

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

For

**WHAKATANE DISTRICT COUNCIL
AND GENESIS ENERGY**

Prepared by: Rebecca Elliot

Date audit commenced: 15 March 2018

Date audit report completed: 25 May 2018

Audit report due date: 1 June 2018

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EXECUTIVE SUMMARY

This audit of the Whakatane District Council (**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, which became effective on 1 June 2017.

Genesis were receiving a monthly wattage report but have not received any since August 2017. The kW figures from that wattage report were populated on the registry by Genesis, and it is the registry figure that is being used for submission calculations. I have assessed the RAMM database data against the registry figures. A field audit against the RAMM database extract was undertaken to assess the accuracy of this. This found a total estimated over submission of 118,896.74 kWh per annum.

WDC have commenced an LED rollout to replace all of the existing streetlights. This involves not only the lights but pole replacement.

This audit found seven non-compliances and one recommendation is made. The future risk rating of 52 indicates that the next audit be completed in three months. I recommend the next audit be in six months to allow time for the LED rollout to be completed and updated in the database. 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 not used for submission. The registry UML figures are used to calculate submission. The variances found will be resulting in an estimated over submission of 118,896.74 kWh per annum.	Weak	High	9	Identified
ICP Identifier	2.2	11(2)(c) and (d) of Schedule 15.3	86 items of load with no ICP recorded.	Weak	Low	5	Identified
Description and capacity of load	2.4	11(2)(c) and (d) of Schedule 15.3	57 items of load with an invalid or incomplete lamp description.	Moderate	Low	2	Identified
All load recorded in database	2.5	11(2A) and (d) of Schedule 15.3	46 additional items of load found in the field found in field sample.	Weak	High	9	Identified
Tracking of load change	2.6	11(3) of Schedule 15.3	Monthly reports not provided to Genesis for submission. Load changes not tracked in the database.	Weak	High	9	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	Database not used for submission. The registry UML figures are used to calculate submission. The variances found will be resulting in an estimated over submission of 118,896.74 kWh per annum.	Weak	High	9	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)	Database not used for submission. The registry UML figures are used to calculate submission. The variances found will be resulting in an estimated over submission of 118,896.74 kWh per annum.	Weak	High	9	
Future Risk Rating						52	

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	Recommendation
Database Accuracy	3.1	Undertake a full field audit and correct data in RAMM.	

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

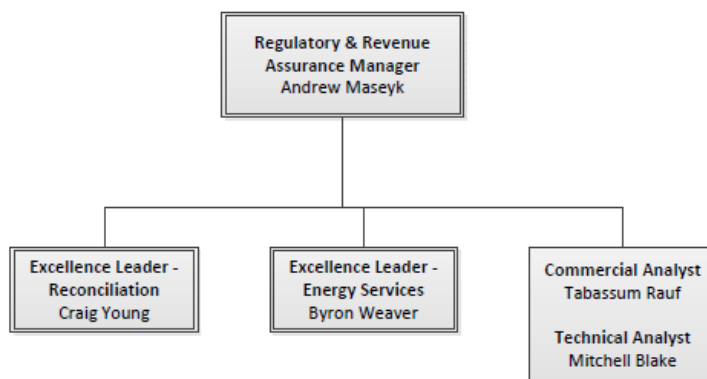
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

Audit commentary

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

1.2. Structure of Organisation

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
Grace Hawken	Technical Specialist - Reconciliations Team	Genesis Energy
Aidan Glynn	Team Leader – Network Operations	Whakatane DC

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 is backed-up 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)
1000023042BPD32	Amenity Lights WDC	EDG0331	UNM	134	14,737
1000023060BP0E2	Ruatahuna Streetlights	EDG0331	UNM	2,002	136,746
1000023061BPCA7	Murupara Amenity Lights	EDG0331	UNM	183	13,244
1000023047BP07D	Transit NZ Streetlights	EDG0331	UNM	9	639

1.7. Authorisation Received

All information was provided directly by Genesis and WDC.

