ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

For

TAUPO DISTRICT COUNCIL
AND TRUSTPOWER

Prepared by: Rebecca Elliot

Date audit commenced: 23 April 2018

Date audit report completed: 21 May 2018

Audit report due date: 1 June 2018

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EXECUTIVE SUMMARY

This audit of the Taupo District Council (TDC) DUML database and processes was conducted at the request of Trustpower (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.

TDC use a RAMM database to manage this DUML load. New connection, fault and maintenance work is completed by Broadspectrum. Monthly reports are received by Trustpower.

Analysis of the wattage report received by Trustpower and the database extract found that it appears that the data is being updated outside of the RAMM database before the monthly wattage report is sent to Trustpower. This is detailed in the following sections of this report. If the raw database data is correct this will be resulting in an estimated over submission of 283,709 kWh annually. I cannot confirm which is correct.

The field audit found some minor inaccuracies in the database indicating an estimated under submission of 22,400 kWh per annum kWh per annum.

Ballast is added by Trustpower as part of the monthly submission process. Some were found to be incorrect and therefore this will be resulting in a minor under submission of 1,506.81 kWh annually.

The future risk rating of 36 indicates that the next audit be completed in three months and I agree with this recommendation. Six non-compliances were identified, and one recommendations was made. The matters raised are detailed below:

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	The variance between the database extract and the monthly report used by Trustpower for submission is potentially resulting in an estimated over submission of 283,709 kWh per annum if the database is correct. The database accuracy is assessed to be 101.2% indicating an estimated under submission of 22,400 kWh per annum. Incorrect ballasts recorded in RAMM.	Weak	High	9	Identified
ICP Identifier	2.2	11(2)(a) and (aa) of Schedule 15.3	ICP not recorded against 201 items of load in the database.	Weak	High	9	Identified
Description and capacity of each item of load	2.4	11(2)(c) of Schedule 15.3	315 items of load with incomplete details lamp. Ballast wattage is not recorded in the database.	Weak	Low	3	Identified
All load recorded in the database	2.5	11(2A) of Schedule 15.3	All load is not recorded in the database	Moderate	Medium	4	Investigating

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Database accuracy	3.1	15.2 and 15.37B(b)	The database accuracy is assessed to be 101.2% indicating an estimated under submission of 22,400 kWh per annum. Incorrect ballasts recorded in RAMM.	Moderate	Medium	4	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	The variance between the database extract and the monthly report used by Trustpower for submission is potentially resulting in an estimated over submission of 283,709 kWh per annum if the database is correct. The database accuracy is assessed to be 101.2% indicating an estimated under submission of 22,400 kWh per annum. Incorrect ballasts used for submission resulting in an estimated under submission of 1,506.81 per annum.	Weak	High	9	Identified
Future Risk Rating						36	

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	Recommendation	Remedial outcome
Tracking of load change	2.6	Review the process to capture new street lights in subdivisions.	Identified

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
Alan Miller	Corporate Account Manager	Trustpower
Delwyn Jeffrey	Commercial and Industrial Billing Manager	Trustpower
Rachel Hancock	Management Accountant	Taupo District Council

1.4. Hardware and Software

The SQL database used for the management of DUML is remotely hosted by RAMM Software Ltd. The database is commonly known as "RAMM" which stands for "Roading Asset and Maintenance Management". The specific module used for DUML is called RAMM Contractor.

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

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)
0000029279HR82A	Atiamuri Streetlights	ROT0111	STL	34	2,788
0000031514WEC89	Wharewaka Streetlights	WRK0331	STL	64	3,360
0001264720UN608	Taupo Streetlights	WRK0331	STL	3,018	303,414
0008807420WM161	Turangi Streetlights	TKU0331	STL	813	71,777
0008808341WM4B6	Mangakino Streetlights	HTI0331		222	18,996

