

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

ACACIA COVE RETIREMENT VILLAGE AND
MERCURY NZ LTD
NZBN:9429037705305

Prepared by: Brett Piskulic

Date audit commenced: 2 April 2024

Date audit report completed: 15 May 2024

Audit report due date: 01-Jun-24

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EXECUTIVE SUMMARY

This audit covers the **Acacia Cove Retirement Village (Acacia Cove)** DUML database and processes 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.

The 100% field audit found an additional three lights that were not recorded in the database resulting in the database total wattage being less than the total wattage found in the field by 43 watts. This amounts to a variance of 3.17% which is within the +/-5% allowable threshold.

The future risk rating indicates that the next audit be completed in 24 months. I have considered this in conjunction with Mercury's comments and recommend an audit period of 36 months as the database has been updated and now accurately records the installed load.

The matter raised is 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	Three additional items of load found in the field.	Moderate	Low	2	Cleared
Future Risk Rating						2	

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

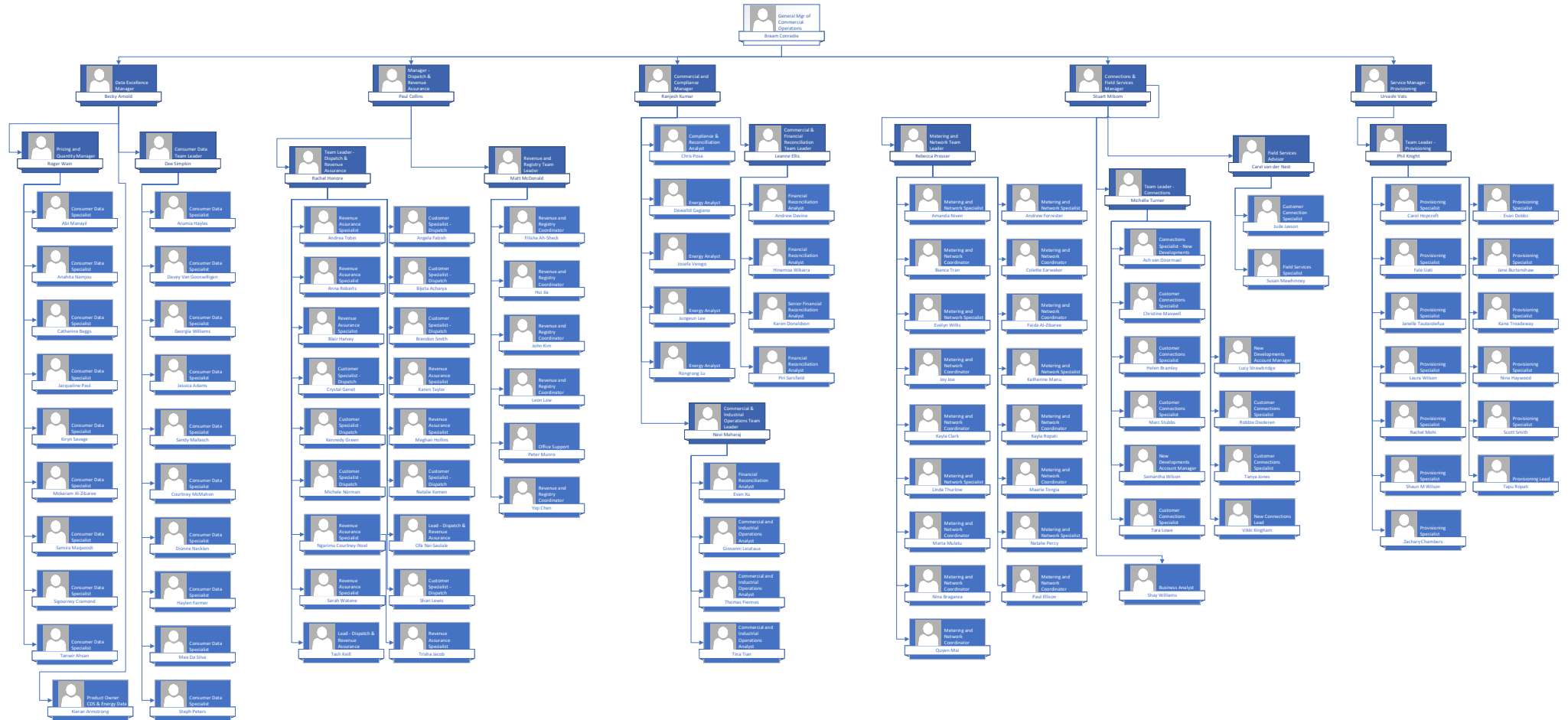
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

