

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

TE KAUWHATA RETIREMENT TRUST
BOARD AND GENESIS ENERGY

Prepared by: Steve Woods

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Date audit report completed: 1 June 2021

Audit report due date: 01-Jun-21

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EXECUTIVE SUMMARY

This audit of the Te Kauwhata Retirement Trust Board (**Aparangi**) 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.

Genesis have developed a spreadsheet to track the items of load at Te Kauwhata Retirement Trust Board. This information is matched to the values held on the registry which in turn is used for submission.

The field audit was undertaken of all of the lights for the Te Kauwhata Retirement Trust Board, consisting of 31 items of load on 25/05/21. The field audit found for discrepancies. Three 70 watt HPS lamps have been changed to 27 watt LED and one light has been removed. This is a discrepancy of 8.8% and results in over submission of 832 kWh per annum.

The future risk rating of nine indicates that the next audit be completed in 12 months. I agree with this recommendation.

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 discrepancies identified resulting in over submission by 832 kWh per annum.	Weak	Low	3	Investigating
Database accuracy	3.1	15.2 and 15.37B(b)	Four discrepancies identified resulting in over submission by 832 kWh per annum	Weak	Low	3	Investigating
Volume information accuracy	3.2	15.2 and 15.37B(c)	Four discrepancies identified resulting in over submission by 832 kWh per annum	Weak	Low	3	Investigating
Future Risk Rating						9	

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

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

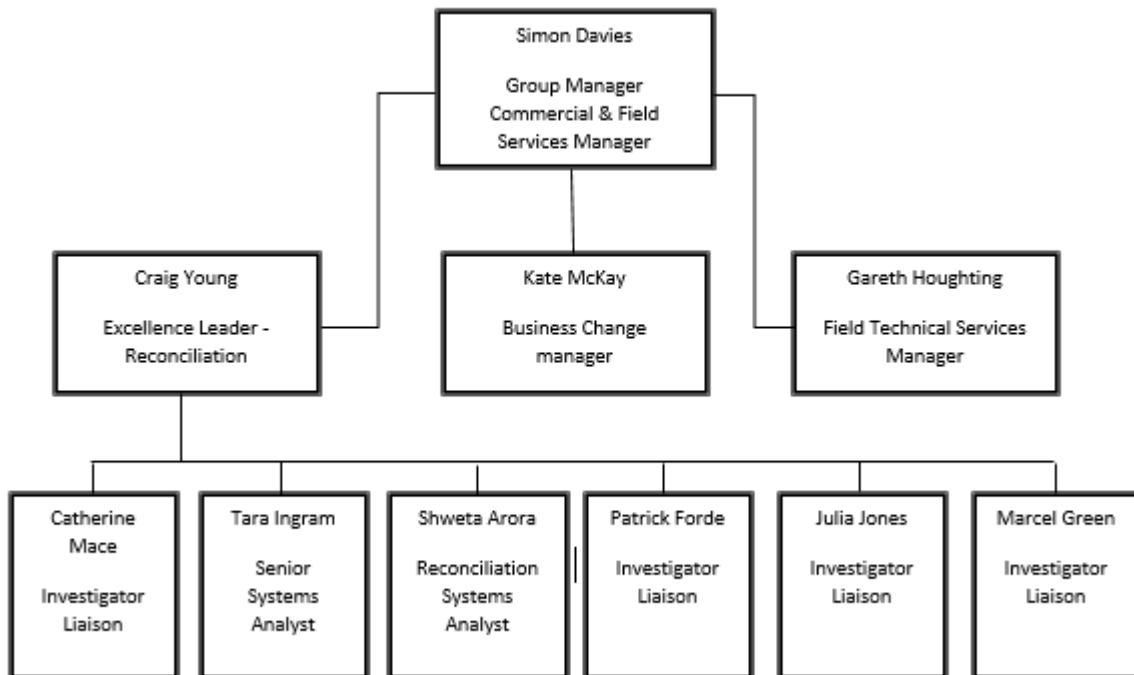
Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

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	Title
Steve Woods	Lead Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Craig Young	Excellence Leader – Reconciliation	Genesis Energy

1.4. Hardware and Software

An excel spreadsheet has been constructed to track the items of load at the Te Kauwhata Retirement Trust Board. The UML figure from this is recorded in the registry and is used to derive submission.

The spreadsheet is password protected and 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.

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)
0000011100WE2E2	UNM Streetlights	HLY0331	31	2210
Total			31	2210

1.7. Authorisation Received

All information was provided directly by Genesis.

1.8. Scope of Audit

This audit of the Te Kauwhata Retirement Trust Board (Aparangi) 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.

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

The village uses their own contractor for the maintenance of these lights. Any new light connections will be managed in conjunction with Genesis although this is not expected.

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 Aparangi spreadsheet, consisting of 31 items of load on 26/05/21.

1.9. Summary of previous audit

The previous audit was conducted in 2018 by Rebecca Elliot of Veritek Limited. One issue was identified, which is now cleared.

