakariki Power staff.

Audit commentary

Kakariki Power's processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

In the audit period Kakariki Power sent one NTMI. All NT files were sent within two business days of conditions being met by a customer. It was backdated by 12 business days because a customer notified that it was a Standard switch but it was a Switch Move.

Audit outcome

Compliant

4.8. Losing trader provides information - switch move (Clause 10(1) Schedule 11.3)

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

10(1) Within 5 business days after receiving notice of a switch move request from the registry manager—

- *10(1)(a) If the losing trader accepts the event date proposed by the gaining trader, the losing trader must complete the switch by providing to the registry manager:*
  - *confirmation of the switch event date; and*
  - *a valid switch response code; and*
  - *final information as required under clause 11; or*
- *10(1)(b) If the losing trader does not accept the event date proposed by the gaining trader, the losing trader must acknowledge the switch request to the registry manager and determine a different event date that—*
  - *is not earlier than the gaining trader's proposed event date, and*
  - *is no later than 10 business days after the date the losing trader receives notice; or*
- *10(1)(c) request that the switch be withdrawn in accordance with clause 17.*

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The switch move process was examined and discussed with Kakariki Power. The registry is notified by Robotron in conjunction with Kakariki Power staff.

The accuracy of the content of the AN files was confirmed by checking 7 randomly chosen files.

Audit commentary

The Switch Breach report confirmed all AN files were sent within the allowable timeframes.

The exchange of data with the registry is performed via SFTP server. Switching files are downloaded automatically.

Kakariki Power received notifications of 127 switch moves from gaining traders. The Switch Breach report confirmed all AN files were sent within the allowable timeframes.

Kakariki Power sent 127 AN files to gaining traders. 120 ICPs switched out to Ecotricity, which used an incorrect type of switch.

All AN files were with the response code "AA", which is incorrect. The reason code "AD" should be used as Kakariki Power supplies ICPs with smart meters. It was identified as non-compliance. Robotron meant to change the system but it was overlooked.

Kakariki Power accepts the event date proposed by the gaining trader for all Switch Moves.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.8 With: clause 10(1) of Schedule 11.3 From: 01-Dec-20 To: 31-Mar-22	Incorrect use of the switch response code "AA" Potential impact: None Actual impact: None Audit history: Once previously Controls: Moderate Breach risk rating:2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because it was identified as non-compliance in the previous audit Audit Risk Rating is recorded as low as the impact on settlement outcomes and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Switch AN response code changed to "AD" for AMI metering, "AA" for non-AMI metering and will be overridden for other applicable AN response.	Apr 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Switch AN response code changed to "AD" for AMI metering, "AA" for non-AMI metering and will be overridden for other applicable AN response	Apr 2022	

4.9. Losing trader determines a different date - switch move (Clause 10(2) Schedule 11.3)

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

If the losing trader determines a different date, then within 10 business days of receiving notice the losing trader must also complete the switch by providing to the registry manager as described in subclause (1)(a):

- *the event date proposed by the losing trader; and*
- *a valid switch response code; and*
- *final information as required under clause 1.*

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The switch move process was examined and discussed with Kakariki Power. The registry is notified by Robotron in conjunction with Kakariki Power staff.

Audit commentary

Kakariki Power accepted the event date proposed by the gaining trader for all Switch Moves.

Audit outcome

Compliant

4.10. Losing trader must provide final information - switch move (Clause 11 Schedule 11.3)

Code reference

Clause 11 Schedule 11.3

Code related audit information

The losing trader must provide final information to the registry manager for the purposes of clause 10(1)(a)(ii), including—

- *the event date (clause 11(a)); and*
- *a switch event meter reading as at the event date for each meter or data storage device that is recorded in the registry with an accumulator type of C and a settlement indicator of Y (clause 11(b)); and*
- *if the switch event meter reading is not a validated meter reading, the date of the last meter reading of the meter or storage device. (clause (11(c)).*

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The standards process was examined and discussed with Kakariki. Robotron interacts with the registry on behalf of Kakariki Power.

The accuracy of the content of the CS files was confirmed by checking 5 CS files sent to gaining traders.

Audit commentary

The accuracy of the content of the CS files was confirmed by checking a sample of 5 records. The content checked included:

- correct identification of meter readings and correct date of last meter reading
- accuracy of meter readings
- accuracy of average daily consumption
- read type flag

CS files with average daily kWh that were zero (6 ICPs), or over 100 kWh (6 ICPs) were identified.

The calculation of average daily consumption is using the last two reads which is normally one day. All readings were correctly labelled as actuals. We sampled 12 ICPs to check calculations. We identified that the calculation of average daily consumption for one ICP, reconciled as NHH, was incorrect.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.10 With: clause 11 of Schedule 11.3 From: 01-Dec-20 To: 31-Mar-22	Incorrect average daily consumption for one ICP was incorrect Potential impact: None Actual impact: None Audit history: Once previously Controls: Moderate Breach risk rating:2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because it was identified as non-compliance in the previous audit. The calculation of average daily consumption for one ICP, reconciled as NHH, was incorrect. Audit Risk Rating is recorded as low as the impact on settlement outcomes and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated for the provision of accurate information to the registry.	Jun 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Business rules and processes have been reviewed and updated for the provision of accurate information to the registry.	Jun 2022	

4.11. Gaining trader changes to switch meter reading - switch move (Clause 12 Schedule 11.3)

Code reference

Clause 12 Schedule 11.3

Code related audit information

The gaining trader may use the switch event meter reading supplied by the losing trader or may, at its own cost, obtain its own switch event meter reading. If the gaining trader elects to use this new switch event meter reading, the gaining trader must advise the losing trader of the switch event meter reading and the actual event date to which it refers as follows:

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter*

reading. In this case, the gaining trader, within 4 calendar months of the date the registry manager gives the gaining trader written notice of having received information about the switch completion, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):

- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 12(3)(b)).*

12(2A) If the losing trader trades electricity from a non-half hour meter, with a switch event meter reading that is not from an AMI certified meter flagged Y in the registry,

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 12(2A)(b));*
- *the gaining trader no later than 5 business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading. (clause 12(2B)).*

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The standards process was examined and discussed with Kakariki. Robotron interacts with the registry on behalf of Kakariki Power.

We conducted sampling of 10 RR files.

Audit commentary

Switch reads are checked by comparing actual AMI data to the switch read to determine whether a RR file is required. Sometimes an AMI midnight read may not be available and so it's derived by deducting the sum of the trading periods for that day to determine the expected start read.

Kakariki Power issued no RR files for Switch Moves. One of them was accepted and one was rejected because the difference between the CS read, and the RR read was less than 1 kWh because some retailers truncate and some round.

Kakariki Power received 11 RR files for Switch Moves (ECOT), all of them were accepted.

According to the Switch Breach report, there were no late AC files

Audit outcome

Compliant

4.12. Gaining trader informs registry of switch request - gaining trader switch (Clause 14 Schedule 11.3)

Code reference

Clause 14 Schedule 11.3

Code related audit information

The gaining trader switch process applies when a trader has an arrangement with a customer or embedded generator to trade electricity at an ICP at which the losing trader trades electricity with the customer or embedded generator, and one of the following applies at the ICP:

- *the gaining trader will trade electricity through a half hour metering installation that is a category 3 or higher metering installation; or*

- *the gaining trader will trade electricity through a non-AMI half hour metering installation and the losing trader trades electricity through a non-AMI non half hour metering installation; or*
- *the gaining trader will trade electricity through a non-AMI non half hour metering installation and the losing trader trades electricity through anon-AMI half hour metering installation*

If the uninvited direct sale agreement applies to an arrangement described above, the gaining trader must identify the period within which the customer or embedded generator may cancel the arrangement in accordance with section 36M of the Fair Trading Act 1986. The arrangement is deemed to come into effect on the day after the expiry of that period.

A gaining trader must advise the registry manager of the switch and expected event date no later than 3 business days after the arrangement comes into effect.

14(2) The gaining trader must include in its advice to the registry manager:

a) a proposed event date; and
b) that the switch type is HH.

14(3) The proposed event date must be a date that is after the date on which the gaining trader advises the registry manager, unless clause 14(4) applies.

14(4) The proposed event date is a date before the date on which the gaining trader advised the registry manager, if:

> *14(4)(a) – the proposed event date is in the same month as the date on which the gaining trader advised the registry manager; or*
>
> *14(4)(b) – the proposed event date is no more than 90 days before the date on which the gaining trader advises the registry manager and this date is agreed between the losing and gaining traders.*

Audit observation

The EDA file for the audit period was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred in the period covered by this audit.

Audit outcome

Compliant

4.13. Losing trader provision of information - gaining trader switch (Clause 15 Schedule 11.3)

Code reference

Clause 15 Schedule 11.3

Code related audit information

Within 3 business days after the losing trader is informed about the switch by the registry manager, the losing trader must:

> *15(a) - provide to the registry manager a valid switch response code as approved by the Authority; or*
>
> *15(b) - provide a request for withdrawal of the switch in accordance with clause 17.*

Audit observation

The EDA file for the audit period was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred in the period covered by this audit.

Audit outcome

Compliant

4.14. Gaining trader to advise the registry manager - gaining trader switch (Clause 16 Schedule 11.3)

Code reference

Clause 16 Schedule 11.3

Code related audit information

The gaining trader must complete the switch no later than 3 business days, after receiving the valid switch response code, by advising the registry manager of the event date.

