

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

MOUNT COOK DOC
AND
GENESIS ENERGY LIMITED
NZBN: 9429037706609

Prepared by: Brett Piskulic

Date audit commenced: 23 April 2024

Date audit report completed: 12 July 2024

Audit report due date: 15-Oct-24

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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 **Genesis Energy Limited (Genesis)**, 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 Meridian to Genesis on 1 October 2023. Genesis maintains 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 undertaken on 12 June 2024, for 55 items of load confirmed that all items of load recorded in the database were present in the field. One additional 13-watt LED bollard light was found on the corner of Mueller Place and Pilots Road.

The April 2024 submission was found to match the database provided, which matches the registry unmetered load value.

The audit found one non-compliance and makes no recommendations. The future risk rating of two indicates that the next audit be completed in 24 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
All load recorded in the database	2.5	11(2A) of Schedule 15.3	One additional item of load found in the field.	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	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

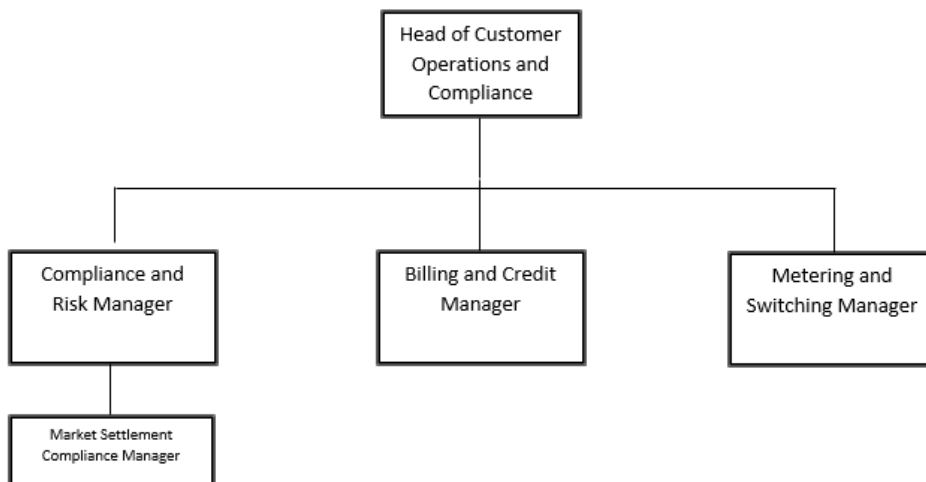
Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

Audit commentary

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

1.2. Structure of Organisation

Genesis provided a copy of their organisational structure:



1.3. Persons involved in this audit

Auditor:

Name	Company	Role
Brett Piskulic	Provera	Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Alysha Majury	Unmetered Account Specialist	Genesis 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. Genesis 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	Profile	Number of items of load	Database wattage (watts)
000000004AL7A8	Streetlighting	TKA0331	RPS	55	788
Total				55	788

1.7. Authorisation Received

All information was provided directly by Genesis.

1.8. Scope of Audit

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

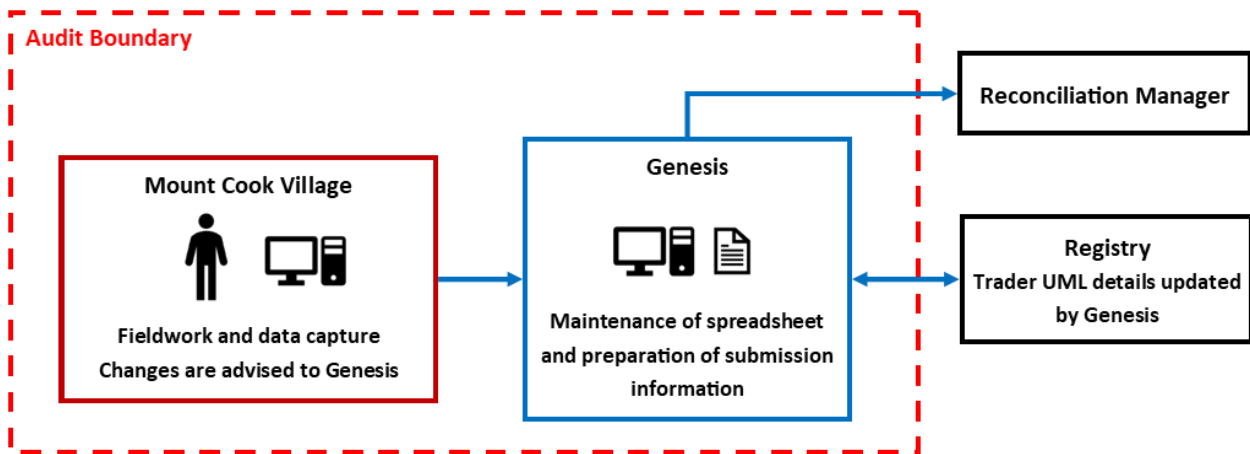
The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1.