Subject	Section	Clause	Non-Compliance	Status
DUML Audit	1.10	17.295F of part 17	Audit not completed within 12 months of Part 16A coming into effect.	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

Genesis has requested Veritek to undertake this street lighting 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 and the application of profiles was checked. The database was checked for accuracy.

Audit commentary

Genesis reconciles this DUML load using the UNM profile.

Genesis have created a spreadsheet in conjunction with the Te Kauwhata Retirement Trust Board to track all of the lamps in the village.

The information on the Registry matches to the values in the spreadsheet. I checked the submission calculation provided by Genesis against the data extract, and Registry, and it matches exactly.

The 100% field audit found for discrepancies. Three 70 watt HPS lamps have been changed to 27 watt LED and one light has been removed. This is a discrepancy of 8.8% and results in over submission of 832 kWh per annum.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3 From: Unknown To: 28-May-21	Four discrepancies identified resulting in over submission by 832 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as weak because it appears the process for notifying of changes is not operating as expected. 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
Genesis has requested the information from the auditor to correct the database of record.		01/07/2021	Investigating

Preventative actions taken to ensure no further issues will occur	Completion date	
Genesis Energy instigated the database to meet the requirements of DUML, although this was achieved initially there has been failing from the retirement village staff to notify Genesis of change. 4 new lamps had been installed sometime in the last 3 years, lowering wattage.	unknown	

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 the correct 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 DUML database must contain the location of each DUML 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 – Summary' and 'Asset Location – Address', both of which are populated for all items. There are also GPS co-ordinates 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. These fields are populated for every item in the spreadsheet.

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 DUMML for which it is responsible is recorded in this database.

Audit observation

The field audit was undertaken of the entire database of 31 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 spreadsheets was examined.

Audit commentary

Any changes that are made during any given month take effect from the beginning of that month. The information is available which would allow for the total load in kW to be retrospectively derived for any day.

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 database was checked for audit trails.

Audit commentary

The data is contained in a spreadsheet at summary level. There is a Maintenance tab which is used 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 for discrepancies. Three 70 watt HPS lamps have been changed to 27 watt LED and one light has been removed. This is a discrepancy of 8.8% and results in over submission of 832 kWh per annum.

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: Unknown To: 28-May-21	Four discrepancies identified resulting in over submission by 832 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as weak because it appears the process for notifying of changes is not operating as expected. 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
Genesis has requested the information from the auditor to correct the database of record.		01/07/2021	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	

Genesis Energy instigated the database to meet the requirements of DUML, although this was achieved initially there has been failing from the retirement village staff to notify Genesis of change. 4 new lamps had been installed sometime in the last 3 years, lowering wattage.	unknown	
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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
- checking the database extract combined with the burn hours against the submitted figure to confirm accuracy.

Audit commentary

Genesis reconciles this DUML load using the UNM profile.

Genesis have created a spreadsheet in conjunction with the Te Kauwhata Retirement Trust Board to track all of the lamps in the village.

The information on the Registry matches to the values in the spreadsheet. I checked the submission calculation provided by Genesis against the data extract, and Registry, and it matches exactly.

The 100% field audit found for discrepancies. Three 70 watt HPS lamps have been changed to 27 watt LED and one light has been removed. This is a discrepancy of 8.8% and results in over submission of 832 kWh per annum.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c) From: Unknown To: 28-May-21	Four discrepancies identified resulting in over submission by 832 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3
Audit risk rating	Rationale for audit risk rating

Low	<p>The controls are recorded as weak because it appears the process for notifying of changes is not operating as expected.</p> <p>The impact on settlement and participants is minor; therefore the audit risk rating is low.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
Genesis has requested the information from the auditor to correct the database of record.	01/07/2021	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
Genesis Energy instigated the database to meet the requirements of DUML, although this was achieved initially there has been failing from the retirement village staff to notify Genesis of change. 4 new lamps had been installed sometime in the last 3 years, lowering wattage.	unknown	

CONCLUSION

Genesis have developed a spreadsheet to track the items of load at Te Kauwhata Retirement Trust Board. This information is matched to the values held on the registry which in turn is used for submission.

The field audit was undertaken of all of the lights for the Te Kauwhata Retirement Trust Board, consisting of 31 items of load on 25/05/21. The field audit found for discrepancies. Three 70 watt HPS lamps have been changed to 27 watt LED and one light has been removed. This is a discrepancy of 8.8% and results in over submission of 832 kWh per annum.

The future risk rating of nine indicates that the next audit be completed in 12 months. I agree with this recommendation.

PARTICIPANT RESPONSE

Genesis Energy is currently reviewing this account. As it was treated as UML up until the DUML regime came into effect. This customer was never account managed and due to its nature Genesis has soaked up the costs associated with DUML. Genesis are currently establishing communication with the account holder to engage with them and help them understand their responsibilities and how they can help Genesis manage their assets to mitigate the frequency of the audits and the compliance outcomes.