

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

METLIFECARE GREENWOOD RETIREMENT
VILLAGE TAURANGA
AND CONTACT ENERGY

Prepared by: Rebecca Elliot

Date audit commenced: 10 December 2018

Date audit report completed: 18 February 2019

Audit report due date: 01-Jun-18

TABLE OF CONTENTS

Executive summary	3
Audit summary	4
Non-compliances	4
Recommendations	4
Issues 4	
1. Administrative	5
1.1. Exemptions from Obligations to Comply with Code	5
1.2. Structure of Organisation	5
1.3. Persons involved in this audit.....	6
1.4. Hardware and Software	6
1.5. Breaches or Breach Allegations.....	6
1.6. ICP Data	6
1.7. Authorisation Received	6
1.8. Scope of Audit	6
1.9. Summary of previous audit	7
1.10. Distributed unmetered load audits (Clause 16A.26 and 17.295F).....	7
2. DUML database requirements.....	9
2.1. Deriving submission information (Clause 11(1) of Schedule 15.3)	9
2.2. ICP identifier and items of load (Clause 11(2)(a) and (aa) of Schedule 15.3)	10
2.3. Location of each item of load (Clause 11(2)(b) of Schedule 15.3)	11
2.4. Description and capacity of load (Clause 11(2)(c) and (d) of Schedule 15.3)	11
2.5. All load recorded in database (Clause 11(2A) of Schedule 15.3)	11
2.6. Tracking of load changes (Clause 11(3) of Schedule 15.3)	12
2.7. Audit trail (Clause 11(4) of Schedule 15.3).....	13
3. Accuracy of DUML database	14
3.1. Database accuracy (Clause 15.2 and 15.37B(b))	14
3.2. Volume information accuracy (Clause 15.2 and 15.37B(c))	15
Conclusion	17
Participant response	18

EXECUTIVE SUMMARY

This audit of the Metlifecare Greenwood Retirement Village (**Greenwood**) Unmetered Streetlights DUML database and processes was conducted at the request of Contact Energy Limited (**Contact**), 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.

Contact Energy have created an excel spreadsheet to track the lamps at Greenwood.

The field audit was undertaken of the all of the Greenwood distributed unmetered load, consisting of 105 items of load on 12th December 2018. Contact are using the registry UML figure until the spreadsheet's contents can be confirmed. The field audit findings from this audit will be used to ensure the spreadsheet is accurate before it is used for reconciliation. The field audit found 31 items of load missing from the spreadsheet. If this were used for submission it would result in an estimated annual under submission of 3,178 kWh per annum, however the Registry figure used for submission is correct.

There were five non-compliances found and no recommendations were made. The future risk rating of nine indicates that the next audit be completed in 12 months.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Distributed unmetered load audits	1.10	16A.26 and 17.295F	DUML audit not completed within the required timeframe.	Strong	Low	1	Cleared
Deriving submission information	2.1	11.1 of schedule 15.3	DUML database is not up to date.	Moderate	Low	2	Identified
All load recorded in database	2.5	11(2A) of Schedule 15.3	31 additional items of load found in the field not recorded in the database.	Moderate	Low	2	Identified
Database Accuracy	3.1	15.2 and 15.37B(b)	31 additional items of load found in the field that would result in an estimated under submission of 3,178 kWh per annum if this were used for submission.	Moderate	Low	2	Identified
Volume information accuracy	3.2	15.2 & 15.37B(c)	DUML database not used to calculate submission.	Moderate	Low	2	Identified
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

Subject	Section	Description	Remedial Action
		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

