ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

For

NZTA WAIPA AND TRUSTPOWER

Prepared by: Rebecca Elliot

Date audit commenced: 19 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 NZTA Waipa (NZTA) 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.

The RAMM database used for submission is managed by Broadspectrum for the ICPs on NSP TMU0111 (Waipa South) and Fulton Hogan for the ICPs on CBG0111 (Waipa North). New connection, fault and maintenance work is completed by McKay Electrical for the Waipa North area. Monthly reports are received intermittently by Trustpower. Examination of the database extract against that used by Trustpower for submission found an estimated under submission of 90,422.65 kWh per annum.

The field audit found inaccuracies in the database that if used would result in an estimated over submission of 13,000 kWh per annum.

I recommend that a full field audit is undertaken, and the database information corrected.

The tracking of load change was unable to be confirmed for Waipa South. The process for the Waipa North area found that changes are not uploaded to the NZTA RAMM database until the 20th of the month following the change. This does not meet the requirements of the code.

The future risk rating of 40 indicates that the next audit be completed in three months and I agree with this recommendation. Seven non-compliances were identified, and one recommendation was raised. 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	Database extract used for submission is not up to date resulting in an estimated under submission of 90,422.65 kWh per annum. The database used to prepare submissions contains some inaccurate information. The database accuracy is assessed to be 95.5% indicating an estimated over submission of 13,000 kWh per annum. The database is not complete as ballasts are not recorded in the RAMM database.	Weak	High	9	Identified
ICP Identifier	2.2	11(2)(a) and (aa) of Schedule 15.3	ICP number not recorded correctly in RAMM. ICP not recorded against each item of load in the database.	Weak	Medium	6	Identified
Description and capacity of load	2.4	11(2)(c) and (d) of Schedule 15.3	41 items of load had no lamp, make, model or wattage recorded. Ballast wattage is not recorded in the database.	Weak	Low	3	Identified
All load recorded in database	2.5	11(2A) of Schedule 15.3	All load is not recorded in the database	Weak	Medium	6	Identified
Tracking of load change	2.6	11(3) of Schedule 15.3	The tracking of load change for the Waipa North area is updated one month after the change has occurred.	Moderate	Low	2	

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 used to prepare submissions contains some inaccurate information. The database accuracy is assessed to be 95.5% indicating an estimated over submission of 13,000 kWh per annum. The database is not complete as ballasts are not recorded in the RAMM database.	Weak	Medium	6	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	Database extract used for submission is not up to date resulting in an estimated under submission of 90,422.65 kWh per annum. The database used to prepare submissions contains some inaccurate information. The database accuracy is assessed to be 95.5% indicating an estimated over submission of 13,000 kWh per annum. The database is not complete as ballasts are not recorded in the RAMM database.	Weak	High	9	Identified
Future Risk Rating						40	

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

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	Description	Remedial Action
Database accuracy	3.1	Undertake a full field audit of the database to correct errors.	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
Kacha Veketich	Asset Manager	Fulton Hogan

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)
0000400320WAD63	SH31 & SH39 Cambridge	TMU0111	STL	40	5,560
0000400343WAE53	SH3 Pedestrian Lights Waipa	TMU0111	STL	4	300
0000400344WA399	SH3 Waipa	TMU0111	STL	250	36,415
0000806850WAC3E	SH1 & SH1B Cambridge	TMU0111	STL	34	3,850
0000806950WA53A	SH1 West Waikato North of Cambridge	CBG0111	STL	75	15,350

ICP Number	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0000806955WA875	SH 1 South Cambridge By-pass	CBG0111	STL	188	28,798
0000808803WA036	SH1 South of Cambridge to SH29	CBG0111	STL	39	7,000

