

Electricity Industry Participation Code
Metering Equipment Provider Audit Report
For

Mercury NZ Ltd

Prepared by: Steve Woods

Date Audit Commenced: 08 Jun 2017

Date Audit Report Completed:

Executive Summary

Mercury NZ Limited (Mercury) is a Metering Equipment Provider (MEP) and is required to undergo an audit by 29 June 2017, in accordance with clause 1(1) of schedule 10.5.

This audit was conducted in accordance with the Guideline for Metering Equipment Provider Audits V2.1, which was published by the Electricity Authority.

This audit found compliance with all relevant clauses of the Code.

Mercury has a robust and well managed MEP operation, which ensures a high level of compliance.

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 in Section 12 provides some guidance on this matter and recommends an audit frequency of 36 months.

Participant Response

Mercury have no issue with the audit findings.

Audit Summary

Non-Compliances

There are no non-compliances arising from this audit.

Recommendations

There are no recommendations arising from this audit.

Issues

There are no issues arising from this audit.

1. Administrative

1. 1. Exemptions from obligations to comply with code

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

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

Audit Commentary

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

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 2. Structure of organisation

Code Reference

Code Related Audit Information

Audit Observation

Noel Woodfield is the only person involved in this particular function.

Audit Commentary

Noel Woodfield is the only person involved in this particular function.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 3. Use of agents

Code Reference

Clause 15.34 of Part 15

Code Related Audit Information

Audit Observation

I checked whether there were any agents or contractors involved in the performance of functions within the scope of the audit.

Audit Commentary

Mercury engages ATHs to conduct certification activities, but there are no contractors used to perform MEP responsibilities.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 4. Hardware and software

Code Reference

Code Related Audit Information

Audit Observation

I checked whether there were any systems used in the performance of functions relevant to the scope of the audit.

Audit Commentary

Mercury has a scheduling system used to track the relevant inspection and certification dates. This resides on the server and is backed up in accordance with standard industry protocols.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 5. Breaches or breach allegations

Code Reference

Code Related Audit Information

Audit Observation

I checked whether there were any breach allegations relevant to the scope of the audit.

Audit Commentary

There are no breach allegations relevant to the scope of the audit.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 6. ICP data

Code Reference

Code Related Audit Information

Audit Observation

Mercury does not have metering installations at ICPs.

Audit Commentary

Mercury does not have metering installations at ICPs.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 7. Authorisation received

Code Reference

Code Related Audit Information

Audit Observation

A letter of authorisation was not required.

Audit Commentary

A letter of authorisation was not required.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 8. Scope of Audit

Code Reference

Code Related Audit Information

Audit Observation

Refer to attachment.

Audit Commentary

Refer to attachment.

Audit Attachments

Mercury NZ Scope 2017.docx

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 9. Summary of Previous Audit

Code Reference

Code Related Audit Information

Audit Observation

Refer to attachment.

Audit Commentary

Refer to attachment.

Audit Attachments

Mercury NZ MEP Summary of Previous Audit 2017.docx

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

2. Operational Infrastructure

2. 1. Demarcation point

Code Reference

Clause 10.9(2)

Code Related Audit Information

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

Audit Observation

I checked the certification records for ten metering installations to ensure the services access interface was correctly recorded.

Audit Commentary

The services access interface is recorded in the metering installation certification reports by Accucal. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

2. 2. Dispute resolution

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

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

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

2. 3. MEP identifier

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 NSP mapping table to ensure the correct MEP code was used.

Audit Commentary

Mercury uses the MRPL code for all MEP functions. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

2. 4. Communication equipment compatibility

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

I checked that the ATH has a process to check the relevant type test certificates to ensure compliance with this clause.

Audit Commentary

Mercury ensures all communication equipment is appropriately certified with the relevant telecommunications standards. This is recorded in type test certificates and other approval documents. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

2. 5. Participants to provide accurate information

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 main information that is provided is certification dates, which are then passed on to the reconciliation manager. I checked the accuracy of these dates for ten metering installations.

Audit Commentary

All MEP related information is complete, accurate and compliant with the Code.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

3. Process for a change of MEP

3. 1. Payment of costs to losing MEP

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 notification requirements are met (in relation to the registry and the reconciliation manager).