If the ICP is being electrically disconnected, or if metering equipment is being removed, the gaining trader must either-

> *16(a)- give the losing trader or MEP for the ICP an opportunity to interrogate the metering installation immediately before the ICP is electrically disconnected or the metering equipment is removed; or*
>
> *16(b)- carry out an interrogation and, no later than 5 business days after the metering installation is electrically disconnected or removed, advise the losing trader of the results and metering component numbers for each data channel in the metering installation.*

Audit observation

The EDA file for the audit period was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred in the period covered by this audit.

Audit outcome

Compliant

4.15. Withdrawal of switch requests (Clauses 17 and 18 Schedule 11.3)

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

A losing trader or gaining trader may request that a switch request be withdrawn at any time until the expiry of 2 calendar months after the event date of the switch.

If a trader requests the withdrawal of a switch, the following provisions apply:

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
  - *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*

- *the withdrawal advisory code published by the Authority. (clause 18(c)(ii))*

- *within 5 business days after receiving notice from the registry manager of a switch, the trader receiving the withdrawal must advise the registry manager that the switch withdrawal request is accepted or rejected. A switch withdrawal request must not become effective until accepted by the trader who received the withdrawal. (clause 18(d))*
- *on receipt of a rejection notice from the registry manager, in accordance with clause 18(d), a trader may re-submit the switch withdrawal request for an ICP in accordance with clause 18(c). All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request. (clause 18(e))*
- *if the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within 2 business days after receiving notice from the registry manager in accordance with clause 22(b), the losing trader must comply with clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16. (clause 18(f))*

Audit observation

The EDA file and Switch Breach Report for the period covered by this audit were analysed to assess compliance. The switch withdrawal process was analysed and discussed with Kakariki Power's staff.

The document describing the NW_AW process describes in detail what advisory code should be used in what circumstances.

Audit commentary

Kakariki Power sent one NE file with the reason code "CE". The file was sent within 2 business days.

The company received 5 NW files related to two ICPs. The AW response was sent within the timeframe prescribed.

Audit outcome

Compliant

4.16. Metering information (Clause 21 Schedule 11.3)

Code reference

Clause 21 Schedule 11.3

Code related audit information

For an interrogation or validated meter reading or permanent estimate carried out in accordance with Schedule 11.3:

21(a)- the trader who carries out the interrogation, switch event meter reading must ensure that the interrogation is as accurate as possible, or that the switch event meter reading is fair and reasonable.

21(b) and (c) - the cost of every interrogation or switch event meter reading carried out in accordance with clauses 5(b) or 11(b) or (c) must be met by the losing trader. The costs in every other case must be met by the gaining trader.

Audit observation

Meter readings are received from MEPs. Kakariki Power relies on MEPs to provide accurate readings but as is described in relevant sections, extensive validation is conducted upon uploading readings to the robotron*esales system.

Audit commentary

All meter readings used in the switching process are validated meter readings or permanent estimates. The cost of additional interrogation is covered in a commercial agreement between Kakariki Power and MEPs.

Audit outcome

Compliant

4.17. Switch protection (Clause 11.15AA to 11.15AB)

Code reference

Clause 11.15AA to 11.15AC

Code related audit information

A losing retailer (including any party acting on behalf of the retailer) must not initiate contact to save or win back any customer who is switching away or has switched away for 180 days from the date of the switch.

The losing retailer may contact the customer for certain administrative reasons and may make a counteroffer only if the customer initiated contacted with the losing retailer and invited the losing retailer to make a counteroffer.

The losing retailer must not use the customer contact details to enable any other retailer (other than the gaining retailer) to contact the customer.

Audit observation

Kakariki Power has been a part of the Switch Save Protection program since 2015. The program was terminated on 31/03/20. Win-back processes were examined to determine whether they were compliant. The EDA file for the audit period was analysed to identify all withdrawn switches with a "CX" code applied prior to the switch completion date for any switch save protected retailer.

Audit commentary

Kakariki Power does not conduct "win-back" activity. No NWCX were sent during the audit period.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

The trader must adhere to the process for maintaining shared unmetered load as outlined in clause 11.14:

> *11.14(2) - The distributor must give written notice to the traders responsible for the ICPs across which the unmetered load is shared, of the ICP identifiers of the ICPs.*
>
> *11.14(3) - A trader who receives such a notification from a distributor must give written notice to the distributor if it wishes to add or omit any ICP from the ICPs across which unmetered load is to be shared.*
>
> *11.14(4) - A distributor who receives such a notification of changes from the trader under (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.*
>
> *11.14(5) - If a distributor becomes aware of any 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 as soon as practicable after that change or decommissioning.*
>
> *11.14(6) - Each trader who receives such a notification must, as soon as practicable after receiving the notification, adjust the unmetered load information for each ICP in the list for which it is responsible to ensure that the entire shared unmetered load is shared equally across each ICP.*
>
> *11.14(7) - A trader must take responsibility for shared unmetered load assigned to an ICP for which the trader becomes responsible as a result of a switch in accordance with Part 11.*
>
> *11.14(8) - A trader must not relinquish responsibility for shared unmetered load assigned to an ICP if there would then be no ICPs left across which that load could be shared.*
>
> *11.14(9) - A trader can change the status of an ICP across which the unmetered load is shared to inactive status, as referred to in clause 19 of Schedule 11.1. In that case, the trader is not required to give written notice to the distributor of the change. The amount of electricity attributable to that ICP becomes UFE.*

Audit observation

The process was discussed with Kakariki Power's staff. The LIS file for the audit period was reviewed to assess if Kakariki Power's traded shared unmetered load.

Audit commentary

No shared unmetered load was traded during the audit period.

Audit outcome

Not applicable

5.2. Unmetered threshold (Clause 10.14 (2)(b))

Code reference

Clause 10.14 (2)(b)

Code related audit information

The reconciliation participant must ensure that unmetered load does not exceed 3,000 kWh per annum, or 6,000 kWh per annum if the load is predictable and of a type approved and published by the Authority.

Audit observation

The process was discussed with Kakariki Power's staff. The LIS file for the audit period was reviewed to assess if Kakariki Power traded unmetered load.

Audit commentary

Kakariki Power traded one UML ICP during the audit period. It was a fibre cabinet.

Kakariki Power does not currently supply any ICPs with unmetered load over 3,000 kWh per annum.

Audit outcome

Compliant

5.3. Unmetered threshold exceeded (Clause 10.14 (5))

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

- *within 20 business days, commence corrective measure to ensure it complies with Part 10*
- *within 20 business days of commencing the corrective measure, complete the corrective measures*
- *no later than 10 business days after it becomes aware of the limit having been exceeded, advise each participant who is or would be expected to be affected of:*
    - *the date the limit was calculated or estimated to have been exceeded*
    - *the details of the corrective measures that the retailer proposes to take or is taking to reduce the unmetered load.*

Audit observation

The process was discussed with Kakariki Power's staff. The LIS file for the audit period was reviewed to assess if Kakariki Power traded unmetered load.

Audit commentary

Kakariki Power does not currently supply any ICPs with unmetered load over 3,000 kWh per annum.

Audit outcome

Compliant

5.4. Distributed unmetered load (Clause 11 Schedule 15.3, Clause 15.37B)

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

An up-to-date database must be maintained for each type of distributed unmetered load for which the retailer is responsible. The information in the database must be maintained in a manner that the resulting submission information meets the accuracy requirements of clause 15.2.

A separate audit is required for distributed unmetered load data bases.

The database must satisfy the requirements of Schedule 15.5 with regard to the methodology for deriving submission information.

Audit observation

The process was discussed with Kakariki Power's staff. The LIS file for the audit period was reviewed to assess if Kakariki Power traded distributed load.

Audit commentary

Kakariki Power does not currently supply any ICPs with distributed unmetered load.

Audit outcome

Compliant

6. GATHERING RAW METER DATA

6.1. Electricity conveyed & notification by embedded generators(Clause 10.13, Clause 10.24 and 15.13)

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

A participant must use the quantity of electricity measured by a metering installation as the raw meter data for the quantity of electricity conveyed through the point of connection.

This does not apply if data is estimated or gifted in the case of embedded generation under clause 15.13.

A trader must, for each electrically connected ICP that is not also an NSP, and for which it is recorded in the registry as being responsible, ensure that:

- *there is 1 or more metering installations*
- *all electricity conveyed is quantified in accordance with the Code*
- *it does not use subtraction to determine submission information for the purposes of Part 15.*

An embedded generator must give notification to the reconciliation manager for an embedded generating station, if the intention is that the embedded generator will not be receiving payment from the clearing manager or any other person through the point of connection to which the notification relates.

Audit observation

The LIS file and the Audit Compliance report was reviewed. Processes for distributed generation were reviewed, and discussed with Kakariki Powers' staff.

Audit commentary

At the time of audit Kakariki Power was trading 23 ICPs with generation, all of which have import/export meters installed. We cross checked submission files against registry files and confirm that import (I) volumes for all ICPs are submitted.

All active ICPs have a MEP. No submission information is determined using subtraction.

No meters were bridged during the audit period.