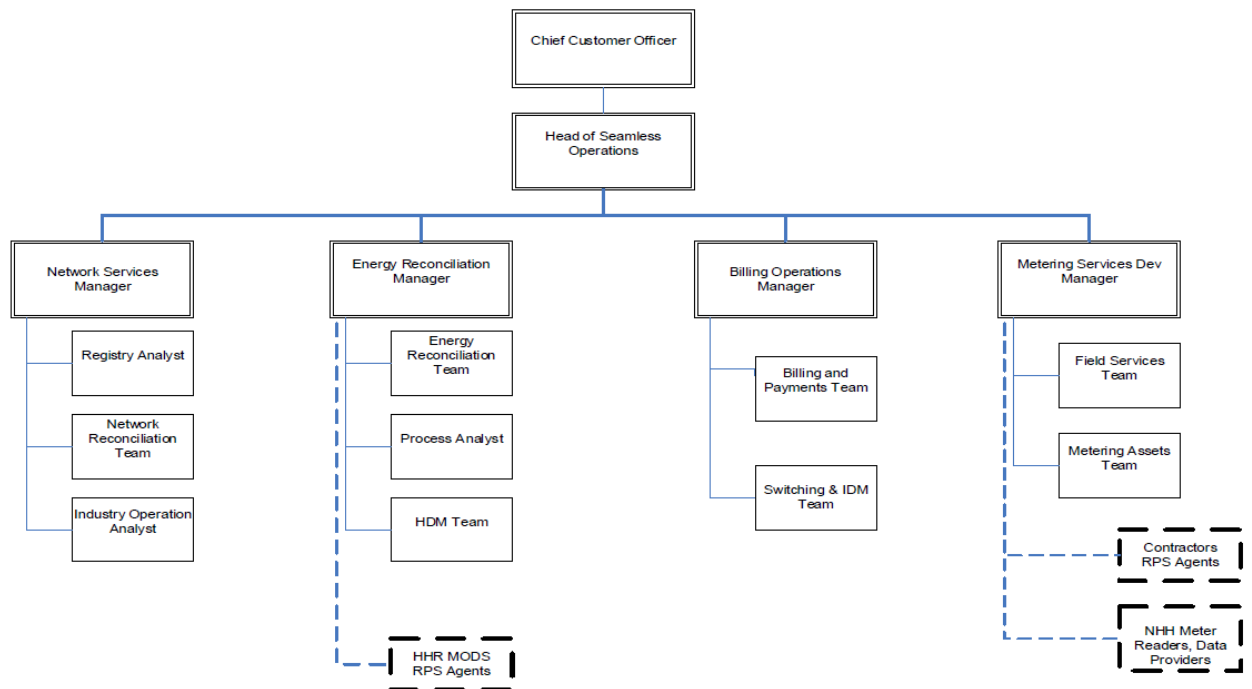
Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

Audit commentary

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

1.2. Structure of Organisation

Contact provided a copy of their organisational structure:



1.3. Persons involved in this audit

Auditor:

Name	Title
Rebecca Elliot	Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Allie Jones	External Operations Analyst	Contact Energy

1.4. Hardware and Software

The streetlight data is held in an excel spreadsheet. This is backed up in accordance with standard industry procedures. Access to the spreadsheet is restricted by way of user log into the computer drive.

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	Database number of items of load	Database wattage (watts)
0000544421TU1DA	GREENWOOD PARK LANE ST LIGHTS	RPS	105	2,520
Total			105	2,520

1.7. Authorisation Received

All information was provided directly by Contact.

