ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

WAIPA DISTRICT COUNCIL AND GENESIS ENERGY

Prepared by: Rebecca Elliot

Date audit commenced: 25 March 2019

Date audit report completed: 17 May 2019

Audit report due date: 31-May-19

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EXECUTIVE SUMMARY

This audit of the Waipa District Council Unmetered Streetlights (**WDC**) DUML database and processes was conducted at the request of Genesis Energy Limited (**Genesis**), 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.

This database is switching traders effective 30 June 2019. I have not been advised of the new trader.

The database is remotely hosted by RAMM Software Ltd and is managed by Waipa DC. Waipa Network conducts the installation fieldwork and maintenance. They provide information on all work carried out back to Waipa DC and this is then loaded into RAMM. Waipa DC provides reporting to Genesis on a monthly basis.

The field audit found a high level of accuracy and overall the management processes in place to manage change in the database are robust. There is some inaccurate lamp wattage and ballast data within the database used to calculate submissions. The WDC intend to add a further check of the monthly database to ensure that lamp descriptions, wattage and ballast align. The discrepancies found in this audit have been provided to WDC to correct. This will be having a minor impact on the accuracy of submission.

The audit found five non-compliance issues and makes two recommendations. The future risk rating of 11 indicates that the next audit be completed in 12 months. I have considered this in conjunction with the Genesis' responses and agree with this recommendation.

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	134 items of load with an incorrect lamp description and wattage combination. 219 items of load with the incorrect ballast applied resulting in an estimated minor over submission of 820 kWh per annum. 38 items of load with missing lamp information.	Moderate	Low	2	Identified
ICP Identifier	2.2	11(2)(a) and (aa) of Schedule 15.3	Four items of load have with no ICP recorded.	Moderate	Low	2	Identified
Description and capacity of load	2.4	11(2)(d) of Schedule 15.3	35 items of with no ballast figure recorded. Three items of load have with no wattage recorded.	Weak	Low	3	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	134 items of load with an incorrect lamp description and wattage combination. 219 items of load with the incorrect ballast applied resulting in an estimated minor over submission of 820 kWh per annum. 38 items of load with missing lamp information.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Volume information accuracy	3.2	15.2 and 15.37B(c)	134 items of load with an incorrect lamp description and wattage combination. 219 items of load with the incorrect ballast applied resulting in an estimated minor over submission of 820 kWh per annum. 38 items of load with missing lamp information.	Moderate	Low	2	Identified
Future Risk Rating						11	

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	Recommendation
Tracking of load change	2.6	Review process to ensure lights are not included in monthly reporting to Genesis until they are energised.
Database accuracy	3.1	Review LED light descriptions to include make, model & milliamp figure.

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

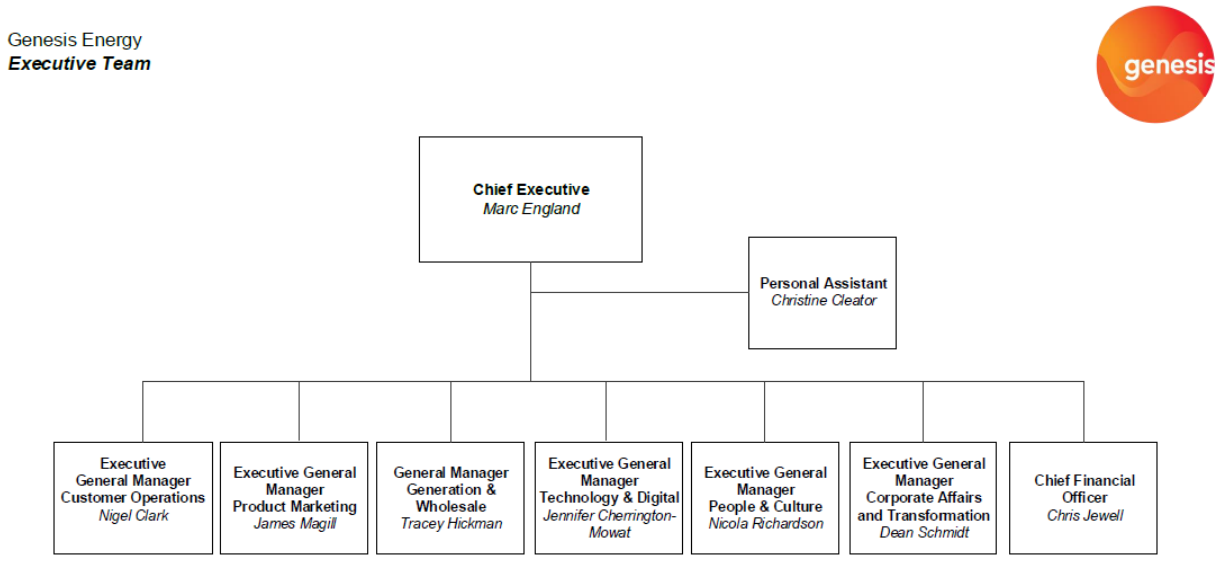
Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