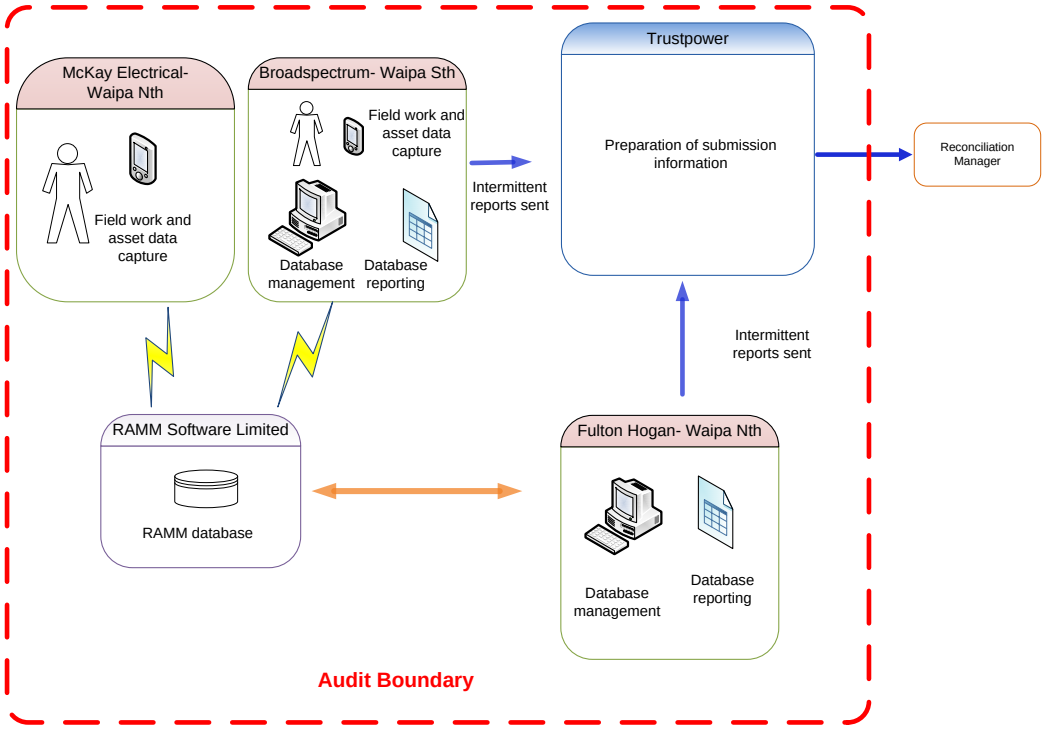
1.7. Authorisation Received

All information was provided directly by Trustpower and Fulton Hogan.

1.8. Scope of Audit

The RAMM database used for submission is managed by Broadspectrum for the ICPs on NSP TMU0111 (Waipa South) and Fulton Hogan for the ICPs on CBG0111 (Waipa North). New connection, fault and maintenance work is completed by McKay Electrical for the Waipa North area. Monthly reports are received intermittently by Trustpower. A contact was not provided for Broadspectrum so I was unable to confirm the change management processes in place.

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 113 items of load on 19th April 2018.

1.9. Summary of previous audit

The previous audit was completed in May 2017 by Allan Miller of Trustpower. I note this included only two of the ICPs in this audit and included an Otorohanga District Council ICPs. The current status of those audit findings is detailed below:

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Database contents	2.1.1 refer **section 2.2**	11(2)(a) of Schedule 15.3	ICP identifier	Still existing

Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Status
			Nil	

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 intermittent database reports, therefore submission cannot be calculated from an up to date database extract. This is recorded as non-compliance.

I recalculated the submissions for March 2018 for all ICPs using the data logger and the database information. I confirmed that the calculation method was correct but due to the out of date database being used I have calculated under submission of 7,535.22 kWh for the month of March. Annualised this equates to an estimated under submission of 90,422.65 kWh.

As detailed in **section 2.4**, the ballast capacities are not recorded in RAMM but are added in the monthly report. This is recorded as non-compliance.

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	Database extract used for submission is not up to date resulting in an estimated under submission of 90,422.65 kWh per annum. The database used to prepare submissions contains some inaccurate information. The database accuracy is assessed to be 95.5% indicating an estimated over submission of 13,000 kWh per annum. The database is not complete as ballasts are not recorded in the RAMM database. 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 they are unlikely to mitigate risk and remove errors. The impact is assessed to be high, based on the kWh differences.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will meet with the customer to explain the compliance obligations and to request that a full inventory count is undertaken for each ICP. TRUS will work with the customer to ensure the database is updated and monthly reporting to TRUS is established.	30/06/18 TRUS expects that the majority of the field count should be complete before the next audit.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Field audit to be completed, new reporting put in place	TRUS expects that the majority of the field count should be complete before the next audit	

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 provided with ICPs for the whole NZTA Waikato area (including ICPs being traded by other traders). ICP 0000400343WAE53 is incorrectly recorded as ICP 0000400343WAE52. This ICP does not exist on the registry.

There were 4,191 items of load with no ICP recorded against them. I am unable to determine how many of these relate to the ICPs associated with this database and whether these items of load are metered or not. Non-compliance is recorded for having no ICP recorded against all items of load.

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 number not recorded correctly in RAMM. ICP not recorded against each item of load in the database. Potential impact: Medium Actual impact: Unknown Audit history: Twice previously Controls: Weak Breach risk rating: 4
Audit risk rating	**Rationale for audit risk rating**
Medium	The controls are rated as weak as this has been noted in the last two audit reports. The impact is assessed to be medium, as the volume of lights with no ICP is high and I am unable to determine how many of these relate to the ICPs in this audit report.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with the customer to ensure all items of load related to TRUS ICPs has an ICP recorded	TRUS expects that the majority of the field count should be complete before the next audit	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Field audit to be completed, new reporting put in place	TRUS expects that the majority of the field count should be complete before the next audit	

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 either the nearest street address, pole numbers, metres from the end of the carriageway or 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

Lamp make, model and lamp wattage are included in the database. 41 items of load had no lamp, make, model or wattage recorded. This is recorded as non-compliance.