Audit outcome

Compliant

6.2. Responsibility for metering at GIP (Clause 10.26 (6), (7) and (8))

Code reference

Clause 10.26 (6), (7) and (8)

Code related audit information

For each proposed metering installation or change to a metering installation that is a connection to the grid, the participant, must:

- *provide to the grid owner a copy of the metering installation design (before ordering the equipment)*
- *provide at least 3 months for the grid owner to review and comment on the design*

- *respond within 3 business days of receipt to any request from the grid owner for additional details or changes to the design*
- *ensure any reasonable changes from the grid owner are carried out.*

The participant responsible for the metering installation must:

- *advise the reconciliation manager of the certification expiry date not later than 10 business days after certification of the metering installation*
- *become the MEP or contract with a person to be the MEP*
- *advise the reconciliation manager of the MEP identifier no later than 20 days after entering into a contract or assuming responsibility to be the MEP.*

Audit observation

Kakariki Power is not responsible for any connections to the grid.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

6.3. Certification of control devices (Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3)

Code reference

Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3

Code related audit information

The reconciliation participant must advise the metering equipment provider if a control device is used to control load or switch meter registers.

The reconciliation participant must ensure the control device is certified prior to using it for reconciliation purposes.

Audit observation

The LIS file and the Audit Compliance report were reviewed to identify which profiles are used for reconciliation purposes.

Audit commentary

Kakariki Power does not use any engineered profiles. The profiles recorded in the registry were HHR and RPS. Control devices are not used for reconciliation purposes.

Audit outcome

Compliant

6.4. Reporting of defective metering installations (Clause 10.43(2) and (3))

Code reference

Clause 10.43(2) and (3)

Code related audit information

If a participant becomes aware of an event or circumstance that lead it to believe a metering installation could be inaccurate, defective, or not fit for purpose they must:

- *advise the MEP*
- *include in the advice all relevant details.*

Audit observation

The process for identifying defective metering was examined and discussed with Kakariki Power's staff.

Audit commentary

Looking for faulty meters or bridged meters is a part of the validation process conducted by the robotron*esales system.

No defective meters were identified during the audit period.

Audit outcome

Compliant

6.5. Collection of information by certified reconciliation participant (Clause 2 Schedule 15.2)

Code reference

Clause 2 Schedule 15.2

Code related audit information

Only a certified reconciliation participant may collect raw meter data, unless only the MEP can interrogate the meter, or the MEP has an arrangement which prevents the reconciliation participant from electronically interrogating the meter:

2(2) - The reconciliation participant must collect raw meter data used to determine volume information from the services interface or the metering installation or from the MEP.

2(3) - The reconciliation participant must ensure the interrogation cycle is such that is does not exceed the maximum interrogation cycle in the registry .

2(4) - The reconciliation participant must interrogate the meter at least once every maximum interrogation cycle.

2(5) - When electronically interrogating the meter the participant must:

a) ensure the system is to within +/- 5 seconds of NZST or NZDST
b) compare the meter time to the system time
c) determine the time error of the metering installation
d) if the error is less than the maximum permitted error, correct the meter's clock
e) if the time error is greater than the maximum permitted error then:
  i) correct the metering installation's clock
  ii) compare the metering installation's time with the system time
  iii) correct any affected raw meter data.
f) download the event log.

2(6) – The interrogation systems must record:

- *the time*
- *the date*
- *the extent of any change made to the meter clock.*

Audit observation

HHR data is provided by MEPs. Interrogation requirements and clock synchronisations were reviewed as part of MEP audits.

Audit commentary

The interrogation systems requirements were examined as part of the MEP audits and found to be compliant.

The MEPs provide clock synchronisation and event reports. When clock synchronisation notifications are received, they are used to determine whether any action is required. No clock synchronisation events requiring action by Kakariki Power were identified during the audit period.

Audit outcome

Compliant

6.6. Derivation of meter readings (Clause 3(1), 3(2) and 5 Schedule 15.2)

Code reference

Clause 3(1), 3(2) and 5 Schedule 15.2

Code related audit information

All meter readings must in accordance with the participants certified processes and procedures and using its certified facilities be sourced directly from raw meter data and, if appropriate, be derived and calculated from financial records.

All validated meter readings must be derived from meter readings.

A meter reading provided by a consumer may be used as a validated meter reading only if another set of validated meter readings not provided by the consumer are used during the validation process.

During the manual interrogation of each NHH metering installation the reconciliation participant must:

a) obtain the meter register
b) ensure seals are present and intact
c) check for phase failure (if supported by the meter)
d) check for signs of tampering and damage
e) check for electrically unsafe situations.

If the relevant parts of the metering installation are visible and it is safe to do so.

Audit observation

The data collection process was examined and discussed with Kakariki Power.

Audit commentary

HHR data is provided by MEPs. Validated readings are derived from actual meter readings. All data received from the MEP is validated upon uploading to the robotron*esales system.

Kakariki Power is aware of the requirements to ensure that photo readings are validated against a set of validated actual readings from another source. If photo readings are used to calculate consumption, the interval data is labelled as estimated. Photo reads assist in the creation of customer's invoices in special circumstances. It is not used for reconciliation purposes. The company provided evidence of a customer read for ICP 0000491990CEBC7.

Audit outcome

Compliant

6.7. NHH meter reading application (Clause 6 Schedule 15.2)

Code reference

Clause 6 Schedule 15.2

Code related audit information

For NHH switch event meter reads, for the gaining trader the reading applies from 0000 hours on the day of the relevant event date and for the losing trader at 2400 hours at the end of the day before the relevant event date.

In all other cases, All NHH readings apply from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation.

Audit observation

Kakariki Power has submitted NHH volumes for two NHH ICPs during the audit period. One NHH ICP was an unmetered load.

Audit commentary

The switch read from the CS file is used as a start read for NHH ICPs. Consecutive readings from WELLS apply from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation.

Audit outcome

Compliant

6.8. Interrogate meters once (Clause 7(1) and (2) Schedule 15.2)

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

Each reconciliation participant must ensure that a validated meter reading is obtained in respect of every meter register for every non half hour metered ICP for which the participant is responsible, at least once during the period of supply to the ICP by the reconciliation participant, and used to create volume information.

This may be a validated meter reading at the time the ICP is switched to, or from, the reconciliation participant.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 7(1).

Audit observation

The process for missing reads was examined and discussed during the audit. Meter Frequency reports submitted to the Authority were analysed.

The Meter Read frequency Reports for the audit period were checked.

Audit commentary

The company supplied two NHH ICPs, one of them was an unmetered load. We confirm that ICP 0000491990CEBC7 was read at least once (WELLS read) during the period of supply.

Audit outcome

Compliant

6.9. NHH meters interrogated annually (Clause 8(1) and (2) Schedule 15.2)

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

At least once every 12 months, each reconciliation participant must obtain a validated meter reading for every meter register for non-half hour metered ICPs, at which the reconciliation participant trades continuously for each 12 month period.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 8(1).

Audit observation

The process for missing reads was examined and discussed during the audit. Meter Frequency reports submitted to the Authority were analysed.

The Meter Readings Frequency Reports for the audit period were checked.

Audit commentary

We reviewed the Meter Readings Frequency reports for the audit period to check if the company had 100% attainment of reads.

Audit outcome

Compliant

6.10. NHH meters 90% read rate (Clause 9(1) and (2) Schedule 15.2)

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

In relation to each NSP, each reconciliation participant must ensure that for each NHH ICP at which the reconciliation participant trades continuously for each 4 months, for which consumption information is required to be reported into the reconciliation process. A validated meter reading is obtained at least once every 4 months for 90% of the non-half hour metered ICPs.

A report is to be sent to the Authority providing the percentage, in relation to each NSP, for which consumption information has been collected no later than 20 business days after the end of each month.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 9(1).

Audit observation

The process for missing reads was examined and discussed during the audit. Meter Frequency reports submitted to the Authority were analysed.

The Meter Readings Frequency Reports for the audit period were checked.

Audit commentary

We reviewed the Meter Readings Frequency reports for the audit period to check if the company had 100% attainment of reads.

Audit outcome

Compliant

6.11. NHH meter interrogation log (Clause 10 Schedule 15.2)

Code reference

Clause 10 Schedule 15.2

Code related audit information

The following information must be logged as the result of each interrogation of the NHH metering:

10(a) - the means to establish the identity of the individual meter reader

10(b) - the ICP identifier of the ICP, and the meter and register identification

10(c) - the method being used for the interrogation and the device ID of equipment being used for interrogation of the meter.

10(d) - the date and time of the meter interrogation.

Audit observation

Kakariki Power used WELLS on an adhoc basis to obtain reads for 0000491990CEBC7

Audit commentary

The WELLS audit report confirms compliance with this clause.

Audit outcome

Compliant

6.12. HHR data collection (Clause 11(1) Schedule 15.2)

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

Raw meter data from all electronically interrogated metering installations must be obtained via the services access interface.

This may be carried out by a portable device or remotely.

Audit observation

HHR data is provided by MEPs. Compliance was assessed as part of their MEP audits.

Audit commentary

MEPs are responsible for HHR data collection, and compliance is recorded in their audit reports.

Audit outcome

Compliant

6.13. HHR interrogation data requirement (Clause 11(2) Schedule 15.2)

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

11(2)(a) - the unique identifier of the data storage device

11(2)(b) - the time from the data storage device at the commencement of the download unless the time is within specification and the interrogation log automatically records the time of interrogation

11(2)(c) - the metering information, which represents the quantity of electricity conveyed at the point of connection, including the date and time stamp or index marker for each half hour period. This may be limited to the metering information accumulated since the last interrogation

11(2)(d) - the event log, which may be limited to the events information accumulated since the last interrogation

11(2)(e) - an interrogation log generated by the interrogation software to record details of all interrogations.

