

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

For

**CENTRAL HAWKE'S BAY DISTRICT COUNCIL
AND GENESIS ENERGY**

Prepared by: Tara Gannon

Date audit commenced: 23 February 2018

Date audit report completed: 29 March 2018

Audit report due date: 1 June 2018

TABLE OF CONTENTS

Executive summary	3
Audit summary	4
Non-compliances	4
Recommendations	5
Issues	5
1. Administrative	6
1.1. Exemptions from Obligations to Comply with Code	6
1.2. Structure of Organisation	6
1.3. Persons involved in this audit.....	6
1.4. Hardware and Software	6
1.5. Breaches or Breach Allegations.....	7
1.6. ICP Data	7
1.7. Authorisation Received	7
1.8. Scope of Audit	7
1.9. Summary of previous audit	8
1.10. Distributed unmetered load audits (Clause 16A.26 and 17.295F).....	9
2. DUML database requirements.....	10
2.1. Deriving submission information (Clause 11(1) of Schedule 15.3)	10
2.2. ICP identifier and items of load (Clause 11(2)(a) and (aa) of Schedule 15.3)	11
2.3. Location of each item of load (Clause 11(2)(b) of Schedule 15.3)	12
2.4. Description and capacity of load (Clause 11(2)(c) and (d) of Schedule 15.3)	13
2.5. All load recorded in database (Clause 11(2A) of Schedule 15.3)	15
2.6. Tracking of load changes (Clause 11(3) of Schedule 15.3)	17
2.7. Audit trail (Clause 11(4) of Schedule 15.3).....	17
3. Accuracy of DUML database	19
3.1. Database accuracy (Clause 15.2 and 15.37B(b))	19
3.2. Volume information accuracy (Clause 15.2 and 15.37B(c))	22
Conclusion	24
Participant response	25

EXECUTIVE SUMMARY

This audit of the Central Hawke's Bay District Council's DUMML database and processes was conducted at the request of Genesis Energy (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 DUMML audits version 1.1, which became effective on 1 June 2017.

A RAMM database is held by Central Hawke's Bay District Council (CHBDC). Pope Electrical complete new connection and maintenance work, maintain the database information, and report to Genesis monthly.

The audit process included a field audit of 204 items of load and found 100% accuracy. Review of the entire database identified five lamp models with different gear wattages to the manufacturer's specifications listed, and two lamp models with no gear wattage recorded.

Centralines' 2018 distributor audit identified five ICPs with unmetered speed signs connected. Three of the speed signs were excluded from the database, and two were recorded against ICP 7012016000CH5A1. The speed signs are expected to have different load profiles to the streetlights connected and should be recorded against the correct ICP so that load can be calculated correctly.

Pope Electrical, who maintain the CHBDC were advised of these discrepancies during Centralines' audit and intend to update the database.

The audit found five non-compliances and makes two recommendations. The future risk rating of 11 indicates that the next audit be completed in 12 months. The matters raised are detailed below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Deriving submission information	2.1	11(1) of Schedule 15.3	The database used to prepare submissions contains some inaccurate information.	Moderate	Low	2	Identified
ICP identifier and items of load	2.2	11(2)(a) and (aa) of Schedule 15.3	Five ICPs associated with unmetered speed signs are excluded from the database. The load connected to two of these ICPs is recorded in the database against ICP 7012016000CH5A1.	Moderate	Low	2	Investigating
Description and capacity of load	2.4	11(2)(c) and (d) of Schedule 15.3	Two speed signs do not have model information recorded and have the lamp wattage recorded in the gear wattage field. Six lamps do not have a gear wattage populated.	Moderate	Low	2	Identified
Database accuracy	3.1	Clause 15.2 and 15.37B(b)	369 items of load have incorrect or missing lamp or gear wattages. Three speed sign ICPs are excluded from the database. Two speed signs are included with incorrect ICP numbers.	Weak	Low	3	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	The database used to prepare submissions contains some inaccurate information.	Moderate	Low	2	Identified

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Future Risk Rating						11	

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
Location of each item of load	2.3	Update the road names	Update the road name for lamps on Ennisclaire Place currently recorded against Mt Herbert Road.
Recording of LED wattages in the summarized and detailed data	2.4	Record wattages in correct fields for LED lamps and speed signs	<p>I recommend that the lamp and gear wattage fields are updated to reflect the correct values.</p> <ul style="list-style-type: none"> • LED lamps are recorded with the full wattage in the gear field in the summarised data. • Two speed signs (poles 955 and 305) are recorded with 0 lamp wattage, and the full wattage in the gear field in the detailed data.

