

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

For

**WESTERN BOP PARKS AND RESERVES AND
TRUSTPOWER LIMITED**

Prepared by: Rebecca Elliot

Date audit commenced: 4 May 2021

Date audit report completed: 28 May 2021

Audit report due date: 1 June 2021

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EXECUTIVE SUMMARY

This audit of the **Western Bay of Plenty Parks and Reserves (WBOP P&R)** 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.

The data is contained in Trustpower's database, and an email is sent each month from WBOP P&R confirming whether any changes have been made. No changes have been advised. The field audit found 14 errors in relation to 59 items of load. I have recommended that the change management process is reviewed. Despite the number of errors found the database is confirmed to be within the allowable +/- 5% threshold.

The audit found one non-compliance and makes three recommendations. The future risk rating of two indicates that the next audit be due in 24 months. I have considered this in conjunction with Trustpower's comments and agree with the recommendation.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
All load recorded in database	2.5	11(2A) of Schedule 15.3	Two additional lights found in the field.	Moderate	Low	2	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	Clause	Recommendation
Location of each item of load	2.3	11(2)(b) of Schedule 15.3	Review and correct light co-ordinates for the car park lights in Te Puke.
Database accuracy	3.1	15.2 and 15.37B(b)	Determine light type and correct wattage for double headed light at Tanners Point.
			Review change management process with WBOP to ensure changes made in the field are reported.

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

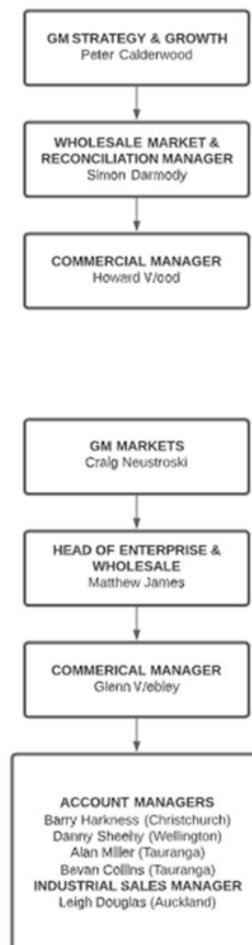
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

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:

Rebecca Elliot

Veritek Limited

Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Robbie Diederer	Reconciliation Analyst	Trustpower

1.4. Hardware and Software

Data is contained in Trustpower's DUMML database.

The database back up is in accordance with standard industry procedures. Access to the database is secure by way of password protection.

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)
1000525282PCC39	Western Bay of Plenty Council Parks Streetlights (TGA33)	TGA0331	13	754
1000525283PC07C	Western Bay of Plenty Council Parks Streetlights (TMI)	TMI0331	46	12,684
Total			59	13,402

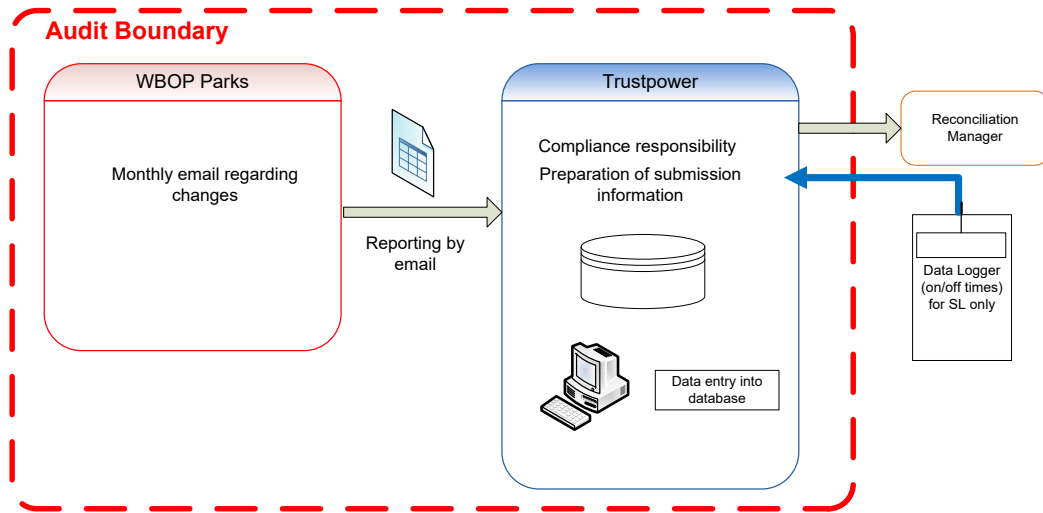
1.7. Authorisation Received

All information was provided directly by Trustpower.

1.8. Scope of Audit

The data is contained in Trustpower's database and an email is sent each month from WBOP P&R confirming whether any changes have been made.

The diagram below shows the current flow of information and the audit boundary for clarity.



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

A full field audit was carried out on Monday 24th May 2021.

