

**ELECTRICITY INDUSTRY PARTICIPATION CODE
METERING EQUIPMENT PROVIDER AUDIT REPORT**

For

NETWORK WAITAKI LIMITED
NZBN:9429038763250

Prepared by: Brett Piskulic – Veritek Limited

Date audit commenced: 8 February 2022

Date audit report completed: 31 March 2022

Audit report due date: 01-May-22

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EXECUTIVE SUMMARY

Network Waitaki Limited (Network Waitaki) is a Metering Equipment Provider (MEP) and is required to undergo an audit by 1 May 2022, in accordance with clause 16A.17(a).

This audit has seen Network Waitaki continue to maintain a high level of compliance as an MEP.

The audit identified six areas of non-compliance.

Network Waitaki completed recertification by statistical sampling for 1,143 Category 1 ICPs during the audit period. This included 101 ICPs with expired certification at the time of the last audit. There are now no ICPs with expired certification. Non-compliance is recorded as the certification updates for the statistically recertified ICPs were not made within 15 business days.

There were 12 category 1 metering installations which were not inspected within the maximum inspection period due to access problems, certification is cancelled for these 12 metering installations. This causes non-compliance for both not conducting the inspection and for not cancelling the certification. At the time of finalising this audit report certification had been cancelled and the 12 ICPs had been added to the next statistical recertification project which is planned to be completed by June 2022.

There is one Category 2 installation identified in the last audit which was recertified without low burden being addressed resulting in cancellation of certification. This installation had been downgraded to Category 1 and recertified before this audit report was finalised.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and recommends an audit frequency of 24 months. After reviewing Network Waitaki's responses I agree that a 24 month audit frequency is appropriate.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Changes to registry records	4.10	3 of Schedule 11.4	Some records updated on the registry later than 10 business days.	Strong	Low	1	Cleared
Accurate and Complete Records	5.1	4(1)(a) and (b) of Schedule 10.6, and Table 1, Schedule 11.4	Some incomplete certification records.	Strong	Low	1	Cleared
Provision of Registry Information	6.2	7 (1), (2) and (3) of Schedule 11.4	Small number of registry discrepancies.	Strong	Low	1	Cleared

Cancellation of certification	6.4	6 of Schedule 11.4	Certification cancelled, and registry not updated for: - 12 Category 1 ICPs not inspected within maximum inspection period, and - one Cat 2 ICP certified with low burden.	Strong	Low	1	Cleared
Certification of metering installations	7.1	10.38 (a), clause 1 and clause 15 of Schedule 10.7	Certification cancelled for: - 12 Category 1 ICPs not inspected within maximum inspection period, and - one Cat 2 ICP certified with low burden.	Strong	Low	1	Identified
Category 1 inspections	8.1	45 of Schedule 10.7	12 Category 1 metering installations not inspected within the maximum inspection period.	Strong	Low	1	Cleared
Future Risk Rating						6	
Indicative Audit Frequency						24 months	

Future risk rating	1-2	3-6	7-9	10-19	20-24	25+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Recommendation	Remedial Action
Certification Tests	7.2	Work with the Delta ATH to ensure the details and results of all testing completed are recorded in all metering installation certification reports provided.	Identified

ISSUES

Subject	Section	Recommendation	Description
			Nil

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

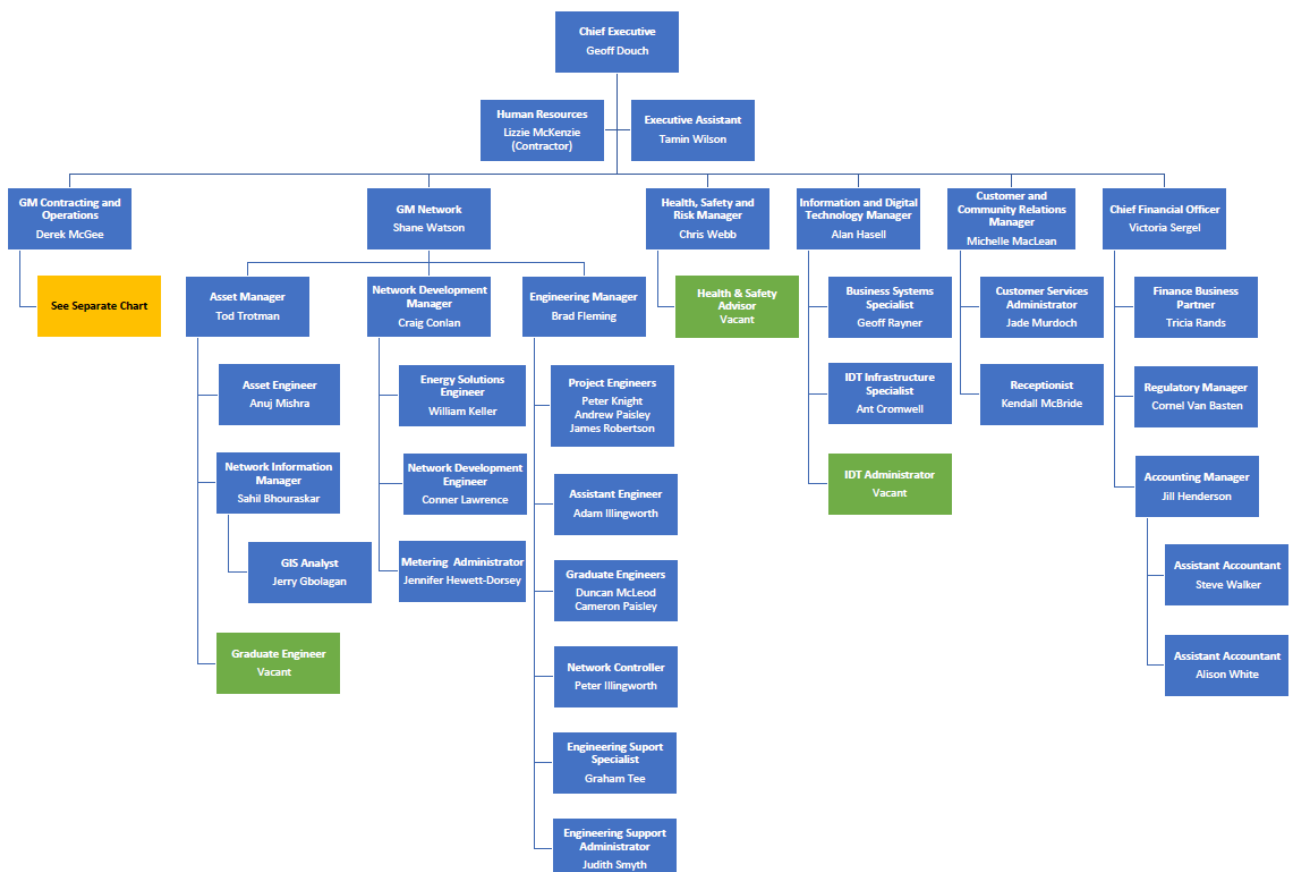
I checked the Electricity Authority website, and I confirm there are no exemptions in place.

Audit commentary

I checked the Electricity Authority website, and I confirm there are no exemptions in place.

1.2. Structure of Organisation

NETWORK WAITAKI ORGANISATION CHART



1.3. Persons involved in this audit

Auditor: Brett Piskulic

Veritek Limited

Electricity Authority Approved Auditor

Network Waitaki personnel assisting in this audit were:

Name	Title
Craig Conlan	Network Development Manager
William Keller	Energy Solutions Engineer
Jennifer Hewett-Dorsey	Metering Administrator

1.4. Use of Agents (Clause 10.3)

Code reference

Clause 10.3

Code related audit information

A participant who uses a contractor

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

Audit observation

Network Waitaki engages with ATHs to conduct certification activities but there are no agents engaged to conduct MEP activities.

Audit commentary

Network Waitaki engages with ATHs to conduct certification activities but there are no agents engaged to conduct MEP activities.

1.5. Hardware and Software

Network Waitaki use a SQL database and Content Management Server.

Data storage is cloud hosted so all data is backed up live and can be restored in the event of a failure of local systems.

1.6. Breaches or Breach Allegations

Network Waitaki confirmed there were no breach allegations related to the scope of this audit.

1.7. ICP Data

Metering Category	Number of active ICPs 2022
1	4,050
2	8
3	0
4	0
5	0
9	0

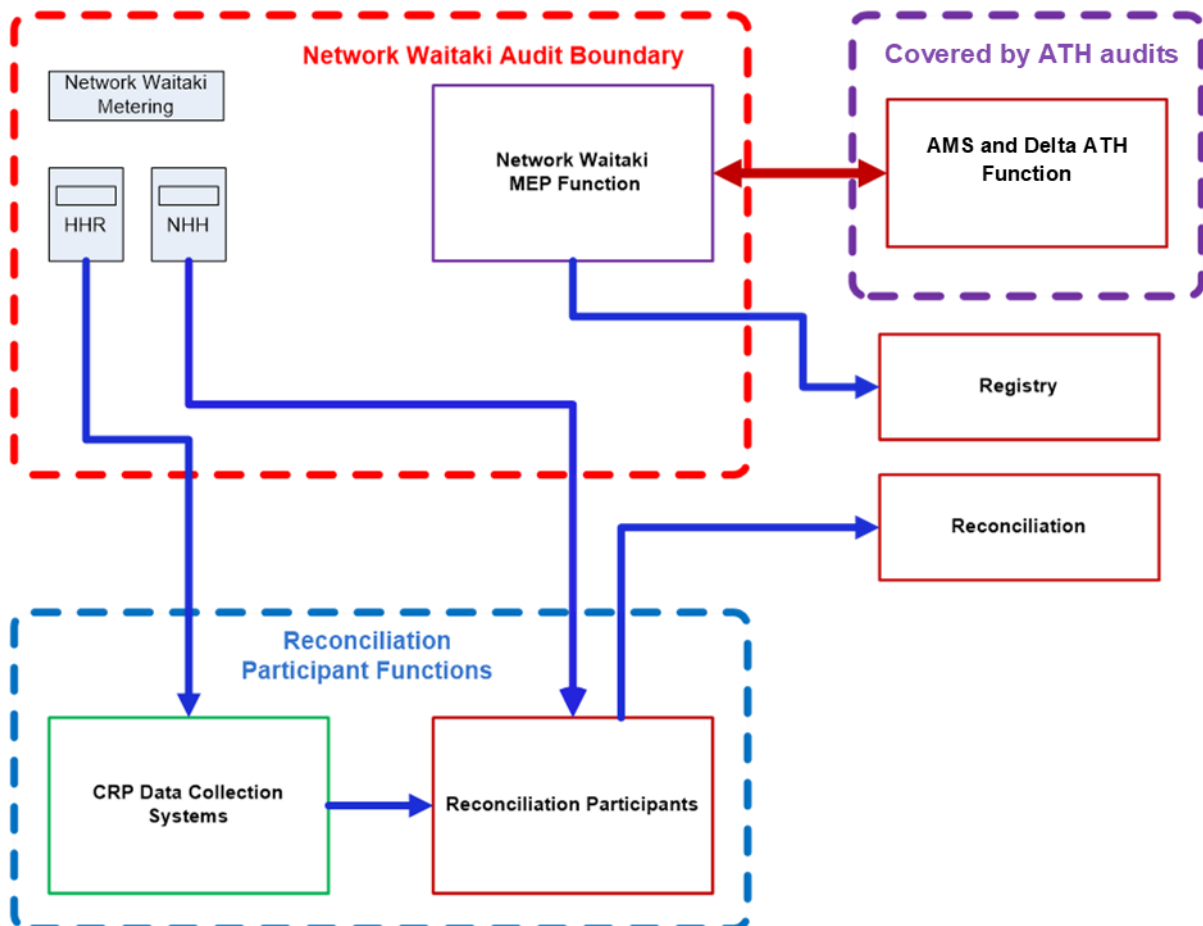
1.8. Authorisation Received

A letter of authorisation was not required or requested.

