

ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

AVONDALE BUSINESS ASSOCIATION AND  
MERCURY NZ LTD

Prepared by: Steve Woods

Date audit commenced: 30 March 2021

Date audit report completed: 31 March 2021

Audit report due date: 05-Apr-21

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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 all of the findings from the previous audit.

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. 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 |
|-------------------------------|---------|---------------------------|---|----------|-------------------|--------------------|-----------------|
| 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 | Strong   | Low               | 1                  | Cleared         |
| Future Risk Rating            |         |                           |   |          |                   | 1                  |                 |

|                                   |           |           |           |           |          |          |
|-----------------------------------|-----------|-----------|-----------|-----------|----------|----------|
| <b>Future risk rating</b>         | 0         | 1-4       | 5-8       | 9-15      | 16-18    | 19+      |
| <b>Indicative audit frequency</b> | 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**

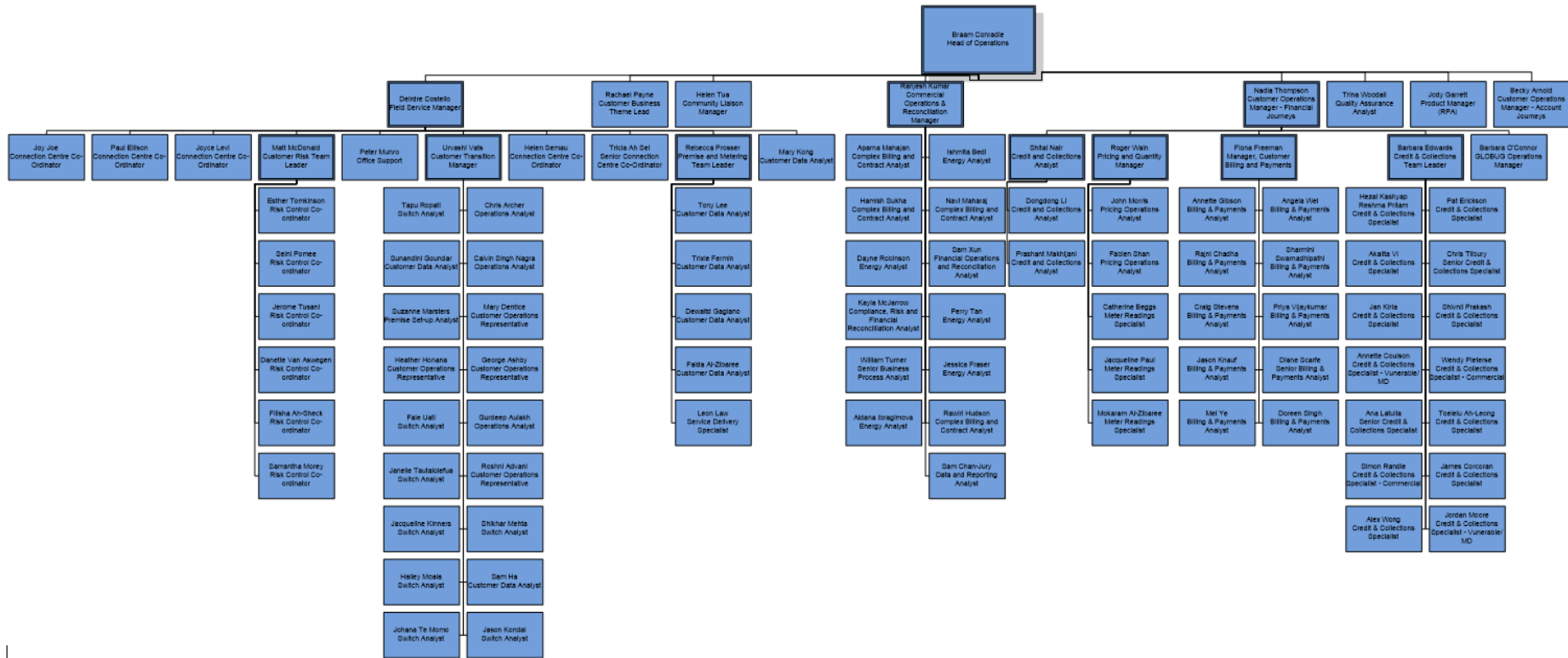
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

#### **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:

**Steve Woods**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Other personnel assisting in this audit were:

| Name           | Title   | Company        |
|----------------|---|----------------|
| Kayla McJarrow | Compliance, Risk and Financial Reconciliation Analyst | 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.

