

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

AVONDALE BUSINESS ASSOCIATION AND
MERCURY NZ LTD

Prepared by: Rebecca Elliot

Date audit commenced: 27 February 2023

Date audit report completed: 15 March 2023

Audit report due date: 05-Apr-23

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EXECUTIVE SUMMARY

This audit covers the **Avondale Business Association** DUML database and processes and was conducted at the request of **Mercury NZ Limited (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. A field audit was undertaken of all items of load.

The spreadsheet is maintained by Mercury and the customer is expected to advise Mercury of any changes that occur. The audit trail shows that there has been regular communication between Mercury and Avondale Business Association, resulting in database updates, including the changing of most of the light fittings to modern LED lights. There were some minor discrepancies found but the database accuracy is still within the +/-5% threshold as required by the code.

The database is small, and the impact of the one issue identified is very minor. The future risk rating indicates that the next audit be completed in 24 months, and I agree with the recommendation.

The matters raised are detailed below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
All load recorded in the database	2.5	11(2A) of Schedule 15.3	Five additional items of load found in the field.	Strong	Low	1	Identified
Future Risk Rating						1	

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

RECOMMENDATIONS

Subject	Section	Recommendation
		Nil

ISSUES

Subject	Section	Description	Issue
		Nil	

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

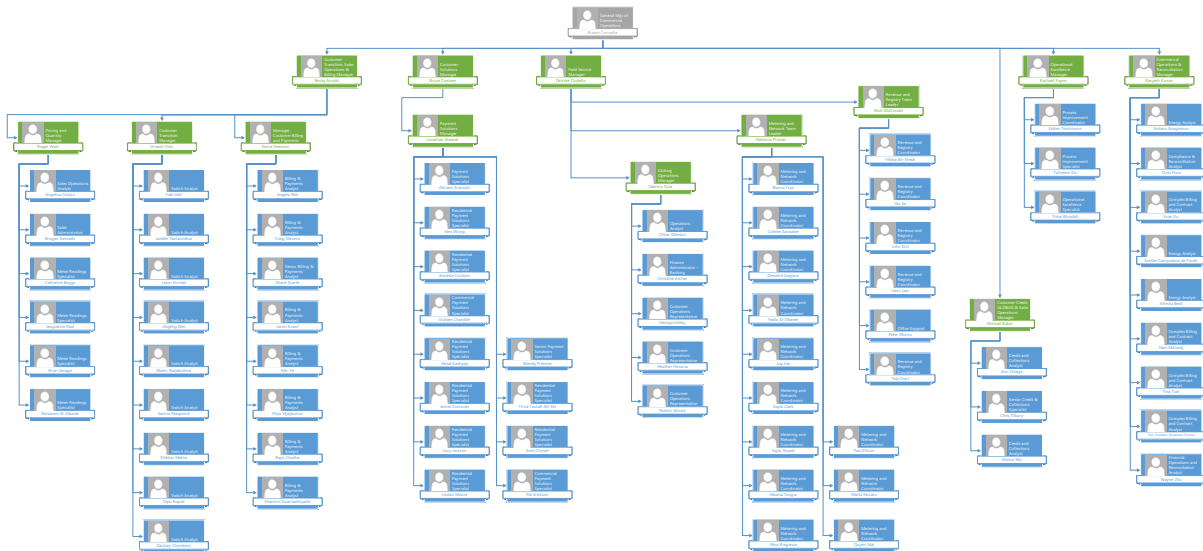
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

Audit commentary

Mercury has no exemptions in place in relation to the ICP covered by this audit report.

1.2. Structure of Organisation

Mercury provided an organisational structure:



1.3. Persons involved in this audit

Auditor:

Rebecca Elliot

Veritek Limited

Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Chris Posa	Compliance, Risk and Financial Reconciliation Analyst	Mercury NZ Ltd
Leon Law	Revenue and Registry Coordinator	Mercury NZ Ltd

1.4. Hardware and Software

The streetlight data for the Avondale Business Association is held in an excel spreadsheet. This is backed up in accordance with standard industry procedures. Access to the spreadsheet is restricted by way of user log into the computer drive.

Systems used by the trader to calculate submissions are assessed as part of their reconciliation participant audits.