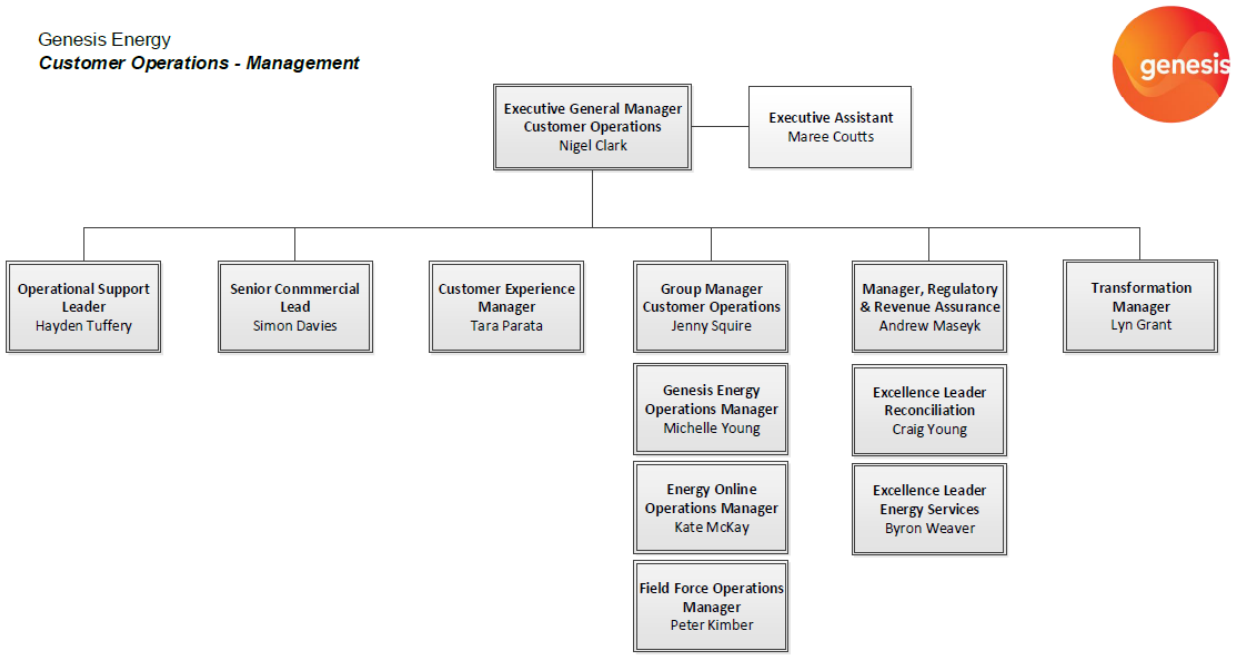
Audit commentary

Genesis confirms that there are no exemptions in place relevant to the scope of this audit.

1.2. Structure of Organisation

Genesis provided the relevant 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
Craig Young	Excellence Leader- Reconciliation	Genesis Energy
Emma Good	Asset Information Officer - Road Corridor	Waipa District Council
Grace Hawken	Technical Specialist - Reconciliation Team	Genesis Energy

1.4. Hardware and Software

Section 1.8 shows that 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.

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)
0000400319WA4CA	Waipa DC TMU0111 S/L	TMU0111	NST	2,154	80,058
0000806500WA13E	Waipa DC CBG0111 S/L.	CBG0111	NST	2,520	116,025
0000041292WEDF7	Waipa District Council - Tamahere	HAM0331	NST	53	2,987
0000041294WEC78	Oaklands Drive	OAK0111	NST	50	2,931
Total				4,777	202,001

I note there has been an increase of 443 lights recorded. WDC have a programme of infill lighting under way. This is discussed further in **section 2.6**.