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 the audit.

1.2. Structure of Organisation

Not applicable.

1.3. Persons involved in this audit

Auditor:

Tara Gannon

Veritek Limited

Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Brian Steed	Area Engineer	Central Hawke's Bay District Council
Ronan Galvin	Streetlight Manager	Pope Electrical
Shweta Arora	Reconciliation Systems Analyst	Genesis Energy

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".

CHBDC confirmed that the database back-up is in accordance with standard industry procedures. The database is password protected. Compliance is confirmed.

1.5. Breaches or Breach Allegations

There are no breach allegations relevant to the scope of this audit.

1.6. ICP Data

ICP Number	Description	NSP	Number of items of load	Database wattage (watts)
7012016000CH5A1	STREETLIGHTING - CENTRAL HAWKES BAY DC	WPW0331	886	90,798
7012036000CHC6C	UNDER VERANDAH COMMUNITY LIGHTING - RUATANIWHA STREET	WPW0331	126	7,740

Centralines' 2018 distributor audit identified five ICPs with unmetered speed signs connected. Three of the speed signs were excluded from the database, and two were recorded against ICP 7012016000CH5A1. The speed signs are expected to have different load profiles to the streetlights connected and should be recorded against the correct ICP so that load can be calculated correctly.

Pope Electrical, who maintain the CHBDC were advised of these discrepancies during Centralines' audit and intend to update the database. This is discussed further in **section 3.1**.

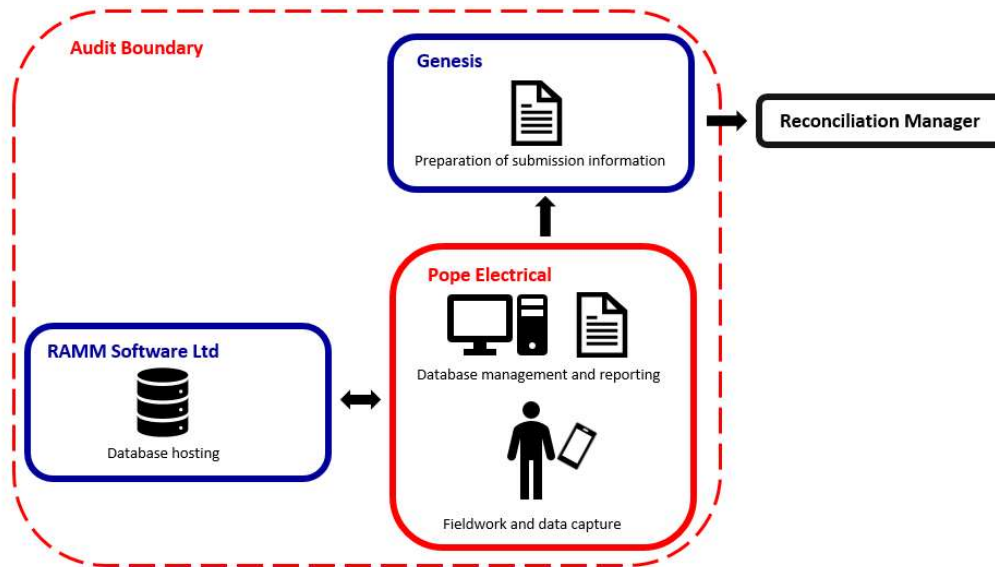
1.7. Authorisation Received

All information was provided directly by Genesis, CHBDC and Pope Electrical.

1.8. Scope of Audit

A RAMM database is held by CHBDC. Pope Electrical complete new connection and maintenance work, maintain the database information, and report to Genesis monthly.

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 204 items of load on 23 February 2018.