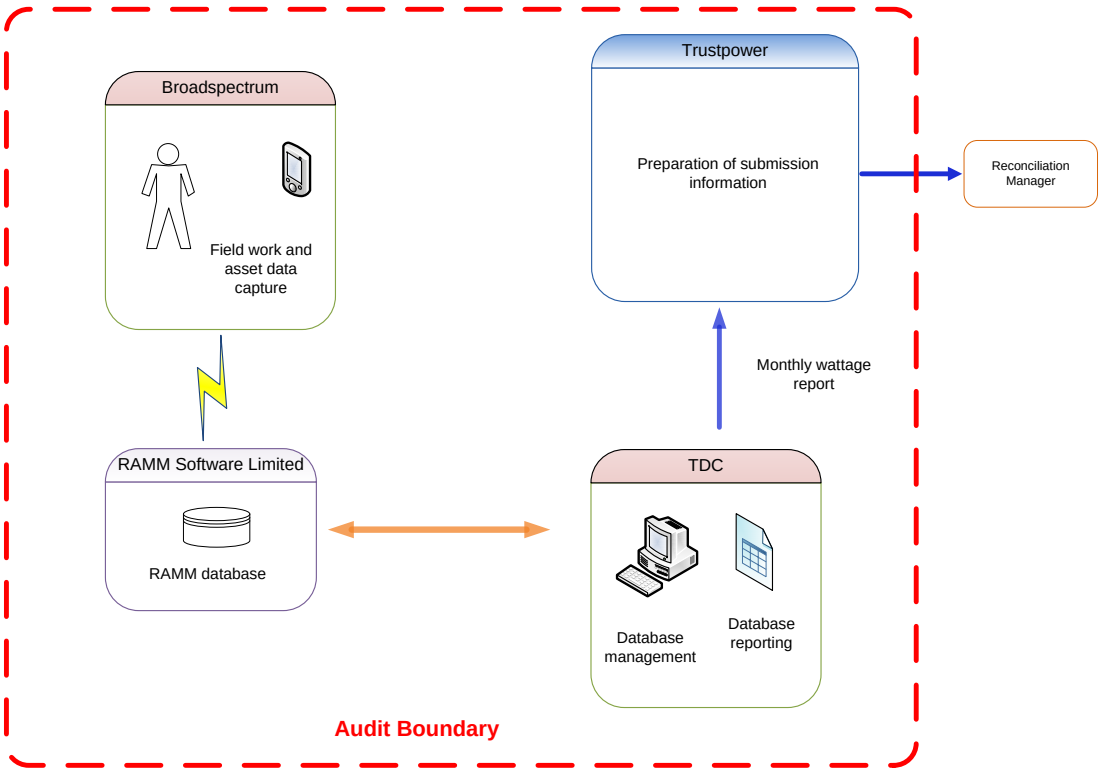
1.7. Authorisation Received

All information was provided directly by Trustpower and TDC.

1.8. Scope of Audit

TDC use a RAMM database to manage this DUML load. New connection, fault and maintenance work is completed by Broadspectrum. Monthly reports are received by Trustpower.

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

The field audit was undertaken of a statistical sample of 230 items of load on 23rd March 2018.

1.9. Summary of previous audit

The previous audit was completed in May 2017 by Allan Miller of Trustpower. Compliance was confirmed for all relevant clauses.

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 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.

Audit commentary

Trustpower reconciles this DUML load using the STL profile. The on and off times are derived from data logger information. Trustpower receive a monthly wattage report and this is used to derive submission.

I recalculated the submissions for April 2018 using the data logger and the database information. I confirmed that the calculation method was correct but found the differences detailed in the table below.

ICPs	Fittings number from submission extract	Fittings number from database extract	Differences	kWh value submitted	Calculated kWh value from database	Differences
0000029279HR82A	34	34	0	1,075.38	985.02	90.36
0000031514WEC89	64	64	0	2,089.05	1,914.93	174.12
0001264720UN608	3058	3018	40	118,998.00	107,198.36	11,799.64
0008807420WM161	1007	813	194	36,108.00	25,426.74	10,681.26
0008808341WM4B6	224	222	2	7,446.30	6,729.26	717.04
Total month kWh difference						23,462.42

The variances are due to two reasons:

1. The ICPs highlighted in yellow have a variance in the items of load between the data extract provided and the monthly wattage report provided to Trustpower.
2. The ballasts recorded in RAMM are incorrect and Trustpower add the ballasts outside of the database.