1.9. Scope of Audit

This audit was conducted in accordance with the Guideline for Metering Equipment Provider Audits V2.2, which was published by the Electricity Authority.

The boundaries of this audit are shown below for greater clarity.



1.10. Summary of previous audit

The previous audit was conducted in April 2020 by Brett Piskulic of Veritek Limited. The table below shows the status of the issues raised.

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Changes to registry records	4.10	3 of Schedule 11.4	Two records updated on the registry later than 10 business days.	Still existing
Response to switch notification	6.1	1(1) of Schedule 11.4	Four late acceptances.	Cleared
Provision of Registry Information	6.2	7 (1), (2) and (3) of Schedule 11.4	Small number of registry discrepancies.	Still existing
Cancellation of certification	6.4	6 of Schedule 11.4	Certification cancelled, and registry not updated for: <ul style="list-style-type: none"> - two Category 1 ICPs not inspected, and - one Cat 2 ICP certified with low burden. 	Still existing
Certification of metering installations	7.1	10.38 (a), clause 1 and clause 15 of Schedule 10.7	Certification expired for 101 ICPs.	Still existing for 13 ICPs with cancelled certification
Category 1 inspections	8.1	45 of Schedule 10.7	Two Category 1 ICPs not inspected.	Still existing

Table of Recommendations

Subject	Section	Clause	Recommendation for improvement	Status
			Nil	

2. OPERATIONAL INFRASTRUCTURE

2.1. MEP responsibility for services access interface (Clause 10.9(2))

Code reference

Clause 10.9(2)

Code related audit information

The MEP is responsible for providing and maintaining the services access interface.

Audit observation

The Code places responsibility for maintaining the services access interface on the MEP and places responsibility for determining and recording it with ATHs. I checked a sample of 18 certification records to confirm if the services access interface was correctly recorded.

Audit commentary

Network Waitaki does not have AMI or data collection facilities; therefore, the services access interface is at the meter in all cases.

The location of the services access interface was correctly recorded in the sample of 18 certification records checked.

Audit outcome

Compliant

2.2. Dispute Resolution (Clause 10.50(1) to (3))

Code reference

Clause 10.50(1) to (3)

Code related audit information

Participants must in good faith use its best endeavours to resolve any disputes related to Part 10 of the Code.

Disputes that are unable to be resolved may be referred to the Authority for determination.

Complaints that are not resolved by the parties or the Authority may be referred to the Rulings Panel by the Authority or participant.

Audit observation

I checked whether any disputes had been dealt with during the audit period.

Audit commentary

Network Waitaki has not been required to resolve any disputes in accordance with this clause.

Audit outcome

Compliant

2.3. MEP Identifier (Clause 7(1) of Schedule 10.6)

Code reference

Clause 7(1) of Schedule 10.6

Code related audit information

The MEP must ensure it has a unique participant identifier and must use this participant identifier (if required) to correctly identify its information.

Audit observation

I checked the registry data to ensure the correct MEP identifier was used.

Audit commentary

Network Waitaki uses the WATA identifier in all cases.

Audit outcome

Compliant

2.4. Communication Equipment Compatibility (Clause 40 Schedule 10.7)

Code reference

Clause 40 Schedule 10.7

Code related audit information

The MEP must ensure that the use of its communication equipment complies with the compatibility and connection requirements of any communication network operator the MEP has equipment connected to.

Audit observation

Network Waitaki is not the MEP for any metering installations where communication equipment is present.

Audit commentary

Network Waitaki is not the MEP for any metering installations where communication equipment is present.

Audit outcome

Not applicable

2.5. Participants to Provide Accurate Information (Clause 11.2 and Clause 10.6)

Code reference

Clause 11.2 and Clause 10.6

Code related audit information

The MEP must take all practicable steps to ensure that information that the MEP is required to provide to any person under Parts 10 and 11 is complete and accurate, not misleading or deceptive and not likely to mislead or deceive.

If the MEP becomes aware that in providing information under Parts 10 and 11, the MEP has not complied with that obligation, the MEP must, as soon as practicable, provide such further information as is necessary to ensure that the MEP does comply.

Audit observation

The content of this audit report was reviewed to determine whether all practicable steps had been taken to provide accurate information.

Audit commentary

The content of this audit report indicates that Network Waitaki has taken all practicable steps to ensure that information is complete and accurate.

Audit outcome

Compliant

3. PROCESS FOR A CHANGE OF MEP

3.1. Change of metering equipment provider (Clause 10.22)

Code reference

Clause 10.22

Code related audit information

The MEP for a metering installation may change only if the responsible participant enters into an arrangement with another person to become the MEP for the metering installation, and if certain requirements are met in relation to updating the registry and advising the reconciliation manager.

The losing MEP must notify the gaining MEP of the proportion of the costs within 40 business days of the gaining MEP assuming responsibility. The gaining MEP must pay the losing MEP within 20 business days of receiving notification from the losing MEP.

The costs are those directly and solely attributable to the certification and calibration tests of the metering installation or its components from the date of switch until the end of the current certification period.

The gaining MEP is not required to pay costs if the losing MEP has agreed in writing that the gaining MEP is not required to pay costs, or the losing MEP has failed to provide notice within 40 business days.

Audit observation

I checked if Network Waitaki had sent or received any invoices.

Audit commentary

Network Waitaki has not sent or received any invoices in relation to this clause during the audit period.

Audit outcome

Not applicable

3.2. Registry Notification of Metering Records (Clause 2 of Schedule 11.4)

Code reference

Clause 2 of Schedule 11.4

Code related audit information

The gaining MEP must advise the registry of the registry metering records for the metering installation within 15 days of becoming the MEP for the metering installation.

Audit observation

I checked the audit compliance reports for the period 1 May 2020 to 10 February 2022 for all records where Network Waitaki became the MEP to evaluate the timeliness of updates.

Audit commentary

There were no examples found in the audit compliance report because Network Waitaki has not become the MEP for any ICPs other than new connections.

Audit outcome

Compliant

3.3. Provision of Metering Records to Gaining MEP (Clause 5 of Schedule 10.6)

Code reference

Clause 5 of Schedule 10.6

Code related audit information

During an MEP switch, a gaining MEP may request access to the losing MEP's metering records.

On receipt of a request from the gaining MEP, the losing MEP has 10 business days to provide the gaining MEP with the metering records or the facilities to enable the gaining MEP to access the metering records.

The losing MEP must ensure that the metering records are only received by the gaining MEP or its contractor, the security of the metering records is maintained, and only the specific metering records required for the purposes of the gaining MEP exercising its rights and performing its obligations are provided.

Audit observation

I checked with Network Waitaki to confirm whether there had been any requests from other MEPs.

Audit commentary

This has not occurred, and no examples are available to examine. Network Waitaki confirmed that metering records can be provided to other MEPs on request.

Audit outcome

Compliant

3.4. Termination of MEP Responsibility (Clause 10.23)

Code reference

Clause 10.23

Code related audit information

Even if the MEP ceases to be responsible for an installation, the MEP must either comply with its continuing obligations; or before its continuing obligations terminate, enter into an arrangement with a participant to assume those obligations.

The MEP is responsible if it:

- *is identified in the registry as the primary metering contact or*
- *is the participant who owns the meter for the POC or to the grid or*
- *has accepted responsibility under clause 1(1)(a)(ii) of schedule 11.4 or*
- *has contracted with a participant responsible for providing the metering installation.*

MEPs obligations come into effect on the date recorded in the registry as being the date on which the metering installation equipment is installed or, for an NSP the effective date set out in the NSP table on the Authority's website.

An MEPs obligations terminate only when:

- *the ICP changes under clause 10.22(1)(a),*
- *the NSP changes under clause 10.22(1)(b), in which case the MEPs obligations terminate from the date on which the gaining MEP assumes responsibility,*
- *the metering installation is no longer required for the purposes of Part 15, or*
- *the load associated with an ICP is converted to be used solely for unmetered load.*

Audit observation

I confirmed that Network Waitaki has ceased to be responsible for some metering installations by checking the event detail report.

Audit commentary

Network Waitaki has ceased to be responsible for some metering installations and they still continue with their responsibilities, mainly in relation to the storage or records, which are kept indefinitely.

Audit outcome

Compliant

4. INSTALLATION AND MODIFICATION OF METERING INSTALLATIONS

4.1. Design Reports for Metering Installations (Clause 2 of Schedule 10.7)

Code reference

Clause 2 of Schedule 10.7

Code related audit information

The MEP must obtain a design report for each proposed new metering installation or a modification to an existing metering installation, before it installs the new metering installation or before the modification commences.

Clause 2(2) and (3)—The design report must be prepared by a person with the appropriate level of skills, expertise, experience and qualifications and must include a schematic drawing, details of the configuration scheme that programmable metering components are to include, confirmation that the configuration scheme has been approved by an approved test laboratory, maximum interrogation cycle for each services access interface, any compensation factor arrangements, method of certification required, and name and signature of the person who prepared the report and the date it was signed.

Clause 2(4)—The MEP must provide the design report to the certifying ATH before the ATH installs or modifies the metering installation (or a metering component in the metering installation).

Audit observation

I checked the design reports in use to confirm compliance with this clause.

Audit commentary

I checked four design reports and confirmed all of the requirements noted above were included and they were prepared by a person with the appropriate level of skills, expertise, experience and qualifications. No new design reports were prepared during the audit period.