1.7. Authorisation Received

All information was provided directly by Genesis or WDC.

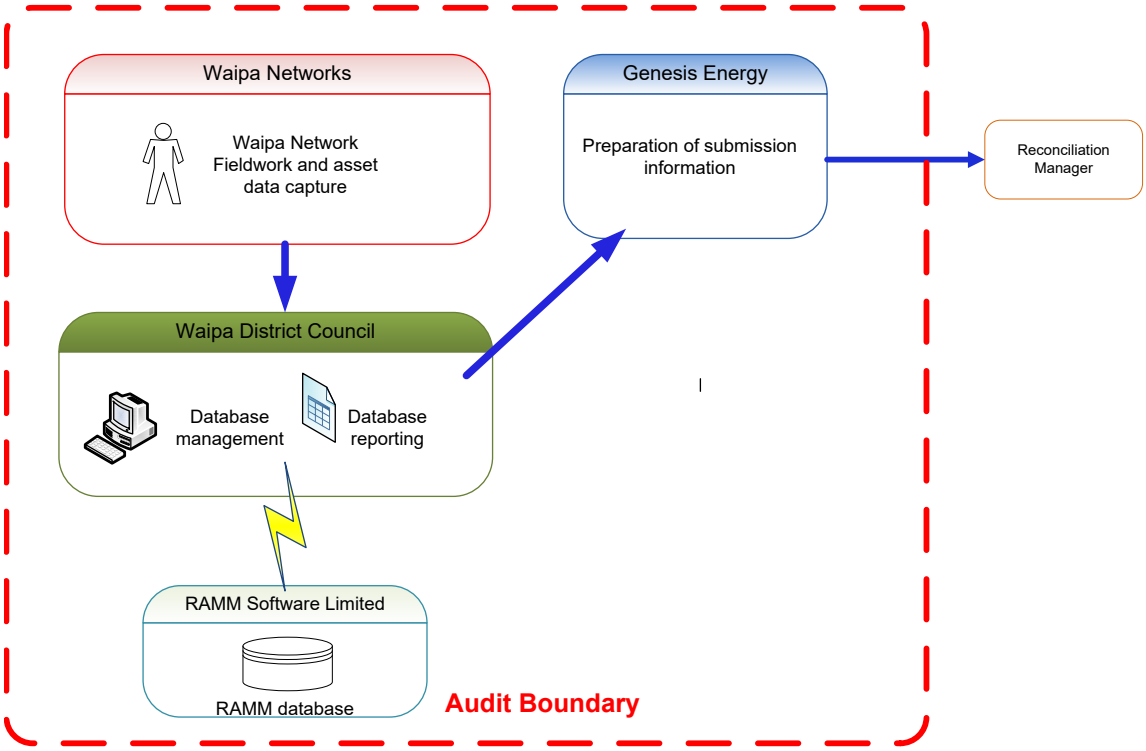
1.8. Scope of Audit

This audit of the Waipa District Council Unmetered Streetlights (**WDC**) DUML database and processes was conducted at the request of Genesis Energy Limited (**Genesis**), 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 database is remotely hosted by RAMM Software Ltd and is managed by Waipa DC. Waipa Network conducts the installation fieldwork and maintenance. They provide information on all work carried out back to Waipa DC and this is then loaded into RAMM. Waipa DC provides reporting to Genesis on a monthly basis.

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



The field audit was undertaken of a statistical sample of 358 items of load on 2nd April 2019.

1.9. Summary of previous audit

Genesis provided a copy of the last audit report undertaken by Rebecca Elliot of Veritek Limited in March 2018. The current status of that audit's findings is detailed below:

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Deriving submission information	2.1	11(1) of Schedule 15.3	Inaccurate data from the monthly report used to calculate submission resulting in an estimated annual over submission of 12,599.45 kWh. Analysis of the ballasts applied indicate a minor under submission of 1,960.39 kWh.	Cleared Still existing
All load recorded in database	2.5	11(2A) of Schedule 15.3	One additional item of load found in the field.	Cleared
Database accuracy	3.1	15.2 and 15.37B(b)	Analysis of the ballasts applied indicate a minor under submission of 1,960.39 kWh.	Still existing

Subject	Section	Clause	Non-compliance	Status
Volume information accuracy	3.2	15.2 and 15.37B(c)	Inaccurate data from the monthly report used to calculate submission resulting in an estimated annual over submission of 12,599.45 kWh. Analysis of the ballasts applied indicate a minor under submission of 1,960.39 kWh.	Cleared Still existing

Table of Recommendations

Subject	Section	Recommendation for Improvement	Status
Tracking of load change	2.6	Review process to ensure lights are not included in monthly reporting to Genesis until they are energised.	Still existing
Database accuracy	3.1	Review LED light descriptions to include make, model & milliamp figure.	Still existing

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

Genesis 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.