The interrogation log must be examined by the reconciliation participant responsible for collecting the data and appropriate action must be taken if problems are apparent or an automated software function flags exceptions.

Audit observation

HHR data is provided by MEPs. Compliance was assessed as part of their MEP audits.

Audit commentary

MEPs are responsible for HHR data collection, and compliance is recorded in their audit reports.

Audit outcome

Compliant

6.14. HHR interrogation log requirements (Clause 11(3) Schedule 15.2)

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

The interrogation log forms part of the interrogation audit trail and, as a minimum, must contain the following information:

11(3)(a)- the date of interrogation

11(3)(b)- the time of commencement of interrogation

11(3)(c)- the operator identification (if available)

11(3)(d)- the unique identifier of the meter or data storage device

11(3)(e)- the clock errors outside the range specified in Table 1 of clause 2

11(3)(f)- the method of interrogation

11(3)(g)- the identifier of the reading device used for interrogation (if applicable).

Audit observation

HHR data is provided by MEPs. Compliance was assessed as part of their MEP audits.

Audit commentary

MEPs are responsible for HHR data collection, and compliance is recorded in their audit reports.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

The trading period duration, normally 30 minutes, must be within ±0.1% (±2 seconds).

Audit observation

HHR data is provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

MEPs are responsible for meeting compliance with this clause. It is reviewed during their audits. We reviewed data provided by MEPs and confirm that the trading period duration is 30 minutes.

Audit outcome

Compliant

7.2. Archiving and storage of raw meter data (Clause 18 Schedule 15.2)

Code reference

Clause 18 Schedule 15.2

Code related audit information

A reconciliation participant who is responsible for interrogating a metering installation must archive all raw meter data and any changes to the raw meter data for at least 48 months, in accordance with clause 8(6) of Schedule 10.6.

Procedures must be in place to ensure that raw meter data cannot be accessed by unauthorised personnel.

Meter readings cannot be modified without an audit trail being created.

Audit observation

Raw meter data is retained by MEPs, and compliance is assessed as part of their MEP audits. Processes to archive and store raw meter data were reviewed and discussed with Robotron staff.

Audit commentary

- All meter reads are stored in the Kakariki Power communication server storage for at least 48 months.
- Files are imported by esales as per read type - half-hourly reads (HHR) or daily register reads (DRR).
- Files are archived per MEP and stored in separate folders by read type.
- Communication Server folder is backed up periodically as well.

A review of the robotron*esales system audit trails confirmed that reads cannot be modified without an audit trail being created. Access to modify readings is restricted.

Audit outcome

Compliant

7.3. Non metering information collected / archived (Clause 21(5) Schedule 15.2)

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

All relevant non-metering information, such as external control equipment operation logs, used in the determination of profile data must be collected, and archived in accordance with clause 18.

Audit observation

This was discussed during the audit. Non metering information is collected by Kakariki Power.

Audit commentary

Compliance was not assessed because this clause is not applicable.

Audit outcome

Not applicable

8. CREATING AND MANAGING (INCLUDING VALIDATING, ESTIMATING, STORING, CORRECTING AND ARCHIVING) VOLUME INFORMATION

8.1. Correction of NHH meter readings (Clause 19(1) Schedule 15.2)

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

If a reconciliation participant detects errors while validating non-half hour meter readings, the reconciliation participant must:

19(1)(a) - confirm the original meter reading by carrying out another meter reading

19(1)(b) – replace the original meter reading the second meter reading (even if the second meter reading is at a different date)

19(1A) if a reconciliation participant detects errors while validating non half hour meter readings, but the reconciliation participant cannot confirm the original meter reading or replace it with a meter reading from another interrogation, the reconciliation participant must:

- *substitute the original meter reading with an estimated reading that is marked as an estimate; and*
- *subsequently replace the estimated reading in accordance with clause 4(2)*

Audit observation

During the audit we checked and discussed validation and correction processes with Kakariki Power.

Audit commentary

Kakariki supplied only two NHH ICPs during the audit period. One of them was unmetered load. None of the readings required corrections. The robotron*esales system has the functionality to record estimated readings.

Audit outcome

Compliant

8.2. Correction of HHR metering information (Clause 19(2) Schedule 15.2)

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

If a reconciliation participant detects errors while validating half hour meter readings, the reconciliation participant must correct the meter readings as follows:

19(2)(a) - if the relevant metering installation has a check meter or data storage device, substitute the original meter reading with data from the check meter or data storage device; or

19(2)(b) - if the relevant metering installation does not have a check meter or data storage device, substitute the original meter reading with data from another period provided:

(i) The total of all substituted intervals matches the total consumption recorded on a meter, if available; and

(ii) The reconciliation participant considers the pattern of consumption to be materially similar to the period in error

Audit observation

During the audit we checked and discussed validation and correction processes with Kakariki Power. There were no defective meters identified during the audit period.

Audit commentary

Faulty or bridged meters are identified through the data validation process, missing reads process, or information provided by the customer, or by network, or MEP. Where errors are detected, replacement data is estimated by the robotron*esales system in accordance with the code.

The methods for estimations are used according to the following order of precedence.

1. Interpolation for small gaps

   Where the number of trading periods missing is below a threshold, currently 4, then the values will be created by an interpolation method. A straight line will be assumed between the neighbouring values. If meter reads are available, a scaling will be done to scale the inserted values according to the missing amounts.

2. Copy from previous patterns (checking for holidays)

   For gaps larger than the few periods estimated using interpolation, a pattern matching will be applied. This will be like for like, so where a section of readings is missing for say Monday to Wednesday a similar pattern will be searched for over previous weeks. Naturally the most immediately preceding week is used in preference. However, if one of these is not representative say a public holiday, then prior weeks will be searched as a better match. If meter reads are available, a scaling will be done to scale the inserted values in order to match the missing amounts.

3. Average consumption value

   Alternatively, if the above two methods cannot apply, such as when it is a newly switched ICP, we will create consumption based on the average daily kWh information received with the CS file.

4. General consumption profile

As a last resort, when there is no other information available, a general consumption profile representing an average customer pattern will be used.

Audit outcome

Compliant

8.3. Error and loss compensation arrangements (Clause 19(3) Schedule 15.2)

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

A reconciliation participant may use error compensation and loss compensation as part of the process of determining accurate data. Whichever methodology is used, the reconciliation participant must document the compensation process and comply with audit trail requirements set out in the Code.

Audit observation

The registry file was examined. Error and loss compensation was discussed during the audit. One ICP has a multiplier factor applied to metering data.

Audit commentary

Kakariki Power has not supplied ICPs with error or loss compensation.

Audit outcome

Compliant

8.4. Correction of HHR and NHH raw meter data (Clause 19(4) and (5) Schedule 15.2)

Code reference

Clause 19(4) and (5) Schedule 15.2

Code related audit information

In correcting a meter reading in accordance with clause 19, the raw meter data must not be overwritten. If the raw meter data and the meter readings are the same, an automatic secure backup of the affected data must be made and archived by the processing or data correction application.

If data is corrected or altered, a journal must be generated and archived with the raw meter data file. The journal must contain the following:

19(5)(a)- the date of the correction or alteration

19(5)(b)- the time of the correction or alteration

19(5)(c)- the operator identifier for the person within the reconciliation participant who made the correction or alteration

19(5)(d)- the half-hour metering data or the non-half hour metering data corrected or altered, and the total difference in volume of such corrected or altered data

19(5)(e)- the technique used to arrive at the corrected data

19(5)(f)- the reason for the correction or alteration.

Audit observation

Kakariki Power has been supplying mainly HHR ICPs during this audit period. The report in the robotron*esales system identifies ICP metering data which requires closer analysis. If any correction or adjustment is required a journal will be created. It is the same journal which is created when metering data is estimated.

Audit commentary

Raw meter data is held by MEPs, and compliance is recorded in their MEP audits.

Kakariki Power only corrects working data, and they keep an appropriate audit trail.

Audit outcome

Compliant

9. ESTIMATING AND VALIDATING VOLUME INFORMATION

9.1. Identification of readings (Clause 3(3) Schedule 15.2)

Code reference

Clause 3(3) Schedule 15.2

Code related audit information

All estimated readings and permanent estimates must be clearly identified as an estimate at source and in any exchange of metering data or volume information between participants.

Audit observation

The robotron*esales system has a built-in function which allows the identification of actual and estimated readings.

Audit commentary

Flags of read types are recorded correctly in the robotron*esales system. We checked approximately 10 examples to confirm compliance.

Audit outcome

Compliant

9.2. Derivation of volume information (Clause 3(4) Schedule 15.2)

Code reference

Clause 3(4) Schedule 15.2

Code related audit information

Volume information must be directly derived, in accordance with Schedule 15.2, from:

3(4)(a) - validated meter readings

3(4)(b) - estimated readings

3(4)(c) - permanent estimates.

Audit observation

All readings received from the MEPs are validated upon upload to the robotron*esales system.

Audit commentary

Volume information is derived from validated readings provided by the MEP. The robotron*esales system has the functionality to use both validated and estimated readings to create reconciliation files. All readings and interval data are correctly identified.