Audit outcome

Compliant

4.2. Contracting with ATH (Clause 9 of Schedule 10.6)

Code reference

Clause 9 of Schedule 10.6

Code related audit information

The MEP must, when contracting with an ATH in relation to the certification of a metering installation, ensure that the ATH has the appropriate scope of approval for the required certification activities.

Audit observation

I confirmed that Network Waitaki has used both the AMS and Delta ATHs during the audit period. Network Waitaki changed its contracted provider during the audit period and now uses the Delta ATH only.

Audit commentary

I checked the Authority's website and confirmed that both the AMS and Delta ATHs have appropriate scope of approval.

Audit outcome

Compliant

4.3. Metering Installation Design & Accuracy (Clause 4(1) of Schedule 10.7)

Code reference

Clause 4(1) of Schedule 10.7

Code related audit information

The MEP must ensure:

- that the sum of the measured error and uncertainty does not exceed the maximum permitted error set out in Table 1 of Schedule 10.1 for the category of the metering installation
- the design of the metering installation (including data storage device and interrogation system) will ensure the sum of the measured error and the smallest possible increment of the energy value of the raw meter data does not exceed the maximum permitted error set out in Table 1 of Schedule 10.1 for the category of installation
- the metering installation complies with the design report and the requirements of Part 10.

Audit observation

I checked the processes used by Network Waitaki to ensure compliance with the design and with the error thresholds stipulated in Table 1. I also checked the certification records for 18 metering installations.

Audit commentary

The design report confirms the errors stipulated in Table 1 will not be exceeded. All 18 certification reports correctly recorded the design report, and that the installation complied.

Audit outcome

Compliant

4.4. Net metering and Subtractive Metering (Clause 10.13A and 4(2)(a) of Schedule 10.7)

Code reference

Clause 10.13A and Clause 4(2)(a) of Schedule 10.7

Code related audit information

MEPs must ensure that the metering installation records imported electricity separately from exported electricity. For category 1 and 2 installations the MEP must ensure the metering installation records imported and exported electricity separately for each phase. For category 3 or higher installations, the MEP does not need to ensure that imported and exported electricity is recorded separately for each phase.

If the metering installation contains multiple phases, the MEP may aggregate together the amounts of imported electricity recorded on different phases, or the amounts of exported electricity recorded on different phases. However, the MEP must not aggregate imported and exported electricity together. For metering installations for ICPs that are not also NSPs, the MEP must ensure that the metering installation does not use subtraction to determine submission information used for the purposes of Part 15.

Audit observation

I asked Network Waitaki to confirm whether subtraction was used for any metering installations where they were the MEP.

Audit commentary

Network Waitaki does not have any metering installations where subtractive metering is used.

Audit outcome

Not applicable

4.5. HHR Metering (Clause 4(2)(b) of Schedule 10.7)

Code reference

Clause 4(2)(b) of Schedule 10.7

Code related audit information

For metering installations for ICPs that are not also NSPs, the MEP must ensure that all category 3 or higher metering installations must be half-hour metering installations.

Audit observation

I checked Network Waitaki's list file to confirm compliance with this requirement.

Audit commentary

Network Waitaki only has Category 1 and Category 2 metering installations.

Audit outcome

Compliant

4.6. NSP Metering (Clause 4(3) of Schedule 10.7)

Code reference

Clause 4(3) of Schedule 10.7

Code related audit information

The MEP must ensure that the metering installation for each NSP that is not connected to the grid does not use subtraction to determine submission information used for the purposes of Part 15 and is a half-hour metering installation.

Audit observation

I checked if Network Waitaki is responsible for any NSP metering.

Audit commentary

Network Waitaki is not the MEP for any NSP metering.

Audit outcome

Not applicable

4.7. Responsibility for Metering Installations (Clause 10.26(10))

Code reference

Clause 10.26(10)

Code related audit information

The MEP must ensure that each point of connection to the grid for which there is a metering installation that it is responsible for has a half hour metering installation.

Audit observation

I checked if Network Waitaki is responsible for any GXP metering by reviewing the NSP Mapping Table.

Audit commentary

Network Waitaki is not the MEP for any grid metering.

Audit outcome

Not applicable

4.8. Suitability of Metering Installations (Clause 4(4) of Schedule 10.7)

Code reference

Clause 4(4) of Schedule 10.7

Code related audit information

The MEP must, for each metering installation for which it is responsible, ensure that it is appropriate having regard to the physical and electrical characteristics of the POC.

Audit observation

I asked Network Waitaki to provide details of how they ensure the suitability of metering installations.

Audit commentary

Network Waitaki provided a copy of the “Network Procedure – Authorised Contractors Installation of Meters” document. I confirmed that this document contains instructions to installers regarding the physical location of metering installations. The document also includes the certification requirements of the Electrical Safety Regulations for all scenarios relating to work completed on metering installations. Network Waitaki and the ATH conduct regular audits of meter installers work to ensure compliance.

Audit outcome

Compliant

4.9. Installation & Modification of Metering Installations (Clauses 10.34(2), (2A) and (3))

Code reference

Clauses 10.34(2), (2A) and (3)

Code related audit information

If a metering installation is proposed to be installed or modified at a POC, other than a POC to the grid, the MEP must consult with and use its best endeavours, to agree with the distributor and the trader for that POC, before the design is finalised, on the metering installation's:

- *required functionality*
- *terms of use*
- *required interface format*
- *integration of the ripple receiver and the meter*
- *functionality for controllable load.*

This includes where the MEP is proposing to replace a metering component or metering installations with the same or similar design and functionality but excludes where the MEP has already consulted on the design with the distributor and trader.

Each participant involved in the consultations must use its best endeavours to reach agreement and act reasonably and in good faith.

Audit observation

I checked whether appropriate consultation had occurred.

Audit commentary

The design reports have all been sent to the relevant traders and no changes have been required as a result of their responses. Network Waitaki does not have any metering installations on other networks. There were no new design reports created during the audit period.

Audit outcome

Compliant

4.10. Changes to Registry Records (Clause 3 of Schedule 11.4)

Code reference

Clause 3 of Schedule 11.4

Code related audit information

If the MEP has an arrangement with the trader the MEP must advise the registry manager of the registry metering records, or any change to the registry metering records, for each metering installation for which it is responsible at the ICP, no later than 10 business days following:

- a) the electrical connection of the metering installation at the ICP*
- b) any subsequent change to the metering installation's metering records*

If the MEP is update the registry in accordance with 8(11)(b) of Schedule 10.6, 10 business days after the most recent unsuccessful interrogation.

If update the registry in accordance with clause 8(13) of Schedule 10.6, 3 business days following the expiry of the time period or date from which the MEP determines it cannot restore communications.

Audit observation

I checked the audit compliance reports for the period 1 May 2020 to 10 February 2022 to evaluate the timeliness of registry updates.

Audit commentary

The table below shows that there were three new connections updated later than 10 business days, two of these were due to corrections of certification data backdated to the original certification date.

There were 1,201 registry updates after recertification, 964 of these were later than 10 business days. 904 of the late updates following recertification by statistical sampling were completed 17 business days after the recertification took place. The lateness was due to delays in arranging the bulk update. I checked a sample of 27 of the remaining 60 late updates and found they were all due to corrections of certification data backdated to the original certification date.

Event	Year	Total ICPs	ICPs Notified Within 10 Days	ICPs Notified Greater Than 10 Days	Average Notification Days	Percentage Compliant
New connections	2017	11	9	2		82%
	2018	34	31	3	3.4	91%
	2020	17	17	0	Not calculated	100%

	2022	13	10	3	Not calculated	76.92%
Update	2017	13,456	1,157	12,299		8.6%
	2018	2,109	2,031	73	4	97%
	2020	214	212	2	1.2	99.06%
	2022	1,201	237	964	29.58	19.73%

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.10 With: Clause 3 of Schedule 11.4 From: 01-May-20 To: 10-Feb-22	Some records updated on the registry later than 10 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	I have recorded the controls as strong as Network Waitaki had updated its processes regarding the bulk updates following statistical recertification, before this audit report was finalised. The impact on participants, customers or settlement could be minor where a certification update is late; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Investigated why the updates were late and the effectiveness of our controls.		31/03/22	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
After our review of controls, we updated our processes to prevent this happening again. Refer to files: 05 Replace and Test a Sample of Meters at 15 Years – Process 04 10 Year Meter Inspections process		31/03/22	

4.11. Metering Infrastructure (Clause 10.39(1))

Code reference

Clause 10.39(1)

Code related audit information

The MEP must ensure that for each metering installation:

- an appropriately designed metering infrastructure is in place
- each metering component is compatible with, and will not interfere with any other component in the installation
- collectively, all metering components integrate to provide a functioning system
- each metering installation is correctly and accurately integrated within the associated metering infrastructure.

Audit observation

Network Waitaki does not manage a data collection system that would be considered “metering infrastructure”.

Audit commentary

Network Waitaki does not manage a data collection system that would be considered “metering infrastructure”.

Audit outcome

Not applicable

4.12. Responsibility for Metering at ICP (Clause 11.18B(3))

Code reference

Clause 10.23A

Code related audit information

If a metering installation at an ICP is to be decommissioned, but the ICP is not being decommissioned, the metering equipment provider that is responsible for decommissioning the metering installation must—

(a) if the metering equipment provider is responsible for interrogating the metering installation—

(i) arrange for a final interrogation to take place before the metering installation is decommissioned; and

(ii) provide the raw meter data from the interrogation to the trader that is recorded in the registry as being responsible for the ICP; or

(b) if another participant is responsible for interrogating the metering installation, advise the other participant not less than three business days before the decommissioning—

(i) of the date and time of the decommissioning; and

(ii) that the participant must carry out a final interrogation.

(2) To avoid doubt, if a metering installation at an ICP is to be decommissioned because the ICP is being decommissioned—

(a) the metering equipment provider is not responsible for arranging a final interrogation of the metering installation; and

(b) the trader that is recorded in the registry as being responsible for the ICP must arrange for a final interrogation of the metering installation under clause 11.18(3).

Audit observation

I checked whether Network Waitaki was the MEP at any decommissioned ICPs and whether notification had been provided to relevant traders.

Audit commentary

There were no examples of decommissioned metering installations where the ICP was not decommissioned.

Audit outcome

Compliant

4.13. Measuring Transformer Burden and Compensation Requirements (Clause 31(4) and (5) of Schedule 10.7)

Code reference

Clause 31(4) and (5) of Schedule 10.7

Code related audit information

The MEP must, before approving the addition of, or change to, the burden or compensation factor of a measuring transformer in a metering installation, consult with the ATH who certified the metering installation.

If the MEP approves the addition of, or change to, the burden or compensation factor, it must ensure the metering installation is recertified by an ATH before the addition or change becomes effective.