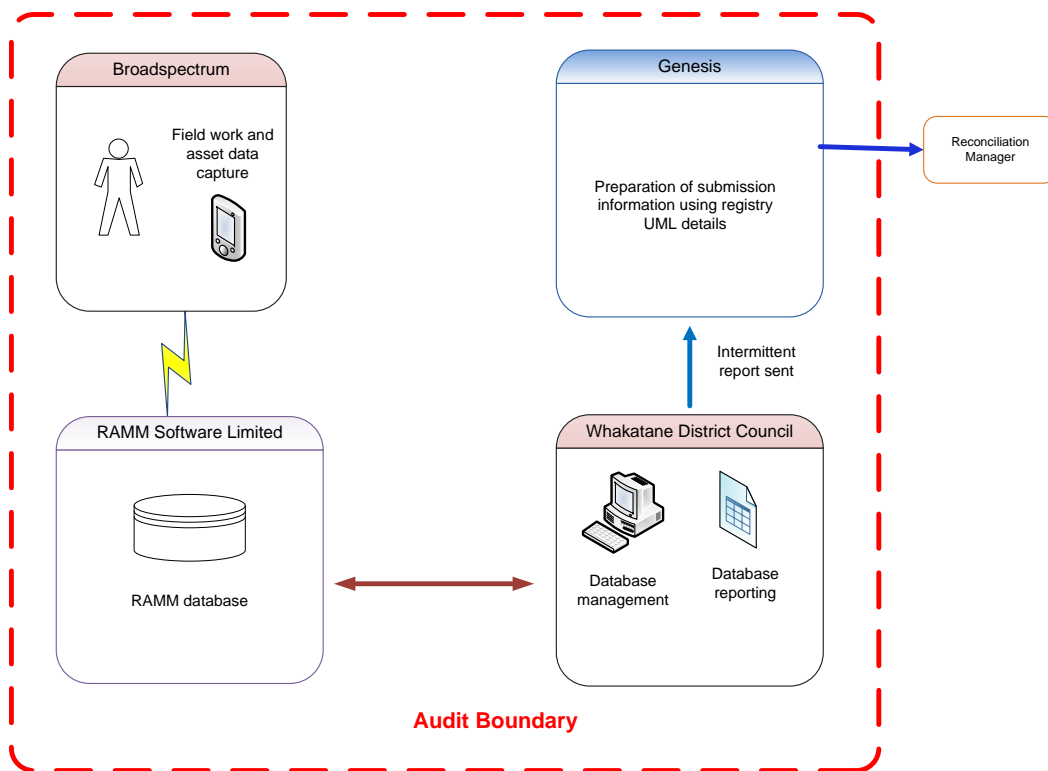
1.8. Scope of Audit

This audit of the Whakatane District Council (**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, which became effective on 1 June 2017.

A field audit against the RAMM database extract was undertaken to assess the accuracy of this against the registry figures used for submission. Broadspectrum is engaged by WDC and conducts the fieldwork and asset data capture.

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 field audit was undertaken of a statistical sample of 259 items of load on 3rd May 2018.

1.9. Summary of previous audit

This is the first audit undertaken of this DUML load by Genesis Energy.

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. 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

Genesis reconciles this DUML load using the UML profile. Genesis receive monthly wattage reports intermittently with the last received in August 2017. The kW figures from that wattage report were populated on the registry by Genesis, and it is the registry figure that is being used for submission calculations. I compared the submission volumes with the load recorded in the database extract against the volumes submitted by Genesis and found:

ICP Number	Description	April submission	RAMM estimated April submission	Estimated April difference
1000023042BPD32	Amenity Lights WDC	5,910.00	5,772.69	- 137.31
1000023060BP0E2	Ruatahuna Streetlights	63,945.00	53,328.30	- 10,616.70
1000023061BPCA7	Murupara Amenity Lights	5,631.90	5,349.65	- 282.26
1000023047BP07D	Transit NZ Streetlights	261.00	267.39	6.39

There is an estimated annual over submission for these ICPs of 134,196.74 kWh. This is calculated on the difference in the daily kWh figures. The field audit against the database quantities found an estimated under submission of 15,300 kWh. Therefore, the estimated annual over submission is 118,896.74 kWh. The variance if this load was calculated using a data logger is not able to be calculated.