1.5. Breaches or Breach Allegations

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

1.6. ICP Data

ICP Number	Customer	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0987369148LC0CE	AVONDALE BIZ ASSOC	AVONDALE BUS ASSOC BULK UML	PAK0331	RPS	121	3,661

1.7. Authorisation Received

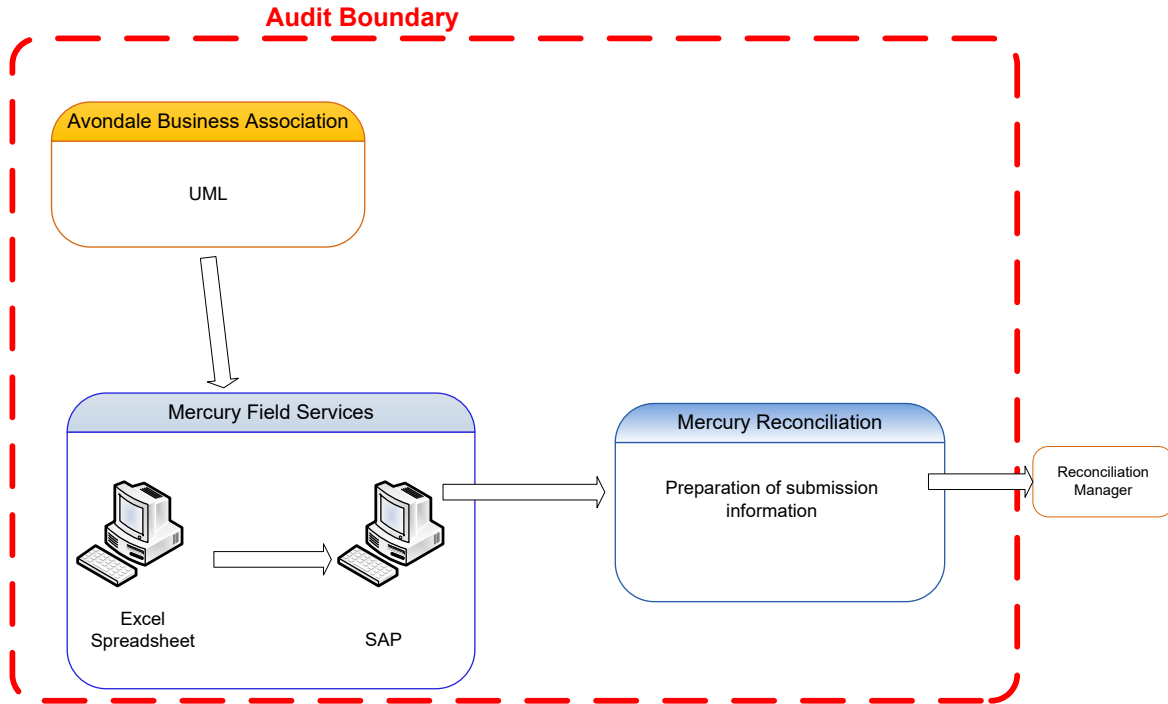
All information was provided directly by Mercury.

1.8. Scope of Audit

This audit covers the Avondale Business Association DUML database and processes and was conducted at the request of Mercury NZ Limited (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. A field audit was undertaken of all items of load.

The spreadsheet is maintained by Mercury and the customer is expected to advise Mercury of any changes that occur.



1.9. Summary of previous audit

The previous audit was completed in April 2021 by Steve Woods of Veritek Limited. The current status of the non-compliances in relation to the Avondale Business Association lights are detailed below.

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Location of each item of load	2.3	11(2)(b) of Schedule 15.3	Lights at 63 Rosebank Rd recorded as 63 Avondale Rd	Cleared

1.10. Distributed unmetered load audits (Clause 16A.26 and 17.295F)

Code reference

Clause 16A.26 and 17.295F

Code related audit information

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 street 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

2. DUML DATABASE REQUIREMENTS

2.1. Deriving submission information (Clause 11(1) of Schedule 15.3)

Code reference

Clause 11(1) of Schedule 15.3

Code related audit information

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

This clause requires that the distributed unmetered load database must satisfy the requirements of schedule 15.5 regarding the methodology for deriving submission information. Mercury reconciles this DUML load using the RPS profile. The daily kWh figure recorded in SAP, which is derived from the spreadsheet, is used for submission. I checked the accuracy of the submission information by multiplying the daily kWh by the number of hours in the month and comparing it to the figure in the registry. This confirmed the accuracy of submission.

The 100% field audit confirmed the database is within the allowable +/-5% threshold. All of the changes during the audit period were included in the database with an audit trail.

Audit outcome

Compliant

2.2. ICP identifier and items of load (Clause 11(2)(a) and (aa) of Schedule 15.3)

Code reference

Clause 11(2)(a) and (aa) of Schedule 15.3

Code related audit information

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 spreadsheets were checked to confirm an ICP was recorded correctly for the load.

Audit commentary

The spreadsheet records the correct ICP relative to the load.