1.9. Summary of previous audit

Genesis provided a copy of the report of the previous audit conducted in February 2017 by Tara Gannon of Veritek Limited. Three non-compliances were found, and no recommendations were made. The status of the non-compliances is detailed below:

Subject	Section	Clause	Non-compliance	Status
ICP identifier	2.2.1	Clause 11(2)(a) of Schedule 15.3	No ICP is recorded for two lamps on River Terrace (pole IDs 1091 and 1092).	Cleared, all lamps have an ICP recorded. Refer to section 2.2.
Capacity of each item	2.2.4	Clause 11(2)(d) of Schedule 15.3	There are some wattage data inconsistencies, including four missing lamp wattages, incorrect gear wattages, and gear wattages inconsistent with the lamp make and model recorded. Some LED lights are recorded with 0 lamp wattage, and the full wattage in the gear field.	Improvements have been made, but some discrepancies still exist. Refer to section 2.4.

Subject	Section	Clause	Non-compliance	Status
Tracking of load changes	2.3	Clause 11(3) of schedule 15.3	<p>Some discrepancies identified between the lights in the field and the database:</p> <ul style="list-style-type: none"> • One upgraded light was recorded with an incorrect make, model and wattage • Five lights recorded in the database were not located in the field. 	Cleared. Refer to section 2.5.

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 3 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 load as NHH using the CST profile, based on the data provided by Pope Electrical from CHBDC's RAMM database. I checked the submission for December 2017 and confirmed the calculation method was correct.

While Genesis are using up to date database information, there is some inaccurate data within the database. This is recorded as non-compliance and discussed in **sections 2.4** and **3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3 From: unknown To: 16-Jan-18	The database used to prepare submissions contains some inaccurate 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	Controls are rated as moderate, because they are sufficient to ensure that data for most lamps is recorded correctly. The impact is assessed as low, because the difference has resulted in under reporting of approximately 10,040 kWh per annum. Once corrected, revised data will be submitted.		
Actions taken to resolve the issue		Completion date	Remedial action status
Currently working with database owner to have the issues outlined addressed.		10/2018	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Awaiting response from database owner in regards to the corrections required to gain accuracies with the database.	10/2018	

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 DUMML database must contain:

- each ICP identifier for which the retailer is responsible for the DUMML
- 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

All items of load have an ICP recorded against them.

Five ICPs with unmetered speed signs are excluded from the database. This is recorded as non-compliance below and is discussed further in **section 3.1**.

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: 16-Jan-18	Five ICPs associated with unmetered speed signs are excluded from the database. The load connected to two of these ICPs is recorded in the database against ICP 7012016000CH5A1. Potential impact: Low Actual impact: Unknown Audit history: None Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate, because they are sufficient to ensure that most ICP data is recorded correctly.</p> <p>Based on expected wattage of 200 per sign, and 24 hour operation, each sign is expected to use approximately 1752 kWh per annum. For the two signs included in the database, streetlight burn hours have been applied resulting in submissions of approximately 875 kWh per annum per sign. I estimate that the under submission for these signs is approximately 7010 kWh per annum.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has requested the relevant information pertaining to the speed signs. Genesis will have these removed from the DUMML database and reconcile as NHH UML to cater for the 24hr on times.		10/2018	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Awaiting the reply from the database owner in regards to Genesis enquiries about the inaccuracies within the database.		10/2018	

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

All items of load have street names recorded, and 886 (87.5%) also have GPS coordinates recorded.

The field audit found that lights on Ennisclaire Place were recorded against Mt Herbert Road. While the GPS information allowed the lights to be located, I recommend that the street addresses for the affected lights should be corrected.

Description	Recommendation	Audited party comment	Remedial action
Location of each item of load	Update the road name for lamps on Ennisclaire Place currently recorded against Mt Herbert Road.	Genesis have requested the street name updates be made in the database.	Identified

Audit outcome

Compliant

2.4. Description and capacity of load (Clause 11(2)(c) and (d) of Schedule 15.3)

Code reference

Clause 11(2)(c) and (d) of Schedule 15.3

Code related audit information

The 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

A description of the model, lamp wattage, and gear wattage are recorded for almost all items of load.

The two speed signs below are recorded with blank lamp wattage and no model information, and the full wattage in the gear field. Although the total wattage is correct, I recommend that the lamp and gear wattage fields are updated to reflect the correct values.