Genesis has 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.

Any maintenance, replacements, removals or additions made in the field are completed by DOC, the changes are notified to Genesis to update the spreadsheet and record the change in 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 diagram below shows the audit boundary for clarity.



The field audit was undertaken of the entire MCV spreadsheet, consisting of 55 items of load on 12 June 2024.

1.9. Summary of previous audit

The previous audit was completed in December 2021 by Steve Woods of Veritek Limited. The summary table below shows the statuses of the non-compliances raised in the previous audit.

Table of Non-Compliance

Subject	Section	Clause	Non-Compliance	Status
Location of each item of load	2.4	11(2)(b) of Schedule 15.3	Model 'Unknown' for three lamps.	Cleared
Database accuracy	3.1	Clause 15.2 and 15.37B(b)	Model 'Unknown' for three lamps.	Cleared

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

Genesis have requested Provera 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. 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

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

The daily kWh figure recorded in the registry, which is derived from the spreadsheet is used for submission. I confirmed that the registry wattage figure matched the database total wattage and checked the accuracy of the submission information by multiplying the database total wattage by the number of hours in the month and comparing it to the daily kWh figure in the registry for the month of April 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 found one additional 13-watt LED bollard light that was not recorded in the database resulting in the database total wattage being less than the total wattage found in the field by 13 watts. This amounts to a variance of 1.65% which is within the +/-5% allowable threshold. Non-compliance is recorded for the additional light in **section 2.5**.

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 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 also 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 which is populated for all 55 items of load.

The accuracy of wattage and ballasts in 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

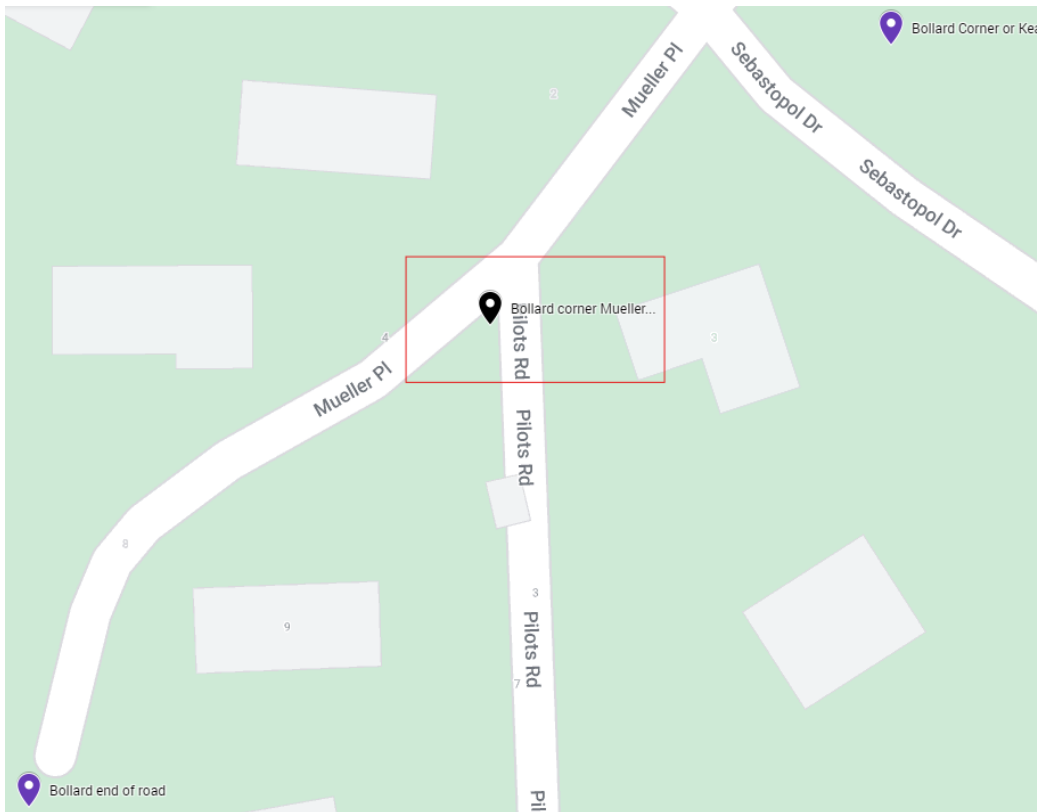
The retailer must ensure that each item of DUML for which it is responsible is recorded in this database.