This was checked with TDC and it appears that the data is being updated outside of the RAMM database before the monthly wattage report is sent to Trustpower, hence the difference. This is detailed in the following sections of this report. If the raw database data is correct this will be resulting in an estimated over submission of 283,709 kWh annually. I cannot confirm which is correct.

There is some inaccurate data within the database used to calculate submissions. This is recorded as non-compliance and discussed in **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: unknown To: 30-Apr-18	The variance between the database extract and the monthly report used by Trustpower for submission is potentially resulting in an estimated over submission of 283,709 kWh per annum if the database is correct. The database accuracy is assessed to be 101.2% indicating an estimated under submission of 22,400 kWh per annum. Incorrect ballasts recorded in RAMM. Potential impact: High Actual impact: High Audit history: None Controls: Weak Breach risk rating: 9
Audit risk rating	**Rationale for audit risk rating**
High	The controls are rated as weak as the database is not up to date, and it is unclear as to which volumes are correct for submission. The impact is assessed to be high due to the potential kWh variances found.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with the customer to implement new reporting so that we are receiving the raw data from RAMM rather than the adjusted data outside of RAMM	31/07/18	Identified
Ballasts to be reviewed and updated where applicable	31/07/18	
Preventative actions taken to ensure no further issues will occur	**Completion date**	
New reporting structure to be implemented	31/07/18	

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

The database was checked and found 201 items of load without an ICP recorded.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.2 With: Clause 11(2)(a) and (aa) of Schedule 15.3 From: unknown To: 30-Apr-18	ICP not recorded against 201 items of load in the database. Potential impact: High Actual impact: Unknown Audit history: None Controls: Weak Breach risk rating: 9
Audit risk rating	**Rationale for audit risk rating**
High	The controls are rated as weak not all items of load have an ICP recorded. The impact is assessed to be potential kWh volume difference if the items of load with no ICP are confirmed to be associated with these ICPs which cannot be assumed.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with the customer to ensure all items of load are allocated to their correct ICP	31/07/18	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Maintenance processes to be reviewed to ensure all required information for an item is recorded	31/07/18	

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 contains the nearest street address, pole numbers and Global Positioning System (GPS) coordinates for each item of load and users in the office and field can view these locations on a mapping system.

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.

Audit commentary

The database contains two fields for wattage, firstly the manufacturers rated wattage and secondly the "ballast wattage". The ballast wattage is expected to be a calculated figure which accounts for any variation from the input wattage and includes losses associated with ballasts. Examination of the database against the items of load with an ICP associated found:

- 295 items of load with no gear wattage figure recorded
- 18 items of load with blank or zero lamp wattage recorded
- two items of load with unknown or no lamp description recorded.

The missing data is recorded as non-compliance.

The ballasts recorded in RAMM are not used for submission but are added by Trustpower as part of the submission process. This is recorded as non-compliance. The accuracy of the ballast wattages used for submission are discussed in **section 3.1.**

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.4 With: Clause 11(2)(c) and (d) of Schedule 15.3 From: unknown To: 30-Apr-18	315 items of load with incomplete details lamp. Ballast wattage is not recorded in the database. 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 rated as weak as the database is incomplete. The impact is assessed to be low, as the impact of the incorrect ballasts (detailed in **section 3.1**) is low.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with the customer to correct the database anomalies	31/7/18	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Maintenance processes to be reviewed to ensure all required information for an item is recorded	31/07/18	

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 a statistical sample of 230 items of load on 23rd March 2018.

