

ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

FAR NORTH DISTRICT COUNCIL  
PIERS AND WHARVES  
MERIDIAN ENERGY

Prepared by: Steve Woods

Date audit commenced: 21 April 2023

Date audit report completed: 1 May 2023

Audit report due date: 13-May-23

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## 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 .....	7
1.9. Summary of previous audit .....	7
1.10. Distributed unmetered load audits (Clause 16A.26 and 17.295F) .....	8
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) .....	9
2.3. Location of each item of load (Clause 11(2)(b) of Schedule 15.3) .....	10
2.4. Description and capacity of load (Clause 11(2)(c) and (d) of Schedule 15.3) .....	10
2.5. All load recorded in database (Clause 11(2A) of Schedule 15.3) .....	11
2.6. Tracking of load changes (Clause 11(3) of Schedule 15.3) .....	11
2.7. Audit trail (Clause 11(4) of Schedule 15.3).....	12
3. Accuracy of DUML database .....	13
3.1. Database accuracy (Clause 15.2 and 15.37B(b)) .....	13
3.2. Volume information accuracy (Clause 15.2 and 15.37B(c)) .....	13
Conclusion .....	15
Participant response .....	16

## EXECUTIVE SUMMARY

This audit of the **Far North District Council Piers and Wharves (FNDC)** DUML database and processes was conducted at the request of **Meridian Energy (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 DUML audits version 1.1.

This audit covers the Far North District Council Jetty and Wharf Lights (FNDC) DUML ICP that is managed by Meridian. This is the first audit since Meridian became the trader on 1<sup>st</sup> April 2023.

After the last audit Contact Energy in consultation with Far North Holdings, Far North District Council and Top Energy created an excel spreadsheet for the management of these lights. Meridian has taken responsibility for the spreadsheet since becoming the trader. The spreadsheet includes a tab where the details and date of any changes to lights are recorded. A monthly return is provided by FNDC to inform Meridian of any changes.

The 100% field audit undertaken on 28<sup>th</sup> April 2023 found no discrepancies, and all items of load were recorded in the database.

The future risk rating of zero indicates that the next audit be completed in 36 months, and I agree with this recommendation.

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			Nil				
Future Risk Rating						0	

<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	Remedial Action
		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

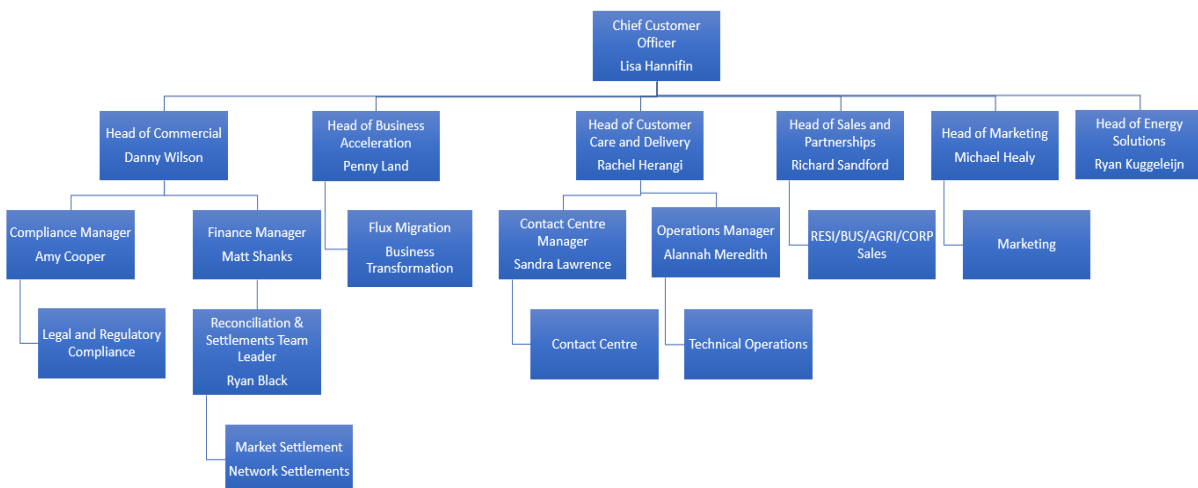
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