1.8. Scope of Audit

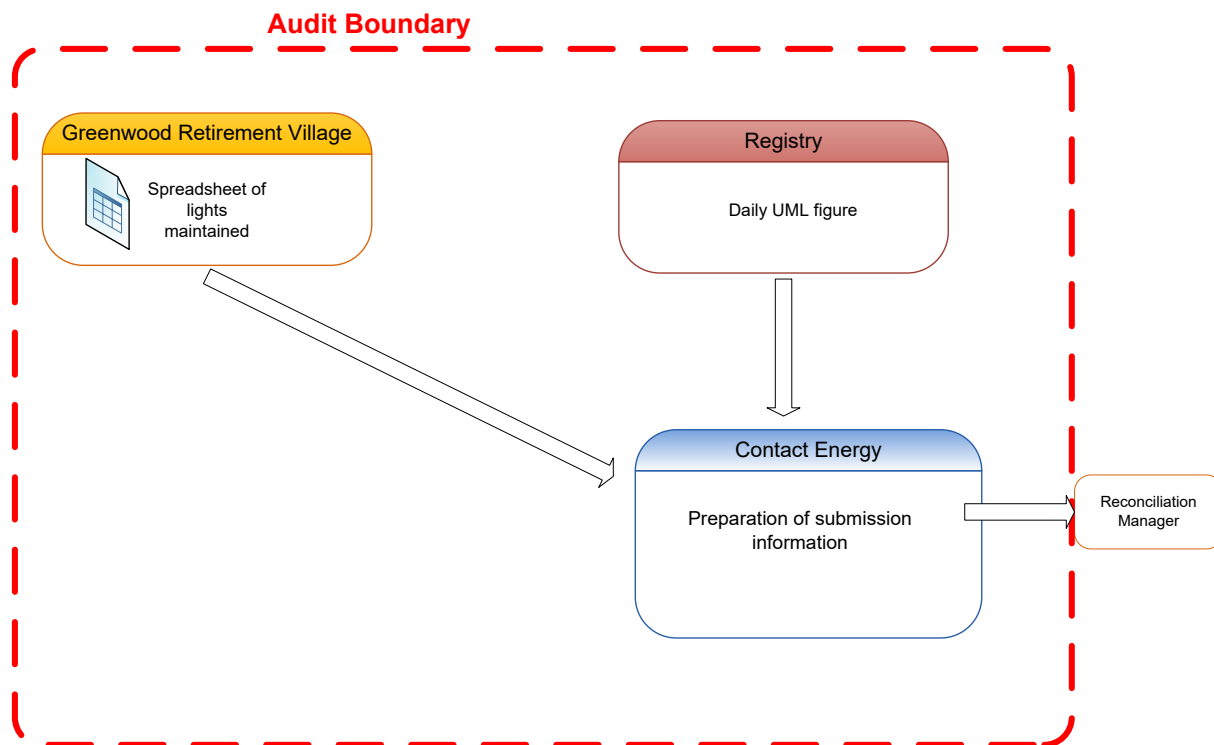
This audit of the Metlifecare Greenwood Retirement Village DUML database and processes was conducted at the request of Contact, in accordance with clause 15.37B. The purpose of this audit is to verify that the volume information is being calculated accurately, and that profiles have been correctly applied.

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

Contact Energy have created a database to track the lamps at Greenwood. The information recorded on the registry is being used for submission until the field audit undertaken for this audit confirmed the database to be correct.

Any changes made to the field are updated in the spreadsheet maintained by the Village Manager and these updates are expected to be provided to Contact.

The scope of the audit encompasses the collection, security and accuracy of the data, including the preparation of submission information based on the spreadsheet reporting. The diagram below shows the audit boundary for clarity.



The field audit was undertaken of the entire Greenwood Village spreadsheet, consisting of 105 items of load on 12th December 2018.

1.9. Summary of previous audit

This is the first audit of the Greenwood village lights undertaken by Contact. The previous audit was undertaken prior to the new audit regime being in place for a different trader. The previous trader did not provide this report to Contact and therefore it cannot be included in this audit.

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

Contact 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 but was not completed within the required timeframe as the switch occurred around the same time as the audit was due, and the previous trader's database was not provided to Contact and therefore, they have created their own.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 1.10 With: Clause 16A.26 and 17.295F From: 01-Jun-18 To: 10-Dec-18	DUML audit not completed within the required timeframe. Potential impact: None Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong as Contact has robust controls in place to ensure audits are carried out but in this case no database was available when the ICP switched so Contact have had to create their own one. The impact is assessed to be low as the late audit has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Audit completed now		N/A	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
N/A		N/A	

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

Contact reconciles this DUMML load using the RPS profile and are using the registry information until the spreadsheet they have created to manage this DUMML load can be verified. The field audit findings from this audit will be used to confirm the databases accuracy before it is used for reconciliation. The field audit findings were compared to the daily UML registry figure being used for submission and confirmed to match. The methodology used confirmed the correct values were used for submission, but the database for this DUMML load is not up to date. This is recorded as non-compliance below and discussed in **sections 3.1** and **3.2**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11.1 of schedule 15.3 From: 01-Jun-18 To: 10-Dec-18	DUML database is not up to date. Potential impact: Low Actual impact: None Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as Contact has robust controls in place, but the database created was found to be missing items of load. The impact is assessed to be low as the correct UML figure from the registry is being used for reconciliation so the impact to the market is none.		
Actions taken to resolve the issue		Completion date	Remedial action status
Database to be updated with missing lights		30/09/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
N/A		N/A	

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.