Audit outcome

Compliant

9.3. Meter data used to derive volume information (Clause 3(5) Schedule 15.2)

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

All meter data that is used to derive volume information must not be rounded or truncated from the stored data from the metering installation.

Audit observation

Metering data is neither rounded nor truncated upon uploading to the robotron*esales system. Kakariki Power provided two examples of data from NGCM, FCLM, and MTRX to demonstrate compliance.

Audit commentary

The MEPs retain raw, unrounded data. Meter reading data is not rounded or truncated on import. Compliance confirmed based on a review of examples provided.

Audit outcome

Compliant

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

If a reconciliation participant is unable to interrogate an electronically interrogated metering installation before the deadline for providing submission information, the submission to the reconciliation manager must be the reconciliation participant's best estimate of the quantity of electricity that was purchased or sold in each trading period during any applicable consumption period for that metering installation.

The reconciliation participant must use reasonable endeavours to ensure that estimated submission information is within the percentage specified by the Authority.

Audit observation

The HHR estimate process was examined, and a sample of 8 estimates were reviewed. Revised data was compared to estimates where the estimates had been replaced.

Audit commentary

All HHR data and register reads (NHH) are provided by MEPs. Kakariki Power closely monitors completeness and accuracy of data. If there are any intervals missing the relevant MEP is contacted and asked for catch-up data. In most cases MEPs are not able to provide it. In such a situation metering data is estimated.

The methods of estimations are used according to the following order of precedence.

1. Interpolation for small gaps

Where the number of trading periods missing is below a threshold, currently 4, then the values will be created by an interpolation method. A straight line will be assumed between the neighbouring values. If meter reads are available, a scaling will be done to scale the inserted values according to the missing amounts.

2. Copy from previous patterns (checking for holidays)

For gaps larger than the few periods estimated using interpolation, a pattern matching will be applied. This will be like for like, so where a section of readings is missing for say Monday to Wednesday a similar pattern will be searched for over previous weeks. Naturally the most immediately preceding week is used in preference. However, if one of these is not representative say a public holiday, then prior weeks will be searched as a better match. If meter reads are available, a scaling will be done to scale the inserted values in order to match the missing amounts.

3. Average consumption value

Alternatively, if the above two methods cannot apply, such as when it is a newly switched ICP, we will create consumption based on the average daily kWh information received with the CS file.

4. General consumption profile

As a last resort, when there is no other information available, a general consumption profile representing an average customer pattern will be used.

Audit outcome

Compliant

9.5. NHH metering information data validation (Clause 16 Schedule 15.2)

Code reference

Clause 16 Schedule 15.2

Code related audit information

Each validity check of non-half hour meter readings and estimated readings must include the following:

> *16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register*
>
> *16(2)(b) - checks for invalid dates and times*
>
> *16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend*
>
> *16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected 0 values.*

Audit observation

The LIS and EDA files were reviewed. During the audit period Kakariki Power traded mostly HHR ICPs and two NHH ICPs

Audit commentary

Only two NHH ICPs were traded during the audit period. One of them was an unmetered load (fibre cabinet) another one was an ICP where a vanilla meter was installed.

Thorough validation of data is performed during upload such as high consumption, low, zero values, load curve.

Audit outcome

Compliant

9.6. Electronic meter readings and estimated readings (Clause 17 Schedule 15.2)

Code reference

Clause 17 Schedule 15.2

Code related audit information

Each validity check of electronically interrogated meter readings and estimate readings must be at a frequency that will allow a further interrogation of the data storage device before the data is overwritten within the data storage device and before this data can be used for any purpose under the Code.

Each validity check of a meter reading obtained by electronic interrogation or an estimated reading must include:

17(4)(a) - checks for missing data

17(4)(b) - checks for invalid dates and times

17(4)(c) - checks of unexpected 0 values

17(4)(d) - comparison with expected or previous flow patterns

17(4)(e) - comparisons of meter readings with data on any data storage device registers that are available

17(4)(f) - a review of the meter and data storage device event log for any event that could have affected the integrity of metering data

17(4)(g) – a review of the relevant metering data where there is an event that could have affected the integrity of the metering data

If there is an event that could affect the integrity of the metering data (including events reported by MEPs, but excluding where the MEP is responsible for investigating and remediating the event) the reconciliation must investigate and remediate any events.

If the event may affect the integrity or operation of the metering installation the reconciliation participant must notify the metering equipment provider.

Audit observation

Meters are electronically interrogated by MEPs. Data is uploaded automatically on a daily basis.

Audit commentary

Meter readings are provided by MEPs and validated upon import.

Robotron*esales is set up with the following validation types:

1. Missing values: All import objects are constantly checked for missing values for the duration of a valid contract. “Missing value”-status is set and can be checked by the user.
2. Unexpected zero values: The daily consumption is checked for the lower threshold of zero. Potential Bridged meters are thereby identified.
3. High values: Threshold for individual values is currently set to 100kWh and for daily sum to 1000kWh.
4. Compared to previous patterns: Deviation between daily sum and previous days sum must be lower than 500%
5. Receive unexpected data: If data for dates older than one month are received, they will not be automatically imported. The user is notified and has to accept it manually

Additionally, all meter data could be viewed graphically, which is an efficient way of checking flow patterns for each customer.

Log files are provided by the relevant MEPs.

Audit outcome

Compliant

10. PROVISION OF METERING INFORMATION TO THE GRID OWNER IN ACCORDANCE WITH SUBPART 4 OF PART 13 (CLAUSE 15.38(1)(F))

10.1. Generators to provide HHR metering information (Clause 13.136)

Code reference

Clause 13.136

Code related audit information

The generator (and/or embedded generator) must provide to the grid owner connected to the local network in which the embedded generator is located, half hour metering information in accordance with clause 13.138 in relation to generating plant that is subject to a dispatch instruction:

- *that injects electricity directly into a local network; or*
- *if the meter configuration is such that the electricity flows into a local network without first passing through a grid injection point or grid exit point metering installation.*

Audit observation

The NSP table in the registry was reviewed.

Audit commentary

Kakariki Power is neither a generator nor embedded generator. They are not responsible for any NSPs. This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

10.2. Unoffered & intermittent generation provision of metering information (Clause 13.137)

Code reference

Clause 13.137

Code related audit information

Each generator must provide the relevant grid owner half-hour metering information for:

- *any unoffered generation from a generating station with a point of connection to the grid 13.137(1)(a)*
- *any electricity supplied from an intermittent generating station with a point of connection to the grid. 13.137(1)(b)*

The generator must provide the relevant grid owner with the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of that generator's volume information. (clause 13.137(2))

If such half-hour metering information is not available, the generator must provide the pricing manager and the relevant grid owner a reasonable estimate of such data. (clause 13.137(3))

Audit observation

The NSP table in the registry was reviewed.

Audit commentary

Kakariki Power is neither a generator nor embedded generator. They are not responsible for any NSPs. This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

10.3. Loss adjustment of HHR metering information (Clause 13.138)

Code reference

Clause 13.138

Code related audit information

The generator must provide the information required by clauses 13.136 and 13.137,

13.138(1)(a)- adjusted for losses (if any) relative to the grid injection point or, for embedded generators the grid exit point, at which it offered the electricity

13.138(1)(b)- in the manner and form that the pricing manager stipulates

13.138(1)(c)- by 0500 hours on a trading day for each trading period of the previous trading day.

The generator must provide the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of the generator's volume information.

Audit observation

The NSP table in the registry was reviewed.

Audit commentary

Kakariki Power is neither a generator nor embedded generator. They are not responsible for any NSPs. This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

10.4. Notification of the provision of HHR metering information (Clause 13.140)

Code reference

Clause 13.140

Code related audit information

If the generator provides half-hourly metering information to a grid owner under clauses 13.136 to 13.138, or 13.138A, it must also, by 0500 hours of that day, advise the relevant grid owner.

Audit observation

The NSP table in the registry was reviewed.

Audit commentary

Kakariki Power is neither a generator nor embedded generator. They are not responsible for any NSPs. This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

Unless an embedded generator has given a notification in respect of the point of connection under clause 15.3, a trader must give notice to the reconciliation manager if it is to commence or cease trading electricity at a point of connection using a profile with a profile code other than HHR, RPS, UML, EG1, or PV1 at least five business days before commencing or ceasing trader.

The notification must comply with any procedures or requirements specified by the reconciliation manager.

Audit observation

The LIS file for the audit period was reviewed to confirm the profiles used.

Audit commentary

Kakariki Power used the HHR and RPS profiles, which do not require a trading notification.

Audit outcome

Compliant

11.2. Calculation of ICP days (Clause 15.6)

Code reference

Clause 15.6

Code related audit information

Each retailer and direct purchaser (excluding direct consumers) must deliver a report to the reconciliation manager detailing the number of ICP days for each NSP for each submission file of submission information in respect of:

> *15.6(1)(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*
>
> *15.6(1)(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

The ICP days information must be calculated using the data contained in the retailer or direct purchaser's reconciliation system when it aggregates volume information for ICPs into submission information.

Audit observation

The process for the calculation of ICP days was examined by checking five NSPs ICPs to confirm the ICPdays calculation was correct.

We reviewed the GR-100 report provided by the reconciliation manager.

Audit commentary

The process for the calculation of ICPdays was examined by checking five NSPs against the active days for ICPs connected to the NSP on the registry LIS file for the audit period. The ICP days calculation was confirmed to be correct for the sample checked. Kakariki Power has a stringent process in place to validate the ICPdays calculation performed by the Robotron*esales.