Audit observation

I asked Network Waitaki whether they had approved any burden changes during the audit period.

Audit commentary

There have not been any examples of burden changes occurring during the audit period.

Audit outcome

Compliant

4.14. Changes to Software ROM or Firmware (Clause 39(1) and 39(2) of Schedule 10.7)

Code reference

Clause 39(1) and 39(2) of Schedule 10.7

Code related audit information

The MEP must, if it proposes to change the software, ROM or firmware of a data storage device installed in a metering installation, ensure that, before the change is carried out, an approved test laboratory:

- *tests and confirms that the integrity of the measurement and logging of the data storage device would be unaffected*
- *documents the methodology and conditions necessary to implement the change*
- *advises the ATH that certified the metering installation of any change that might affect the accuracy of the data storage device.*

The MEP must, when implementing a change to the software, ROM or firmware of a data storage device installed in a metering installation:

- *carry out the change in accordance with the methodology and conditions identified by the approved test laboratory under clause 39(1)(b)*

- *keep a list of the data storage devices that were changed*
- *update the metering records for each installation affected with the details of the change and the methodology used.*

Audit observation

Network Waitaki is not the MEP for any metering installations where these changes would occur.

Audit commentary

Network Waitaki is not the MEP for any metering installations where these changes would occur.

Audit outcome

Not applicable

4.15. Temporary Electrical Connection (Clauses 10.29A)

Code reference

Clause 10.29A

Code related audit information

An MEP must not request that a grid owner temporarily electrically connect a POC to the grid unless the MEP is authorised to do so by the grid owner responsible for that POC and the MEP has an arrangement with that grid owner to provide metering services.

Audit observation

Network Waitaki is not responsible for any grid metering.

Audit commentary

Network Waitaki is not responsible for any grid metering.

Audit outcome

Not applicable

4.16. Temporary Electrical Connection (Clause 10.30A)

Code reference

Clause 10.30A

Code related audit information

An MEP must not request that a distributor temporarily electrically connect an NSP that is not a POC to the grid unless the MEP is authorised to do so by the reconciliation participant responsible for that NSP and the MEP has an arrangement with that reconciliation participant to provide metering services.

Audit observation

Network Waitaki is not responsible for any NSP metering.

Audit commentary

Network Waitaki is not responsible for any NSP metering.

Audit outcome

Not applicable

4.17. Temporary Electrical Connection (Clause 10.31A)

Code reference

Clause 10.31A

Code related audit information

Only a distributor may, on its network, temporarily electrically connect an ICP that is not an NSP. A MEP may only request the temporary electrical connection of the ICP if it is for the purpose of certifying a metering installation, or for maintaining, repairing, testing, or commissioning a metering installation at the ICP.

Audit observation

I checked if there were any examples of temporary electrical connection for the purposes of testing.

Audit commentary

Network Waitaki does not conduct temporary electrical connections, all new connections are done by Network Waitaki inspectors who also install and certify the metering installations at the time of connection under the Delta ATH.

Audit outcome

Compliant

5. METERING RECORDS

5.1. Accurate and Complete Records (Clause 4(1)(a) and (b) of Schedule 10.6, and Table 1, Schedule 11.4)

Code reference

Clause 4(1)(a) and (b) of Schedule 10.6, and Table 1, Schedule 11.4

Code related audit information

The MEP must, for each metering installation for which it is responsible, keep accurate and complete records of the attributes set out in Table 1 of Schedule 11.4. These include:

- a) the certification expiry date of each metering component in the metering installation
- b) all equipment used in relation to the metering installation, including serial numbers and details of the equipment's manufacturer
- c) the manufacturer's or (if different) most recent test certificate for each metering component in the metering installation
- d) the metering installation category and any metering installations certified at a lower category
- e) all certification reports and calibration reports showing dates tested, tests carried out, and test results for all metering components in the metering installation
- f) the contractor who installed each metering component in the metering installation
- g) the certification sticker, or equivalent details, for each metering component that is certified under Schedule 10.8 in the metering installation:
- h) any variations or use of the 'alternate certification' process
- i) seal identification information
- j) any applicable compensation factors
- k) the owner of each metering component within the metering installation
- l) any applications installed within each metering component
- m) the signed inspection report confirming that the metering installation complies with the requirements of Part 10.

Audit observation

I checked certification records for 18 metering installations to evaluate compliance with this clause. I also checked the Category 1 inspection records for 2020 and 2021.

Audit commentary

I checked certification records for 18 metering installations to evaluate compliance with this clause. 16 were certified by the Delta ATH and two by the AMS ATH. The table below shows the results.

		Quantity missing	
Clause	Field required	AMS	Delta
9(1)(c) of Schedule 10.7	Test results - Record of increment in register value of accumulation of pulses over a measured time. Record that the register has advanced.	2	6
17(1)(b) of Schedule 10.7	Record the expiry date of the metering installation in the metering installation certification report.		1

The inspection process did not identify any information related issues.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 5.1 With: Clause 4(1) of Schedule 10.6 From: 01-May-20 To: 10-Feb-22	Some incomplete certification records. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	I have recorded the controls strong as Network Waitaki had updated certification report template used by its inspectors to include all test results, before this this audit report was finalised. There is a minor impact on other participants; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have reviewed the causes of the incomplete records and checked our controls for effectiveness		31/3/22	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Form amended by Metering Team and forms will be checked for completeness when received. Refer file: 03 NWL Job Sheet v3.0 28Mar2022.pdf		31/3/22	

5.2. Inspection Reports (Clause 4(2) of Schedule 10.6)

Code reference

Clause 4(2) of Schedule 10.6

Code related audit information

The MEP must, within 10 business days of receiving a request from a participant for a signed inspection report prepared under clause 44 of Schedule 10.7, make a copy of the report available to the participant.

Audit observation

I asked Network Waitaki whether any requests had been made for copies of inspection reports.

Audit commentary

Network Waitaki has not been requested to supply any inspection reports, but these are available and can be supplied on request.

Audit outcome

Compliant

5.3. Retention of Metering Records (Clause 4(3) of Schedule 10.6)

Code reference

Clause 4(3) of Schedule 10.6

Code related audit information

The MEP must keep metering installation records for 48 months after any metering component is removed, or any metering installation is decommissioned.

Audit observation

I checked the Network Waitaki processes to confirm compliance.

Audit commentary

The Network Waitaki processes ensure that all records are kept indefinitely.

Audit outcome

Compliant

5.4. Provision of Records to ATH (Clause 6 Schedule 10.6)

Code reference

Clause 6 Schedule 10.6

Code related audit information

If the MEP contracts with an ATH to recertify a metering installation and the ATH did not previously certify the metering installation, the MEP must provide the ATH with a copy of all relevant metering records not later than 10 business days after the contract comes into effect.

Audit observation

Network Waitaki will comply with this requirement as it arises. There are no current examples where this has occurred.

Audit commentary

Network Waitaki will comply with this requirement as it arises. There are no current examples where this has occurred.

Audit outcome

Compliant

6. MAINTENANCE OF REGISTRY INFORMATION

6.1. MEP Response to Switch Notification (Clause 1(1) of Schedule 11.4)

Code reference

Clause 1(1) of Schedule 11.4

Code related audit information

Within 10 business days of being advised by the registry that it is the gaining MEP for the metering installation for the ICP, the MEP must enter into an arrangement with the trader and advise the registry it accepts responsibility for the ICP and of the proposed date on which it will assume responsibility.

Audit observation

I checked the switch breach history detail report to confirm whether all responses were within 10 business days.

Audit commentary

The switch breach history detail report identified no examples of late acceptance.

Audit outcome

Compliant

6.2. Provision of Registry Information (Clause 7 (1), (1A), (2) and (3) of Schedule 11.4)

Code reference

Clause 7 (1), (1A), (2) and (3) of Schedule 11.4

Code related audit information

The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry manager, in the prescribed form for each metering installation for which the MEP is responsible.

The MEP does not need to provide 'required' information if the information is only for the purpose of a distributor direct billing consumers on its network.

From 1 April 2015, a MEP is required to ensure that all the registry metering records of its category 1 metering installations are complete, accurate, not misleading or deceptive, and not likely to mislead or deceive.

The information the MEP provides to the registry manager must derive from the metering equipment provider's records or the metering records contained within the current trader's system.

Audit observation

I checked the list file and audit compliance report to identify discrepancies.

Audit commentary

Analysis of the list file and audit compliance report found a small number of issues. The table below shows the issues found and has a comparison to the previous audit results.

Quantity of ICPs 2022	Quantity of ICPs 2020	Quantity of ICPs 2018	Quantity of ICPs Dec 2016	Quantity of ICPs Feb 2016	Issue	Resolution
-	2				Incorrect ATH	N/A
461	-	-	-	-	Incorrect ATH identifier of VEMS used, 299 of 461 during the audit period, should be recorded as VCOM since 28/9/2018.	Resolved
1	5	236	467	102	Incorrect certification or expiry dates. Dates updated at time of audit.	Resolved
1	1	1	1	1	Network Waitaki nominated as MEP for ICP 0000050330WT582 but no metering installed. Prior to finalising the audit report, Meridian had updated the "Unmetered Load Details – Trader" field to indicate that this is unmetered load and no metering will be installed by network Waitaki.	Resolved
0	0	0	1	55	ICPs with a controlled tariff but no control device.	N/A
2	0	0	0	34	ICPs with CN only and a residential ANZSIC code. 2 ICPs were identified but the ANZSIC codes are incorrect, CN is correct.	N/A
0	1	0	0	2	ICPs with night but no day.	N/A
0	0	0	0	4	Timed profiles with LCD certification = No.	N/A
0	0	0	0	2	Incorrect AMI flag	N/A
1	2	3	Not checked	Not checked	UN with a control device Control device has been removed and registry updated at time of audit.	Resolved

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.2 With: Clause 7 (1), (2) and (3) of Schedule 11.4 From: 01-May-20 To: 10-Feb-22	Small number of registry discrepancies. 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	I have recorded the controls as strong in this area because there were only a small number of issues, all of which are now resolved. Very few of the discrepancies have an impact on participants, customers or settlement. The audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
WE have amended the incorrect ATH identifier and have been removed by Meridian as MEP for the Benmore Dam supply and have confirmed that the ANSIC codes are correct for the CN only ICPs		31/3/22	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We have received a proposal for review of our data checking scripts to identify any other automated checking we can do to avoid these errors reoccurring. We plan to review this over the next 2 months.		31/3/22	

6.3. Correction of Errors in Registry (Clause 6 of Schedule 11.4)

Code reference

Clause 6 of Schedule 11.4

Code related audit information

By 0900 hours on the 13th business day of each reconciliation period, the MEP must obtain from the registry:

- *a list of ICPs for the metering installations the MEP is responsible for*
- *the registry metering records for each ICP on that list.*

No later than five business days following collection of data from the registry, the MEP must compare the information obtained from the registry with the MEP's own records.

