

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

MOUNT COOK DOC
AND
MERIDIAN ENERGY
NZBN: 9429000028295

Prepared by: Steve Woods

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EXECUTIVE SUMMARY

This audit of the **DOC Aoraki Mount Cook Village (MCV)** 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.

MCV switched from Genesis to Meridian on 28 April 2020. Meridian maintain a spreadsheet to track the items of load at MCV. This information is matched to the values held on the registry which in turn is used for submission.

The field audit was undertaken on the 23rd October 2021, for 55 items of load and confirmed the MCV spreadsheet to be accurate.

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority and found to be correct.

The submission was found to match the database provided, which matches the registry unmetered load value.

The audit found two non-compliances and make no recommendations. The future risk rating of two indicates that the next audit be completed in 24 months. I have considered this in conjunction with the comments provided by Meridian and recommend that the next audit be in 36 months.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Location of each item of load	2.4	11(2)(b) of Schedule 15.3	Model 'Unknown' for three lamps.	Strong	1	1	Identified
Database accuracy	3.1	Clause 15.2 and 15.37B(b)	Model 'Unknown' for three lamps.	Strong	1	1	Identified
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	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

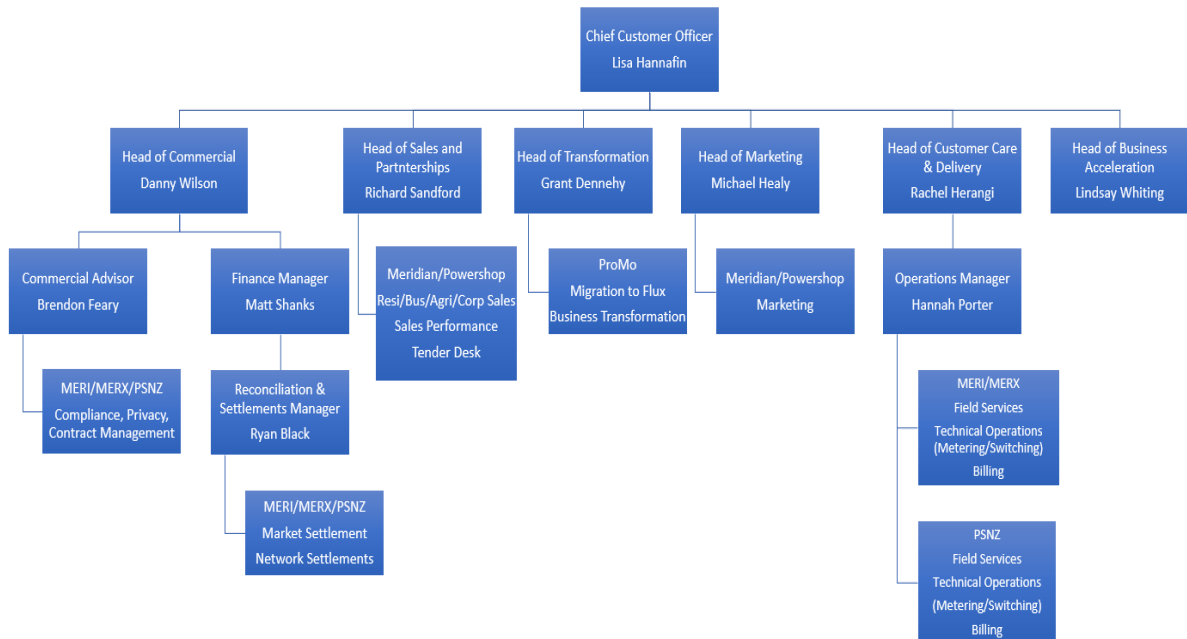
Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

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
Steve Woods	Lead Auditor
Claire Stanley	Supporting Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Amy Cooper	Compliance Officer	Meridian Energy
Danial Lau	Energy Data Analyst	Meridian Energy

1.4. Hardware and Software

An excel spreadsheet is used to track the items of load at Aoraki Mt Cook Village. The UML figure from this is recorded in the registry and is used to derive submission.

Access to 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	NSP	Number of items of load	Database wattage (watts)
0000000004AL7A8	Streetlighting	TKA0331	55	826
Total			55	826

1.7. Authorisation Received

All information was provided directly by Meridian.

1.8. Scope of Audit

This audit of the MCV DUML database and processes was conducted at the request of 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.

Meridian have a spreadsheet to track the items of load at MCV. This information is matched to the values held on the registry which in turn is used for submission.