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:

Brett Piskulic

Provera

Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Chris Posa	Compliance Reconciliation Analyst	Mercury NZ Ltd
Justin Smith	Maintenance Contractor	Acacia Cove Retirement Village

1.4. Hardware and Software

The streetlight data for Acacia Cove 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)
0949731528LC8C0	Acacia Cove Retirement Village	Wattle Farm Rd	TAK0331	UML	80	1,355

1.7. Authorisation Received

All information was provided directly by Mercury and Acacia Cove.

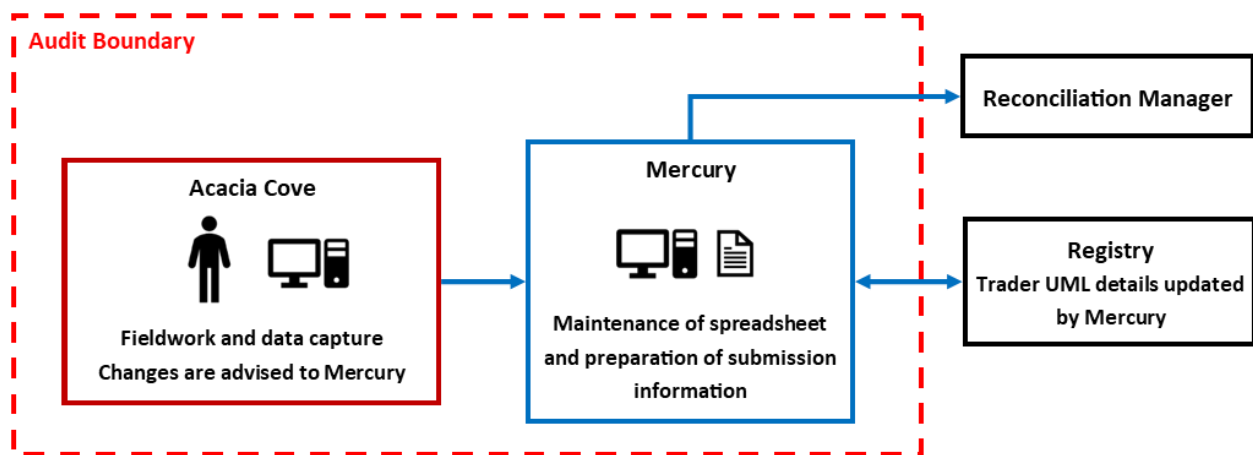
1.8. Scope of Audit

This audit covers the Acacia Cove Retirement Village (Acacia Cove) DUML database and processes 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.

Acacia Cove arranges any maintenance, replacements, removals or additions with contractors. The spreadsheet is maintained by Mercury and Acacia Cove is expected to advise Mercury of any changes that occur.

The diagram below shows the audit boundary for clarity.



A full field audit was undertaken on 29th April 2024.

1.9. Summary of previous audit

The previous audit was completed in May 2022 by Rebecca Elliot of Veritek Limited. One non-compliance was identified, and no recommendations were made. The current status of the non-compliance in relation to the Acacia Cove lights is detailed below.

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Location of each item of load	2.3	11(2A) of Schedule 15.3	11 items of load with insufficient location details because they are recorded as "scattered around".	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 Provera to undertake this 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

Submission process and accuracy

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 UML profile. The daily kWh figure recorded in the registry, 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 for the month of April 2024. This confirmed the calculation methodology was correct.

Any changes made in the database that affect total wattage are updated on the registry for the same date, therefore changes will be tracked at a daily basis.

Database accuracy

The 100% field audit found an additional three lights that were not recorded in the database resulting in the database total wattage being less than the total wattage found in the field by 43 watts. This amounts to a variance of 3.17% which is within the +/-5% allowable threshold. Non-compliance is recorded for the additional lights in **section 2.5**.