Month	R0	R1	R3	R7	R14
Dec-20	0.0%	0.0%	0.0%	0.0%	0.0%
Jan-21	0.0%	0.0%	0.0%	0.0%	0.0%
Feb-21	0.0%	0.0%	0.0%	0.0%	0.0%
Mar-21	0.0%	-0.1%	0.0%	0.0%	
Apr-21	-0.1%	0.0%	-0.1%	-0.1%	
May-21	0.0%	0.0%	0.0%	0.0%	
Jun-21	0.0%	0.0%	4.3%	0.0%	
Jul-21	1.4%	4.0%	4.2%	0.0%	
Aug-21	4.0%	4.0%	0.0%	0.0%	
Sep-21	4.0%	0.0%	0.0%		
Oct-21	0.0%	0.0%	0.0%		
Nov-21	0.0%	0.0%			
Dec-21	0.0%	0.0%			
Jan-22	0.1%	0.0%			
Feb-22	0.0%	0.0%			
Mar-22	0.0%				

The discrepancies between ICPdays calculated by the registry and the robotron*esales system were higher (4%) in Jul 2021, Aug 2021, and Sept 2021. It was caused by problems with a new installation, 0000163211CK2A0, which has been mentioned in a number of sections in this report.

Audit outcome

Compliant

11.3. Electricity supplied information provision to the reconciliation manager (Clause 15.7)

Code reference

Clause 15.7

Code related audit information

A retailer must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each NSP, aggregated by invoice month, for which it has provided submission information to the

reconciliation manager, including revised submission information for that period as non- loss adjusted values in respect of:

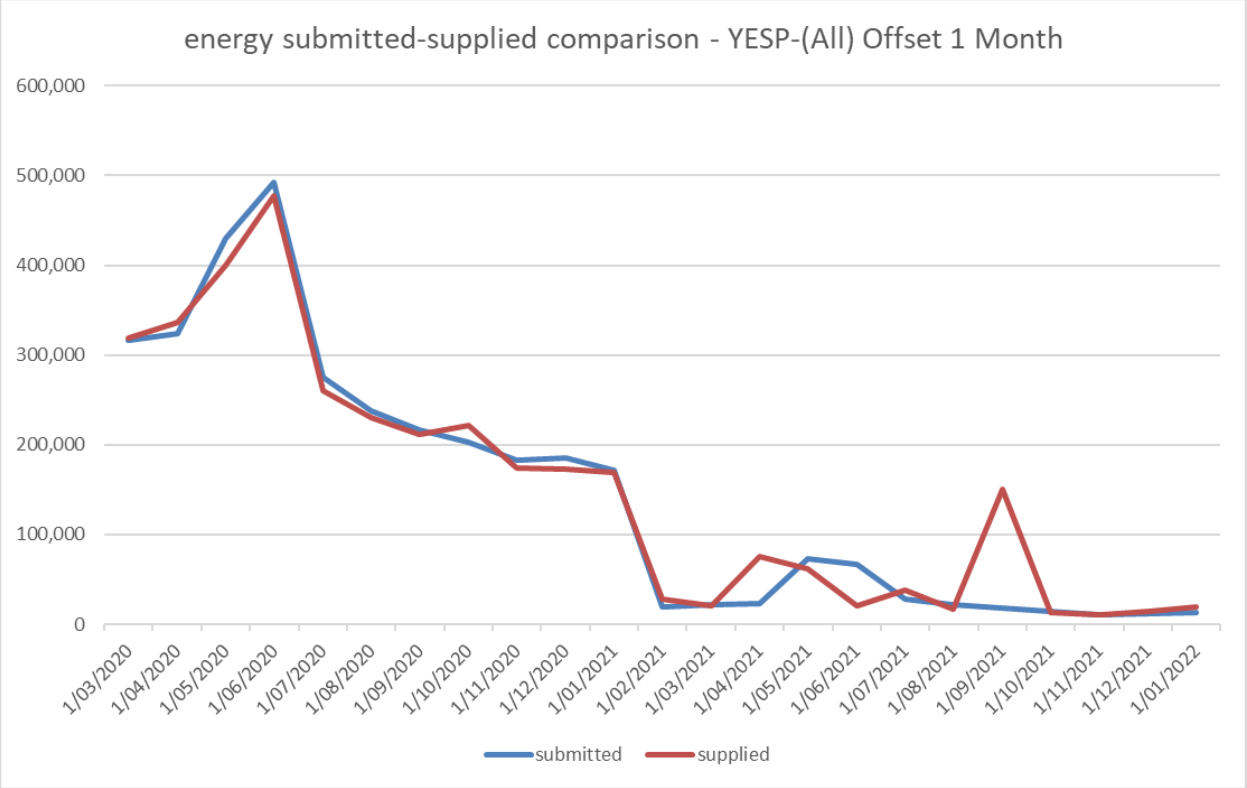
> *15.7(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*
>
> *15.7(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

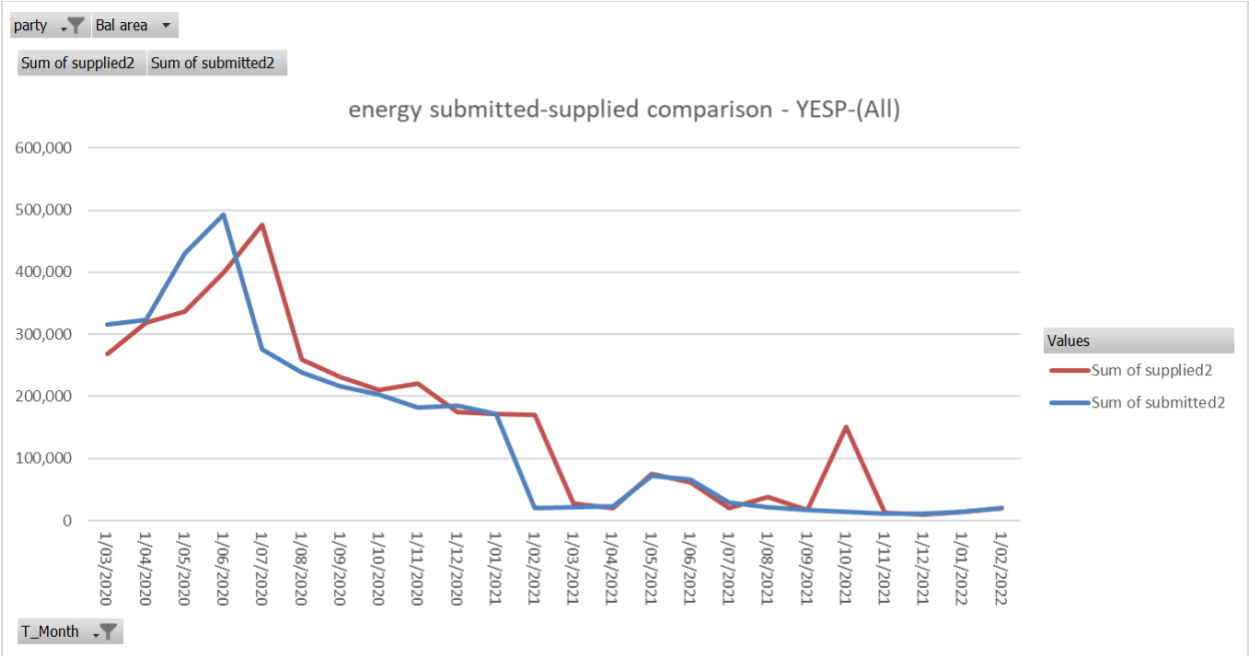
Audit observation

Robotron submits BILLED file monthly. The process for the calculation of "as billed" volumes was examined.

We confirm it submits for all revisions. The table below shows a comparison between volumes submitted and supplied (billed).

Audit commentary





The peak of supplied energy in October 2021 was caused by incorrect billing of 0000163211CK2A0.

Audit outcome

Compliant

11.4. HHR aggregates information provision to the reconciliation manager (Clause 15.8)

Code reference

Clause 15.8

Code related audit information

A retailer or direct purchaser (excluding direct consumers) must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each half hourly metered ICP for which it has provided submission information to the reconciliation manager, including:

> *15.8(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*
>
> *15.8(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

Audit observation

We examined the process for the calculation and aggregation of HHR data. We compared HHR aggregates information with the HHR volumes data for four submissions. The process was discussed with Kakariki Power/Robotron staff.

Kakariki Power provided a set of submission files (AV140) for the month Nov 2021 to Feb 2022. We compared the volumes in HHRVOLS and HHRAGGR for selected months.

Audit commentary

The GR090 ICP missing files received during the audit period were examined. We examined 6 differences recorded during the audit period. We discussed with Robotron's staff.

Month	ICPs	Traded by YESP	Auditor comment	Robotron comment
Jul-21	0000165866CK5FD	27/07/21 to 28/07/21		Volumes have been submitted starting with R3
Jul-21	0000165875CK390	27/04/21 to 01/08/21		Volumes have been submitted starting with R3
Aug-21	0000163211CK2A0	18/04/21 to 27/07/21	Status "Inactive-Reconciled Elsewhere" was backdated to 28/07/2021	
Sep-21	0000163211CK2A0	18/04/21 to 27/07/21	Status "Inactive-Reconciled Elsewhere" was backdated to 28/07/2021	
Jan-22	0001900420ALE52	from 31/01/22	CS received on 31/01/22	Volumes were not included in RM file because status has been changed manual. We are checking for notes still. It will be included in R3.
Mar-22	0012153515EL650	from 24/03/22	CS received on 24/03/22	Volumes have been submitted starting with R3

We confirm volumes in HHRVOLS and HHRAGGR files matched well.

