

ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

LA POINTE ESTATE  
AND MERIDIAN ENERGY LIMITED

Prepared by: Rebecca Elliot

Date audit commenced: 9 November 2018

Date audit report completed: 18 April 2019

Audit report due date: 01-Jun-18

---

## TABLE OF CONTENTS

Executive summary .....	3
Audit summary .....	4
Non-compliances .....	4
Recommendations .....	4
Issues 4	
1. Administrative .....	5
1.1. Exemptions from Obligations to Comply with Code .....	5
1.2. Structure of Organisation .....	5
1.3. Persons involved in this audit.....	6
1.4. Hardware and Software .....	6
1.5. Breaches or Breach Allegations.....	6
1.6. ICP Data .....	6
1.7. Authorisation Received .....	6
1.8. Scope of Audit .....	6
1.9. Summary of previous audit .....	7
1.10. Distributed unmetered load audits (Clause 16A.26 and 17.295F).....	7
2. DUML database requirements.....	9
2.1. Deriving submission information (Clause 11(1) of Schedule 15.3) .....	9
2.2. ICP identifier and items of load (Clause 11(2)(a) and (aa) of Schedule 15.3) .....	10
2.3. Location of each item of load (Clause 11(2)(b) of Schedule 15.3) .....	11
2.4. Description and capacity of load (Clause 11(2)(c) and (d) of Schedule 15.3) .....	11
2.5. All load recorded in database (Clause 11(2A) of Schedule 15.3) .....	12
2.6. Tracking of load changes (Clause 11(3) of Schedule 15.3) .....	13
2.7. Audit trail (Clause 11(4) of Schedule 15.3).....	13
3. Accuracy of DUML database .....	14
3.1. Database accuracy (Clause 15.2 and 15.37B(b)) .....	14
3.2. Volume information accuracy (Clause 15.2 and 15.37B(c)) .....	15
Conclusion .....	17
Participant response .....	18

## EXECUTIVE SUMMARY

This audit of the La Pointe Estate DUMML database and processes was conducted at the request of Meridian Energy Limited (Meridian), 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 DUMML audits version 1.1, which became effective on 1 June 2017.

A spreadsheet is managed by Meridian on behalf of La Pointe Estate in relation to this load. La Pointe Estate provide updates to Northpower of any alterations. Northpower passes this information on to Meridian who update the database.

The field audit was undertaken of the entire La Pointe Estate spreadsheet, consisting of 73 items of load on 9<sup>th</sup> November 2018.

The audit found four non-compliances, three of these all relate to two items of load not able to be located in the field and one item recorded with incorrect wattage. This is equivalent to 93.7% accuracy which is outside of the +/-2.5% variance allowed. I estimate that over submission is occurring by approximately 1,696 kWh per annum as result of the database inaccuracies found. The fourth non-compliance related to an audit not being conducted within 12 months of Part 16A coming into effect. The completion of this audit clears that non-compliance.

The future risk rating of five indicates that the next audit be completed in 18 months, but I recommend that the next audit be in 24 months as the discrepancies are minor. The matters raised are detailed below:

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
DUML Audit	1.10	17.295F of part 17	Audit not completed within 12 months of Part 16A coming into effect.	Moderate	Low	2	Cleared
Deriving submission information	2.1	11(1) of Schedule 15.3	Net over submission of an estimated 1,696 kWh per annum.	Strong	Low	1	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	Two additional lights are recorded on the database. Wattage recorded incorrectly for one light.	Strong	Low	1	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	Over submission of an estimated 1,696 kWh per annum.	Strong	Low	1	Identified
<b>Future Risk Rating</b>						<b>5</b>	

<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	Description	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