Within five business days of becoming aware of any discrepancy between the MEP's records and the information obtained from the registry, the MEP must correct the records that are in error and advise the registry of any necessary changes to the registry metering records.

Audit observation

I conducted a walkthrough of the validation processes to confirm compliance. I checked Network Waitaki's reporting which shows days elapsed between finding a discrepancy and updating the registry.

Audit commentary

Network Waitaki has a full comparison capability through a database that was developed for this purpose. A "Data Rule Exception report" is automatically generated weekly which identifies any discrepancies. All discrepancies are investigated and if an error is confirmed, the registry is updated immediately. A check for incorrect certification periods was added to the report during the audit period. I viewed a folder containing copies of the weekly reports which confirmed that the requirement to conduct a check by 13th business day of each reconciliation period is met. I checked the most recent report and confirmed that all updates were completed within five business days.

Audit outcome

Compliant

6.4. Cancellation of Certification (Clause 20 of Schedule 10.7)

Code reference

Clause 20 of Schedule 10.7

Code related audit information

The certification of a metering installation is automatically cancelled on the date on which one of the following events takes place:

- a) the metering installation is modified otherwise than under sub clause 19(3), 19(3A) or 19(3C)*
- b) the metering installation is classed as outside the applicable accuracy tolerances set out in Table 1 of Schedule 10.1, defective or not fit for purpose under this Part or any audit*
- c) an ATH advises the metering equipment provider responsible for the metering installation of a reference standard or working standard used to certify the metering installation not being compliant with this Part at the time it was used to certify the metering installation, or the failure of a group of meters in the statistical sampling recertification process for the metering installation, or the failure of a certification test for the metering installation*
- d) the manufacturer of a metering component in the metering installation determines that the metering component does not comply with the standards to which the metering component was tested*
- e) an inspection of the metering installation, that is required under this Part, is not carried out in accordance with the relevant clauses of this Part*
- f) if the metering installation has been determined to be a lower category under clause 6 and:
 - a. the MEP has not received the report under 6(2A)(a) or 6(2A)(b); or*
 - b. the report demonstrates the maximum current is higher than permitted; or*
 - c. the report demonstrates the electricity conveyed exceeds the amount permitted**
- g) the metering installation is certified under clause 14 and sufficient load is available for full certification testing and has not been retested under clause 14(4)*
- h) a control device in the metering installation certification is, and remains for a period of at least 10 business days, bridged out under clause 35(1)*
- i) the metering equipment provider responsible for the metering installation is advised by an ATH under clause 48(6)(b) that a seal has been removed or broken and the accuracy and continued integrity of the metering installation has been affected.*
- j) the installation is an HHR AMI installation certified after 29 August 2013 and
 - a. the metering installation is not interrogated within the maximum interrogation cycle; or**

- b. the HHR and NHH register comparison is not performed; or
- c. the HHR and NHH register comparison for the same period finds a difference of greater than 1 kWh and the issue is not remediated within 3 business days

A metering equipment provider must (unless the installation has been recertified within the 10 business days) within 10 business days of becoming aware that one of the events above has occurred in relation to a metering installation for which it is responsible, update the metering installation's certification expiry date in the registry.

If any of the events in Clause 20(1)(j) of Schedule 10.7 have occurred, update the AMI flag in the registry to 'N'.

Audit observation

I checked for examples of all of the points listed above, and checked whether certification had been cancelled, and whether the registry had been updated within 10 business days.

Audit commentary

Inspection

There was one Category 1 metering installation which was not inspected due to access problems, certification is cancelled for this metering installation.

There were 11 Category 1 metering installations where inspections were conducted after the maximum inspection period, certification is cancelled for these metering installations.

Details of the missed and late inspections are included in the following table:

ICP	Certification date	Latest inspection date	Inspection date
0000460090WT60D	12/07/2010	12/01/2021	Not Inspected
0000175546WTDD7	10/01/2011	10/07/2021	14/07/2021
0000220285WT11A	5/03/2010	5/09/2020	4/12/2021
0000276530WT751	22/07/2010	22/01/2021	27/03/2021
0000356655WTB4C	11/01/2011	11/07/2021	14/07/2021
0000452345WT76F	10/08/2010	10/02/2021	19/02/2021
0000520400WTA12	7/07/2010	7/01/2021	04/02/2021
0000540225WTE56	24/06/2010	24/12/2020	18/03/2021
0000556315WTD8B	18/08/2010	18/02/2021	18/03/2021
0000640355WTEBB	30/06/2010	30/12/2020	04/02/2021
0000725407WT820	9/08/2010	9/02/2021	18/02/2021
0000750555WT430	9/08/2010	9/02/2021	18/02/2021

Non-compliance is also recorded in **section 8.1** for these ICPs for the missed and late inspections.

Current transformer in-service burden

There was one Category 2 metering installation, (ICP 0000620117WT4C4) which was identified during the last audit with burden lower than the lowest test point, without a Class A ATH confirming that the measuring transformers will not be adversely affected. Certification for this metering installation has not yet been cancelled.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.4 With: Clause 6 of Schedule 11.4 From: 01-May-20 To: 10-Mar-22	Certification cancelled, and registry not updated for: - 12 Category 1 ICPs not inspected within maximum inspection period, and - one Cat 2 ICP certified with low burden. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	I have recorded the controls as strong as Network Waitaki has a regime in place and the missed and late inspections were due to access issues. It is unlikely that the missed inspections will impact on other participants and on settlement. The audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Certification has been cancelled for these ICPs. Cat 2 metering replaced with Cat 1 metering.		30/3/22	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We have amended our process to make it clear that certification must be cancelled if not inspected by the due date.		31/3/22	

6.5. Registry Metering Records (Clause 11.8A)

Code reference

Clause 11.8A

Code related audit information

The MEP must provide the registry with the required metering information for each metering installation the MEP is responsible for and update the registry metering records in accordance with Schedule 11.4.

Audit observation

This clause refers to schedule 11.4 which is discussed in **section 6.2**, apart from the requirement to provide information in the “prescribed form”. I checked for examples of Network Waitaki not using the prescribed form.

Audit commentary

This clause refers to schedule 11.4 which is discussed in **section 6.2**, apart from the requirement to provide information in the “prescribed form”. I checked for examples of Network Waitaki not using the prescribed form and did not find any exceptions.

Audit outcome

Compliant

7. CERTIFICATION OF METERING INSTALLATIONS

7.1. Certification and Maintenance (Clause 10.38 (a), clause 1 and clause 15 of Schedule 10.7)

Code reference

Clause 10.38 (a), clause 1 and clause 15 of Schedule 10.7

Code related audit information

The MEP must obtain and maintain certification for all installations and metering components for which it is responsible. The MEP must ensure it:

- *performs regular maintenance, battery replacement, repair/replacement of components of the metering installations*
- *updates the metering records at the time of the maintenance*
- *has a recertification programme that will ensure that all installations are recertified prior to expiry.*

Audit observation

I conducted the following checks to identify metering installations with expired, cancelled or late certification:

- the audit compliance report was checked to identify ICPs with expired certification,
- the new connections process was checked by using the event detail report, PR255 and the list file to identify ICPs where the certification was not conducted within five business days of energisation, and
- I checked for ICPs where certification was cancelled to ensure the registry was updated accordingly.

Audit commentary

The audit compliance report confirmed that there were no ICPs with expired certification.

Network Waitaki has a recertification programme to ensure installations are certified prior to expiry. The weekly "Data Rule Exception report" identifies in advance any installations which will expire.

Network Waitaki completed recertification by statistical sampling for all metering installations that were expired in the previous audit.

As recorded in **sections 6.4** and **8.1**, there were 12 Category 1 metering installations not inspected within maximum inspection period and certification is therefore cancelled.

As recorded in **section 6.4** there is one Category 2 metering installation that was certified with low burden and certification is therefore cancelled.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 7.1 With: Clause 10.38 (a), clause 1 and clause 15 of Schedule 10.7 From: 05-Jan-20 To: 06-Mar-20	Certification cancelled for: - 12 Category 1 ICPs not inspected within maximum inspection period, and - one Cat 2 ICP certified with low burden. Potential impact: High Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	I have recorded the controls as strong because Network Waitaki has a good process in place to identify and recertify installations. The impact on settlement is recorded as low. The likelihood of failure or inaccuracy for metering installations with expired certification is low based on the age and type of meters and previous calibration results for these meters.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have cancelled certification for these meters and included them in the 2022 stat sample group which we are aiming to have recertified by June 2022		31/3/22	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We have amended our 10 year inspection process to make it clear of the requirements for inspecting within 10.5 year timeframe.		31/3/22	

7.2. Certification Tests (Clause 10.38(b) and clause 9 of Schedule 10.6)

Code reference

Clause 10.38(b) and clause 9 of Schedule 10.6

Code related audit information

For each metering component and metering installation an MEP is responsible for, the MEP must ensure that:

- *an ATH performs the appropriate certification and recertification tests*
- *the ATH has the appropriate scope of approval to certify and recertify the metering installation.*

Audit observation

I checked the certification records for 18 metering installations to confirm compliance.

Audit commentary

The ATHs have shown that their processes include all tests required. As recorded in **section 5.1**, the certification reports for eight of the 18 Category 1 metering installations certified did not contain the details or results of the certification tests conducted. I recommend Network Waitaki work with the Delta ATH to ensure the details and results of all testing completed are recorded in all metering installation certification reports provided.

Recommendation	Description	Audited party comment	Remedial action
Regarding Clause 10.38(b)	Work with the Delta ATH to ensure the details and results of all testing completed are recorded in all metering installation certification reports provided.	We have noted this and will work with Delta this year to ensure that details and results of all testing completed are recorded in all metering installation certification reports provided.	Identified

Audit outcome

Compliant

7.3. Active and Reactive Capability (Clause 10.37(1) and 10.37(2)(a))

Code reference

Clause 10.37(1) and 10.37(2)(a)

Code related audit information

For any category 2 or higher half-hour metering installation that is certified after 29 August 2013, the MEP must ensure that the installation has active and reactive measuring and recording capability.

Consumption only installations that is a category 3 metering installation or above must measure and separately record:

- a) import active energy*
- b) import reactive energy*
- c) export reactive energy.*

Consumption only installations that are a category 2 metering installation must measure and separately record import active energy.

All other installations must measure and separately record:

- a) import active energy*
- b) export active energy*
- c) import reactive energy*
- d) export reactive energy.*

All grid connected POCs with metering installations which are certified after 29 August 2013 should measure and separately record:

- a) import active energy*
- b) export active energy*
- c) import reactive energy*
- d) export reactive energy.*

Audit observation

All relevant metering is compliant with this clause.