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 and the application of profiles was checked. The database was checked for accuracy.

Audit commentary

Genesis reconciles this DUML load using the NST profile.

The total volume submitted to the Reconciliation Manager is based on a monthly database report from RAMM and the "burn time" which is sourced from a data logger installed on the Waipa network for ICPs 0000400319WA4CA and 0000806500WA13E. The astronomical society sun up/down time is used for ICPs 0000041292WEDF7 and 0000041294WEC78. I checked the calculations for March 2019 and confirm compliance for all ICPs.

The previous audit found a minor variance between the database extract and the monthly wattage report. This was investigated and found to be due to the time of the database extract being provided and the monthly wattage report provision therefore compliance is recorded.

There is some inaccurate lamp wattage and ballast data within the database used to calculate submissions. This is recorded as non-compliance and discussed in **section 3.1.**

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 11(1) of schedule 15.3 From: 02-Apr-18 To: 31-Mar-19	134 items of load with an incorrect lamp description and wattage combination. 219 items of load with the incorrect ballast applied resulting in an estimated minor over submission of 820 kWh per annum. 38 items of load with missing lamp information. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as moderate, because they are sufficient to mitigate risk most of the time. The impact is assessed to be low, based on the kWh differences described above.

Actions taken to resolve the issue	Completion date	Remedial action status
Genesis has raised these with Waipa DC and requested the lamp & ballast exceptions to be corrected.	01/07/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Genesis will review and report exceptions back to Waipa Dc monthly where exceptions are identified.	01/06/2019	

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 against each item of load.

Audit commentary

The RAMM database contains the relevant ICP identifiers for all items of load but three items of load. These relate to streetlights in the Te Awamutu event centre. WDC have these recorded in the database as they maintain them but believe these are paid for by the event centre against their ICP. WDC are investigating this and will add the correct ICP once determined.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.2 With: Clause 11(2)(a) and (aa) of Schedule 15.3 From: 02-Apr-18 To: 31-Mar-19	Three items of load have with no ICP recorded. 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, because they are sufficient to ensure that changes to the database are correctly recorded most of the time. The impact is assessed to be low as only three items of load are affected.

Actions taken to resolve the issue	Completion date	Remedial action status
Genesis will follow up on Waipa DC's investigation to these lamps and associated ICP.	01/07/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Genesis will review and report exceptions back to Waipa Dc monthly where exceptions are identified.	01/06/2019	

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, displacement from end of road and/or Global Positioning System (GPS) coordinates for each item of load. All were confirmed to be locatable.

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 two records for wattage, firstly the lamp wattage and secondly the gear wattage, which represents ballast losses. The lamp description is recorded in the database which meets the requirements of this clause. The database was examined and found:

- 35 items with no ballast figure recorded:
    - 22x double 28W fluorescent tubes. This is not a standard light type on the standardised wattage table but my research indicates that the ballast for these is likely to be zero so this is likely to have no impact on reconciliation;
    - 1x 19W fluorescent light; and
    - 12x incandescent lights (ballast is zero); and
- three items of load were found with no lamp wattage recorded. For reference these are not the same items of load with no ICP recorded in **section 2.2**.

This is recorded as non-compliance.

The accuracy of the description and wattages recorded is discussed in **section 3.1.**

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.4 With: Clause 11(2)(d) of Schedule 15.3 From: 02-Apr-18 To: 31-Mar-19	35 items of with no ballast figure recorded. Three items of load have with no wattage recorded. 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 these details were not being checked before the monthly wattage report was being sent. A new process is being put in place to ensure these details are checked on a monthly basis. The impact is assessed to be low as the missing wattage associated with these is very minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Genesis has raised these with Waipa DC and requested the lamp & ballast exceptions to be corrected.	01/07/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Genesis will review an report exceptions back to Waipa Dc on a monthly basis where exceptions are identified.	01/06/2019	

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 358 items of load on 2 April 2019.

