

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

ONS DORP DUTCH RETIREMENT VILLAGE
AND MERIDIAN ENERGY
NZBN: 9429037696863

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Date audit report completed: 9 October 2024

Audit report due date: 13-Nov-24

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EXECUTIVE SUMMARY

This audit of the **Ons Dorp Dutch Retirement Village (Ons Dorp)** Unmetered Streetlights DUML 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 DUML audits version 1.1.

The 100% field audit of all 18 items of load found no discrepancies, confirming that updates made to the database at the time of the previous audit accurately captured changes that had previously been made to the lighting load. While the database is accurate the section which tracks changes made has not been updated to include details of these changes and there is no field included to record the person who has made changes. This is recorded as non-compliance in **section 2.7**.

This audit found one non-compliance and no recommendations are made. The future risk rating of two indicates that the next audit be completed in 24 months. I recommend an audit period of 36 months as Meridian provided an updated version of the database which included an audit trail with details of the updates made in December 2023 including the person who made the change.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Audit trails	2.7	11(4) of schedule 15.3	Audit trail not updated with changes made to the spreadsheet and audit trail does not indicate who has made changes.	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	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

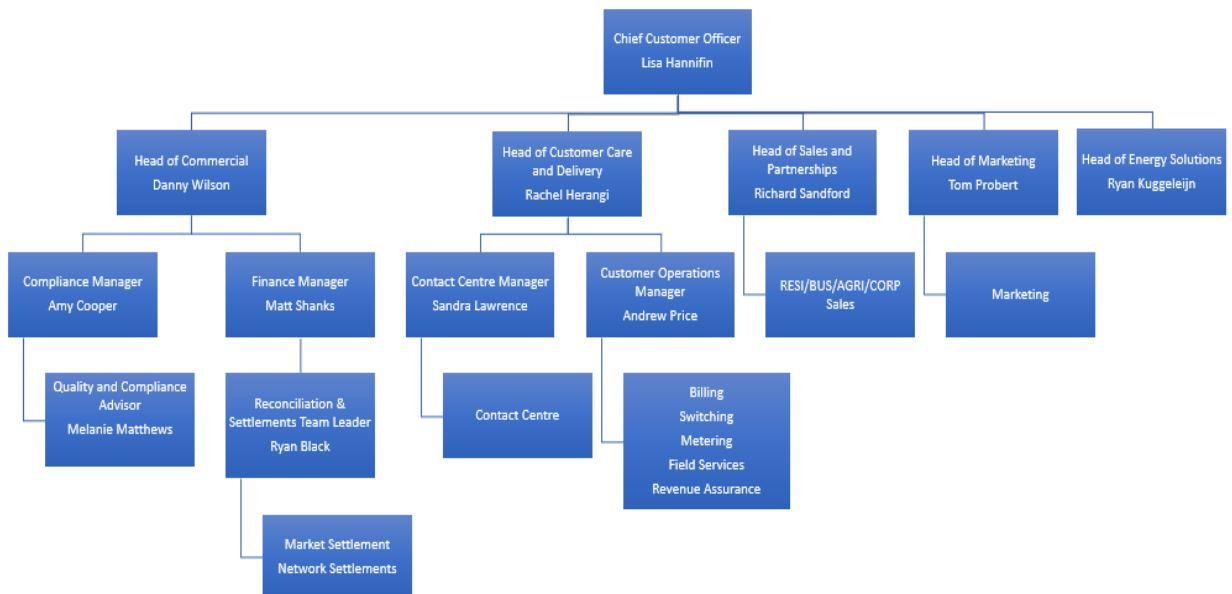
Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

Audit 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:

Name	Title	Company
Brett Piskulic	Auditor	Provera

Other personnel assisting in this audit were:

Name	Title	Company
Melanie Matthews	Quality and Compliance Advisor	Meridian Energy

1.4. Hardware and Software

An excel spreadsheet of the streetlights is held by Meridian for the Ons Dorp Dutch Village. The UML figure from this is recorded in the registry and is used to derive submission.

The directory where the spreadsheet is saved is restricted by way of user permissions. Meridian confirmed that this directory is backed up as part of the BAU processes in place.

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	Profile	NSP	Number of items of load	Database wattage (watts)
0000100115UN46C	DUTCH VILLAGE	UML	HEP0331	18	522
Total				18	522

1.7. Authorisation Received

All information was provided directly by Meridian.

1.8. Scope of Audit

This audit of the Ons Dorp Dutch Retirement Village (Ons Dorp) Unmetered Streetlights DUML 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 DUML audits version 1.1.

An excel spreadsheet of the streetlights is held by Meridian for the Ons Dorp Dutch Village. The UML figure from this is recorded in the registry and is used to derive submission.