Audit commentary

All relevant metering is compliant with this clause.

Audit outcome

Compliant

7.4. Local Service Metering (Clause 10.37(2)(b))

Code reference

Clause 10.37(2)(b)

Code related audit information

The accuracy of each local service metering installation in grid substations must be within the tolerances set out in Table 1 of Schedule 10.1.

Audit observation

This clause relates to Transpower as an MEP.

Audit commentary

This clause relates to Transpower as an MEP.

Audit outcome

Not applicable

7.5. Measuring Transformer Burden (Clause 30(1) and 31(2) of Schedule 10.7)

Code reference

Clause 30(1) and 31(2) of Schedule 10.7

Code related audit information

The MEP must not permit a measuring transformer to be connected to equipment used for a purpose other than metering, unless it is not practical for the equipment to have a separate measuring transformer.

The MEP must ensure that a change to, or addition of, a measuring transformer burden or a compensation factor related to a measuring transformer is carried out only by:

- a) the ATH who most recently certified the metering installation*
- b) for a POC to the grid, by a suitably qualified person approved by both the MEP and the ATH who most recently certified the metering installation.*

Audit observation

I asked Network Waitaki if there were any examples of burden changes or the addition of non-metering equipment being connected to metering CTs.

Audit commentary

There are no examples of burden changes having occurred. In **section 6.4** I have recorded non-compliance due to low burden not being addressed.

Audit outcome

Compliant

7.6. Certification as a Lower Category (Clauses 6(1)(b) and (d), and 6(2)(b) of Schedule 10.7)

Code reference

Clauses 6(1)(b) and (d), and 6(2)(b) of Schedule 10.7

Code related audit information

A category 2 or higher metering installation may be certified by an ATH at a lower category than would be indicated solely on the primary rating of the current if the MEP, based on historical metering data, reasonably believes that:

- *the maximum current will at all times during the intended certification period be lower than the current setting of the protection device for the category for which the metering installation is certified, or is required to be certified by the Code; or*
- *the metering installation will use less than 0.5 GWh in any 12-month period.*

If a metering installation is categorised under clause 6(1)(b), the ATH may, if it considers appropriate, and, at the MEP's request, determine the metering installation's category according to the metering installation's expected maximum current.

If a meter is certified in this manner:

- *the MEP must, each month, obtain a report from the participant interrogating the metering installation, which details the maximum current from raw meter data from the metering installation by either calculation from the kVA by trading period, if available, or from a maximum current indicator if fitted in the metering installation conveyed through the point of connection for the prior month; and*
- *if the MEP does not receive a report, or the report demonstrates that the maximum current conveyed through the POC was higher than permitted for the metering installation category it is certified for, then the certification for the metering installation is automatically cancelled.*

Audit observation

I checked all ICPs for examples where the CT ratio was above the threshold to confirm that protection was appropriate or that monitoring was in place.

Audit commentary

There are no metering installations certified as a lower category.

Audit outcome

Compliant

7.7. Insufficient Load for Certification Tests (Clauses 14(3) and (4) of Schedule 10.7)

Code reference

Clauses 14(3) and (4) of Schedule 10.7

Code related audit information

If there is insufficient electricity conveyed through a POC to allow the ATH to complete a prevailing load test for a metering installation that is being certified as a half hour meter and the ATH certifies the metering installation the MEP must:

- *obtain and monitor raw meter data from the metering installation at least once each calendar month to determine if load during the month is sufficient for a prevailing load test to be completed:*
- *if there is sufficient load, arrange for an ATH to complete the tests (within 20 business days).*

Audit observation

I checked if there were any examples of Insufficient load certifications

Audit commentary

This clause only applies to HHR installations and Network Waitaki is not the MEP for any HHR installations.

Audit outcome

Compliant

7.8. Insufficient Load for Certification – Cancellation of Certification (Clause 14(6) of Schedule 10.7)

Code reference

Clause 14(6) of Schedule 10.7

Code related audit information

If the tests conducted under clause 14(4) of Schedule 10.7 demonstrate that the metering installation is not within the relevant maximum permitted error:

- *the metering installation certification is automatically revoked:*
- *the certifying ATH must advise the MEP of the cancellation within one business day:*
- *the MEP must follow the procedure for handling faulty metering installations (clause 10.43 - 10.48).*

Audit observation

I checked if there were any examples of Insufficient load certifications.

Audit commentary

This clause only applies to HHR installations and Network Waitaki is not the MEP for any HHR installations.

Audit outcome

Compliant

7.9. Alternative Certification Requirements (Clauses 32(2), (3) and (4) of Schedule 10.7)

Code reference

Clauses 32(2), (3) and (4) of Schedule 10.7

Code related audit information

If an ATH cannot comply with the requirements to certify a metering installation due to measuring transformer access issues, and therefore certifies the metering installation in accordance with clause 32(1) of Schedule 10.7, the MEP must:

- *advise the market administrator, by no later than 10 business days after the date of certification of the metering installation, of the details in clause 32(2)(a) of Schedule 10.7*
- *respond, within 5 business days, to any requests from the market administrator for additional information*
- *ensure that all of the details are recorded in the metering installation certification report*
- *take all steps to ensure that the metering installation is certified before the certification expiry date.*

If the market administrator determines the ATH could have obtained access the metering installation is deemed to be defective, and the MEP must follow the process of handling faults metering installations in clauses 10.43 to 10.48.

Audit observation

I checked the registry records to confirm whether alternative certification had been applied.

Audit commentary

Alternative certification has not been applied to any metering installations.

Audit outcome

Compliant

7.10. Timekeeping Requirements (Clause 23 of Schedule 10.7)

Code reference

Clause 23 of Schedule 10.7

Code related audit information

If a time keeping device that is not remotely monitored and corrected controls the switching of a meter register in a metering installation, the MEP must ensure that the time keeping device:

- a) has a time keeping error of not greater than an average of 2 seconds per day over a period of 12 months*
- b) is monitored and corrected at least once every 12 months.*

Audit observation

I asked Network Waitaki whether there were any metering installations with time keeping devices.

Audit commentary

Network Waitaki confirmed there are no metering installations with time keeping devices.

Audit outcome

Compliant

7.11. Control Device Bridged Out (Clause 35 of Schedule 10.7)

Code reference

Clause 35 of Schedule 10.7

Code related audit information

The participant must, within 10 business days of bridging out a control device or becoming aware of a control device being bridged out, notify the following parties:

- the relevant reconciliation participant*
- the relevant metering equipment provider.*

If the control device is used for reconciliation, the metering installation is considered defective in accordance with 10.43.

Audit observation

I checked the process for the management of bridged control devices, and I checked whether any notifications were required to other parties.

Audit commentary

A process is in place for the management of bridged control devices. None have occurred during the audit period and the inspection process did not identify any.

Audit outcome

Compliant

7.12. Control Device Reliability Requirements (Clause 34(5) of Schedule 10.7)

Code reference

Clause 34(5) of Schedule 10.7

Code related audit information

If the MEP is advised by an ATH that the likelihood of a control device not receiving signals would affect the accuracy or completeness of the information for the purposes of Part 15, the MEP must, within three business days inform the following parties of the ATH's determination (including all relevant details):

- a) the reconciliation participant for the POC for the metering installation*
- b) the control signal provider.*

Audit observation

I checked the steps Network Waitaki had taken to identify regions with signal propagation issues.

Audit commentary

Network Waitaki's plant and control devices are reasonably modern with a low frequency so there are no signal propagation issues present. All control devices are tested prior to their installation in the field.

Audit outcome

Compliant

7.13. Statistical Sampling (Clauses 16(1) and (5) of Schedule 10.7)

Code reference

Clauses 16(1) and (5) of Schedule 10.7

Code related audit information

The MEP may arrange for an ATH to recertify a group of category 1 metering installations for which the MEP is responsible using a statistical sampling process.

The MEP must update the registry in accordance with Part 11 on the advice of an ATH as to whether the group meets the recertification requirements.

Audit observation

I checked whether statistical sampling had occurred during the audit period.

Audit commentary

Three statistical recertification projects were conducted during the audit period. One by the AMS ATH in 2020 and two by the Delta ATH in 2021.

I checked the records provided by the ATHs which confirmed that the processes were compliant.

Network Waitaki updated the registry as required though non-compliance is recorded in **section 4.10** as a number of the updates were late.

Audit outcome

Compliant

7.14. Compensation Factors (Clause 24(3) of Schedule 10.7)

Code reference

Clause 24(3) of Schedule 10.7

Code related audit information

If an external compensation factor must be applied to a metering installation that is an NSP, the MEP must advise the reconciliation participant responsible for the metering installation of the compensation factor within 10 days of certification of the installation.

In all other cases the MEP must update the compensation factor recorded in the registry in accordance with Part 11.

Audit observation

I checked the records for all Category 2 metering installations to confirm that compensation factors were correctly recorded on the registry.

Audit commentary

Compensation factors have been updated accurately on the registry.

Audit outcome

Compliant

7.15. Metering Installations Incorporating a Meter (Clause 26(1) of Schedule 10.7)

Code reference

Clause 26(1) of Schedule 10.7

Code related audit information

The MEP must ensure that each meter in a metering installation it is responsible for is certified.

Audit observation

I checked the certification records for 18 metering installations to confirm compliance.

Audit commentary

Meters were certified for all 18 installations.

Audit outcome

Compliant

7.16. Metering Installations Incorporating a Measuring Transformer (Clause 28(1) of Schedule 10.7)

Code reference

Clause 28(1) of Schedule 10.7

Code related audit information

The MEP must ensure that each measuring transformer in a metering installation it is responsible for is certified.

Audit observation

I checked the Network Waitaki processes for certification of measuring transformers.

Audit commentary

The Network Waitaki processes ensure that ATHs certify measuring transformers as required by this clause. There were no examples to check as no metering installations at or above category 2 were certified during the audit period.

Audit outcome

Compliant

7.17. Metering Installations Incorporating a Data Storage Device (Clause 36(1) of Schedule 10.7)

Code reference

Clause 36(1) of Schedule 10.7

Code related audit information

The MEP must ensure that each data storage device in a metering installation it is responsible for is certified.

Audit observation

Network Waitaki is not the MEP for any HHR or AMI metering installations; no data storage devices are installed.

Audit commentary

Network Waitaki is not the MEP for any HHR or AMI metering installations; no data storage devices are installed.