Alpine Energy's contracting company, NetCon is the contractor for streetlight maintenance and new connections. Any new streetlight connections or removals follow the "new connections" process and a "streetlight movements" form is required to be completed. Any lamp changes made in the field are completed by DOC, the changes are notified to Meridian to update the spreadsheet and record the change on the Maintenance tab.

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 MCV spreadsheet, consisting of 55 items of load on 23rd October 2021.

1.9. Summary of previous audit

The previous audit was completed in November 2018 by Rebecca Elliot of Veritek Limited. No non-compliances were identified, and no recommendations were made.

Table of Non-Compliance

Subject	Section	Clause	Non-Compliance	Status
			Nil	

Table of Recommendations

Subject	Section	Clause	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 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 within the required timeframe. Compliance is confirmed.

2. DUMML 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:

- *DUMML 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 DUMML load using the SST profile and maintain a spreadsheet to track all of the lamps at MCV.

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.

The field audit confirmed that the database was 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 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 an ICP was recorded against each item of load.

Audit commentary

All items of load have an ICP recorded against them.

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 has a field for 'Asset Location – Address', this is populated for all items. The GPS co-ordinates are recorded for each item.

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 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.

Analysis found all had details populated except for three lamps that have 'Unknown to be replaced' recorded for the Model.

As all lamps installed are LED or Fluro, all values in the Gear Wattage field are correctly zero.

The accuracy of wattage and ballasts in the database is discussed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.4 With: Clause 11(2)(c) and (d) of Schedule 15.3 From: 21-Oct-18 To: 18-Oct-21	Model 'Unknown' for three lamps. 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 recorded as strong because they mitigate risk to an acceptable level. 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 advised Mt Cook DOC of the inaccuracies and have requested to investigate. They have advised they will be swapping the lamps out soon and will advise as to when Meridian can update the database.		28/02/2022	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Controls are reported as strong and likely to mitigate any risk of recurrence.		Ongoing	

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 database of 55 items of load on 23rd October 2021.

Audit commentary

The field audit findings are detailed in the table below:

Street/Area	Database Count	Field Count	Lamp no. difference	No of incorrect lamp wattage	Comments
Mt Cook Road	1	1			
Bowen Drive	16	16			
Sebastopol Drive	3	3			
Sealy Place	1	1			
Kea Place	1	1			
DuFaur Place	1	1			
Glencoe Access Rd	18	18			
Wakefield Drive	4	4			
Larch Grove	9	9			
Blackburn Place	1	1			
TOTAL	55	55			

There were no items found that were missing, additional or incorrect in the database.

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 database was examined.

Audit commentary

The database is held by Meridian and DOC staff advise Meridian when any changes to items of load are made at the village, and the spreadsheet will be updated accordingly with a log of what changes have been made to the spreadsheet including a date and name of person updating the spreadsheet.

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 database was checked for audit trails.

Audit commentary

The data is contained in a spreadsheet, which contains all relevant fields. The Maintenance tab is populated to track changes made.

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 confirmed the database to be accurate.

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority and found to be correct.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 21-Oct-18 To: 18-Oct-21	Model 'Unknown' for three lamps. 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 recorded as strong because they mitigate risk to an acceptable level. 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 advised Mt Cook DOC of the inaccuracies and have requested to investigate. They have advised they will be swapping the lamps out soon and will advise as to when Meridian can update the database.		28/02/2022	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Controls are reported as strong and likely to mitigate any risk of recurrence		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 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

Meridian reconciles this DUML load using the SST profile and maintain a spreadsheet to track all of the lamps at MCV.

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.

The field audit confirmed that the database was accurate.

Audit outcome

Compliant

CONCLUSION

MCV switched from Genesis to Meridian on 28 April 2020. Meridian maintain a spreadsheet to track the items of load at MCV. This information is matched to the values held on the registry which in turn is used for submission.

The field audit was undertaken on the 23rd October 2021, for 55 items of load and confirmed the MCV spreadsheet to be accurate.

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority and found to be correct.

The submission was found to match the database provided, which matches the registry unmetered load value.

The audit found two non-compliances and make no recommendations. The future risk rating of two indicates that the next audit be completed in 24 months. I have considered this in conjunction with the comments provided by Meridian and recommend that the next audit be in 36 months.

PARTICIPANT RESPONSE

Meridian has reviewed this report and their comments are contained within the report.