VERITEK

Electricity Industry Participation Code Audit Report

For

Mercury NZ Limited

Mercury

Metrix Gatekeepers
Distributed Unmetered Load

Prepared by Rebecca Elliot – Veritek Ltd

Date of Audit: 13/03/18

Date Audit Report Complete: 15/05/18

Executive Summary

This audit of the Metrix Gatekeepers database and processes was conducted at the request of Mercury, in accordance with clause 15.37B. The purpose of this audit is to verify that the volume information is being calculated accurately, and that profiles have been correctly applied.

The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1, which became effective on 1 June 2017.

The database is held by Mercury in the form of a spreadsheet with updates provided by Metrix when changes are made.

The audit confirms compliance with the code. The future risk rating of 0 indicates that the next audit be completed in 36 months and I agree with this recommendation.

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			Nil				
					Future Risk Rating	0	
					Indicative Audit Frequency	36 months	

Future risk rating	0	1-4	5-8	9-15	16-18	19+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

Table of Recommendations

Subject	Section	Recommendation	Description
		Nil	

Persons Involved in This Audit:

Auditor:

Name	Company	Role
Rebecca Elliot	Veritek Limited	Lead Auditor
Brett Piskulic	Veritek Limited	Supporting Auditor
Steve Woods	Veritek Limited	Supporting Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Andrew Robertson	Regulatory and Compliance Strategist	Mercury Energy

Contents

1. Administrative

1.1 List of ICPs

The following ICPs are relevant to the scope of this audit:

ICP	Description	NSP	No. of items of load
0000565924NRDAF	Metrix Mesh Aerials; BRB0331	BRB0331	14
0000565923NR065	Metrix Mesh Aerials; MTO0331	MTO0331	24
0000565921NR0E0	Metrix Mesh Aerials; MPE1101	MPE1101	79
0000502062DED0F	HWB METERING GATEKEEPERS	HWB0331	30
0000502063DE14A	SDN METERING GATEKEEPERS	SDN0331	12
		TOTAL items of load	159

1.2 Exemptions from Obligations to Comply with Code (Section 11 of Electricity Industry Act 2010)

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.

Mercury confirms there are no exemptions in place relevant to the scope of this audit:

1.3 Supplier List

Metrix is considered an agent, as they will inform Mercury of changes to the lighting in order for Mercury to update the database.

Mercury clearly understands that the use of agents does not release them from their compliance obligations.

1.4 Hardware and Software

The data is held in an excel spreadsheet. These are backed up in accordance with standard industry procedures. Access to the spreadsheets is restricted by way of user log into the computer drive.

1.5 Breaches or Breach Allegations

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

1.6 Distributed Unmetered Load Audits (Clauses 16A.26 & 17.295F)

Retailers must ensure that DUML database audits are completed:
1. by 1 June 2018 (for DUML that existed prior to 1 June 2017)
2. within three months of submission to the reconciliation manager (for new DUML)
3. within the timeframe specified by the Authority for DUML that has been audited since 1 June 2017.

Audit Observation
Mercury has requested Veritek to undertake this lighting audit.

Audit Commentary
This audit report confirms that the requirement to conduct an audit has been met for this database within the required timeframe.

Audit outcome
Compliant

1.7 Separate Distributed Unmetered Load Audit (Clause 16A.8(4))

Retailers must ensure that DUML audits are reported in a separate audit report.

Audit Observation
Mercury has requested Veritek to undertake this DUML audit.

Audit Commentary
The audit report for this DUML database is separate from other audit reports.

Audit outcome
Compliant

1.8 Summary of Previous Audit

Mercury provided a copy of the last audit report undertaken by Rebecca Elliot of Veritek Limited in March 2017 as part of Mercury's 2017 reconciliation participant audit. This audit wasn't submitted due to the audit regime change that occurred on June 1st but for completeness I have included the audit findings. The audit confirmed compliance with the code.