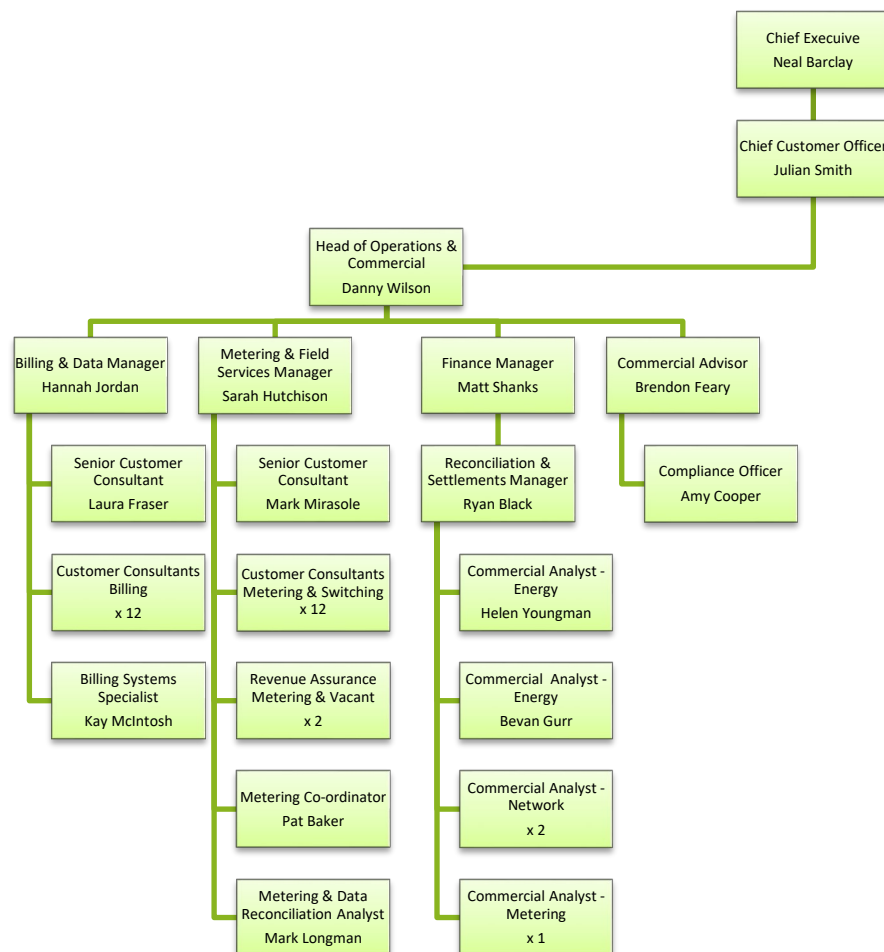
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

#### Audit commentary

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

### 1.2. Structure of Organisation

Meridian provided a copy of their organisational structure:



### 1.3. Persons involved in this audit

Auditor:

Auditor:

Name	Title
Rebecca Elliot	Lead Auditor
Brett Piskulic	Supporting Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Amy Cooper	Compliance Officer	Meridian Energy

### 1.4. Hardware and Software

Meridian do not use a generic database and keep an excel spreadsheet of the La Pointe Estate assets.

Meridian confirmed that the database back-up is 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. ICP Data

ICP Number	Description	Profile	Number of items of load	Database wattage (watts)
0000553532NRE6D	Streetlights; Private Unmetered	RPS	73	6,287

### 1.7. Authorisation Received

All information was provided directly by Meridian.

### 1.8. Scope of Audit

This audit of the La Pointe Estate DUMML database and processes was conducted at the request of Meridian Energy Limited (**Meridian**), 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 DUMML audits version 1.1, which became effective on 1 June 2017.

A spreadsheet is managed by Meridian on behalf of La Pointe Estate in relation to this load.

La Pointe Estate provide updates to Northpower of any alterations. Northpower passes this information on to Meridian who update the database.

The scope of the audit encompasses the collection, security and accuracy of the data, including the preparation of submission information.

The field audit was undertaken of the entire La Pointe Estate spreadsheet, consisting of 73 items of load on 9<sup>th</sup> November 2018.

## 1.9. Summary of previous audit

This is the first audit of this database undertaken by Meridian.

## 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

Meridian have requested Veritek to undertake this streetlight audit.

### Audit commentary

This audit report confirms that the requirement to conduct an audit has been met for this database. Meridian were unable to complete this audit by the required timeframe as the database extract was not able to be provided before this audit's due date.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 1.10 Clause 17.295F of part 17  From: 01-Jun-18 To: 16-Nov-18	Audit not completed within 12 months of Part 16A coming into effect.  Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate, as Meridian are reliant on the database provider to supply the data and in this case the delay caused this report to be late.  The impact is assessed to be low, as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Database information obtained, and audit undertaken as soon as possible.		Complete	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	



## 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

Meridian reconciles this DUML load using the RPS profile.

A spreadsheet is managed by Meridian on behalf of La Pointe Estate in relation to this load.

The information on the Registry matches to the values in the spreadsheet. I checked the submission calculation provided by Meridian against the data extract, and Registry, and it matches exactly.

There is some inaccurate data within the database used to calculate submissions as detailed in the table below. This is recorded as non-compliance and discussed in sections **3.1** and **3.2**.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 Clause 11(1) of Schedule 15.3  From: unknown To: 16-Nov-18	Two additional lights are recorded on the database and wattage recorded incorrectly for one light. This will be resulting in over submission of an estimated 1,696 kWh per annum.  Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Medium</b>	The controls are rated as strong, because they are sufficient manage change effectively.  The impact is assessed to be low, based on the kWh differences described above		
Actions taken to resolve the issue		Completion date	Remedial action status
The database has been updated to correct these inaccuracies and historic submission information corrected.		Dec 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

## 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 DUMML database must contain:*

- *each ICP identifier for which the retailer is responsible for the DUMML*
- *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

All items of load have an ICP recorded against them.

