

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

ARVIDA OCEAN SHORES AND
MERIDIAN ENERGY LIMITED
NZBN: 9429037696863

Prepared by: Rebecca Elliot

Date audit commenced: 27 February 2023

Date audit report completed: 17 May 2023

Audit report due date: 1 June 2023

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EXECUTIVE SUMMARY

This audit of the **Ocean Shores Village** DUML database and processes was conducted at the request of **Meridian 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 DUML audits version 1.1.

This ICP switched to Meridian on 27 October 2022.

The data for Ocean Shores DUML load was held by Trustpower in a database. An excel spreadsheet from the database has been provided to Meridian and they are tracking any changes made in the spreadsheet using the same methodology as the La Pointe small streetlight load also held by them.

The retirement village management team are expected to update Meridian with any light changes. These changes are infrequent, and the field audit was largely accurate. Four additional lights were identified and these have been added to the spreadsheet.

This audit found four non-compliances and makes no recommendations. The audit risk rating indicates that the next audit be in 18 months. I have considered this in conjunction with:

- the very small lighting load associated with this database,
- the extra lights have been added to the database,
- two of the four non-compliance's have been cleared and Meridian's comments indicate that they have addressed the tracking of changes at a daily level. This will be assessed as part of the larger Reconciliation Participant audit.

I recommend that the next audit be in 36 months time. The matters raised are detailed in the table below.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Deriving submission information	2.1	11(1) of Schedule 15.3	Four additional items of load found in the field resulting in the database being just outside of the allowable +/-5% threshold resulting in a very minor estimated under submission of 222 kWh per annum. Changes not tracked at a daily level.	Moderate	Low	2	Identified
All load recorded in the database	2.5	11(2A) of Schedule 15.3	Four additional items of load found in the field resulting in the database being just outside of the allowable +/-5% threshold resulting in a very minor estimated under submission of 222 kWh per annum.	Moderate	Low	2	Cleared
Database accuracy	3.1	15.2 and 15.37B(b)	Four additional items of load found in the field resulting in the database being just outside of the allowable +/-5% threshold resulting in a very minor estimated under submission of 222 kWh per annum. Changes not being tracked.	Moderate	Low	2	Cleared

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Volume information accuracy	3.2	15.2 and 15.37B(c)	Four additional items of load found in the field resulting in the database being just outside of the allowable +/-5% threshold resulting in a very minor estimated under submission of 222 kWh per annum. Changes not tracked at a daily level.	Moderate	Low	2	Identified
Future Risk Rating						8	

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	Clause	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

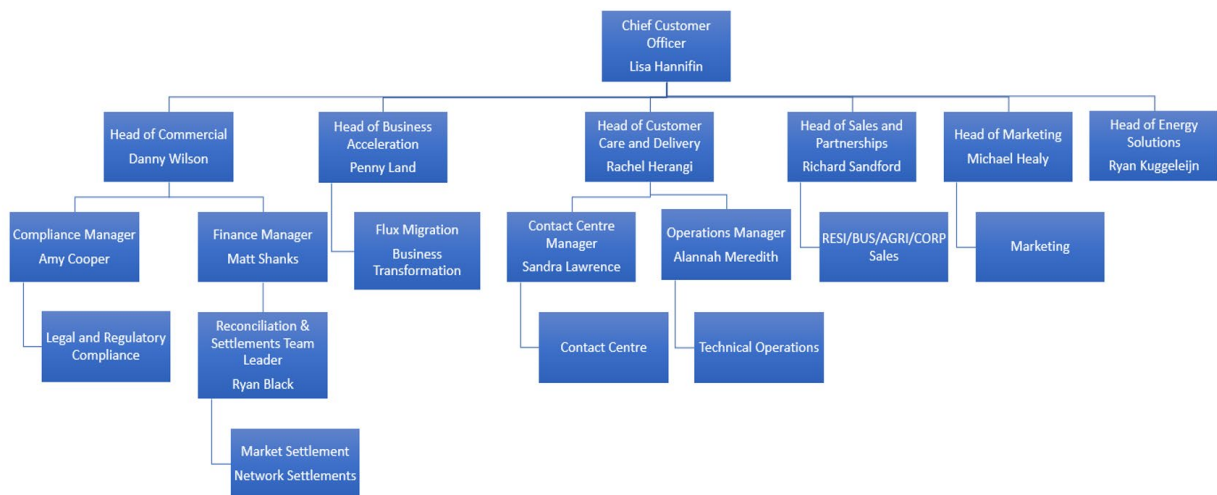
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

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:

Rebecca Elliot

Veritek Limited

Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Jamie Klinac	Maintenance Officer	Arvida
Daniel Lau	Energy Data Analyst	Meridian
Melanie Matthews	Quality and Compliance Advisor	Meridian

1.4. Hardware and Software

A spreadsheet is held by Meridian that records all the items of load.