The gaining MEP must pay the losing MEP a proportion of the costs within 20 business days of assuming responsibility.

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.

Audit Observation

I checked whether any MEP switches had occurred.

Audit Commentary

No switches had occurred and it is unlikely MEP switching will occur for metering installations Mercury is responsible for.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

3. 2. Registry notification of metering records

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

Mercury metering is not on the registry; therefore this clause does not apply.

Audit Commentary

Mercury metering is not on the registry; therefore this clause does not apply.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

3. 3. Provision of metering records to gaining MEP

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 whether any MEP switches had occurred.

Audit Commentary

No switches had occurred and it is unlikely MEP switching will occur for metering installations Mercury is responsible for.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

3. 4. Termination of MEP responsibility

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 checked whether Mercury had ceased to be responsible for any metering installations.

Audit Commentary

This has not occurred, but Mercury keeps all records indefinitely and will comply with this requirement.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. Installation and modification of metering installations

4. 1. Design reports for metering installations

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, 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

The design changed at Whakamaru and this was the only change during the audit period.

Audit Commentary

I reviewed the Whakamaru design report, which was prepared by Accucal, and it contains all of the points listed above. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 2. Contracting with ATH

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 which ATH(s) had been used during the audit period, in order to check the Authority's website for scope of approval.

Audit Commentary

Mercury uses Accucal as an ATH and they have a current and appropriate scope of approval. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 3. Metering installation design & accuracy

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 design report for Whakamaru and ten certification reports to confirm compliance.

Audit Commentary

With regard to the design of the installation (including data storage device and interrogation system), Mercury ensures 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. There are no components installed where “coarse” rounding is in place for the data or where meters with a low pulse rate are connected to separate data storage devices.

Mercury ensures the metering installation complies with the design report and the requirements of Part 10 by requiring the ATH to confirm the installation matches the design or by requiring updates to be provided if the installation does not match the design. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 4. Subtractive metering

Code Reference

Clause 4(2)(a) of Schedule 10.7

Code Related Audit Information

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

Mercury does not have any metering installations at ICPs.

Audit Commentary

Mercury does not have any metering installations at ICPs.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 5. HHR metering

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

Mercury does not have metering at ICPs.

Audit Commentary

Mercury does not have metering at ICPs.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 6. NSP metering

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 the NSP table for any NSP metering where Mercury is the MEP and checked the certification records to ensure HHR metering was present.

Audit Commentary

Mercury is the MEP for some NSP metering at interconnection points and these installations are HHR. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 7. Responsibility for metering installations

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 the NSP table for any grid metering where Mercury is the MEP and checked the certification records to ensure HHR metering was present.

Audit Commentary

Mercury is the MEP for some grid metering these installations are HHR. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 8. Suitability of metering installations

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 checked the certification records for ten installations to confirm the accommodation was recorded as appropriate.

Audit Commentary

Mercury's metering installations are all installed in appropriate accommodation. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 9. Installation & modification of metering installations

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.

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 the NSP table for any NSP metering where Mercury is the MEP and checked whether consultation occurred.

Audit Commentary

Mercury has metering installations at two interconnection points and agreement has been reached between the two responsible parties. There were no new installations during the audit period. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 10. Changes to registry records

Code Reference

Clause 3 of Schedule 11.4

Code Related Audit Information

The MEP must advise the registry of the registry metering records or any change to the registry metering records for a metering installation for which it is responsible, no later than 10 business days following:

- (a) the electrical connection of an ICP that is not also an NSP
- (b) any subsequent change in any matter covered by the metering records.

Audit Observation

Mercury does not have metering installations at ICPs; therefore they are not required to change information on the registry.

Audit Commentary

Mercury does not have metering installations at ICPs; therefore they are not required to change information on the registry.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 11. Metering infrastructure

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

Mercury does not manage a data collection system that would be considered “metering infrastructure”. I checked the certification records for ten metering installations to ensure the installation was compatible with other components and with the data collection system.

Audit Commentary

A HHR load check is conducted during certification and this confirms the overall operation of the system. Type test reports confirm compatibility of components. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 12. Responsibility for metering at ICP

Code Reference

Clause 11.18B(3)

Code Related Audit Information

If an ICP is to be decommissioned, the MEP who is responsible for each metering installation for the ICP must:

- advise the trader no later than 3 business days prior to decommissioning that the trader must, as part of the decommissioning, carry out a final interrogation; or
- if the MEP is responsible for the interrogation of the metering installation, arrange for a final interrogation to take place.