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 registry UML figures are used to calculate submission. The variances found will be resulting in an estimated over submission of 118,896.74 kWh per annum. 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 the submission is calculated not calculated from a monthly wattage report. The impact is assessed to be high due to the kWh volumes.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has spoken with Whakatane DC. Aiden has iterated that the LED deployment and implementation of CMS system will be completed late Oct 2018.		12/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis, will be communicating the issues with the contracted party with the intent of gaining access/monthly database reporting to help reduce data errors. Whakatane will be arranging access foe Genesis to download data as required. Until this is live Aiden will supply monthly Ramm extracts.		12/2018	

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

There are 86 items of load without an ICP recorded and the light owner is recorded as “WDC-streetlight”.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: Clause 11(2)(a) of Schedule 15.3 From: unknown To: 30-Apr-18	86 items of load with no ICP recorded. Potential impact: Low Actual impact: Unknown Audit history: None Controls: Weak Breach risk rating: 5		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as weak as the ICP is not recorded against each item of load. The impact is assessed to be low due to the small volume of lights without an ICP.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has spoken with Whakatane DC. Aiden has iterated that the LED deployment and implementation of CMS system will be completed late Oct 2018. Whakatane DC has iterated the due to “POLE & LAMP” replacements these will sit in the system with no ICP until livened. Once livened the ICP will be allocated.		12/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis, will be communicating the issues with the contracted party with the intent of gaining access/monthly database reporting to help reduce data errors. Whakatane will be arranging access for Genesis to download data as required. Until this is live Aiden will supply monthly Ramm extracts.		12/2018	

2.3. Location of each item of load (Clause 11(2)(b) of Schedule 15.3)

Code reference

Clause 11(2)(b) of Schedule 15.3

Code related audit information

The DUMML database must contain the location of each DUMML item.

Audit observation

The database was checked to confirm the location is recorded for all items of load.

Audit commentary

The database contains 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 DUMML database must contain:

- *a description of load type for each item of load and any assumptions regarding the capacity*
- *the capacity of each item in watts.*

Audit observation

The database was checked to confirm that it contained a field for lamp type and wattage capacity and included any ballast or gear wattage.

Audit commentary

Lamp make, model and lamp wattage are included in the database. Examination of the database found 57 items of load that had an incomplete light type or invalid light type recorded:

Lamp Descriptions	Quantity
80 UNknown	3
80W	50
Airport 100W	2
MH 350	2
TOTAL	57

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	57 items of load with an invalid or incomplete lamp description. Potential impact: Low Actual impact: Unknown 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 98% of the load has all the required details. The impact is assessed to be low all had a wattage recorded and it is only the description that is incomplete.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has spoken with Whakatane DC. Aiden has iterated that the LED deployment and implementation of CMS system will be completed late Oct 2018.		12/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis, will be communicating the issues with the contracted party with the intent of gaining access/monthly database reporting to help reduce data errors. Whakatane will be arranging access for Genesis to download data as required. Until this is live Aiden will supply monthly Ramm extracts.		12/2018	

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 259 items of load on 3rd May 2018.

Audit commentary

The field audit findings are detailed in the table below.

I found 46 more lamps in the field than were recorded in the database, and 14 lamp wattage differences.

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
New					
MANUERA PLACE	3	3			
MOTUTERE PLACE	2	2			
OMEGA PLACE	5	5			
PACIFIC PARADE	14	14			
SANCTUARY AVENUE	5	5		1	1x LED found in the field HPS recorded in the database
WATERWAYS DRIVE	17	17			
WATERWAYS DRIVE/SANCTUARY AVENUE RAB	2	15	13		13x extra LED found in the field
WDC - Amenity					
HILLCREST ROAD	1	1			
KAKAHOROA DRIVE	4	4			
MIRO DRIVE	1	1		1	1x LED found in the field MV recorded in the database
OHOPE ROAD	1	1			
THORNTON BEACH ROAD	1	1			
TUHOE AVENUE	5	6	1		1x extra LED found in the field
WDC - Parking					
BLUETT ROAD	3	6	3		3x extra LED found in the field
BRABANT STREET CARPARK	2	2			
KAKAHOROA DRIVE CARPARK #2	2	7	5	2	5x extra LED found in the field 2x LED found in the field recorded as HPS in the database
KAKAHOROA DRIVE SERVICE LANE #3	2	2			
LOVELOCK STREET	1	7	6		2x LED & 4x HPS extra lights found in the field