Audit outcome

Compliant

7.18. Notification of ATH Approval (Clause 7 (3) Schedule 10.3)

Code reference

Clause 7 (3) Schedule 10.3

Code related audit information

If the MEP is notified by the Authority that an ATH's approval has expired, been cancelled or been revised, the MEP must treat all metering installations certified by the ATH during the period where the ATH was not approved to perform the activities as being defective and follow the procedures set out in 10.43 to 10.48.

Audit observation

I checked the ATH register to confirm compliance.

Audit commentary

I confirmed that Network Waitaki has used both the AMS and Delta ATHs during the audit period. Network Waitaki changed its contracted provider during the audit period and now uses the Delta ATH only.

The AMS and Delta ATHs have appropriate approval.

Audit outcome

Compliant

7.19. Interim Certification (Clause 18 of Schedule 10.7)

Code reference

Clause 18 of Schedule 10.7

Code related audit information

The MEP must ensure that each interim certified metering installation on 28 August 2013 is certified by no later than 1 April 2015.

Audit observation

I checked the audit compliance report to identify any ICPs with interim certification recorded.

Audit commentary

There are no previously interim certified installations.

Audit outcome

Compliant

8. INSPECTION OF METERING INSTALLATIONS

8.1. Category 1 Inspections (Clause 45 of Schedule 10.7)

Code reference

Clause 45 of Schedule 10.7

Code related audit information

The MEP must ensure that category 1 metering installations (other than interim certified metering installations):

- *have been inspected by an ATH within 126 months from the date of the metering installation's most recent certification or*
- *for each 12-month period, commencing 1 January and ending 31 December, ensure an ATH has completed inspections of a sample of the category 1 metering installations selected under clause 45(2) of Schedule 10.7.*

Before a sample inspection process can be carried out, the MEP must submit a documented process for selecting the sample to the Electricity Authority, at least two months prior to first date on which the inspections are to be carried out, for approval (and promptly provide any other information the Authority may request).

The MEP must not inspect a sample unless the Authority has approved the documented process.

The MEP must, for each inspection conducted under clause 45(1)(b), keep records detailing:

- *any defects identified that have affected the accuracy or integrity of the raw meter data recorded by the metering installation*
- *any discrepancies identified under clause 44(5)(b)*
- *relevant characteristics, sufficient to enable reporting of correlations or relationships between inaccuracy and characteristics*
- *the procedure used, and the lists generated, to select the sample under clause 45(2).*

The MEP must, if it believes a metering installation that has been inspected is or could be inaccurate, defective or not fit for purpose:

- *comply with clause 10.43*
- *arrange for an ATH to recertify the metering installation if the metering is found to be inaccurate under Table 1 of Schedule 10.1, or defective or not fit for purpose.*

The MEP must by 1 April in each year, provide the Authority with a report that states whether the MEP has, for the previous 1 January to 31 December period, arranged for an ATH to inspect each category 1 metering installation for which it is responsible under clause 45(1)(a) or 45(1)(b).

This report must include the matters specified in clauses 45(8)(a) and (b).

If the MEP is advised by the Authority that the tests do not meet the requirements under clause 45(9) of Schedule 10.7, the MEP must select the additional sample under that clause, carry out the required inspections, and report to the Authority, within 40 business days of being advised by the Authority.

Audit observation

I checked whether Network Waitaki had conducted inspections of Category 1 metering installations.

Audit commentary

Network Waitaki conducted inspections during 2020 and 2021. Full 10 yearly inspections, not sample inspections are conducted. Reports were completed and provided to the Authority as required.

There was one Category 1 metering installation which was not inspected due to access problems.

There were 11 Category 1 metering installations where inspections were conducted after the maximum inspection period.

Details of the missed and late inspections are included in the following table:

ICP	Certification date	Latest inspection date	Inspection date
0000460090WT60D	12/07/2010	12/01/2021	Not Inspected
0000175546WTDD7	10/01/2011	10/07/2021	14/07/2021
0000220285WT11A	5/03/2010	5/09/2020	4/12/2021
0000276530WT751	22/07/2010	22/01/2021	27/03/2021
0000356655WTB4C	11/01/2011	11/07/2021	14/07/2021
0000452345WT76F	10/08/2010	10/02/2021	19/02/2021
0000520400WTA12	7/07/2010	7/01/2021	04/02/2021
0000540225WTE56	24/06/2010	24/12/2020	18/03/2021
0000556315WTD8B	18/08/2010	18/02/2021	18/03/2021
0000640355WTEBB	30/06/2010	30/12/2020	04/02/2021
0000725407WT820	9/08/2010	9/02/2021	18/02/2021
0000750555WT430	9/08/2010	9/02/2021	18/02/2021

Non-compliance is recorded for these ICPs due to inspections not being completed within the maximum inspection period. Non-compliance is also recorded in **section 6.4** for these ICPs as certification was not cancelled.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 8.1 With: Clause 45 of Schedule 10.7 From: 05-Sep-20 To: 11-Jul-21	12 Category 1 metering installations not inspected within the maximum inspection period. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
Low	<p>I have recorded the controls as strong as Network Waitaki has a regime in place and only 12 inspections were not conducted within the maximum inspection period due to access issues.</p> <p>It is unlikely that the missed inspections will impact on other participants and on settlement. The audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
We have cancelled certification for these meters and included them in the 2022 stat sample group which we are aiming to have recertified by June 2022		31/3/22	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We have amended our 10 year inspection process to make it clear of the requirements for inspecting within 10.5 year timeframe.		31/3/22	

8.2. Category 2 to 5 Inspections (Clause 46(1) of Schedule 10.7)

Code reference

Clause 46(1) of Schedule 10.7

Code related audit information

The MEP must ensure that each category 2 or higher metering installation is inspected by an ATH at least once within the applicable period. The applicable period begins from the date of the metering installation's most recent certification and extends to:

- 120 months for Category 2
- 60 months for Category 3
- 30 months for Category 4
- 18 months for Category 5.

Audit observation

I checked the registry information to confirm which Category 2 and above ICPs were due for inspection.

Audit commentary

No Category 2 and above ICPs were due for inspection during the audit period.

Audit outcome

Compliant

8.3. Inspection Reports (Clause 44(5) of Schedule 10.7)

Code reference

Clause 44(5) of Schedule 10.7

Code related audit information

The MEP must, within 20 business days of receiving an inspection report from an ATH:

- *undertake a comparison of the information received with its own records*
- *investigate and correct any discrepancies*
- *update the metering records in the registry.*

Audit observation

I checked the inspection process and the results to confirm compliance.

Audit commentary

I checked a sample of five inspection reports and confirmed that the information was checked against Network Waitaki's records within the required timeframe.

Audit outcome

Compliant

8.4. Broken or removed seals (Clause 48(1G), (4) and (5) of Schedule 10.7)

Code reference

Clause 48(4) and (5) of Schedule 10.7

Code related audit information

If the MEP is advised of a broken or removed seal it must use reasonable endeavours to determine

- a) who removed or broke the seal,*
- b) the reason for the removal or breakage.*

and arrange for an ATH to carry out an inspection of the removal or breakage and determine any work required to remedy the removal or breakage.

The MEP must make the above arrangements within

- a) 3 business days, if the metering installation is category 3 or higher*
- b) 10 business days if the metering installation is category 2*
- c) 20 business days if the metering installation is category 1.*

If the MEP is advised under 48(1B)(c) or (48(1F)(d) the MEP must update the relevant meter register content code for the relevant meter channel.

Audit observation

I checked if there were any examples of broken or missing seals during the audit period.

Audit commentary

Network Waitaki has a process in place for the management of seals and any subsequent investigation and reporting. There were no missing seals identified during the inspections completed and Network Waitaki did not receive any notifications of missing seals.

Audit outcome

Compliant

9. PROCESS FOR HANDLING FAULTY METERING INSTALLATIONS

9.1. Investigation of Faulty Metering Installations (Clause 10.43(4) and (5))

Code reference

Clause 10.43(4) and (5)

Code related audit information

If the MEP is advised or becomes aware that a metering installation may be inaccurate, defective, or not fit for purpose, it must investigate and report on the situation to all affected participants as soon as reasonably practicable after becoming aware of the information, but no later than:

- a) 20 business days for Category 1,*
- b) 10 business days for Category 2 and*
- c) 5 business days for Category 3 or higher.*

Audit observation

I checked six examples of faulty Category 1 metering installations.

Audit commentary

In all six cases the ATH went to site, replaced the faulty meters and recertified the installation. Notification of the ATHs findings were provided to the retailers within 20 business days.

Audit outcome

Compliant

9.2. Testing of Faulty Metering Installations (Clause 10.44)

Code reference

Clause 10.44

Code related audit information

If a report prepared under clause 10.43(4)(c) demonstrates that a metering installation is inaccurate, defective, or not fit for purpose, the MEP must arrange for an ATH to test the metering installation and provide a 'statement of situation'.

If the MEP is advised by a participant under clause 10.44(2)(a) that the participant disagrees with the report that demonstrates that the metering installation is accurate, not defective and fit for purpose, the MEP must arrange for an ATH to:

- a) test the metering installation*
- b) provide the MEP with a statement of situation within five business days of:*
- c) becoming aware that the metering installation may be inaccurate, defective or not fit for purpose; or*
- d) reaching an agreement with the participant.*

The MEP is responsible for ensuring the ATH carries out testing as soon as practicable and provides a statement of situation.

Audit observation

I checked six examples of faulty Category 1 metering installations.

Audit commentary

In all six cases the ATH went to site, replaced the faulty meters and recertified the installation. Notification of the ATHs findings were provided to the retailers within 20 business days.

Audit outcome

Compliant

9.3. Statement of Situation (Clause10.46(2))

Code reference

Clause10.46(2)

Code related audit information

Within three business days of receiving the statement from the ATH, the MEP must provide copies of the statement to:

- *the relevant affected participants*
- *the market administrator (for all category 3 and above metering installations and any category 1 and category 2 metering installations) on request.*

Audit observation

I checked six examples of faulty Category 1 metering installations.

Audit commentary

In all six cases the ATH went to site, replaced the faulty meters and recertified the installation. Notification of the ATHs findings were provided to the retailers within 20 business days.

The information provided by the ATH satisfied the requirements for provision of statements of situation.

Audit outcome

Compliant

9.4. Timeframe for correct defects and inaccuracies (Clause10.46A)

Code reference

Clause10.46A

Code related audit information

When the metering equipment provider is advised under 10.43 or becomes aware a metering installation it is responsible for is inaccurate, defective or not fit for purpose the metering equipment provider must undertake remedial actions to address the issue.

The metering equipment provider must use its best endeavours to complete the remedial action within 10 business days of the date it is required to provide a report to participants under 10.43(4)(c).

Audit observation

I checked six examples of faulty Category 1 metering installations.