Audit Observation

Mercury is not responsible for any metering at ICPs.

Audit Commentary

Mercury is not responsible for any metering at ICPs.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 13. Measuring transformer burden and compensation requirements

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 conducted a walkthrough of the process with the ATH, Accucal, to confirm compliance.

Audit Commentary

Current transformers only have metering equipment connected. Some voltage transformers have other equipment connected and this equipment is included in the certification process, including the sealing information. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 14. Changes to software ROM or firmware

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

I asked Mercury whether any relevant changes had occurred during the audit period.

Audit Commentary

No changes occurred during the audit period. Any changes will be conducted by Accucal in their laboratory in accordance with these clauses.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

4. 15. Temporary energisation

Code Reference

Clause 10.28(6)

Code Related Audit Information

An MEP must not request the temporary energisation of a new POC unless authorised to do so by the reconciliation participant responsible for that POC and has an arrangement with that reconciliation participant to provide metering services.

Audit Observation

I asked Mercury whether temporary energisation had occurred for any metering installations.

Audit Commentary

Temporary energisation has not occurred for any metering installations during the audit period.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

5. Metering records

5. 1. Accurate and complete records

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:

- i. The certification expiry date of each metering component in the metering installation
- ii. All equipment used in relation to the metering installation, including serial numbers and details of the equipment's manufacturer
- iii. The manufacturer's or (if different) most recent test certificate for each metering component in the metering installation
- iv. The metering installation category and any metering installations certified at a lower category
- v. All certification reports and calibration reports showing dates tested, tests carried out, and test results for all metering components in the metering installation
- vi. The contractor who installed each metering component in the metering installation
- vii. The certification sticker, or equivalent details, for each metering component that is certified under Schedule 10.8 in the metering installation:
- viii. Any variations or use of the 'alternate certification' process
- ix. Seal identification information
- x. Any applicable compensation factors
- xi. The owner of each metering component within the metering installation
- xii. Any applications installed within each metering component
- xiii. The signed inspection report confirming that the metering installation complies with the requirements of Part 10.

Audit Observation

I checked the certification and inspection records for ten metering installations to confirm compliance.

Audit Commentary

All of the information listed above is available in Mercury's records. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

5. 2. Inspection reports

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 Mercury whether any requests had been made for copies of inspection reports.

Audit Commentary

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

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

5. 3. Retention of metering records

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 some metering records from 2012 to confirm compliance.

Audit Commentary

Mercury keeps records indefinitely and the availability of the 2012 records confirms compliance.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

5. 4. Provision of records to ATH

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

Mercury has provided information to ATH's in the past and this may occur in future. There are no current examples to examine.

Audit Commentary

Mercury has provided information to ATH's in the past and this may occur in future. There are no current examples to examine.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

6. Maintenance of registry information

6. 1. MEP response to switch notification

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 whether any MEP switches had occurred.

Audit Commentary

No switches had occurred and it is unlikely MEP switching will occur for metering installations Mercury is responsible for.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

6. 2. Provision of registry information

Code Reference

Clause 7 (1), (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, in the prescribed form for each metering installation for which the MEP is responsible.

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 must derive from the metering equipment provider's records or the metering records contained within the current traders system.

Audit Observation

Mercury does not have metering installations at ICPs; therefore they are not required to supply information to the registry.

Audit Commentary

Mercury does not have metering installations at ICPs; therefore they are not required to supply information to the registry.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

6. 3. Correction of errors in registry

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 5 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 5 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

Mercury does not have metering installations at ICPs; therefore they are not required to correct information on the registry.

Audit Commentary

Mercury does not have metering installations at ICPs; therefore they are not required to correct information on the registry.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

6. 4. Cancellation of certification

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) or 19(6)
- 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 the maximum current conveyed through the metering installation at any time exceeds the current rating of its metering installation category as set out in Table 1 of Schedule 10.1
- 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.

A metering equipment provider must, 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.