Audit observation

The field audit was undertaken of the entire database of 55 items of load on 12 June 2024.

Audit commentary

The field audit confirmed that all items of load recorded in the database were present in the field. One additional 13-watt LED bollard light was found on the corner of Mueller Place and Pilots Road as shown on the map below.



The additional light is recorded as non-compliance below. The database accuracy is discussed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clauses 11(2A) of Schedule 15.3 From: unknown To: 12-Jun-24	One additional item of load found in the field. 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 are sufficient to mitigate the risk most of the time but there is room for improvement. 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
The additional light has now been updated in our spreadsheet and the daily kWh figure has also been updated in the registry		11/07/2024	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
The additional light has now been updated in our spreadsheet and the daily kWh figure has also been updated in the registry		11/07/2024	

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 Genesis and DOC advises Genesis when any changes to items of load are made at the village, and the spreadsheet is updated accordingly. The maintenance tab of the spreadsheet contains a log of changes that have been made including the 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 database is held by Genesis and DOC advises Genesis when any changes to items of load are made at the village, and the spreadsheet is updated accordingly. The maintenance tab of the spreadsheet contains a log of changes that have been made including the date and name of person updating the spreadsheet.

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 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

Database Accuracy and Lamp accuracy

The 100% field audit found one additional 13-watt LED bollard light that was not recorded in the database resulting in the database total wattage being less than the total wattage found in the field by 13 watts. This amounts to a variance of 1.65% which is within the +/-5% allowable threshold. Non-compliance is recorded for the additional light in **section 2.5**.

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

Change Management

Any maintenance, replacements, removals or additions made in the field are completed by DOC, the changes are notified to Genesis to update the spreadsheet and record the change in the Maintenance tab.

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 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

Submission process and accuracy

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

The daily kWh figure recorded in the registry, which is derived from the spreadsheet is used for submission. I confirmed that the registry wattage figure matched the database total wattage and checked the accuracy of the submission information by multiplying the database total wattage by the number of hours in the month and comparing it to the daily kWh figure in the registry for the month of April 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 found one additional 13-watt LED bollard light that was not recorded in the database resulting in the database total wattage being less than the total wattage found in the field by 13 watts. This amounts to a variance of 1.65% which is within the +/-5% allowable threshold. Non-compliance is recorded for the additional light in **section 2.5**.

Audit outcome

Compliant

CONCLUSION

MCV switched from Meridian to Genesis on 1 October 2023. Genesis maintains 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 undertaken on the 12 June 2024, for 55 items of load confirmed that all items of load recorded in the database were present in the field. One additional 13-watt LED bollard light was found on the corner of Mueller Place and Pilots Road.

The April 2024 submission was found to match the database provided, which matches the registry unmetered load value.

The audit found one non-compliance and makes no recommendations. The future risk rating of two indicates that the next audit be completed in 24 months, and I agree with this recommendation.

PARTICIPANT RESPONSE

Genesis agrees with the audit findings

Genesis has updated its spreadsheet that tracks the load, with the additional light found. Genesis has also updated the registry with the amended load data.