#### Audit commentary

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

### 1.2. Structure of Organisation

Meridian provided their current organisational structure:



### 1.3. Persons involved in this audit

Auditors:

**Steve Woods – Lead Auditor**

**Brett Piskulic – Supporting Auditor**

**Veritek Limited**

**Electricity Authority Approved Auditors**

Other personnel assisting in this audit were:

Name	Title	Company
Melanie Matthews	Quality and Compliance Advisor	Meridian Energy
Daniel Lau	Energy Data Analyst	Meridian Energy

### 1.4. Hardware and Software

The streetlight data 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 on into the computer drive.

Systems used by the trader and their agents 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	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0000003946TEC6B	DUML WHARF/JETTY LIGHTS FNDC MARINA	KOE1101	UML	19	1,175

### 1.7. Authorisation Received

All information was provided directly by Meridian Energy.

## 1.8. Scope of Audit

This audit of the Far North District Council Piers and Wharves (FNDC) DUML database and processes was conducted at the request of Meridian Energy (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 DUML audits version 1.1.

The ICP is each managed in an excel spreadsheet held by Meridian Energy.

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

A field audit of all items of load was conducted to determine the Meridian excel spreadsheet accuracy on 28<sup>th</sup> April 2023.

## 1.9. Summary of previous audit

The previous audit was completed in October 2022 by Steve Woods of Veritek Limited. The current status of that audit's findings is detailed below:

### Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
DUML Audit	1.10	16A.26(1)(b)	Audit not completed within the required timeframe.	Cleared
Deriving submission information	2.1	11(1) of Schedule 15.3	The Contact excel spreadsheet data was 38.13% higher than the field data indicating over submission of 1,913.41 kWh per annum.  The Contact excel spreadsheet does not track changes on a daily basis.	Cleared
Description and capacity of load	2.4	11(2)(c) and (d) of Schedule 15.3	Insufficient lamp type details recorded in the database.  No gear wattage recorded in the database for six fluorescent lights.	Cleared
Tracking of load changes	2.6	11(3) of Schedule 15.3	Tracking of load change not carried out.	Cleared
Audit trail	2.7	11(4) of Schedule 15.3	Tracking of load change not carried out and therefore no audit trail of changes.	Cleared
Database accuracy	3.1	11(2A) of Schedule 15.3	The Contact excel spreadsheet data was 38.13% higher than the field data indicating over submission of 1,913.41 kWh per annum.	Cleared

Subject	Section	Clause	Non-compliance	Status
Volume information accuracy	3.2	15.2 and 15.37B(c)	The Contact excel spreadsheet data was 38.13% higher than the field data indicating over submission of 1,913.41 kWh per annum.  The Contact excel spreadsheet does not track changes on a daily basis.	Cleared

### Table of Recommendations

Subject	Section	Clause	Recommendation for improvement	Status
Database Accuracy	3.1	15.2 and 15.37B(b)	Conduct an audit of all load items to correct the database information.	Cleared
			Review tracking of load change process	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

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.

#### 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

Meridian reconciles this DUML load using the UML profile. Burn hours are based on 11.7 hours per day.

A spreadsheet is managed by Meridian on behalf of FNDC in relation to this load.

Meridian updates the registry “Unmetered Load Details – Trader” field and submission is based on this figure. I checked and confirmed that the information on the registry matches to the values in the spreadsheet. The 100% field audit undertaken found that the Meridian excel spreadsheet data matched the load found in the field.

On 18 June 2019, the Electricity Authority issued a memo confirming that the code requirement to calculate the correct monthly load must:

- take into account when each item of load was physically installed or removed, and
- wash up volumes must take into account where historical corrections have been made to the DUML load and volumes.

The current Meridian excel spreadsheet includes a tab where monthly returns by FNDC are recorded and the details and date of any changes made in the field will be recorded. There have been no changes made since the last audit.