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
MURIWAI DRIVE CARPARK #1	2	2			
PYNE STREET SERVICE LANE #2	1	1			
WDC - Streetlight DUML					
CRETE STREET	5	5			
DOMAIN ROAD	28	28			
FRED JUDD CRESCENT	3	3		3	3x LED found in the field recorded as either HPS or MV in the database
JAMES STREET	42	42			
KAKAHOROA DRIVE/BRACKEN STREET RAB	3	3			
MCALISTER STREET/PEACE STREET RAB	1	1			
MCGARVEY ROAD	20	20			
MORRISON ROAD	14	14	+1-3		1x extra 70W HPS and 1x less 150W HPS & 2x less 80W MV found in the field
NGAIO PLACE (MURUPARA)	5	5		1	1x LED recorded as HPS in the database
OHIWA PARADE	8	8			
OREGON DRIVE	22	38	16		1x 70W HPS & 15 LED extra lights found in the field
PATUWAI ROAD	1	1			
PORT OHOPE WHARF CARPARKS	1	1			
RATA STREET	6	6		6	6x LED recorded as HPS in the database
RIMU ROAD	6	6			
RUATAHUNA SP ROAD	11	11			
SPENCE LANE	2	2	1		1x 29W LED recorded as 80W MV in the database
WASHER AVENUE	3	3			

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
WATARAWI PLACE	3	3			
WHIRINAKI ROAD	1	1			
TOTAL	259	303	46	14	

I found 46 additional lamps in the field than were recorded in the database. This is recorded as non-compliance. WDC have commenced an LED roll out and this is evident in the field audit findings. The database accuracy is discussed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clause 11(2A) and (d) of Schedule 15.3 From: 01-Apr-17 To: 30-Apr-18	46 additional items of load found in the field found in field sample. 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 due to the additional items of load found in the field audit. The impact is assessed to be high due to the total estimated kWh difference detailed in section 3.2 .		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has spoken with Whakatane DC. Aiden has iterated that the LED deployment and implementation of CMS system will be completed late Oct 2018. Whakatane DC has iterated the due to "POLE & LAMP" replacements these will sit in the system with no ICP until livened. Once livened the ICP will be allocated.		12/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis, will be communicating the issues with the contracted party with the intent of gaining access/monthly database reporting to help reduce data errors. Whakatane will be arranging access for Genesis to download data as required. Until this is live Aiden will supply monthly Ramm extracts.		12/2018	

2.6. Tracking of load changes (Clause 11(3) of Schedule 15.3)

Code reference

Clause 11(3) of Schedule 15.3

Code related audit information

The DUMML database must track additions and removals in a manner that allows the total load (in kW) to be retrospectively derived for any given day.

Audit observation

The process for tracking of changes in the 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 monthly report is sufficient to achieve compliance. Genesis have not received a monthly wattage report since March 2017 and are using the registry figure calculated from this for reconciliation. This is recorded as non-compliance below.

Pocket RAMM is used by the contractors to track changes on a daily basis. WDC have commenced an LED rollout and pole replacement programme which was underway when the field audit was undertaken. This will account for the field audit discrepancies found but it appears that whilst the changes are tracked by the contractor on a daily basis these changes were not in the RAMM database extract provided for the field audit.

Outage patrols are carried on a rolling monthly basis.

The new connection process was discussed. There has not been very much new activity in the WDC area but there are new subdivisions coming. New streetlight circuits get connected by the network, but these do not get added to the RAMM database until the lights are vested to WDC. This can be some months later and therefore the intervening period is not being reconciled. This is recorded as non-compliance below.

Festive lighting is connected into the metered circuits and is therefore accounted for in the metered supply.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.6 With: Clause 11(3) of Schedule 15.3 From: 01-Apr-17 To: 30-Apr-18	Monthly reports not provided to Genesis for submission. Load changes not tracked in the 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 the field audit found the changes made in the field not updated in the database. The impact is assessed to be high due to the kWh volumes detailed in section 3.2		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has spoken with Whakatane DC. Aiden has iterated that the LED deployment and implementation of CMS system will be completed late Oct 2018.		12/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis, will be communicating the issues with the contracted party with the intent of gaining access/monthly database reporting to help reduce data errors. Whakatane will be arranging access for Genesis to download data as required. Until this is live Aiden will supply monthly Ramm extracts.		12/2018	

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

RAMM contains 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 RAMM database is not used to derive submission. The unmetered load recorded in the registry is used to calculate submission. This is recorded as non-compliance below. A RAMM database does exist for this load and I assessed the accuracy by using the DUML Statistical Sampling Guideline. The table below shows the survey plan.

Plan Item	Comments
Area of interest	Whakatane District Council area
Strata	The database contains the WDC items of load in for five ICPs in the Whakatane region area. The processes for the management of all WDC items of load are the same, but I decided to place the items of load into four strata: <ol style="list-style-type: none">1. New2. Amenity3. Parking4. Streetlights
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 40 sub-units.
Total items of load	259 items of load were checked.