Audit outcome

Compliant

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using 1 of the techniques set out in clause 15.36(3) specified by the Authority.

Audit observation

HHR data is provided by MEPs. Data provided by MEPS is already adjusted for NZDT. Daylight savings processes for the MEPs were reviewed as part of their audits and found to be compliant.

Audit commentary

Daylight savings processes for the MEPs were reviewed as part of their audits and found to be compliant.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

By 1600 hours on the 4th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all NSPs for which the reconciliation participant is recorded in the registry as having traded electricity during the consumption period immediately before that reconciliation period (in accordance with Schedule 15.3).

By 1600 hours on the 13th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all points of connection for which the reconciliation participant is recorded in the registry as having traded electricity during any consumption period being reconciled in accordance with clauses 15.27 and 15.28, and in respect of which it has obtained revised submission information (in accordance with Schedule 15.3).

Audit observation

We reviewed the submission file for October 2021 to Feb 2022. All ICPs are reconciled as HHR.

We checked for alleged breaches regarding late files.

Audit commentary

No breaches had been recorded for late provision of submission information.

We confirmed that Kakariki Power submit volume information on day 4 and day 13 (all relevant revisions)

As a part of assessing compliance, we reviewed reconciliation files HHRAGGR, HHRVOLS, NHHVOLS and ICPDAYS and corresponding RM files GR-100, GR-090 and GR-170HHR. We confirm that all revisions were submitted as prescribed by this clause.

In the **section 11.4** we analysed GR-090. We identified 3 ICPs for which volumes were first submitted in the revisions 3. Volume for ICP 0001900420ALE52 were not submitted for January 2022 (1 day). Robotron confirmed it will be corrected in rev3.

Volumes for ICP 0000163211CK2A0 were not submitted for August and September 2021.

ICP 0000163211CK2A0. It was an "unlucky" installation which was due to a mistake caused by the MEP responsible for this installation. It created a situation where the meter for ICP0000163211CK2A0 was recording volumes which were also recorded by two other meters at ICPs 0000165866CK5FD and 0000165875CK390 for which retailers (CTCT and MERX) were submitting volumes to the reconciliation manager. The two meters for 0000165866CK5FD and 0000165875CK390 became "downstream" meters which meant volumes were incorrectly submitted twice to the market.

ICPs 0000165866CK5FD, and 0000165875CK390 switched out to CTCT and MERX shortly after the installations were electrically connected by Kakariki Power. The fact that Kakariki Power started receiving metering data on 24/08/2021 more than 4 months after commissioning of the electrical connection, resulted in a significant delay in identifying the problem.

Once the problem was discovered Kakariki Power conducted a thorough investigation, discussions were also held with the Authority and a consultant regarding how to correct the problem. A decision was made to assign the status "Inactive-reconciled elsewhere" to the ICP 0000163211CK2A0 until the installation was reconfigured. The registry was updated on 21/10/2021.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.2 With: clause 15.4 From: 01-Jul-21 To: 31-Mar-22	5 ICPs were missing from HHRAGGR and HHRVOLS between July 2021 and March 2022. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Weak Breach risk rating:3
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as weak. They mitigate risk most of the time but there is room for improvement for ICPs which switch late in the month or ICPs as 0000163211CK2A0 for which process of new connections was not followed (monitoring meter installation and receiving data) Audit Risk Rating is recorded as low as the impact on settlement and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated for accurate submission information.	Jun 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Business rules and processes have been reviewed and updated for accurate submission information.	Jun 2022	

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

In preparing and submitting submission information, the reconciliation participant must allocate volume information for each ICP to the NSP indicated by the data held in the registry for the relevant consumption period at the time the reconciliation participant assembles the submission information. Volume information must be derived in accordance with Schedule 15.2.

However, if, in relation to a point of connection at which the reconciliation participant trades electricity, a notification given by an embedded generator under clause 15.13 for an embedded generating station is in force, the reconciliation participant is not required to comply with the above in relation to electricity generated by the embedded generating station.

Audit observation

The process for the calculation of initial and subsequent submission volumes was examined and discussed with Kakariki Power staff. We walked through the HHR volumes and aggregates validation process, including reviewing historic validations.

We sampled 3 NSPs to confirm the correct NSP was allocated as per the data held in the registry.

Audit commentary

The company receives daily updates from the registry and any discrepancies are resolved. This approach allows the company to have volumes allocated for each ICP to the NSP indicated by the data held in the registry for the period that Kakariki Power is responsible for the ICPs.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

The participant (if a grid owner) must deliver to the reconciliation manager for each point of connection for all of its GXPs, the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.9(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period. (clause 15.9(b))*

Audit observation

A review of the NSP table confirmed that Kakariki Power is not a grid owner.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

The participant (if a local or embedded network owner) must provide to the reconciliation manager for each NSP for which the participant has given a notification under clause 25(1) Schedule 11.1 (which relates to the creation, decommissioning, and transfer of NSPs) the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.10(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period. (clause 15.10(b))*

Audit observation

The review of NSP table confirmed that Kakariki Power does not own any local or embedded network.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

The participant (if a grid connected generator) must deliver to the reconciliation manager for each of its points of connection, the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.11(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period. (clause 15.11(b))*

Audit observation

We reviewed the registry NSP table. Kakariki Power is not a grid connected generator.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

If the reconciliation participant has submitted information and then subsequently obtained more accurate information, the participant must provide the most accurate information available to the reconciliation manager or participant, as the case may be, at the next available opportunity for submission (in accordance with clauses 15.20A, 15.27, and 15.28).

Audit observation

We reviewed the schedule of reconciliation submissions used by Kakariki Power. Every month, on day 13th, revision files are submitted for the relevant month. The company also provided the GR-170HHR file from the reconciliation manager.

Audit commentary

We confirm that Kakariki Power submits revision files to the reconciliation manager. We reviewed the initial and revision reconciliation files for Nov 2021 to Feb 2022 and analysed the GR-170HHR.

A review of alleged breaches confirmed that no reconciliation submissions were made late.

Audit outcome

Compliant

12.8. Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2)

Code reference

Clause 4 Schedule 15.2

Code related audit information

Only volume information created using validated meter readings, or if such values are unavailable, permanent estimates, has permanence within the reconciliation processes (unless subsequently found to be in error).

The relevant reconciliation participant must, at the earliest opportunity, and no later than the month 14 revision cycle, replace volume information created using estimated readings with volume information created using validated meter readings.

If, despite having used reasonable endeavours for at least 12 months, a reconciliation participant has been unable to obtain a validated meter reading, the reconciliation participant must replace volume information created using an estimated reading with volume information created using a permanent estimate in place of a validated meter reading.

Audit observation

We reviewed the LIS file covering the audit period to identify if any NHH ICPs were traded.

Audit commentary

Two NHH ICPs were traded during the audit period, ICP 0000173753TPBD0 (UML, for 5 months) and ICP 0000491990CEBC7, which switched to Ecotricity on 31/01/2021. ICP 0000491990CEBC7 switched out on permanent estimates.

Audit outcome

Compliant

12.9. Reconciliation participants to prepare information (Clause 2 Schedule 15.3)

Code reference

Clause 2 Schedule 15.3

Code related audit information

If a reconciliation participant prepares submission information for each NSP for the relevant consumption periods in accordance with the Code, such submission information for each ICP must comprise the following:

- *half hour volume information for the total metered quantity of electricity for each ICP notified in accordance with clause 11.7(2) for which there is a category 3 or higher metering installation (clause 2(1)(a))for each ICP about which information is provided under clause 11.7(2) for which there is a category 1 or category 2 metering installation (clause 2(1)(ac) to 2(1)(ae)):*
  - *a) any half hour volume information for the ICP; or*
  - *b) any non-half hour volumes information calculated under clauses 4 to 6 (as applicable).*
  - *c) unmetered load quantities for each ICP that has unmetered load associated with it derived from the quantity recorded in the registry against the relevant ICP and the number of days in*

the period, the distributed unmetered load database, or other sources of relevant information. (clause 2(1)(c))

- *to create non half hour submission information a reconciliation participant must only use information that is dependent on a control device if (clause 2(2)):*
  - *a) the certification of the control device is recorded in the registry; or*
  - *b) the metering installation in which the control device is location has interim certification.*
- *to create submission information for a point of connection the reconciliation participant must use volume information (clause 2(3))*
- *to calculate volume information the reconciliation participant must apply raw meter data :*
  - *a) for each ICP, the compensation factor that is recorded in the registry (clause 2(4)(a))*
  - *b) for each NSP the compensation factor that is recorded in the metering installations most recent certification report. (clause 2(4)(b))*

Audit observation

Kakariki Power provided submission files submitted for the period November 2021 to Feb 2022. The company submitted HHRVOLS, HHRAGGR, ICPDAYS, and NHHVOLS. Files are submitted by Robotron on behalf of Kakariki Power.