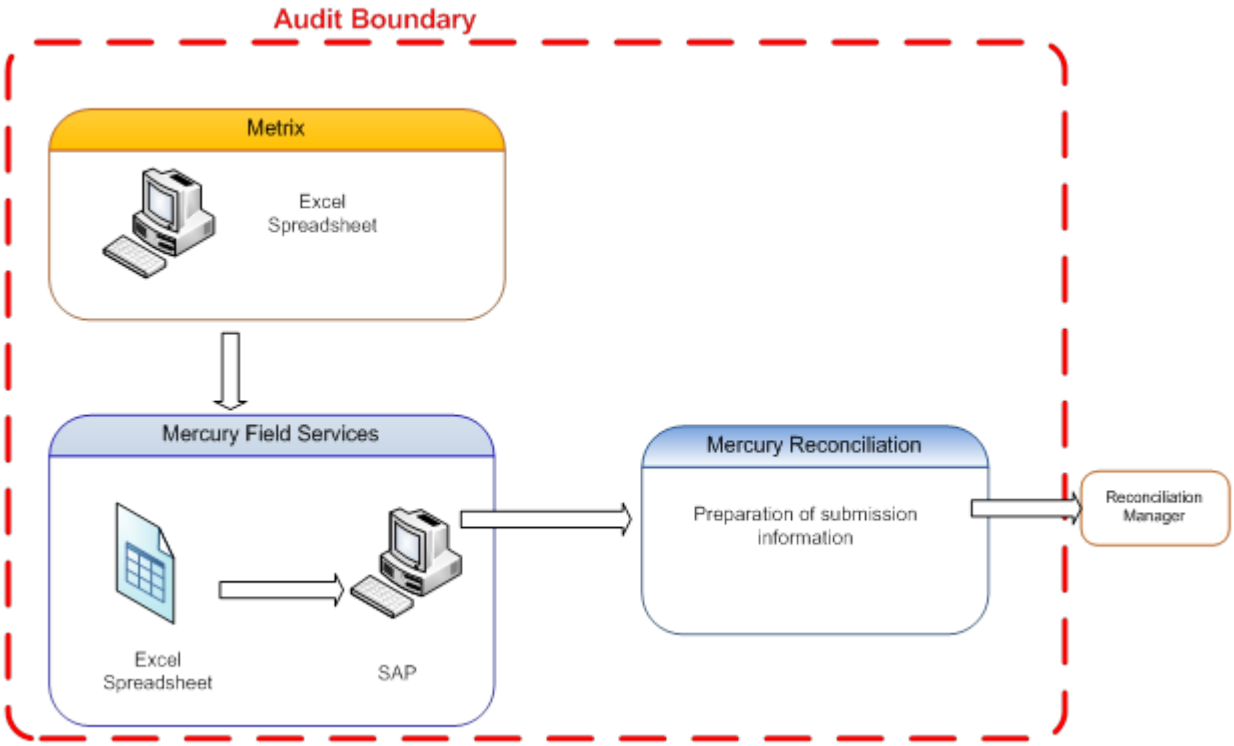
1.9 Scope of Audit

This audit of the Metrix Gatekeepers database and processes was conducted at the request of Mercury, in accordance with clause 15.37B. The purpose of this audit is to verify that the volume information is being calculated accurately, and that profiles have been correctly applied.

The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1, which became effective on 1 June 2017.

Metrix Gatekeepers are located on the Northpower network, and the Aurora network in the Dunedin area. Metrix arranges any required maintenance. Changes are reported to Mercury to be recorded in the database. The database is used by Mercury to calculate submission information.

The scope of the audit encompasses the collection, security and accuracy of the data, including the preparation of submission information based on the monthly reporting. The diagram below shows the flow of information and the audit boundary for clarity.



The field audit of 76 items of load was carried out between 8th and 13th March, 2018 in Northland and on 20th April, 2018 for Dunedin.

1.10 Data Transmission (Clause 20 of Schedule 15.2)

Submission is based on the spreadsheet data held within Mercury, therefore there is no data transmitted by any other means. Compliance is confirmed.

2. DUML database requirements

2.1 Deriving Submission Information (Clause 11(1) of Schedule 15.3)

The retailer must ensure the:
• DUML database is up to date
• methodology for deriving submission information complies with Schedule 15.5.

Audit Observation
The process for calculation of consumption was examined and the application of profiles was checked. The database was checked for accuracy.

Audit Commentary
Mercury reconciles this DUML load using the RPS profile. The daily kWh figure recorded in SAP, which is derived from the spreadsheets, is used for submission. I checked the accuracy of the submission information by multiplying the daily kWh figure from SAP to the figure submitted in the AV080 for the month of March and these were confirmed to be correct in all instances.