Audit outcome

Compliant

2.3. Location of each item of load (Clause 11(2)(b) of Schedule 15.3)

Code reference

Clause 11(2)(b) of Schedule 15.3

Code related audit information

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

Audit observation

The spreadsheets were checked to confirm the location is recorded for all items of load.

Audit commentary

All items of load had an address recorded. The accuracy of locations is detailed in **section 3.1**.

Audit outcome

Compliant

2.4. Description and capacity of load (Clause 11(2)(c) and (d) of Schedule 15.3)

Code reference

Clause 11(2)(c) and (d) of Schedule 15.3

Code related audit information

The DUMML 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 spreadsheet was checked to confirm that it contained a field for lamp type and wattage capacity and included any ballast or gear wattage and that each item of load had a value recorded in these fields.

Audit commentary

Each item of load contains the lamp type, wattage and ballast in the spreadsheet.

Audit outcome

Compliant

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

Code reference

Clause 11(2A) of Schedule 15.3

Code related audit information

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

Audit observation

I conducted a full field audit of all items of load.

Audit commentary

The field audit found five additional lights found in the field. These are detailed in **sections 2.1** and **3.1**. This is recorded as non-compliance.

The accuracy of the database is detailed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clause 11(2A) of Schedule 15.3 From: 31-Mar-21 To: 27-Feb-23	Five additional lights found in the field. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as strong because they mitigate risk to an acceptable level. The impact on settlement and participants is minor; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Avondale Business Association have confirmed that the 5 additional lights should have been included in the database, we have now updated the database to include them.		March 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will continue to liaise with Avondale Business Association to ensure database accuracy.		Ongoing	

2.6. Tracking of load changes (Clause 11(3) of Schedule 15.3)

Code reference

Clause 11(3) of Schedule 15.3

Code related audit information

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 spreadsheets was examined.

Audit commentary

Any changes that are made during any given month take effect from the beginning of that month. The information is available which would allow for the total load in kW to be retrospectively derived for any day.

Audit outcome

Compliant

2.7. Audit trail (Clause 11(4) of Schedule 15.3)

Code reference

Clause 11(4) of Schedule 15.3

Code related audit information

The DUMML 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 spreadsheet was checked for audit trails.

Audit commentary

All changes have an audit trail, including the person making the change and the date of the change.

Audit outcome

Compliant

3. ACCURACY OF DUML DATABASE

3.1. Database accuracy (Clause 15.2 and 15.37B(b))

Code reference

Clause 15.2 and 15.37B(b)

Code related audit information

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

Audit observation

I conducted a full field audit of all items of load.

Wattages were checked for alignment with the published standardised wattage table produced by the Electricity Authority.

Audit commentary

The field audit found two errors:

- Block 1881-1899 Great North Road has eight lights not 11 as recorded in the database.
- Block 1976 Great North Road with five 20W wall mounted LEDs was missing from the database.

This represents a 1% error rate and is therefore still within the allowable +/-5% accuracy threshold therefore I have recorded compliance for database accuracy.

All changes during the audit period are recorded in the spreadsheet with an appropriate audit trail.

The check of wattages and ballasts confirmed compliance.

Audit outcome

Compliant

3.2. Volume information accuracy (Clause 15.2 and 15.37B(c))

Code reference

Clause 15.2 and 15.37B(c)

Code related audit information

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, and
- checking the expected kWh against the submitted figure to confirm accuracy.

Audit commentary

This clause requires that the distributed unmetered load database must satisfy the requirements of schedule 15.5 regarding the methodology for deriving submission information. Mercury reconciles this DUML load using the RPS profile. The daily kWh figure recorded in SAP, which is derived from the spreadsheet, is used for submission. I checked the accuracy of the submission information by multiplying

the daily kWh by the number of hours in the month and comparing it to the figure in the registry. This confirmed the accuracy of submission.

The 100% field audit confirmed the database is within the allowable +/-5% threshold. All of the changes during the audit period were included in the database with an audit trail.

Audit outcome

Compliant

CONCLUSION

The spreadsheet is maintained by Mercury and the customer is expected to advise Mercury of any changes that occur. The audit trail shows that there has been regular communication between Mercury and Avondale Business Association, resulting in database updates, including the changing of most of the light fittings to modern LED lights. There were some minor discrepancies found but the database accuracy is still within the +/-5% threshold as required by the code.

The database is small, and the impact of the one issue identified is very minor. The future risk rating indicates that the next audit be completed in 24 months, and I agree with the recommendation.

PARTICIPANT RESPONSE

Mercury have reviewed the report and their comments have been recorded in the body of the report and no other comments were provided.