Audit commentary

The field audit findings were correct with the exception of the three lights detailed in the table below:

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
LAURENT RD (SOUTH)	3	3		1	1x incorrect wattage recorded as 19W LED in the database but 70W HPS found in the field
SAFFRON ST	9	9		1	1x incorrect wattage recorded as 19W LED in the database but 70W HPS found in the field
SHARPE RD	9	8	-1		1x 35W MH not found in the field
Grand Total	**358**	**357**	**1**	**2**	

No additional lamps were found in the field. The accuracy of the database is good and is detailed in **section 3.1**.

No private lights are recorded in the database.

NZTA lights are not included in the load recorded by WDC. These are managed by NZTA directly.

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 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 processes were reviewed for ensuring that changes in the field are recorded accurately in the database. 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. Waipa Networks has responsibility for all maintenance. Patrols are carried out on a rolling basis with the network being checked each month.

Waipa Network provide Waipa DC with the information via the NZTA smartphone mobile road application for both upgrades and new streetlight connections. Waipa DC then load this into RAMM. Waipa DC undertake audits on the work claimed to confirm the accuracy of updates.

Waipa Network are undertaking a programme of infill lighting. The high degree of accuracy found in the field audit indicates that the change process is robust.

As reported in the last audit, for new subdivisions, "as builts" are provided and the details from these are loaded into RAMM. A full field audit confirming the RAMM database content accuracy is undertaken by Waipa DC prior to electrical connection. This can result in new subdivision lighting being added to RAMM and therefore billed as connected before they are burning. I repeat the recommendation that this process is reviewed to ensure only connected streetlights are included in the monthly report. There were no examples found of this occurring during the audit.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 11(3) of Schedule 15.3	Review process to ensure lights are not included in monthly reporting to Genesis until they are energised.	Genesis has requested this previously to be reviewed by the council. Genesis will again re-iterate the review of this process to mitigate risk.	Investigating

No festive lighting is connected to the streetlight circuit in the Waipa DC district.

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 RAMM database has 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	Te Awamutu and surrounds
Strata	The database contains items of load in Waipa District Council area. The processes for the management of WDC items of load are the same, but I decided to place the items of load into five strata, as follows: 1. Under Verandah 2. Waipa A-G 3. Waipa H-O 4. Waipa P-Z 5. WEL Network.
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 45 sub-units.
Total items of load	358 items of load were checked.

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

Audit commentary

A statistical sample of 358 items of load found that the field data was 100.7% of the database data for the sample checked. This is within the required database accuracy of 5%+/- threshold. The statistical sampling tool reported with 95% confidence the precision of the sample was 3.6% and the true load in the field will be between 99.9% to 103.5% of the load recorded in the database. The sample is sufficiently precise to confirm the database as accurate.

The tool indicated that there is potentially 5,900 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUML database auditing tool) of under submission. The statistical sampling tool reported with 95% confidence that there is a potential estimated submission variance range of between 1,300 kWh of over submission and 30,200 kWh of under submission.

The check of wattages found a number of discrepancies as detailed below:

- 134 items of load were identified with an invalid light description and wattage combination. These are detailed in the table below:

Light Type	Wattage	Total Wattage applied	Volume
LED	70	70	1
LED	100	100	3
LED	200	200	1
LED	2x28	28	1
Metal Halide	200	220	2
Metal Halide	27	27	1
Metal Halide	60	74	90
Metal Halide Decorative	90	110	23
Mercury Vapour	37	37	1
High Pressure Sodium	19	33	1
High Pressure Sodium	27	41	1
Low Pressure Sodium	70	84	1
TOTAL	-	-	134

As I cannot determine what the correct wattage is, I cannot estimate the impact on submission for the incorrect lamp wattage combinations.

- There are 219 items of load with the incorrect ballast applied.

Light Type	Wattage	Total Wattage applied	Correct Wattage	Number of lights
Metal Halide	70	84	83	9
Metal Halide	100	120	114	1
High Pressure Sodium	50	54	61	4
High Pressure Sodium	70	84	83	14
High Pressure Sodium- decorative	70	84	83	191
TOTAL	-	-	-	

This is resulting in an estimated a very minor over submission of 820 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUML database auditing tool).