Audit Observation

I checked point "e)" by reviewing Mercury's inspection schedule. I checked the remaining points through interview to determine whether any of the points above had occurred. I also checked a sample of ten certification and inspection records.

Audit Commentary

Mercury has not had any cancelled certification during the audit period. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

6. 5. Registry metering records

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

Mercury does not have metering installations at ICPs; therefore they are not required to supply information to the registry.

Audit Commentary

Mercury does not have metering installations at ICPs; therefore they are not required to supply information to the registry.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. Certification of metering installations

7. 1. Certification and maintenance

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 checked the NSP table, Mercury's certification schedule and the records for ten metering installations.

Audit Commentary

All metering installations have current certification. Mercury has a schedule and weekly reporting to manage recertification and inspection activities. The NSP table had not been updated for ATI0112HAWKNP, although the advice had been sent from Mercury (MEP) to Mercury as a reconciliation participant. The advice has now been sent. Compliance is confirmed for Mercury as an MEP.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 2. Certification tests

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 ten metering installations to confirm compliance.

Audit Commentary

I confirm the appropriate tests are conducted and the results are recorded. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 3. Certification tests

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 ten metering installations to confirm compliance.

Audit Commentary

I confirm the appropriate tests are conducted and the results are recorded. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 4. Active and reactive capability

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

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

Audit Commentary

Mercury is the MEP for grid connected metering and it is all four quadrant as required by this clause. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 5. Local service metering

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 Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 6. Measuring transformer burden

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 checked the certification records for ten metering installations and conducted a walk-through of the process.

Audit Commentary

Current transformers only have metering equipment connected. Some voltage transformers have other equipment connected and this equipment is included in the certification process, including the sealing information. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 7. Certification as a lower category

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

Mercury has not approved the certification of any metering installations as a lower category.

Audit Commentary

Mercury has not approved the certification of any metering installations as a lower category.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 8. Insufficient load for certification tests

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

Mercury has not approved the certification of any metering installations in accordance with this clause.

Audit Commentary

Mercury has not approved the certification of any metering installations in accordance with this clause.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 9. Insufficient load for certification tests

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 1 business day:
- the MEP must follow the procedure for handling faulty metering installations (clause 10.43 - 10.48).

Audit Observation

Mercury has not approved the certification of any metering installations in accordance with this clause.

Audit Commentary

Mercury has not approved the certification of any metering installations in accordance with this clause.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 10. Alternative certification requirements

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 records for alternative certification applied at Atiamuri.

Audit Commentary

The process and documentation is confirmed as compliant.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 11. Timekeeping requirements

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

Mercury does not have any metering installations with time clocks.

Audit Commentary

Mercury does not have any metering installations with time clocks.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 12. Control device bridged out

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

Mercury does not have any control devices.

Audit Commentary

Mercury does not have any control devices.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 13. Control device reliability requirements

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 3 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

Mercury does not have any control devices.

Audit Commentary

Mercury does not have any control devices.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 14. Statistical sampling

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

Mercury does not have any category 1 metering installations.

Audit Commentary

Mercury does not have any category 1 metering installations.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 15. Compensation factors

Code Reference

Clause 24(3) of Schedule 10.7

Code Related Audit Information

If a 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 advise the registry of the compensation factor.

Audit Observation

Mercury does not have any metering installations with external compensation factors.

Audit Commentary

Mercury does not have any metering installations with external compensation factors.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 16. Metering installations incorporating a meter

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 records for ten metering installations to confirm compliance.

Audit Commentary

Meters were certified in all cases. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 17. Metering installations incorporating a measuring transformer

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 records for ten metering installations to confirm compliance.

Audit Commentary

Measuring transformers were certified in all cases. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 18. Metering installations incorporating a data storage device

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

I checked the records for ten metering installations to confirm compliance.

Audit Commentary

Data storage devices were certified in all cases. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 19. Notification of ATH approval

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 approval for Accucal.

Audit Commentary

Accucal is approved with an appropriate scope. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

7. 20. Interim certification

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

Mercury does not have any interim certified metering installations.

Audit Commentary

Mercury does not have any interim certified metering installations.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

8. Maintenance of registry information

8. 1. Category 1 inspections

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 120 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, a sample of the category 1 metering installations selected under clause 45(2) of Schedule 10.7 has been inspected by an ATH.