The gear wattage is not recorded in the database and Trustpower adds this as part of the submission process. The correct ballasts are applied but this needs to be in the database, hence this is recorded as non-compliance.

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	41 items of load had no lamp, make, model or wattage recorded. 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 correct ballasts are being applied and therefore reconciliation is accurate.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with the customer to update database anomalies and ballast as part of the complete field audit.	TRUS expects that the majority of the field count should be complete before the next audit	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Field audit to be completed, new reporting put in place	TRUS expects that the majority of the field count should be complete before the next audit	

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 252 items of load on 3 April 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
NSHS R1					
003-0016	1	1			
01N-0557/02.52-D	20	18	-2		2x 250W HPS not found in the field
01N-0557/02.52-I	4	4			
01N-0574/02.93	15	16		1	1xlight recorded as unknown and no wattage recorded but should be 150W HPS
NSHS R2					
003-0016	1	1			
NSHS R3					
01B-0030	11	19	8		8x additional HPS found in the field
021-0000/00.04	4	4			
021-0000-W	5	5			
039-0033	3	3			
039-0043	4	4			
NSHS URBAN					
003-0016	39	39		8	8x LED found in the field. Recorded as 250W HPS in the database
039-0043	5	5			
003-0010	2	2			

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
Grand Total	113	120	10	9	

I found eight more lamps in the field than were recorded in the database. The database accuracy is discussed in **section 3.1**. The items missing from the RAMM database are recorded as non-compliance.

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: High Actual impact: Medium Audit history: None Controls: Weak Breach risk rating: 6
Audit risk rating	**Rationale for audit risk rating**
Medium	The controls are rated as weak as the updates are not flowing through to submission. 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
TRUS will meet with the customer to explain the compliance obligations and to request that a full inventory count is undertaken for each ICP. TRUS will work with the customer to ensure the database is updated and monthly reporting to TRUS is established.	30/06/18 TRUS expects that the majority of the field count should be complete before the next audit	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Field audit to be completed, new reporting put in place	TRUS expects that the majority of the field count should be complete before the next audit	

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.

Broadspectrum manages the load for the ICPs on NSP TMU0111 (Waipa South) and Fulton Hogan for the ICPs on CBG0111 (Waipa North). No contact was provided for Broadspectrum therefore I am unable to confirm the load change process for the portion of the database they manage.

Fulton Hogan use McKay Electrical for all fault and maintenance work. Fulton Hogan runs a dummy RAMM database into which any additions or removals are added using pocket RAMM as the work is completed in the field. This includes any new individual lights. There are no immediate plans for an LED roll out. Some LEDs have been installed on the network as part of routine maintenance. All changes are reconciled on a monthly basis and by the 20th of the following month the NZTA RAMM database is updated with the previous months changes from the dummy database. This timing will result in changes being updated in RAMM one month after they have been made in the field. This is recorded as non-compliance.

Outage patrols are carried out by McKay Electrical on a rolling basis. In addition to this Fulton Hogan conduct three night field audits per annum.

There have been no new streetlight circuits connections added in recent times to the NZTA Waipa North network. If these are required, Fulton Hogan liaise with the network and then these are added into RAMM once they are electrically connected.

No festive lighting is connected to the NZTA Waipa North unmetered streetlight network. As detailed above this was not able to be confirmed for Waipa South.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.6 With: Clause 11(3) of Schedule 15.3 From: unknown To: 30-Apr-18	The tracking of load change for the Waipa North area is updated one month after the change has occurred. 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 the changes are tracked and confirmed before they are uploaded to the NZTA database. The impact is assessed to be low, as the volume of changes made are small and therefore this will have a minor effect on submission.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with customer to improve their maintenance processes and reporting	TRUS expects that the majority of the field count should be complete before the next audit	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Once the update to RAMM database process has changed to a more regular occurrence, there should not be any further instances	TRUS expects that the majority of the field count should be complete before the next audit	

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	NZTA Waipa area
Strata	The database contains the NZTA items of load in Waipa area both urban and rural. The processes for the management of NZTA items of load is different for the North and South, but I decided to place the items of load into four strata based on NZTA state highways groupings, as follows: 1. NSHS R1 2. NSHS R2 3. NSHS R3 4. NSHS URBAN
Area units	I created a pivot table of the roads and I used a random number generator in a spreadsheet to select a total of 12 subunits.
Total items of load	113 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 95.5% of the database data for the sample checked. The total wattage recorded in the database for the sample was 22,080 watts. The estimated total wattage found in the field for the sample checked was 21,726 watts, a difference of 504 watts. This will result in estimated over submission of 13,000 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUML database auditing tool). I note that this calculation does not include ballast as it is not included in the database therefore the total over submission is not able to be calculated but will be higher.