As detailed in **section 2.4**:

- 35 items with no ballast figure recorded:

    - 22x double 28W fluorescent tubes;
    - 1x 19W fluorescent light; and
    - 12x incandescent lights (ballast is zero); and
- three items of load were found with no lamp wattage recorded.

The incorrect light combinations, lamp ballasts and missing lamp wattages and ballasts are recorded as non-compliance below.

All of the items above have been provided to WDC to review and correct.

I noted in the last audit that while there were no apparent LED lamp wattage errors, I recommended that the LED light descriptions be updated to include the make, model, milliamp figure so that the wattage can be confirmed. This has not been progressed during the audit period therefore I repeat the recommendation below.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 11(3) of Schedule 15.3	Review LED light descriptions to include make, model & milliamp figure.	Genesis has raised the exceptions with lamp combinations to be remedied by the council. Genesis will review monthly reporting and provide an exception list back to the council where an exception has been identified.	Identified

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 02-Apr-18 To: 31-Mar-19	134 items of load with an incorrect lamp description and wattage combination. 219 items of load with the incorrect ballast applied resulting in an estimated minor over submission of 820 kWh per annum. 38 items of load with missing lamp information. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Overall the controls are rated as moderate, but as noted in **section 2.4**, WDC have not been checking the accuracy of the light details and intend to add this to the monthly database checks undertaken. The impact is assessed to be low, based on the kWh differences described above.

Actions taken to resolve the issue	Completion date	Remedial action status
Genesis has raised these with Waipa DC and requested the lamp & ballast combination exceptions to be corrected.	01/07/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Genesis will review and report exceptions back to Waipa Dc monthly where exceptions are identified.	01/06/2019	

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 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

Genesis reconciles this DUML load using the NST profile. The total volume submitted to the Reconciliation Manager is based on a monthly database report from RAMM and the "burn time" which is sourced from a data logger installed on the Waipa network for ICPs 0000400319WA4CA and 0000806500WA13E. The astronomical society sun up/down time is used for ICPs 0000041292WEDF7 and 0000041294WEC78. I checked the calculations for March 2019 and confirm compliance for all ICPs.

The previous audit found a minor variance between the database extract and the monthly wattage report. This was investigated and found to be due to the time of the database extract being provided and the monthly wattage report provision therefore compliance is recorded.

There is some inaccurate lamp wattage and ballast data within the database used to calculate submissions. This is recorded as non-compliance and discussed in **section 3.1.**

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c) From: 02-Apr-18 To: 31-Mar-19	134 items of load with an incorrect lamp description and wattage combination. 219 items of load with the incorrect ballast applied resulting in an estimated minor over submission of 820 kWh per annum. 38 items of load with missing lamp information. Analysis of the ballasts applied indicate a minor under submission of 1,960.39 kWh. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Medium	The controls are rated as moderate, because they are sufficient to mitigate risk most of the time. The impact is assessed to be low, based on the kWh differences described above.

Actions taken to resolve the issue	Completion date	Remedial action status
As per 3.1 - Genesis has raised these with Waipa DC and requested the lamp & ballast combination exceptions to be corrected.	01/07/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Genesis will review and report exceptions back to Waipa Dc monthly where exceptions are identified.	01/06/2019	

CONCLUSION

This database is switching traders effective 30 June 2019. I have not been advised of the new trader.

The database is remotely hosted by RAMM Software Ltd and is managed by Waipa DC. Waipa Network conducts the installation fieldwork and maintenance. They provide information on all work carried out back to Waipa DC and this is then loaded into RAMM. Waipa DC provides reporting to Genesis on a monthly basis.

The field audit found a high level of accuracy and overall the management processes in place to manage change in the database are robust. There is some inaccurate lamp wattage and ballast data within the database used to calculate submissions. The WDC intend to add a further check of the monthly database to ensure that lamp descriptions, wattage and ballast align. The discrepancies found in this audit have been provided to WDC to correct. This will be having a minor impact on the accuracy of submission.

The audit found five non-compliance issues and makes two recommendations. The future risk rating of 11 indicates that the next audit be completed in 12 months. I have considered this in conjunction with the Genesis' responses and agree with this recommendation.

PARTICIPANT RESPONSE

Genesis will continue to drive the accuracy of compliance up until the council switches energy providers 01/07/2019.