

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT**

For

**PARAWERA COMMUNITY LIGHTING AND
TRUSTPOWER LIMITED**

Prepared by: Steve Woods

Date audit commenced: 19 March 2018

Date audit report completed: 23 May 2018

Audit report due date: 1 June 2018

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EXECUTIVE SUMMARY

This audit of the Parawera Community Lighting (Parawera) DUML database and processes was conducted at the request of Trustpower Limited (Trustpower) 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, which became effective on 1 June 2017.

The previous audit was conducted by Trustpower and recorded compliance with the Code.

The data for Parawera Community Lighting DUML load is held by Trustpower in a database, with an associated map. Reporting for this is provided as and when required by Laser Electrical Ltd. Taupo. Changes seldom occur and there is no further room for development at the site.

Compliance is confirmed; therefore I recommend the next audit occurs in 36 months.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			Nil				
Future Risk Rating						0	

Future risk rating	1-3	4-6	7-8	9-17	18-26	27+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Clause	Recommendation
Location of items of load	2.3	11(2)(b) of Schedule 15.3	Review and update GPS coordinates for four items of load

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

The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

Audit commentary

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

1.2. Structure of Organisation

Trustpower provided a copy of their organisational structure.



1.3. Persons involved in this audit

Auditor:

Steve Woods

Veritek Limited

Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Delwyn Jeffrey	Commercial and Industrial Billing Manager	Trustpower
Alan Miller	Commercial Account Manager	Trustpower

1.4. Hardware and Software

A database managed by Trustpower records all items of load.

The database resides on the server and back up is in accordance with standard industry procedures.

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)
0000027345WE3E3	Parawera Sub-division Acacia Bay Taupo	WRK0331	47	7,116
Total			47	7,116

1.7. Authorisation Received

All information was provided directly by Trustpower.

1.8. Scope of Audit

The data for Parawera Community Lighting DUML load is held by Trustpower in a database, with an associated map. Reporting for this is provided as and when required by Laser Electrical Ltd. Taupo. Changes seldom occur and there is no further room for development at the site.

The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1, which became effective on 1 June 2017

1.9. Summary of previous audit

The previous audit was completed in May 2017 by Alan Miller of Trustpower. Compliance was confirmed.

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

Trustpower have requested Veritek to undertake this DUML 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.

Audit commentary

Trustpower reconciles this DUMML load using the STL profile. The on and off times are derived from data logger information.

I recalculated the submissions for March 2018 using the data logger and database information. I confirmed that the calculation method and result was correct.

The field audit found 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

An ICP is recorded for each item of load in the database.

Audit commentary

An ICP is recorded for each item of load in the database.

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 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 contains a map reference and GPS coordinates. The map reference was sufficient to find all items of load; however it appears four items of load may have incorrect GPS coordinates. I recommend these are reviewed and updated. The examples are shown below.

ICP	Location	XCoordinate	YCoordinate
0000027345WE3E3	Parawera - Map reference 32	-38.71558	176.02532
0000027345WE3E3	Parawera - Map reference 34	-38.7145	176.02326
0000027345WE3E3	Parawera Pathway Lights - Map reference 36	-38.71511	176.02753
0000027345WE3E3	Parawera Pathway Lights - Map reference 37	-38.71491	176.02746

Recommendation	Description	Audited party comment	Remedial action
Regarding Clause 11(2)(b) of Schedule 15.3	Review and update GPS coordinates for four items of load	TRUS will confirm the GPS Co-ordinates for these 4 items	Identified

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.

Audit commentary

The database contains a field for light type, which includes the wattage. There is a separate field for lamp wattage and total wattage, including ballast.

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

A field audit of all 47 items of load recorded in the database was undertaken.

Audit commentary

The field audit found 100% accuracy.

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 was examined.

Audit commentary

There have not been any changes since the lights were installed in 2010. The agreed process is that Laser Electrical Ltd. Taupo will advise Trustpower in the unlikely event that changes are made.

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 contains an appropriate 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% audit was undertaken to determine the database wattage.

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

Audit commentary

All information was confirmed as accurate.

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 all ICPs have the correct profile and submission flag
- checking the database combined with the burn hours against the submitted figure to confirm accuracy.

Audit commentary

Trustpower reconciles this DUML load using the STL profile. The on and off times are derived from data logger information.

I recalculated the submissions for March 2018 using the data logger and database information. I confirmed that the calculation method and result was correct.

Audit outcome

Compliant

CONCLUSION

The previous audit was conducted by Trustpower and recorded compliance with the Code.

The data for Parawera Community Lighting DUML load is held by Trustpower in a database, with an associated map. Reporting for this is provided as and when required by Laser Electrical Ltd. Taupo. Changes seldom occur and there is no further room for development at the site.

PARTICIPANT RESPONSE

Trustpower agrees with the recommendation to review the GPS co-ordinates and will arrange to do so.