The spreadsheet resides on the server and back up is in accordance with standard industry procedures.

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	Description	NSP	Number of items of load	Database wattage (watts)
0001264715UNCBF	GXP: MTM0331 Oceanshores Maranui Street Mount Maunganui	MTM0331	64	832

1.7. Authorisation Received

All information was provided directly by Meridian.

1.8. Scope of Audit

The data for Ocean Shores DUML load is held by Meridian in an excel spreadsheet database. Any light changes made are expected to be provided by the Manager at Ocean Shores when changes are made.

The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1.

1.9. Summary of previous audit

The previous audit was completed in May 2021 by Rebecca Elliot of Veritek Limited for Trustpower. The current compliance status of the non-compliance clauses found in the last audit are detailed the table below. No recommendations were made:

Table of Non-compliance

Subject	Section	Clause	Non-compliance	Status
Deriving submission information	2.1	11(1) of Schedule 15.3	Eight items of load incorrectly calculated as single lights when they are double resulting in a minor an estimated minor under submission of 692 kWh per annum.	Still existing
Volume information accuracy	3.2	15.2 and 15.37B(c)	Eight items of load incorrectly calculated as single lights when they are double resulting in a minor an estimated minor under submission of 692 kWh per annum.	Still existing

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 DUMML database audits are completed:

- 1. by 1 June 2018 (for DUMML that existed prior to 1 June 2017)*
- 2. within three months of submission to the reconciliation manager (for new DUMML)*
- 3. within the timeframe specified by the Authority for DUMML that has been audited since 1 June 2017.*

Audit observation

Meridian have requested Veritek to undertake this DUMML 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.

Audit commentary

Meridian reconciles this DUML load using the UML profile. The previous trader used a logger to track the on and off times, but Meridian uses a fixed 11.5 hours per night to calculate the load. I checked the daily kWh value, and this was correctly calculated.

The field audit found four additional lights in the field. The database accuracy was 106.25%. This is just outside of the allowable +/-5% threshold and will be resulting in a very minor under submission of 222 kWh per annum. This is recorded as non-compliance below and in **sections 2.5, 3.1 and 3.2**.

No changes have been made since the ICPs switched to Meridian on 27 October 2022. These will not be tracked at a daily level as the spreadsheet has no mechanism to track changes as detailed in **sections 2.6 and 2.7**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3 From: 13-May-21 To: 04-May-23	Four additional items of load found in the field resulting in the database being just outside of the allowable +/-5% threshold resulting in a very minor estimated under submission of 222 kWh per annum. Changes not tracked at a daily level. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate as they will mitigate risk most of the time. The impact is assessed to be very low as the volume of estimated under submission is very minor.		
Actions taken to resolve the issue		Completion date	Remedial action status
Regarding the four additional lights found in the field, Meridian has since corrected the database.		23/5/2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We have assessed our processes and tools to account for historic lamp installations and changes to the database at a daily level. There are checks in place comparing month to month data to identify any material changes and confirm details for these. These are accounted for in monthly submission.		Ongoing	

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

An ICP is recorded for each item of load in the database.

Audit commentary

An ICP is recorded for each item of load 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 database was checked to confirm the location is recorded for all items of load.

Audit commentary

The database contains a field for street address, which was sufficient to locate all items of load.

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 database was checked to confirm that it contained a field for lamp type and wattage capacity and included any ballast or gear wattage.

Audit commentary

The database contains a field for light type, which includes the wattage. There is a separate field for lamp wattage and total wattage, including ballast.

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

A field audit of all 64 items of load recorded in the database was undertaken on May 5th, 2023.

Audit commentary

The field audit found four additional LED mushroom lights on the footpath between Villas 49/52 and Apartments 500-700. These have been passed to Meridian to work with the village. This is recorded as non-compliance below.