#### 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 Meridian excel spreadsheet was checked to confirm an 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 in the database.

### **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 Meridian excel spreadsheet was checked to confirm the location is recorded for all items of load.

### **Audit commentary**

The location of each item of load was recorded in the Meridian excel spreadsheet. The lights are located on small wharfs and jetties. The Meridian excel spreadsheet records the name of the wharf or jetty and the numbers of each type of lamp at each location.

### **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 Meridian excel 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**

The Meridian excel spreadsheet contains Lamp type, Manufacturer, Model Type, Gear Type, Lamp wattage and Gear Wattage fields. These fields were correctly populated for all items of load.

The accuracy of the database 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 19 items of load on 28<sup>th</sup> April 2023.

### Audit commentary

The field audit found that all items of load were recorded in the database and there were no discrepancies.

The field audit found no additional lights in the field therefore compliance is recorded in this section.

The database accuracy is discussed 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 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 Meridian excel spreadsheet was examined.

### Audit commentary

The current Meridian excel spreadsheet includes a tab where monthly returns by FNDC are recorded and the details and date of any changes made in the field will be recorded. There have been no changes made since 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 Meridian excel spreadsheet was checked for audit trails.

### **Audit commentary**

The current Meridian excel spreadsheet includes a tab where monthly returns by FNDC are recorded and the details and date of any changes made in the field will be recorded. There have been no changes made since the last audit.

### **Audit outcome**

Compliant

### 3. ACCURACY OF DUMML 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 DUMML database is complete and accurate.*

##### Audit observation

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

Wattages were checked for alignment with the published standardised wattage table produced by the Electricity Authority against the database or in the case of LED lights against the LED light specification.

The change management process and timeliness of database updates was evaluated.

##### Audit commentary

###### Database accuracy based on the field audit

The field audit found that all items of load were recorded in the database and there were no discrepancies.

###### Light description and capacity accuracy

The light capacities were confirmed as accurate when checked against the checked against the standardised wattage table and known LED specifications.

###### Change management process findings

The current Meridian excel spreadsheet includes a tab where monthly returns by FNDC are recorded and the details and date of any changes made in the field will be recorded. There have been no changes made since the last audit.

##### Audit outcome

Non-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 DUMML is being calculated accurately*
- *profiles for DUMML 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 database extract combined with the burn hours against the submitted figure to confirm accuracy.

### **Audit commentary**

As detailed in **section 2.1** Meridian updates the registry “Unmetered Load Details – Trader” field and submission is based on this figure. I checked and confirmed that the information on the registry matches to the values in the spreadsheet. The 100% field audit undertaken found that the Meridian excel spreadsheet data matched the load found in the field.

On 18 June 2019, the Electricity Authority issued a memo confirming that the code requirement to calculate the correct monthly load must:

- take into account when each item of load was physically installed or removed, and
- wash up volumes must take into account where historical corrections have been made to the DUML load and volumes.

The current Meridian excel spreadsheet includes a tab where monthly returns by FNDC are recorded and the details and date of any changes made in the field will be recorded. There have been no changes made since the last audit.

### **Audit outcome**

Compliant

## CONCLUSION

This audit covers the Far North District Council Jetty and Wharf Lights (FNDC) DUMIL ICP that is managed by Meridian. This is the first audit since Meridian became the trader on 1<sup>st</sup> April 2023.

After the last audit Contact Energy in consultation with Far North Holdings, Far North District Council and Top Energy created an excel spreadsheet for the management of these lights. Meridian has taken responsibility for the spreadsheet since becoming the trader. The spreadsheet includes a tab where the details and date of any changes to lights are recorded. A monthly return is provided by FNDC to inform Meridian of any changes.

The 100% field audit undertaken on 28<sup>th</sup> April 2023 found no discrepancies, and all items of load were recorded in the database.

The future risk rating of zero indicates that the next audit be completed in 36 months, and I agree with this recommendation.

## PARTICIPANT RESPONSE

No response provided.