Audit commentary

The database has only one ICP associated with it and this is recorded in the spreadsheet.

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 street name and a location description, both of which are populated for all items.

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 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, lamp wattage and lamp ballast fields. 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 DUML for which it is responsible is recorded in this database.

Audit observation

The field audit was undertaken of the entire database of 105 items of load on 12th December 2018.

Audit commentary

The field audit findings found 31 more lights than is recorded in the Contact database. These items of load have been provided to Contact to review and update their database. The database accuracy is discussed in **section 3.1**. This is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clause 11(2A) of Schedule 15.3 From: 01-Jun-18 To: 10-Dec-18	31 additional items of load found in the field not recorded in the database. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as Contact has robust controls in place, but the database created was found to be missing items of load. The impact is assessed to actually none as the correct figure is being used for reconciliation, but "none" is not available as an option.		
Actions taken to resolve the issue		Completion date	Remedial action status
Additional lights to be added to the database		30/09/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The lighting in this development is stagnant.		N/A	

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 database 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. On 20th September 2012, the Authority sent a memo to Retailers and auditors advising that tracking of load changes at a daily level was not required as long as the database contained an audit trail. I have interpreted this to mean that the production of a monthly “snapshot” report is sufficient to achieve compliance.

The database tracks additions and removals as required by this clause.

The maintenance of the Greenwood Village lights is managed privately. The Village Manager will provide updates in relation to these lights and update the spreadsheet and send these changes through to Contact.

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 has a complete audit trail.

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 spreadsheet.

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

Audit commentary

The 100% field audit found 31 more items in the field than is recorded in the spreadsheet resulting in a database accuracy of 123% (23% more lights found in the field than recorded in the database). If this spreadsheet was used for submission it would result in an estimated 3,178 kWh of under submission annually based on 4,271 burn hours per annum (the burn hours are derived from the DUML statistical tool). As detailed in **section 2.5**, the missing items of load have been provided to Contact to update their spreadsheet with.

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: 01-Jun-18 To: 10-Dec-18	31 additional items of load found in the field that would result in an estimated under submission of 3,178 kWh per annum if this were used for submission. Potential impact: Low Actual impact: None Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as Contact has robust controls in place, but the database created was found to be missing items of load. The impact is assessed to actually none as the correct figure is being used for reconciliation, but "none" is not available as an option.		
Actions taken to resolve the issue		Completion date	Remedial action status
Additional lights to be added to the database		30/09/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
This database is stagnant		N/A	

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 spreadsheet 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

Contact reconciles this DUML load using the RPS profile and are using the registry information until the spreadsheet they have created to manage this DUML load can be verified. The field audit findings from this audit will be used to confirm the spreadsheet's accuracy before it is used for reconciliation. The field audit findings were compared to the daily UML registry figure being used for submission and confirmed to match. The methodology used confirmed the correct values were used for submission but the spreadsheet for this DUML load is not up to date. This is recorded as non-compliance below and discussed in **sections 2.1** and **3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 With: Clause 15.2 & 15.37B(c) From: 01-Jun-18 To: 10-Dec-18	DUML database not used to calculate submission. Potential impact: Low Actual impact: None Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as Contact has robust controls in place, but the database created was found to be missing items of load. The impact is assessed to be low as the correct UML figure from the registry is being used for reconciliation so the impact to the market is none.		
Actions taken to resolve the issue		Completion date	Remedial action status
Database created		N/A	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
This database is stagnant		N/A	

CONCLUSION

Contact Energy have created an excel spreadsheet to track the lamps at Greenwood.

The field audit was undertaken of the all of the Greenwood distributed unmetered load, consisting of 105 items of load on 12th December 2018. Contact are using the registry UML figure until the spreadsheet's contents can be confirmed. The field audit findings from this audit will be used to ensure the spreadsheet is accurate before it is used for reconciliation. The field audit found 31 items of load missing from the spreadsheet. If this were used for submission it would result in an estimated annual under submission of 3,178 kWh per annum, however the Registry figure used for submission is correct.

There were five non-compliances found and no recommendations were made.

PARTICIPANT RESPONSE

Based on the size of this load and the fact that accurate submission appears to be in place we would suggest that the audit period for this customer is as long as possible and the database merely be corrected.