I recommend a full field audit is undertaken to ensure that all items of load have the correct ICP recorded, wattage and ballast (if required).

Description	Recommendation	Audited party comment	Remedial action
Database accuracy	Undertake a full field audit of the database to correct errors.	TRUS agrees with this recommendation and will meet with the customer to implement it	Identified

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority. The ballast in RAMM is not correct and is not used for submission. The correct wattages are added in the monthly report. The correct ballasts are applied but this needs to be in the database. 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: entire audit period	The database used to prepare submissions contains some inaccurate information. The database accuracy is assessed to be 95.5% indicating an estimated over submission of 13,000 kWh per annum. The database is not complete as ballasts are not recorded in the RAMM database. Potential impact: Medium Actual impact: Medium Audit history: None Controls: Weak Breach risk rating: 6
Audit risk rating	**Rationale for audit risk rating**
Medium	The controls are rated as weak as they are unlikely to mitigate risk and remove errors. The impact is assessed to be medium, based on the kWh differences described above.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with the customer to update database anomalies and ballast as part of the complete field audit.	TRUS expects that the majority of the field count should be complete before the next audit	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Field audit to be completed, new reporting put in place	TRUS expects that the majority of the field count should be complete before the next audit	

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 and this correctly recorded on the registry. The on and off times are derived from data logger information. Trustpower receive intermittent database reports, therefore submission cannot be calculated from an up to date database extract. This is recorded as non-compliance.

I recalculated the submissions for March 2018 for all ICPs using the data logger and the database information. I confirmed that the calculation method was correct but due to the out of date database being used I have calculated under submission of 7,535.22 kWh for the month of March. Annualised this equates to an estimated under submission of 90,422.65 kWh.

As detailed in **section 2.4**, the ballast capacities are not recorded in RAMM but are added in the monthly report. This is recorded as non-compliance.

There is some inaccurate data within the database used to calculate submissions. This is recorded as non-compliance and discussed in **sections 2.1, 2.5** and **3.1**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c) From: entire audit period	Database extract used for submission is not up to date resulting in an estimated under submission of 90,422.65 kWh per annum. The database used to prepare submissions contains some inaccurate information. The database accuracy is assessed to be 95.5% indicating an estimated over submission of 13,000 kWh per annum. The database is not complete as ballasts are not recorded in the RAMM database. 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 they are unlikely to mitigate risk and remove errors. The impact is assessed to be high, based on the kWh differences.

Actions taken to resolve the issue	Completion date	Remedial action status
TRUS will work with the customer to update database anomalies and ballast as part of the complete field audit.	TRUS expects that the majority of the field count should be complete before the next audit	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Field audit to be completed, new reporting put in place	TRUS expects that the majority of the field count should be complete before the next audit	

CONCLUSION

The RAMM database used for submission is managed by Broadspectrum for the ICPs on NSP TMU0111 (Waipa South) and Fulton Hogan for the ICPs on CBG0111 (Waipa North). New connection, fault and maintenance work is completed by McKay Electrical for the Waipa North area. Monthly reports are received intermittently by Trustpower. Examination of the database extract against that used by Trustpower for submission found an estimated under submission of 90,422.65 kWh per annum.

The field audit found inaccuracies in the database that if used would result in an estimated over submission of 13,000 kWh per annum.

I recommend that a full field audit is undertaken and the database information corrected.

The tracking of load change was unable to be confirmed for Waipa South. The process for the Waipa North area found that changes are not uploaded to the NZTA RAMM database until the 20th of the month following the change. This does not meet the requirements of the code.

The future risk rating of 40 indicates that the next audit be completed in three months and I agree with this recommendation. Seven non-compliances were identified, and one recommendation was raised.

PARTICIPANT RESPONSE

Trustpower agrees with the recommendation of a full field audit. Trustpower has tried to get buy in from the customer and explained the importance of maintaining an accurate database and providing updated reporting each month. We anticipate that the risk/cost of having multiple audits will be further encouragement for them to update their processes and database to a higher compliance level going forward.

Trustpower will meet with the customer to explain the compliance obligations and request a complete field audit to ensure the database is accurate, and to update the maintenance processes so that information can be provided to Trustpower in a timely manner.

Trustpower notes that other retailers ICPs are included in the RAMM database and are willing to work with them and the customer to ensure all ICPs have the correct allocation of lights.