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: 13-May-21 To: 04-May-23	Four additional items of load found in the field resulting in the database being just outside of the allowable +/-5% threshold resulting in a very minor estimated under submission of 222 kWh per annum. 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 will mitigate risk most of the time. The impact is assessed to be very low as the volume of estimated under submission is very minor.		
Actions taken to resolve the issue		Completion date	Remedial action status
Regarding the four additional lights found in the field, Meridian has since corrected the database.		23/5/2023	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	

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 spreadsheet was examined.

Audit commentary

The spreadsheet contains fields which record changes that are made in the field. The date the change was made and the date the database was updated are recorded in these fields.

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 being used for this lighting load was checked for audit trails.

Audit commentary

The spreadsheet contains fields which record changes that are made in the field. The date the change was made and the date the database was updated are recorded in these fields.

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% audit was undertaken to determine the database wattage.

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

The change management process was evaluated.

Audit commentary

Database accuracy based on the field audit

The field audit found four additional lights in the field. The database accuracy was 106.25%. This is just outside of the allowable +/-5% threshold and will be resulting in a very minor under submission of 222 kWh per annum. This is recorded as non-compliance below and in **sections 2.1, 2.5 and 3.2**.

Change Management

The retirement village management team are expected to update Meridian with any light changes. These are infrequent. The additional lights found in the field have been passed to Meridian to correct.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clauses 15.2 and 15.37B(b) From: 13-May-21 To: 04-May-23	Four additional items of load found in the field resulting in the database being just outside of the allowable +/-5% threshold resulting in a very minor estimated under submission of 222 kWh per annum. 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 will mitigate risk most of the time. The impact is assessed to be very low as the volume of estimated under submission is very minor.		
Actions taken to resolve the issue		Completion date	Remedial action status
Regarding the four additional lights found in the field, Meridian has since corrected the database.		23/5/2023	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We have assessed our processes and tools to account for historic lamp installations and changes to the database at a daily level. There are checks in place comparing month to month data to identify any material changes and confirm details for these. These are accounted for in monthly submission.		Ongoing	

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 all ICPs have the correct profile and submission flag, and
- checking the database combined with the burn hours against the submitted figure to confirm accuracy.

Audit commentary

Meridian reconciles this DUML load using the UML profile. The previous trader used a logger to track the on and off times, but Meridian uses a fixed 11.5 hours per night to calculate the load. I checked the daily kWh value, and this was correctly calculated.

The field audit found four additional lights in the field. The database accuracy was 106.25%. This is just outside of the allowable +/-5% threshold and will be resulting in a very minor under submission of 222 kWh per annum. This is recorded as non-compliance below and in **sections 2.1, 2.5 and 3.1**.

No changes have been made since the ICPs switched to Meridian on 27 October 2022. These will not be tracked at a daily level as the spreadsheet has no mechanism to track changes as detailed in **sections 2.6 and 2.7**.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c) From: 13-May-21 To: 04-May-23	Four additional items of load found in the field resulting in the database being just outside of the allowable +/-5% threshold resulting in a very minor estimated under submission of 222 kWh per annum. Changes not tracked at a daily level. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are rated as moderate as they will mitigate risk most of the time. The impact is assessed to be very low as the volume of estimated under submission is very minor.	
Actions taken to resolve the issue	Completion date	Remedial action status
Regarding the four additional lights found in the field, Meridian has since corrected the database.	23/5/2023	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
We have assessed our processes and tools to account for historic lamp installations and changes to the database at a daily level. There are checks in place comparing month to month data to identify any material changes and confirm details for these. These are accounted for in monthly submission.	Ongoing	

CONCLUSION

This ICP switched to Meridian on 27 October 2022.

The data for Ocean Shores DUML load was held by Trustpower in a database. An excel spreadsheet from the database has been provided to Meridian and they are tracking any changes made in the spreadsheet using the same methodology as the La Pointe small streetlight load also held by them.

The retirement village management team are expected to update Meridian with any light changes. These changes are infrequent, and the field audit was largely accurate. Four additional lights were identified and these have been added to the spreadsheet.

This audit found four non-compliances and makes no recommendations. The audit risk rating indicates that the next audit be in 18 months. I have considered this in conjunction with:

- the very small lighting load associated with this database,
- the extra lights have been added to the database,
- two of the four non-compliance's have been cleared and Meridian's comments indicate that they have addressed the tracking of changes at a daily level. This will be assessed as part of the larger Reconciliation Participant audit.

I recommend that the next audit be in 36 months time.

PARTICIPANT RESPONSE

Meridian have reviewed this report and their comments are recorded in the body of the report. No further comments were provided.