### 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     | 135                     | 3,240                    |

### 1.7. Authorisation Received

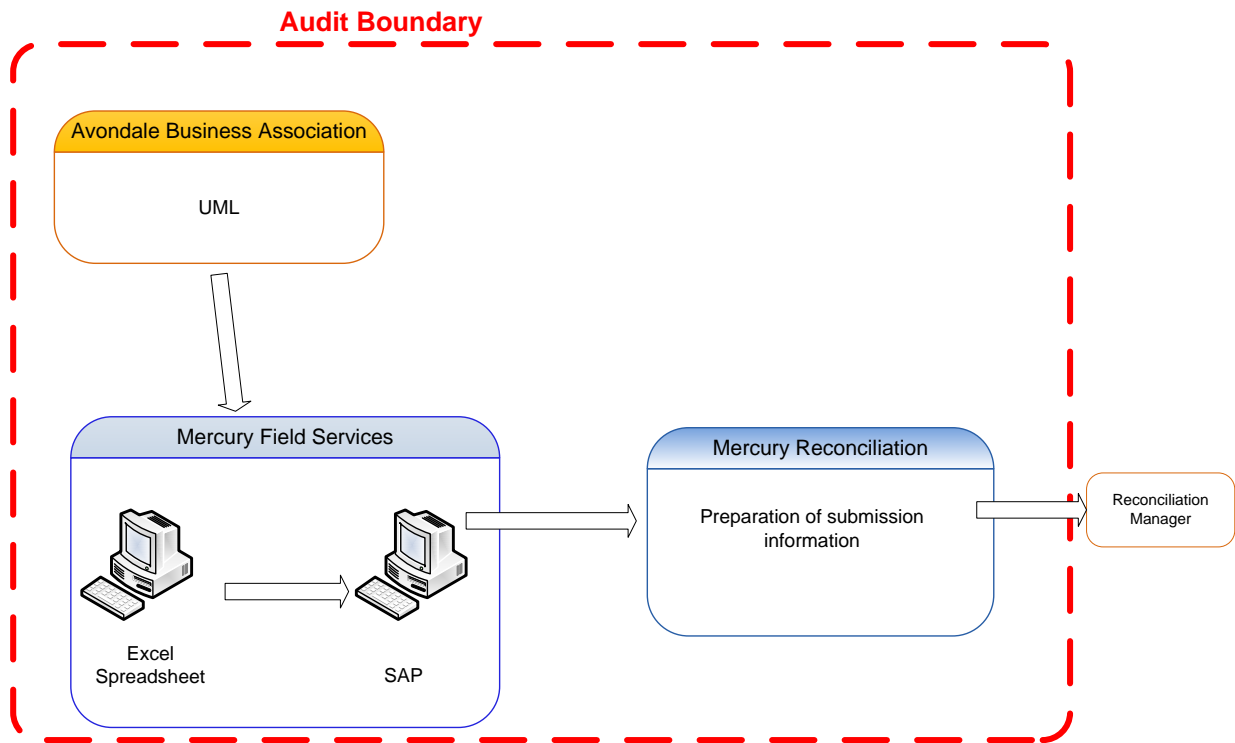
All information was provided directly by Mercury.

### 1.8. Scope of Audit

This audit covers the Avondale Business Association DUMML 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 largely conducted in accordance with the audit guidelines for DUMML audits version 1.1. A field audit was not undertaken due to the restrictions imposed by the Covid-19 lockdown; therefore, I checked the results of the 2019 field audit to ensure the database reflected those findings.

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 May 2019 by Rebecca Elliot 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  |
|-----------------------------------|---------|-------------------------|---|---------|
| Deriving submission information   | 2.1     | 11(1) of Schedule 15.3  | Additional lights found in the field resulting in an estimated annual under submission of 4,310 kWh | Cleared |
| All load recorded in the database | 2.5     | 11(2A) of Schedule 15.3 | 21 additional lights found in the field.  | Cleared |
| Database accuracy                 | 3.1     | 15.2 and 15.37B(b)      | Lamp discrepancies resulting in a potential under submission of 4,309 kWh per annum                 | Cleared |
| Volume information accuracy       | 3.2     | 15.2 and 15.37B(c)      | Lamp discrepancies resulting in an estimated annual under submission of 4,310 kWh.                  | Cleared |

## Recommendations

| Subject                           | Section | Recommendation   |         |
|-----------------------------------|---------|--|---------|
| All load recorded in the database | 2.5     | Liaise with Avondale Business Association to determine how the lights on Block 1881-1897 Great North Road are supplied and therefore if they should be part of this DUML load. | Cleared |
| Tracking of load change           | 2.6     | Liaise with Avondale Business Association to ensure that load changes are captured in a timely manner.   | 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 field audit found 100% accuracy. 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 the correct 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

Four additional items of load were added for 63 Avondale Road, but this should have been 63 Rosebank Road.

### Audit outcome

Non-compliant

| Non-compliance   | Description   |                 |                        |
|--|---|-----------------|------------------------|
| Audit Ref: 2.3<br>With: Clause 11(2)(b) of Schedule 15.3<br>From: 15-Jun-20<br>To: 30-Mar-21   | Lights at 63 Rosebank Rd recorded as 63 Avondale Rd<br>Potential impact: Low<br>Actual impact: Low<br>Audit history: None<br>Controls: Strong<br>Breach risk rating: 1                |                 |                        |
| Audit risk rating  | Rationale for audit risk rating   |                 |                        |
| <b>Low</b>   | The controls are recorded as strong because they mitigate risk to an acceptable level.<br>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 made a correction to our database to reflect the correct location.   |   | N/A             | Cleared                |
| Preventative actions taken to ensure no further issues will occur  |   | Completion date |                        |
| This is a very minor error with no impact on market submission. We have made significant progress on this database and have strong processes in place to keep this maintained an accurate. |   | NA              |                        |

## 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 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 DUML 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 100% accuracy. All changes during the audit period are recorded in the spreadsheet with an appropriate audit trail.

### Audit outcome

Compliant

## 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 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 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 100% 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

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 field audit found 100% accuracy. All of the changes during the audit period were included in the database with an audit trail.

##### Audit outcome

Compliant

## CONCLUSION

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 all of the findings from the previous audit.

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. I agree with the recommendation.

## PARTICIPANT RESPONSE

We have made significant progress in updating this database and have strong processes in place to keep this maintained and accurate. The audit findings of 100% accuracy reflects this. We feel that the one minor location discrepancy does not warrant a 12-month audit period reduction as suggested by the future risk rating table and believe that 36 months would be appropriate.