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 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 DUML database must contain the location of each DUML item.

Audit observation

The spreadsheet was checked to confirm the location is recorded for all items of load.

Audit commentary

The spreadsheet contains a "Street Light Location Field" which records the location in relation to the nearest unit in the village. All lights had locations recorded and the field audit confirmed that they were locatable. In the last two audits non-compliance was recorded for 11 lights which were recorded with a location of "scattered about". The 11 lights were confirmed as not installed and removed from the database after the last audit. Compliance is now recorded.

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 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 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, ballast and total wattage 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 DUML for which it is responsible is recorded in this database.

Audit observation

I conducted a field audit of all items of load on 29th April 2024.

Audit commentary

The field audit discrepancies are detailed in the table below:

Street Light Location	Database count	Field count	Light count difference	Wattage recorded incorrectly	Comments
Outside 204 Bollard	0	1	+1	-	1x 12W bollard light found in the field not recorded in database
Outside 205 Bollard	0	1	+1	-	1x 12W bollard light found in the field not recorded in database
Outside 520	1	2	+1	-	1x 19W streetlight found in the field was recorded as removed on 1 November 2022 in the database
Grand Total	80	83	+3	0	

The field audit found three additional items of load in the field, and this is recorded as non-compliance below. The database accuracy is discussed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.5 With: Clauses 11(2A) of Schedule 15.3 From: 01-Nov-22 To: 29-Apr-24	Three additional items of load found in the field. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as moderate, as they are sufficient to mitigate the risk most of the time but there is room for improvement. 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
We have contacted the Maintenance Person at Acacia Cove and have updated the database so that it accurately includes the 3 items of load found in the field during the audit. The Database is now up to date and accurate.	Completed May 2024	Cleared
Preventative actions taken to ensure no further issues will occur	Completion date	
We will continue to work with Acacia Cove to ensure that the database is updated as soon as there are changes in the field.	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

Changes are tracked in the database and the date of change is recorded. Any changes made in the database that affect wattage are updated on the registry for the same effective date. I confirmed this by checking the registry for changes made following the last audit.

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 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 spreadsheets were checked for audit trails.

Audit commentary

Changes made in the database have an audit trail that meets the requirements of this clause.

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 field audit of all items of load and checked each road for additional fittings.

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

Audit commentary

Database Accuracy and Lamp accuracy

The 100% field audit found an additional three lights that were not recorded in the database resulting in the database total wattage being less than the total wattage found in the field by 43 watts. This amounts to a variance of 3.17% which is within the +/-5% allowable threshold. Non-compliance is recorded for the additional lights in **section 2.5**.

All the items of load are LED lights and the wattages recorded in the database are in line with the manufacturers specifications for the light type.

Change Management

Acacia Cove arranges any maintenance, replacements, removals, or additions to the lights with contractors and is notifies Mercury of any changes. Mercury then updates the database with the details of the light type, wattages and the date of change. The "tracking changes" section of the database includes notes which show that Mercury are also regularly requesting updates from Acacia Cove to confirm if changes have been made.

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

Submission process and accuracy

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 UML profile. The daily kWh figure recorded in the registry, 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 for the month of April 2024. This confirmed the calculation methodology was correct.

Any changes made in the database that affect total wattage are updated on the registry for the same date, therefore changes will be tracked at a daily basis.

Database accuracy

The 100% field audit found an additional three lights that were not recorded in the database resulting in the database total wattage being less than the total wattage found in the field by 43 watts. This amounts to a variance of 3.17% which is within the +/-5% allowable threshold. Non-compliance is recorded for the additional lights in **section 2.5**.

Audit outcome

Compliant

CONCLUSION

The 100% field audit found an additional three lights that were not recorded in the database resulting in the database total wattage being less than the total wattage found in the field by 43 watts. This amounts to a variance of 3.17% which is within the +/-5% allowable threshold.

The future risk rating indicates that the next audit be completed in 24 months. I have considered this in conjunction with Mercury's comments and recommend an audit period of 36 months as the database has been updated and now accurately records the installed load.

PARTICIPANT RESPONSE

Overall we are happy with the level of compliance and will continue to maintain it. Thanks to Brett for his work on the audit.