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

Audit commentary

The database was found to contain some inaccuracies and missing data. The field data was 102.1% of the database data for the sample checked. The total wattage recorded in the database for the sample was 17,801 watts. The estimated total wattage found in the field for the sample checked was 19,014 watts, a difference of 1,283 watts. This will result in estimated under submission of 15,300 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUML database auditing tool) if the database was used for submission. As discussed in **sections 2.1** and **3.2**, the registry figures are used for submission and whilst the database indicates under submission the registry figures indicate over submission therefore total estimated over submission is 118,896.74 kWh per annum.

Wattages in the database were checked. This found a small volume of incorrect ballasts applied. The incorrect ballasts equate to an estimated minor annual over submission of 580.86 kWh if the current database was used for reconciliation. The correct ballasts need to be in the database and this is included in the recommendation above.

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 registry UML figures are used to calculate submission. The variances found will be resulting in an estimated over submission of 118,896.74 kWh per annum. Potential impact: High Actual impact: High Audit history: None Controls: Weak Breach risk rating: 6		
Audit risk rating	Rationale for audit risk rating		
High	The controls are rated as weak the submission is calculated not calculated from a monthly wattage report. The impact is assessed to be high due to the kWh volumes.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has spoken with Whakatane DC. Aiden has iterated that the LED deployment and implementation of CMS system will be completed late Oct 2018.		12/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis, will be communicating the issues with the contracted party with the intent of gaining access/monthly database reporting to help reduce data errors. Whakatane will be arranging access foe Genesis to download data as required. Until this is live Aiden will supply monthly Ramm extracts.		12/2018	

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

Genesis reconciles this DUML load using the UML profile. Genesis receive monthly wattage reports intermittently with the last received in August 2017. The kW figures from that wattage report were populated on the registry by Genesis and it is the registry figure that is being used for submission calculations. I compared the submission volumes with the load recorded in the database extract against the volumes submitted by Genesis and found:

ICP Number	Description	March submission	Estimated March submission	Estimated March difference
1000023034BP9E0	Streetlights Opotiki	12,542.60	6,955.61	- 5,586.99
1000023035BP5A5	TE KAHA	1,475.60	797.93	- 677.67
1000023037BP520	Kawerau Streetlights	4,795.70	9,363.42	4,567.72
1000023049BP3E6	TRANSIT NEW ZEALAND (Edgecumbe)	14,756.00	5,695.08	- 9,060.92

There is an estimated annual over submission for these ICPs of 134,196.74 kWh. This is calculated on the difference in the daily kWh figures. The field audit against the database quantities found an estimated under submission of 15,300 kWh. Therefore, the estimated annual over submission is 118,896.74 kWh. The variance if this load was calculated using a data logger is not able to be calculated.

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 registry UML figures are used to calculate submission. The variances found will be resulting in an estimated over submission of 118,896.74 kWh per annum. 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 the submission is calculated not calculated from a monthly wattage report. The impact is assessed to be high due to the kWh volumes.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has spoken with Whakatane DC. Aiden has iterated that the LED deployment and implementation of CMS system will be completed late Oct 2018. Whakatane DC has iterated the due to "POLE & LAMP" replacements these will sit in the system with no ICP until livened. Once livened the ICP will be allocated.		12/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis, will be communicating the issues with the contracted party with the intent of gaining access/monthly database reporting to help reduce data errors. Whakatane will be arranging access foe Genesis to download data as required. Until this is live Aiden will supply monthly Ramm extracts.		12/2018	

CONCLUSION

Genesis were receiving a monthly wattage report but have not received any since August 2017. The kW figures from that wattage report were populated on the registry by Genesis, and it is the registry figure that is being used for submission calculations. I have assessed the RAMM database data against the registry figures. A field audit against the RAMM database extract was undertaken to assess the accuracy of this. This found a total estimated over submission of 118,896.74 kWh per annum.

WDC have commenced an LED rollout to replace all of the existing streetlights. This involves not only the lights but pole replacement.

This audit found seven non-compliances and one recommendation is made. The future risk rating of 52 indicates that the next audit be completed in three months. I recommend the next audit be in six months to allow time for the LED rollout to be completed and updated in the database.

PARTICIPANT RESPONSE

Genesis intend to continue to work with Whakatane DC to establish monthly reporting of the RAMM database, with the intent upon the LED & CMS system upgrades (Oct 2018 completion) allow Genesis to remotely access their database.