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 2 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

Mercury does not have any Category 1 metering installations.

Audit Commentary

Mercury does not have any Category 1 metering installations.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

8. 2. Category 2 to 5 inspections

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 inspection records for ten metering installations and I checked Mercury's inspection schedule.

Audit Commentary

Mercury manages a schedule to ensure inspections are conducted on time. There are no overdue inspections on the schedule. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

8. 3. Inspection reports

Code Reference

Clause 44(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.

Audit Observation

I checked the process for confirming the accuracy of records with the ATH, Accucal.

Audit Commentary

Inspections are conducted with the previous certification records as the "base data". If any changes are required (a very rare event) they are made at the time of the inspection. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

9. Process for handling faulty metering installations

9. 1. Investigation of faulty metering installations

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 the process for the management of faulty metering installations.

Audit Commentary

Mercury has a process in place for the management of faulty metering installations and any subsequent investigation and reporting. Validation is in place at the time of interrogation and any issues are likely to be discovered within a short timeframe. No examples were available for the audit period. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

9. 2. Testing of faulty metering installations

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 5 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 the process for the management of faulty metering installations.

Audit Commentary

Mercury has a process in place for the management of faulty metering installations and any subsequent investigation and reporting. Validation is in place at the time of interrogation and any issues are likely to be discovered within a short timeframe. No examples were available for the audit period. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

9. 3. Statement of situation

Code Reference

Clause10.46(2)

Code Related Audit Information

Within 3 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 the process for the management of faulty metering installations.

Audit Commentary

Mercury has a process in place for the management of faulty metering installations and any subsequent investigation and reporting. Validation is in place at the time of interrogation and any issues are likely to be discovered within a short timeframe. No examples were available for the audit period. Compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. Access to and provision of raw meter data and metering installations

10. 1. Access to raw meter data

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

Mercury as an MEP does not control access to raw meter data. Mercury as a participant will consider requests for access to data or components.

Audit Commentary

Mercury as an MEP does not control access to raw meter data. Mercury as a participant will consider requests for access to data or components.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 2. Restrictions on use of raw meter data

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

Mercury as an MEP does not control access to raw meter data. Mercury as a participant will consider requests for access to data or components.

Audit Commentary

Mercury as an MEP does not control access to raw meter data. Mercury as a participant will consider requests for access to data or components.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 3. Access to metering installations

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

Mercury can facilitate physical access as required. No requests have been made.

Audit Commentary

Mercury can facilitate physical access as required. No requests have been made.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 4. Urgent access to metering installations

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

Mercury can facilitate physical access as required. No requests have been made.

Audit Commentary

Mercury can facilitate physical access as required. No requests have been made.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 5. Electronic interrogation of metering installations

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.

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

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 malfunctioning or tampering, and if this is detected, carry out the appropriate requirements of Part 10.

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

Mercury does not conduct electronic data collection as an MEP.

Audit Commentary

Mercury does not conduct electronic data collection as an MEP.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 6. Security of metering data

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

Mercury does not conduct electronic data collection as an MEP.

Audit Commentary

Mercury does not conduct electronic data collection as an MEP.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 7. Time errors for metering installations

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

Mercury does not conduct electronic data collection as an MEP.

Audit Commentary

Mercury does not conduct electronic data collection as an MEP.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 8. Event logs

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

Mercury does not conduct electronic data collection as an MEP.

Audit Commentary

Mercury does not conduct electronic data collection as an MEP.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 9. Comparison of HHR data with register data

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.

Audit Observation

Mercury does not conduct electronic data collection as an MEP.

Audit Commentary

Mercury does not conduct electronic data collection as an MEP.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 10. Correction of raw meter data

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

Mercury has a process in place for the management of faulty metering installations and any subsequent investigation and reporting. There have not been any examples since 29/08/13.

Audit Commentary

Mercury has a process in place for the management of faulty metering installations and any subsequent investigation and reporting. There have not been any examples since 29/08/13.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not Applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

Conclusion

This audit found compliance with all relevant clauses of the Code

Mercury has a robust and well managed MEP operation, which ensures a high level of compliance.

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 in Section 12 provides some guidance on this matter and recommends an audit frequency of 36 months.

Participant Response

Mercury have no issue with the audit findings.