Audit commentary

We assessed compliance with this clause and confirm as follows:

- all Kakariki Power metered ICPs are submitted as HHR. In the past, two ICPs were submitted as NHH.
- no profiles requiring a certified control device were used
- no loss or compensation arrangements were required
- UML ICPs were not traded
- aggregation of HHRAGGR and HHRVOLS is compliant
- One ICP is a category 2 metering installation which requires the application of a multiplier to raw data provided by MEPs. We confirmed that submission volumes were correctly calculated

Audit outcome

Compliant

12.10. Historical estimates and forward estimates (Clause 3 Schedule 15.3)

Code reference

Clause 3 Schedule 15.3

Code related audit information

For each ICP that has a non-half hour metering installation, volume information derived from validated meter readings, estimated readings, or permanent estimates must be allocated to consumption periods using the following techniques to create historical estimates and forward estimates. (clause 3(1))

Each estimate that is a forward estimate or a historical estimate must clearly be identified as such. (clause 3(2))

If validated meter readings are not available for the purpose of clauses 4 and 5, permanent estimates may be used in place of validated meter readings. (clause 3(3))

Audit observation

We reviewed NHHVOLS files submitted for Kakariki Power during the audit period.

This was discussed with Kakariki Power staff and Robotron. In addition, NHHVOLS submission files for the audit period were checked.

Audit commentary

Kakariki Power traded only two NHH ICPs. One of them was unmetered load. Another was a category 2 metering installation, which did not have a smart meter installed. We reviewed NHHVOLS file and confirm that Kakariki Power was submitting FE when readings were not available, and HE when readings were present.

Audit outcome

Compliant

12.11. Historical estimate process (Clause 4 and 5 Schedule 15.3)

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

The methodology outlined in clause 4 of Schedule 15.3 must be used when preparing historic estimates of volume information for each ICP when the relevant seasonal adjustment shape is available.

If a seasonal adjustment shape is not available, the methodology for preparing an historical estimate of volume information for each ICP must be the same as in clause 4, except that the relevant quantities kWh_{Px} must be prorated as determined by the reconciliation participant using its own methodology or on a flat shape basis using the relevant number of days that are within the consumption period and within the period covered by kWh_{Px}.

Audit observation

We provided Robotron with a set of scenarios to validate the accuracy of the calculation of historic and forward estimation for NHH ICP days.

Audit commentary

For the assessment of compliance with this clause we provided a set of scenarios to validate the accuracy of the calculation of historical and forward estimation for NHH ICPs. The results are shown below:

Ref	Test	Comments	Result of Audit
1	Switch in during the month with actual switch read, actual read gained in the next month, full profile data available.	Confirm that HE is calculated for the relevant part of the month, and calculation begins on correct day	Compliant
2	Switch out on actual during the month	Confirm that HE is calculated for the relevant part of the month	Compliant
3	Complete month with a read during the month	Confirm that HE is calculated for the relevant part of the month, and calculation ends on correct day	Compliant

4	GXP change during the month	Confirm submission against one GXP for part month then the other GXP for part month, with correct HE/FE balance on each	Compliant
5	GXP change backdated	Confirm usage is shown against correct GXP for the time of usage	Compliant
6	FE based on default value	Confirm the default multiplied by correct number of days	Compliant
7	FE based on daily kWh from CS file	Confirm CS value multiplied by correct number of days.	Compliant
8	FE based on historic consumption	Confirm methodology for calculation	Compliant
9	Unmetered load submission	Check that this works the same as a normal meter and is considered HE	Compliant
10	CS read modified by RR	Confirm that consumption is updated to match RR read replacing CS	Compliant

Audit outcome

Compliant

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 Schedule 15.3

Code related audit information

Forward estimates may be used only in respect of any period for which an historical estimate cannot be calculated.

The methodology used for calculating a forward estimate may be determined by the reconciliation participant, only if it ensures that the accuracy is within the percentage of error specified by the Authority.

Audit observation

The forward estimate process was discussed during the audit.

Audit commentary

Forward estimates are based on “expected average daily consumption” in the robotron*esales system. It is based on the previous read to read period, or is manually entered for newly switched in reads, using the previous retailer’s average daily consumption from the CS file.

Audit outcome

Compliant

12.13. Compulsory meter reading after profile change (Clause 7 Schedule 15.3)

Code reference

Clause 7 Schedule 15.3

Code related audit information

If the reconciliation participant changes the profile associated with a meter, it must, when determining the volume information for that meter and its respective ICP, use a validated meter reading or permanent estimate on the day on which the profile change is to take effect.

The reconciliation participant must use the volume information from that validated meter reading or permanent estimate in calculating the relevant historical estimates of each profile for that meter.

Audit observation

We reviewed the EDA file for the audit period, and it was discussed with Kakariki Power staff.

Audit commentary

A review of the event detail report confirmed that no ICPs have had a profile change.

All ICPs were submitted using the HHR and RPS profile in the registry.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

13.1. Provision of submission information to the RM (Clause 8 Schedule 15.3)

Code reference

Clause 8 Schedule 15.3

Code related audit information

For each category 3 of higher metering installation, a reconciliation participant must provide half hour submission information to the reconciliation manager.

For each category 1 or category 2 metering installation, a reconciliation participant must provide to the reconciliation manager:

- *Half hour submission information; or*
- *Non half hour submission information; or*
- *A combination of half hour submission information and non-half hour submission information*

However, a reconciliation participant may instead use a profile if:

- *The reconciliation participant is using a profile approved in accordance with clause Schedule 15.5; and*
- *The approved profile allows the reconciliation participant to provide half hour submission information from a non-half hour metering installation; and*
- *The reconciliation participant provides submission information that complies with the requirements set out in the approved profile.*

Half hour submission information provided to the reconciliation manager must be aggregated to the following levels:

- *NSP code*
- *reconciliation type*
- *profile*
- *loss category code*
- *flow direction*
- *dedicated NSP*
- *trading period*

The non-half hour submission information that a reconciliation participant submits must be aggregated to the following levels:

- *NSP code*
- *reconciliation type*
- *profile*
- *loss category code*
- *flow direction*
- *dedicated NSP*
- *consumption period or day*

Audit observation

We reviewed the submission file for October 2021 to Feb 2022. Kakariki Power trades category 1, 2, and 3 metering installations only. All ICPs are reconciled as HHR.

Audit commentary

Kakariki Power submits HHRAGGR and HHRVOLS files. Submission information is provided to the reconciliation manager in the appropriate format and is aggregated to the following level:

- NSP code
- reconciliation type
- profile
- loss category code
- flow direction
- dedicated NSP
- consumption period

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

When reporting submission information, the number of decimal places must be rounded to not more than 2 decimal places.

If the unrounded digit to the right of the second decimal place is greater than or equal to 5, the second digit is rounded up, and

If the digit to the right of the second decimal place is less than 5, the second digit is unchanged.

Audit observation

We reviewed the rounding of data on HHRAGGR and HHRVOLS files as part of the aggregation checks.

Audit commentary

Submission volumes are rounded to no more than two decimal places. It was discussed during the audit as to how submission information was calculated and Robotron confirmed that submission volumes are rounded, using a method prescribed by this clause, at the end of calculations.

Audit outcome

Compliant

13.3. Historical estimate reporting to RM (Clause 10 Schedule 15.3)

Code reference

Clause 10 Schedule 15.3

Code related audit information

By 1600 hours on the 13th business day of each reconciliation period the reconciliation participant must report to the reconciliation manager the proportion of historical estimates per NSP contained within its non-half hour submission information.

The proportion of submission information per NSP that is comprised of historical estimates must (unless exceptional circumstances exist) be:

- *at least 80% for revised data provided at the month 3 revision (clause 10(3)(a))*

- *at least 90% for revised data provided at the month 7 revision (clause 10(3)(b))*
- *100% for revised data provided at the month 14 revision. (clause 10(3)(c))*

Audit observation

We reviewed NHHVOLS files and GR-170NHH to assess compliance.

Audit commentary

We noted that one NSP (CML0331) did not meet the threshold for historical estimate for the 3, 7, and 14 revisions. Kakariki Power explained that the ICP 0000491990CEBC7 switched out on 31/01/2021 and Robotron's staff assigned an incorrect flag to the final read provided to the gaining trader.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 13.3 With: clause 10 of Schedule 15.3 From: 01-Feb-20 To: 31-Mar-22	One NSP (CML0331) did not meet threshold for historical estimate for the 3,7, and 14 revisions Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Strong Breach risk rating:1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong. Only one late update. Audit Risk Rating is recorded as low as the impact on settlement outcomes and participants is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated. Ad-Hoc reads in place for all NHH meters monthly to obtain validated meter reads. Switch out final read is flagged as a permanent estimate.	Jun 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Business rules and processes have been reviewed and updated. Ad-Hoc reads in place for all NHH meters monthly to obtain validated meter reads. Switch out final read is flagged as a permanent estimate.	Jun 2022	

CONCLUSION

PARTICIPANT RESPONSE

Kākāriki Power would like to thank Ewa Glowacka of TEG & Associates Ltd for taking the time to perform our audit and prepare this report. We would also like to thank Robotron New Zealand for all their help and support during this Audit.

We have reviewed the audit and our comments are provided to Ewa. The nine non-compliances relate to three main issues related to new connections, switch response code and NHH ICP.

Business rules and processes related to those non-compliances have been reviewed and updated to improve the controls for the related operational tasks.