Audit commentary

The field audit findings are detailed in the table below:

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
Amenities					
BIRCH STREET	1	1			

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
HINEKURA AVENUE	1	1			
KOHA ROAD	3	3			
NORMAN SMITH STREET	1	2	1		1x extra 70W HPS found in the field
RHODES FALL	2	2			
STORY PLACE	1	1			
Council Roading					
ANZAC MEMORIAL DRIVE	13	13			
BERNARD STREET	2	2			
GASCOIGNE STREET	5	5			
KERERU STREET	3	3			
KIWI STREET	8	8			
MCCAULEY GROVE	1	1			
PIHANGA STREET	12	12			
PITIROI STREET	5	5			
TAUHARA ROAD	26	26			
TE MAKO MAKO LANE	2	3	1		1x extra 70W HPS found in the field
TREMAINE AVENUE	8	8			
WAKEMAN ROAD	37	37			
Council Roading Lines CO					
HOANI PLACE	1	1			
KOURA STREET	4	4			
MEREMERE STREET	1	1			
MERI GROVE	2	2			
MUA STREET	1	1			

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
ORUATUA AVENUE	4	4			
TE AHO ROAD	2	2			
TUREITI PLACE	11	11			
New					
ASHWOOD AVENUE	3	3			
BARBARY CLOSE	3	3			
BROMPTON CLOSE	5	5			
LOLOMA WAY	3	3			
PUKENAMU ROAD	15	15			
PUNAWAI PLACE	8	8			
ROYAL COACHMAN DRIVE	8	8			
WINDSOR STREET	4	4			
NZTA					
ANZAC MEMORIAL DRIVE	1	1			
CAROLINE DRIVE	1	1			
NORMAN SMITH STREET	2	2			
SH 1 B TUTUKAU 01N-0592	1	1			
SH 1 F MOTUOAPA 01N-0656	17	17			
TE ARAHORI STREET	1	1			
WAIPAHIHI AVENUE	1	1			
Grand Total	230	232	2		

Two additional items of load were found in the field. The field audit variances found are recorded as non-compliance in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.5 With: Clause 11(2A) of Schedule 15.3 From: unknown To: 30-Apr-18	All load is not recorded in the database. Potential impact: Low Actual impact: Medium Audit history: None Controls: Moderate Breach risk rating: 4
Audit risk rating	**Rationale for audit risk rating**
Medium	The controls are rated as moderate as the processes to capture change will mitigate risk most of the time. The impact is assessed to be medium, based on the kWh differences described in **section 3.1**.

Actions taken to resolve the issue	Completion date	Remedial action status
Taupo DC to investigate the extra lights in the field and update where necessary	31/07/18	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Maintenance processes to be reviewed to ensure all required information for an item is recorded	31/07/18	

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

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 20 September 2012, the Authority sent a memo to retailers and auditors advising that tracking of load changes at a daily level was not required if the database contained an audit trail. I have interpreted this to mean that the provision of a copy of the report to Trustpower each month is sufficient to achieve compliance.

TDC use a RAMM database to manage this DUML load. New connection, fault and maintenance work is completed by Broadspectrum. They use RAMM contractor to track load changes. This includes any new individual lights that are added to the streetlight circuits. All changes made during a month are included in the monthly report provided to Trustpower for submission.

For new subdivisions, as-built plans are given to the asset information team who enter the new assets into the RAMM database. The date the items of load are added to the database will not always align with the date they are electrically connected as the process is driven by other council requirements such as the vesting of the asset. This can result in lights being added before they are electrically connected or sometime after electrical connection has occurred. I recommend the process is reviewed to ensure that lights are added at the correct time.

Description	Recommendation	Audited party comment	Remedial action
Tracking of load change	Review the process to capture new street lights in subdivisions.	TRUS will work with Taupo DC to review their RAMM update process	Identified

A check of the new lights added in the field audit confirmed these to be correctly captured therefore I have recorded compliance here.

TDC are planning an LED roll out but this is not expected to occur until the next financial year (sometime after June 2018).

There are no outage patrols are in place. This is done on a reactive basis.

Festive lights are connected into the unmetered circuits and these are added and removed for the relevant months. A copy of the relevant months wattage report confirmed this.

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

A complete audit trail of all additions and changes to the database information.

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

The DUML Statistical Sampling Guideline was used to determine the database accuracy. The table below shows the survey plan.

Plan Item	Comments
Area of interest	Taupo district
Strata	The database contains items of load in Taupo area. The area has three distinct sub groups of urban, rural, NZTA. The processes for the management of TDC items of load are the same, but I decided to place the items of load into five strata, as follows: 1. Amenities 2. Council Roading 3. Council Roading Lines Co 4. New 5. NZTA
Area units	I created a pivot table of the roads in each area and I used a random number generator in a spreadsheet to select a total of 40 sub-units.
Total items of load	230 items of load were checked.