1.9. Summary of previous audit

The previous audit was completed in May 2018 by Steve Woods of Veritek Limited. One non-compliance was identified, and no recommendations were made. The current status of the non-compliance is detailed below.

Subject	Section	Clause	Non-compliance	Status
Location of each item of load	2.3	11(2)(b) of Schedule 15.3	Commerce lane carpark coordinates incorrect.	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

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.

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.

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 April 2021 using the data logger and database information. I confirmed that the calculation method and result was correct.

The database is confirmed to be within the +/-5% threshold.

Any changes made are tracked at a daily level and any changes made are calculated from the date of the change.

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 is recorded for each item of load.

Audit commentary

An ICP is recorded for each item of load.

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 field for the street address and fields for X and Y coordinates.

The lights reported in the last audit for “Commerce Lane Carpark – Jubilee Park” that were plotted to rural Pukehina have been corrected. They are still not entirely accurate but are close enough to be locatable. This is also true of the lights in the Boucher Street carpark. I recommend that these are reviewed to replotted.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 11(2)(b) of Schedule 15.3	Review and correct light co-ordinates for the car park lights in Te Puke.	Customer will correct data and we will review to ensure accuracy.	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 lamp description and wattage. These were confirmed as correct in relation to the description.

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 59 items of load recorded in the database was undertaken.

Audit commentary

The field audit found the following errors:

Street	Database count	Field count	Light count difference	Wattage recorded incorrectly	Comments
Beach Rd Maketu - Park Rd Reserve	5	6	+1	3	2x 150W HPS recorded in the database as 1x 70W HPS. 2x 23W LED recorded in the database as 2x 70W HPS.
Commerce Lane Carpark - Jubilee Park	28	25	-3	2	3x 20W LED not found in the field. 1x 100w HPS light in the field recorded in the database as pedestrian crossing lights. 1x 70W HPS in the field recorded in the database as 60W incandescent.
Opposite 305 Plummers Point - Kotuku Jetty	1	2	+1		2x LED - light wattage to be confirmed. A photo of the lights has been provided to Trustpower as 1x 61W LED recorded in the database.
Tanners Point	4	4	-	4	2x 27W LED found in the field recorded in the 28W LED in the database. 2x 23W LEDs found in the field are recorded in the database as 1x 70W HPS and 1x 80 MV.
Grand Total	59	159	5 (+2 -3)	9	

The field audit found two additional lights. The accuracy of the database is detailed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clause 11(2A) of Schedule 15.3 From: 15-May-18 To: 20-May-21	Two additional lights 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	The controls are rated as moderate as controls will mitigate risk most of the time, but there is room for improvement. The audit risk rating is assessed to be low based on the potential submission inaccuracies.		
Actions taken to resolve the issue		Completion date	Remedial action status
Customer will verify and advise correct wattages		30 June 2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Customer asked to notify Trustpower on a monthly basis. We will monitor and follow up as needed.		Ongoing	

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 Trustpower database was examined.

Audit commentary

The date of the any changes made are recorded.

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

Database accuracy based on the field audit

The field audit found 14 errors of the 59 items of load. As the overs and unders balance each other out, the database is within the allowable +/- 5% threshold. Compliance is confirmed. The change management process is discussed below.

Lamp description and capacity accuracy

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority and found to be correct. I identified one double headed lamp at Plummers Point where there was no wattage label and I recommend that the wattage for these lights is confirmed with WBOP.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 15.2 and 15.37B(b)	Determine light type and correct wattage for double headed light at Plummers Point.	Customer will verify and advise as soon as possible	Identified

Change Management

WBOP DC provides a monthly update with any changes. Based on the field audit findings this does not appear to be being kept up to date. I recommend that this process is reviewed.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 15.2 and 15.37B(b)	Review change management process with WBOP to ensure changes made in the field are reported.	Customer asked to adhere to requirements as requested. We will monitor and follow up as needed.	Identified

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, and
- checking the database extract 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 April 2021 using the data logger and database information. I confirmed that the calculation method and result was correct.

The database is confirmed to be within the +/-5% threshold.

Any changes made are tracked at a daily level and any changes made are calculated from the date of the change.

Audit outcome

Compliant

CONCLUSION

The data is contained in Trustpower's database, and an email is sent each month from WBOP P&R confirming whether any changes have been made. No changes have been advised. The field audit found 14 errors in relation to 59 items of load. I have recommended that the change management process is reviewed. Despite the number of errors found the database is confirmed to be within the allowable +/- 5% threshold.

The audit found one non-compliance and makes three recommendations. The future risk rating of two indicates that the next audit be due in 24 months. I have considered this in conjunction with Trustpower's comments and agree with the recommendation.

PARTICIPANT RESPONSE

WBOP Parks and Reserves Manager has been asked to adhere to the requirements of change of lights and notifications to Trustpower in a timely period. We will monitor to ensure that this occurs and follow up as needed.

A full field audit has been suggested to validate the database and this is under consideration by the customer. It is expected that all information will be compliant by end of June.