The village uses their own contractor for the maintenance of these lights and any changes are expected to be notified to Meridian by Ons Dorp Dutch Village.

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.

The field audit was undertaken of the entire Ons Dorp Dutch Village spreadsheet, consisting of 18 items of load on 12 August 2024.

1.9. Summary of previous audit

The previous audit was completed in December 2023 by Rebecca Elliot of Veritek Ltd. The current statuses of this audit's findings are detailed below:

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Distributed unmetered load audits	1.10	17.295F	Audit of the village lights overdue.	Cleared
Deriving submission information	2.1	11(1) of schedule 15.3	Over submission of an estimated 19,541 kWh due to the lights being changed to LED approximately five years ago and the incorrect inclusion of lights that are connected to metered supplies.	Cleared
Location of each item of load	2.3	11(2)(b) of schedule 15.3	No location details recorded.	Cleared
Audit trails	2.7	11(4) of schedule 15.3	Changes to the spreadsheet do not indicate who has made the changes.	Still existing
Database accuracy	3.1	15.2 and 15.37B(b)	Over submission of an estimated 19,541 kWh due to the lights being changed to LED approximately five years ago and the incorrect inclusion of lights that are connected to metered supplies.	Cleared
Volume information accuracy	3.2	15.2 and 15.37B(c)	Over submission of an estimated 19,541 kWh due to the lights being changed to LED approximately five years ago and the incorrect inclusion of lights that are connected to metered supplies.	Cleared

Table of Recommendations

Subject	Section	Recommendation for Improvement	Status
		Nil	

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 has requested Provera to undertake this street lighting audit.

Audit commentary

This audit report confirms compliance with the requirement to have the database audited.

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

Meridian 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 March 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 of all 18 items of load found no discrepancies, the database is confirmed to be accurate.

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

Audit commentary

The spreadsheet has the street name and GPS coordinates recorded for each item of load. The field audit confirmed that the items of load could be located from the database information.

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

The spreadsheet contains Light Type, Lamp Model, Gear Wattage and Lamp Wattage and Total Wattage fields which were correctly populated for all 18 items of load.

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 the entire load of 18 items of load.

Audit commentary

No additional lights were found.

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 spreadsheet was examined.

Audit commentary

The spreadsheet has a section for tracking changes which includes “Applicable from and to” 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 was checked for audit trails.

Audit commentary

The spreadsheet contains a section which can be used to track changes. The spreadsheet was updated after the last audit was conducted in December 2023 to include the current details of all items of load. The audit trail section had not been updated to include details of these changes and there is no field included to record the person who has made changes.

Prior to finalising the audit Meridian provided an updated version of the spreadsheet which included an audit trail with details of the updates made in December 2023 including the person who made the change.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.7 With: Clause 11(4) of schedule 15.3 From: 01-Dec-23 To: 01-Aug-24	Audit trail not updated with changes made to the spreadsheet and audit trail does not include a field to record the person who has made the changes. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as there is room for improvement in the spreadsheet audit trail. The audit risk rating is assessed to be low as few changes are expected for this lighting load.		
Actions taken to resolve the issue		Completion date	Remedial action status
Meridian has now included a field on the spreadsheet to include an audit trail of any changes to the database.		8/10/2024	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Meridian will continue to update the audit trail field when advised of any changes required to the database.		Ongoing	

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 or against the LED light specification provided.

Audit commentary

Database accuracy based on the field audit

The 100% field audit of all 18 items of load found no discrepancies, the database is confirmed to be accurate.

Lamp description and capacity accuracy

All 18 items of load are Cree XSP1-T3M 29-watt LED streetlights, the wattage recorded matches the specifications for these lights.

Change Management

The village uses their own contractor for the maintenance of these lights and any changes are expected to be notified to Meridian by Ons Dorp Dutch Village.

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

Audit commentary

Submission process and accuracy

Meridian 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 March 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 of all 18 items of load found no discrepancies, the database is confirmed to be accurate.

Audit outcome

Compliant

CONCLUSION

The 100% field audit of all 18 items of load found no discrepancies, confirming that updates made to the database at the time of the previous audit accurately captured changes that had previously been made to the lighting load. While the database is accurate the section which tracks changes made has not been updated to include details of these changes and there is no field included to record the person who has made changes. This is recorded as non-compliance in **section 2.7**.

This audit found one non-compliance and no recommendations are made. The future risk rating of two indicates that the next audit be completed in 24 months. I recommend an audit period of 36 months as Meridian provided an updated version of the database which included an audit trail with details of the updates made in December 2023 including the person who made the change.

PARTICIPANT RESPONSE

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