The field audit confirmed that the database is accurate.

Audit outcome
Compliant

2.2 ICP Identifier (Clause 11(2)(a) of Schedule 15.3)

The DUML database must contain:
• each ICP identifier for which the retailer is responsible for the DUML
• the items of load associated with the ICP identifier.

Audit Observation
The database was checked to confirm the correct ICP was recorded against each item of load.

Audit Commentary
The analysis found that all items of load had the correct ICP recorded against them.

Audit outcome
Compliant

2.3 Location of Each Item of Load (Clause 11(2)(b) of Schedule 15.3)

The DUML database must contain the location of each DUML item.

Audit Observation
The database was checked to confirm the location is recorded for all items of load.

Audit Commentary

The database has the nearest street address for each item of load. The field audit confirmed that the locations checked were correct.

Audit outcome
Compliant

2.4 Description of Load Type (Clause 11(2)(c) & (d) of Schedule 15.3)

The DUML database must contain:
• a description of load type for each item of load and any assumptions regarding the capacity
• the capacity of each item in watts.

Audit Observation
The database was checked to confirm that it contained a description and capacity in watts.

Audit Commentary

The database contains appropriate load type descriptions. The items of load are all pole mounted radio mesh communications equipment, either Relays or Access Points and are clearly identified as such. All had a wattage value recorded.

Audit outcome
Compliant

2.5 All load recorded in database (Clause 11(2A) of Schedule 15.3)

The retailer must ensure that each item of DUML for which it is responsible is recorded in this database.

Audit Observation
The field audit was undertaken of 76 devices.

Audit Commentary
The field audits undertaken in Northland and Dunedin found that the field count matched the database for all of the 76 devices checked.

Audit outcome
Compliant

2.6 Tracking of Load Changes (Clause 11(3) of Schedule 15.3)

The DUML database must track additions and removals in a manner that allows the total load (in kW) to be retrospectively derived for any given day.

Audit Observation
The process for tracking of changes in the database was examined.

Audit Commentary

The items of load form part of a radio mesh communication network for smart meters. The network is constantly monitored, failure of any equipment is identified early and repair or replacement is undertaken quickly to maintain the network.

Metrix has provided Mercury with a copy of the database. Metrix sends any changes in the spreadsheet to Mercury to update their copy. These are provided within the given month they occur.

The field audit was conducted between 8th and 13th March 2018 of the 76 items of load, and all items checked in the field matched those listed in the database.

Audit outcome

Compliant

2.7 Audit Trail (Clause 11(4) of Schedule 15.3)

The DUML database must incorporate an audit trail of all additions and changes that identify:

- *the before and after values for changes*
- *the date and time of the change or addition*
- *the person who made the addition or change to the database.*

Audit Observation

The database was checked for audit trails.

Audit Commentary

The database contains a complete audit trail of all changes to the database information.

Audit outcome

Compliant

3. Accuracy of DUML database

3.1 Database Accuracy (Clause 15.2 & 15.37(b))

The Audit must verify that the information recorded in the retailer's DUML database is complete and accurate.

Audit Observation

A field audit of 76 load items was conducted to determine the database accuracy.

Audit Commentary

The field audits undertaken in Northland and Dunedin confirmed that the database was accurate in relation to the number of load items.

Audit outcome

Compliant

3.2 Volume Information Accuracy (Clause 15.2 & 15.37(c))

The audit must verify that:
• volume information for the DUML is being calculated accurately
• profiles for DUML have been correctly applied.

Audit Observation

The submission was checked for accuracy for the month the database extract was supplied. This included:

- checking the registry to confirm that the ICP has the correct profile and submission flag
- checking the database extract combined with the burn hours against the submitted figure to confirm accuracy.

Audit Commentary

Mercury reconciles this DUML load using the RPS profile. The daily kWh figure recorded in SAP, which is derived from the spreadsheets, is used for submission. I checked the accuracy of the submission information by multiplying the daily kWh figure from SAP to the figure submitted in the AV080 for the month of March and these were confirmed to be correct in all instances.

The field audit confirmed that the database is accurate.

Audit outcome

Compliant

4. Conclusions

The audit confirms compliance with the code. The future risk rating of 0 indicates that the next audit be completed in 36 months and I agree with this recommendation.

5. Mercury Comments

Mercury have reviewed this report and no further comments were provided.