Audit commentary

In all six cases the ATH went to site, replaced the faulty meters and recertified the installation within 10 business days.

Audit outcome

Compliant

9.5. Meter bridging (Clause 10.33C)

Code reference

Clause 10.33(C)

Code related audit information

An MEP may only electrically connect an ICP in a way that bypasses a meter that is in place (“bridging”) if the MEP has been authorised by the responsible trader.

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

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

If the MEP bridges a meter, the MEP must notify the responsible trader within 1 business day, and include the date of bridging in its advice.

Audit observation

I checked for examples of bridged meters

Audit commentary

There were no examples of bridged meters.

Audit outcome

Compliant

10. ACCESS TO AND PROVISION OF RAW METER DATA AND METERING INSTALLATIONS

10.1. Access to Raw Meter Data (Clause 1 of Schedule 10.6)

Code reference

Clause 1 of Schedule 10.6

Code related audit information

The MEP must give authorised parties access to raw meter data within 10 business days of receiving the authorised party making a request.

The MEP must only give access to raw meter data to a trader or person, if that trader or person has entered into a contract to collect, obtain, and use the raw meter data with the end customer.

The MEP must provide the following when giving a party access to information:

- a) the raw meter data; or*
- b) the means (codes, keys etc.) to enable the party to access the raw meter data.*

The MEP must, when providing raw meter data or access to an authorised person use appropriate procedures to ensure that:

- the raw meter data is received only by that authorised person or a contractor to the person*
- the security of the raw meter data and the metering installation is maintained*
- access to the raw meter data is limited to only the specific raw meter data under clause 1(7)(c) of Schedule 10.6.*

Audit observation

Network Waitaki will provide access to raw meter data in accordance with this clause. No requests have yet been made.

Audit commentary

Network Waitaki will provide access to raw meter data in accordance with this clause. No requests have yet been made.

Audit outcome

Compliant

10.1. Restrictions on Use of Raw Meter Data (Clause 2 of Schedule 10.6)

Code reference

Clause 2 of Schedule 10.6

Code related audit information

The MEP must not give an authorised person access to raw meter data if to do so would breach clause 2(1) of Schedule 10.6.

Audit observation

Network Waitaki will provide access to raw meter data in accordance with this clause. No requests have yet been made.

Audit commentary

Network Waitaki will provide access to raw meter data in accordance with this clause. No requests have yet been made.

Audit outcome

Compliant

10.2. Access to Metering Installations (Clause 3(1), (3) and (4) of Schedule 10.6)

Code reference

Clause 3(1), (3) and (4) of Schedule 10.6

Code related audit information

The MEP must within 10 business days of receiving a request from one of the following parties, arrange physical access to each component in a metering installation:

- *a relevant reconciliation participant with whom it has an arrangement (other than a trader)*
- *the Authority*
- *an ATH*
- *an auditor*
- *a gaining MEP.*

This access must include all necessary means to enable the party to access the metering components

When providing access, the MEP must ensure that the security of the metering installation is maintained and physical access is limited to only the access required for the purposes of the Code, regulations in connection with the party's administration, audit and testing functions.

Audit observation

Access will be provided as required. No requests have been made.

Audit commentary

Access will be provided as required. No requests have been made.

Audit outcome

Compliant

10.3. Urgent Access to Metering Installations (Clause 3(5) of Schedule 10.6)

Code reference

Clause 3(5) of Schedule 10.6

Code related audit information

If the party requires urgent physical access to a metering installation, the MEP must use its best endeavours to arrange physical access.

Audit observation

Access will be provided as required. No requests have been made.

Audit commentary

Access will be provided as required. No requests have been made.

Audit outcome

Compliant

10.4. Electronic Interrogation of Metering Installations (Clause 8 of Schedule 10.6)

Code reference

Clause 8 of Schedule 10.6

Code related audit information

When raw meter data can only be obtained from an MEP's back office, the MEP must

- *ensure that the interrogation cycle does not exceed the maximum interrogation cycle shown in the registry*
- *interrogate the metering installation at least once within each maximum interrogation cycle.*

When raw meter data can only be obtained from an MEP's back office, the MEP must ensure that the internal clock is accurate, to within ± 5 seconds of:

- *New Zealand standard time; or*
- *New Zealand daylight time.*

When raw meter data can only be obtained from an MEP's back office, the MEP must record in the interrogation and processing system logs, the time, the date, and the extent of any change in the internal clock setting in the metering installation.

The MEP must compare the time on the internal clock of the data storage device with the time on the interrogation and processing system clock, calculate and correct (if required by this provision) any time error, and advise the affected reconciliation participant.

When raw meter data can only be obtained from an MEP's back office, the MEP must, when interrogating a metering installation, download the event log, check the event log for evidence of an events that may affect the integrity or operation of the metering installation, such as malfunctioning or tampering.

The MEP must investigate and remediate any events and advise the reconciliation participant.

The MEP must ensure that all raw meter data that can only be obtained from the MEPs back office, that is downloaded as part of an interrogation, and that is used for submitting information for the purpose of Part 15 is archived:

- *for no less than 48 months after the interrogation date*
- *in a form that cannot be modified without creating an audit trail*
- *in a form that is secure and prevents access by any unauthorised person*
- *in a form that is accessible to authorised personnel.*

Audit observation

Network Waitaki does not conduct electronic data collection.

Audit commentary

Network Waitaki does not conduct electronic data collection.

Audit outcome

Not applicable

10.5. Security of Metering Data (Clause 10.15(2))

Code reference

Clause 10.15(2)

Code related audit information

The MEP must take reasonable security measures to prevent loss or unauthorised access, use, modification or disclosure of the metering data.

Audit observation

Network Waitaki does not conduct electronic data collection.

Audit commentary

Network Waitaki does not conduct electronic data collection.

Audit outcome

Not applicable

10.6. Time Errors for Metering Installations (Clause 8(4) of Schedule 10.6)

Code reference

Clause 8(4) of Schedule 10.6

Code related audit information

When raw meter data can only be obtained from the MEPs back office, the MEP must ensure that the data storage device it interrogates does not exceed the maximum time error set out in Table 1 of clause 8(5) of Schedule 10.6.

Audit observation

Network Waitaki does not conduct electronic data collection.

Audit commentary

Network Waitaki does not conduct electronic data collection.

Audit outcome

Not applicable

10.7. Event Logs (Clause 8(7) of Schedule 10.6)

Code reference

Clause 8(7) of Schedule 10.6

Code related audit information

When raw meter data can only be obtained from the MEP's back office, the MEP must, when interrogating a metering installation:

- a) ensure an interrogation log is generated*
- b) review the event log and:
 - i. take appropriate action*
 - ii. pass the relevant entries to the reconciliation participant.**
- c) ensure the log forms part of an audit trail which includes:
 - i. the date and*
 - ii. time of the interrogation*
 - iii. operator (where available)*
 - iv. unique ID of the data storage device*
 - v. any clock errors outside specified limits*
 - vi. method of interrogation*
 - vii. identifier of the reading device used (if applicable).**

Audit observation

Network Waitaki does not conduct electronic data collection.

Audit commentary

Network Waitaki does not conduct electronic data collection.

Audit outcome

Not applicable

10.8. Comparison of HHR Data with Register Data (Clause 8(9) of Schedule 10.6)

Code reference

Clause 8(9) of Schedule 10.6

Code related audit information

When raw meter data can only be obtained from the MEP's back office, the MEP must ensure that each electronic interrogation that retrieves half-hour metering information compares the information against the increment of the metering installations accumulating meter registers for the same period.

Audit observation

Network Waitaki does not conduct electronic data collection.

Audit commentary

Network Waitaki does not conduct electronic data collection.

Audit outcome

Not applicable

10.9. Correction of Raw Meter Data (Clause 10.48(2),(3))

Code reference

Clause 10.48(2),(3)

Code related audit information

If the MEP is notified of a question or request for clarification in accordance with clause 10.48(1), the MEP must, within 10 business days:

- *respond in detail to the questions or requests for clarification*
- *advise the reconciliation participant responsible for providing submission information for the POC of the correction factors to apply and period the factors should apply to.*

Audit observation

Network Waitaki does not conduct electronic data collection.

Audit commentary

Network Waitaki does not conduct electronic data collection.

Audit outcome

Not applicable

10.10. Raw meter data and compensation factors (Clause 8(10) of Schedule 10.6)

Code reference

Clause 8(10) of Schedule 10.6

Code related audit information

The MEP must not apply the compensation factor recorded in the registry to raw meter data downloaded as part of the interrogation of the metering installation.

Audit observation

Network Waitaki does not conduct electronic data collection.

Audit commentary

Network Waitaki does not conduct electronic data collection.

Audit outcome

Compliant

10.11. Investigation of AMI interrogation failures (Clause 8(11), 8(12) and 8(13) of Schedule 10.6)

Code reference

Clause 8(11), 8(12) and 8(13) of Schedule 10.6

Code related audit information

If an interrogation does not download all raw meter data, the MEP must investigate the registry why or update the registry to show the meter is no longer AMI.

If the MEP chooses to investigate the reasons for the failure the MEP has no more than 30 days or 25% of the maximum interrogation cycle, from the date of the last successful interrogation (whichever is shorter).

If the MEP does not restore communications within this time or determines they will be unable to meet this timeframe they must update the registry to show the meter is no longer AMI.

Audit observation

Network Waitaki does not conduct electronic data collection.

Audit commentary

Network Waitaki does not conduct electronic data collection.

Audit outcome

Compliant

CONCLUSION

This audit has seen Network Waitaki continue to maintain a high level of compliance as an MEP.

The audit identified six areas of non-compliance.

Network Waitaki completed recertification by statistical sampling for 1,143 Category 1 ICPs during the audit period. This included 101 ICPs with expired certification at the time of the last audit. There are now no ICPs with expired certification. Non-compliance is recorded as the certification updates for the statistically recertified ICPs were not made within 15 business days.

There were 12 category 1 metering installations which were not inspected within the maximum inspection period due to access problems, certification is cancelled for these 12 metering installations. This causes non-compliance for both not conducting the inspection and for not cancelling the certification. At the time of finalising this audit report certification had been cancelled and the 12 ICPs had been added to a the next statistical recertification project which is planned to be completed by June 2022.

There is one Category 2 installation identified in the last audit which was recertified without low burden being addressed resulting in cancellation of certification. This installation had been downgraded to Category 1 and recertified before this audit report was finalised.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and recommends an audit frequency of 24 months. After reviewing Network Waitaki's responses I agree that a 24 month audit frequency is appropriate.

PARTICIPANT RESPONSE

Thank you Veritek for carrying out this audit. We accept the findings in your report and have remedied non-compliances where practicable and/or put plans in place to minimise the risk of these reoccurring.