### 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 databases were checked to confirm the location is recorded for all items of load.

#### Audit commentary

The database contains fields for the street address.

#### 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 database was checked to confirm 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

The database contains a Lamp Description, Model, Gear Wattage and Lamp Wattage. These fields are populated for every item in the spreadsheet. The accuracy of the lamp description, capacity and ballasts recorded is discussed in **section 3.1**.

#### 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**

The field audit was undertaken of all 73 items of load on 9<sup>th</sup> November 2018.

**Audit commentary**

The field audit findings are detailed in the table below:

Address	Database Count	Field Count	Count differences	Wattage differences	Comments
Ara Kahika Lane	1	1			
Barbados Way	23	23		200	A 250W spot light has been replaced with a 50W LED
Cayman Court	2	2			
Erin Jane Place	1	1			
Hoihere Drive	6	6			
Key West Drive	27	25	2	197	There are two lamps recorded in the database that were not in the field. 1 x 70W HPSV, 1 x 100 W HPSV
Mamaku Drive	3	3			
Miami Place	1	1			
Ngatiti Place	3	3			
O'Farrell Drive	6	6			
<b>GRAND TOTAL</b>	<b>73</b>	<b>71</b>	<b>2</b>	<b>397</b>	

This clause relates to lights in the field that are not recorded in the database. The field audit found all lights are recorded in the database. There were two lights in the database that were not in the field and one spot light which had been replaced with an LED these are recorded as an inaccuracy in the database in **section 3.1**.

**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 DUMML 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

On 20<sup>th</sup> September 2012 the Authority sent a memo to Retailers and auditors advising that tracking of load changes at a daily level was not required as long as the database contained an audit trail. I have interpreted this to mean that the production of a monthly “snapshot” report is sufficient to achieve compliance.

The spreadsheet includes a log of alterations that have been made as required by this clause. La Pointe Estate maintain the streetlights and advise Northpower of any alterations. Northpower passes this information on to Meridian who update the database. I checked an email trail between Meridian and Northpower which detailed this process.

### 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 database was checked for audit trails.

### Audit commentary

The database has a complete audit trail.

### 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**

A 100% field audit was undertaken of the database.

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

##### **Audit commentary**

The 100% field audit found all but two of the 73 items of load could be located.

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority and found to be correct with the exception of one lamp which was recorded as a 250 watt spot light when the installed lamp is a 50 watt LED.

The database is 93.7% accurate which is outside of the +/-2.5% variance allowed. This will be resulting in an estimated over submission of 1,696 kWh per annum. This is recorded as non-compliance below.

##### **Audit outcome**

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b)  From: unknown To: 16-Nov-18	Two additional lights are recorded on the database. Wattage recorded incorrectly for one light. 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 rated as strong, because they are sufficient to ensure that the database is accurate most of the time.  The impact is assessed to be low, based on the kWh differences described above.		
Actions taken to resolve the issue		Completion date	Remedial action status
The database has been updated to correct these inaccuracies and historic submission information corrected.		Dec 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

### 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
- checking the database extract combined with the burn hours against the submitted figure to confirm accuracy.

### Audit commentary

I checked the submission calculation provided by Meridian and found it matched to the spreadsheet provided and also to the Registry.

Two items of load were not able to be located in the field and one item of load with incorrect wattage. This will be resulting in an estimated over submission of 1,696 kWh per annum.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 Clause 15.2 and 15.37B(c)  From: unknown To: 16-Nov-18	Over submission of an estimated 1,696 kWh per annum.  Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Medium</b>	The controls are rated as strong, because they are sufficient manage change effectively.  The impact is assessed to be low, based on the kWh differences described above.		
Actions taken to resolve the issue		Completion date	Remedial action status
The database has been updated to correct these inaccuracies and historic submission information corrected.		Dec 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	



## CONCLUSION

A spreadsheet is managed by Meridian on behalf of La Pointe Estate in relation to this load. La Pointe Estate provide updates to Northpower of any alterations. Northpower passes this information on to Meridian who update the database.

The field audit was undertaken of the entire La Pointe Estate spreadsheet, consisting of 73 items of load on 9th November 2018.

The audit found four non-compliances, three of these all relate to two items of load not able to be located in the field and one item recorded with incorrect wattage. This is equivalent to 93.7% accuracy which is outside of the +/-2.5% variance allowed. I estimate that over submission is occurring by approximately 1,696 kWh per annum as result of the database inaccuracies found. The fourth non-compliance related to an audit not being conducted within 12 months of Part 16A coming into effect. The completion of this audit clears that non-compliance.

The future risk rating of five indicates that the next audit be completed in 18 months, but I recommend that the next audit be in 24 months as the discrepancies are minor.

## PARTICIPANT RESPONSE

Meridian have reviewed this report. Their comments are recorded in the report and no further comments were provided.