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

Audit commentary

The database was found to contain some inaccuracies and missing data.

The field data was 101.2% of the database data for the sample checked. The total wattage recorded in the database for the sample was 24,412 watts. The estimated total wattage found in the field for the sample checked was 24,576 watts, a difference of 164 watts. This will result in an estimated under submission of 22,400 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUML database auditing tool).

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority and found the ballasts recorded in RAMM are incorrect. Trustpower add the ballasts outside of the database. These were checked and found 51 items of load with the incorrect ballast applied. This will be resulting in a minor under submission of 1,506.81 kWh annually. The correct ballasts should be recorded in the database and this is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: unknown To: 30-Apr-18	The database accuracy is assessed to be 101.2% indicating an estimated under submission of 22,400 kWh per annum. Incorrect ballasts recorded in RAMM. Potential impact: Medium Actual impact: Medium Audit history: None Controls: Moderate Breach risk rating: 4
Audit risk rating	**Rationale for audit risk rating**
Medium	The controls are rated as moderate, because they are sufficient to ensure that changes to the database are correctly recorded most of the time. The impact is assessed to be medium due to the kWh volumes.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with Taupo DC to update the ballasts within the RAMM database, as well as review ballasts used in the submission process	31/07/18	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Maintenance processes to be reviewed to ensure all required information for an item is recorded	31/07/18	

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 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. Trustpower receive a monthly database extract and this is used to derive submission.

I recalculated the submissions for March 2018 using the data logger and the database information. I confirmed that the calculation method was correct but found, as detailed in **section 2.1**, it appears that the data is being updated outside of the RAMM database before the monthly wattage report is sent to Trustpower, hence the difference. If the raw database data is correct this will be resulting in an estimated over submission of 283,709 kWh annually. I cannot confirm which is correct.

Trustpower add the ballasts outside of the database. These were checked and found 51 items of load with the incorrect ballast applied. This will be resulting in a minor under submission of 1,506.81 kWh annually. The correct ballast should be recorded in the database and this is recorded as non-compliance in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c) From: unknown To: 30-Apr-18	The variance between the database extract and the monthly report used by Trustpower for submission is potentially resulting in an estimated over submission of 283,709 kWh per annum if the database is correct. The database accuracy is assessed to be 101.2% indicating an estimated under submission of 22,400 kWh per annum. Incorrect ballasts used for submission resulting in an estimated under submission of 1,506.81 per annum. Potential impact: High Actual impact: High Audit history: None Controls: Weak Breach risk rating: 9
Audit risk rating	**Rationale for audit risk rating**
High	The controls are rated as weak as the database is not up to date, and it is unclear as to which volumes are correct for submission. The impact is assessed to be high due to the kWh variances found.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with Taupo DC to update the ballasts within the RAMM database, as well as review ballasts used in the submission process	31/07/18	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Maintenance processes to be reviewed to ensure all required information for an item is recorded	31/07/18	

CONCLUSION

TDC use a RAMM database to manage this DUML load. New connection, fault and maintenance work is completed by Broadspectrum. Monthly reports are received by Trustpower.

Analysis of the wattage report received by Trustpower and the database extract found that it appears that the data is being updated outside of the RAMM database before the monthly wattage report is sent to Trustpower. This is detailed in the following sections of this report. If the raw database data is correct this will be resulting in an estimated over submission of 283,709 kWh annually. I cannot confirm which is correct.

The field audit found some minor inaccuracies in the database indicating an estimated under submission of 22,400 kWh per annum kWh per annum.

Ballast is added by Trustpower as part of the monthly submission process. Some were found to be incorrect and therefore this will be resulting in a minor under submission of 1,506.81 kWh annually.

The future risk rating of 36 indicates that the next audit be completed in three months and I agree with this recommendation.

PARTICIPANT RESPONSE

TRUS will work with Taupo District Council to ensure the correct information is being reported each month, as well as to update any ballasts and database anomalies.