Road Name	Pole ID	Model	Gear Wattage	Lamp Wattage
PORANGAHAU ROAD	955	Blank	200	Blank
RUATANIWHA STREET (WAIPAWA)	305	Blank	200	Blank

Two lamp models have no gear wattage recorded:

Model	Quantity	Recorded watts	Expected watts	Difference
160W SB Mercury Vapour	3	Blank	0	-
24W Compact Fluoro E27	3	Blank	2	-6W
Total	6			-6W

Description	Recommendation	Audited party comment	Remedial action
Recording of LED wattages in the summarized and detailed data	<p>I recommend that the lamp and gear wattage fields are updated to reflect the correct values.</p> <ul style="list-style-type: none"> LED lamps are recorded with the full wattage in the gear field in the summarised data. Two speed signs (poles 955 and 305) are recorded with 0 lamp wattage, and the full wattage in the gear field in the detailed data. 	Genesis have requested the corrections be made to rectify these errors.	Identified

Lamps with lamp and gear wattages that are populated but incorrect, are discussed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 2.4 With: Clause 11(2)(c) and (d) of Schedule 15.3 From: unknown To: 13-Mar-18</p>	<p>Two speed signs do not have model information recorded and have the lamp wattage recorded in the gear wattage field. Six lamps do not have a gear wattage populated. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate, because most lamps have model and wattage information recorded. The impact is low, the total wattage difference is 6 watts, resulting in over reporting of approximately 26 kWh per annum.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis have requested the corrections be made to rectify these errors.		10/2018	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Genesis are working with the contracted party to ensure accuracies are maintained within the database.	10/2018	

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

A field audit of a sample of 204 items of load was undertaken.

Audit commentary

The field audit findings are detailed in the table below. No count differences were identified.

Address	Database Count	Field Count	Count differences	Wattage differences	Comments
Takapau					
Charlotte Street	12	12	-	-	
Meta Street	3	3	-	-	
Waipawa					
Abbotsford Road	21	21	-	-	
Bibby Lane	1	1	-	-	
Bibby Street	9	9	-	-	
Collins Street	2	2	-	-	
Domain Road	8	8	-	-	
Guy Street	5	5	-	-	
Harker Street	7	7	-	-	
Limbrick Place	2	2	-	-	
Shanly Street	3	3	-	-	

Address	Database Count	Field Count	Count differences	Wattage differences	Comments
Waipukurau					
Acklin Street	3	3	-	-	
Albert Street	3	3	-	-	
Bedford Terrace	5	5	-	-	
Church Lane	3	3	-	-	
Churchill Street	5	5	-	-	
Freyberg Terrace	6	6	-	-	
Gaisford Terrace	10	10	-	-	
Holt Place	6	6	-	-	
Holyrood Terrace	11	11	-	-	
James Street	6	6	-	-	
Kitchener Street	15	15	-	-	
Mc Carthy Terrace	5	5	-	-	
Mc Lean Terrace	9	9	-	-	
Mt. Herbert Road	12	12	-	-	Includes lights on Ennisclaire Place, which are not separately recorded in the database
Nelson Street	10	10	-	-	
Reservoir Road	9	9	-	-	
Savage Place	2	2	-	-	
Totara Street	4	4	-	-	
Wallace Road	7	7	-	-	
Total	204	204	-	-	

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 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 Genesis when changes occur is sufficient to achieve compliance.

The processes were reviewed for new lamp connections and the tracking of load changes due to faults and maintenance.

Fault, maintenance and upgrade work is completed by Pope Electrical staff, who update the RAMM database. Pope Electrical also provides billing information on any maintenance and upgrade work to CHBDC which is cross checked to RAMM to ensure the database is up to date. New lights are entered into RAMM once CHBDC has been made aware they have been connected.

Outage patrols are conducted monthly. These patrols help to identify any additional or removed items of load.

CHBDC does not use festive lighting.

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 contains an audit trail for all changes, in addition this clause requires that an audit trail exists for all processing functions. The provision of reports from the database considered secure, and an audit trail exists for the transmission of these reports.

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 audit findings were used to determine if the information contained in the database is complete and accurate.

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

Audit commentary

The field audit found the database to be highly accurate, no lamp count or type differences were identified. This is discussed further in **section 2.5**.

The listed lamp model and gear models for each lamp was compared to the Electricity Authority's published standardised wattage table, or the manufacturer's specifications if the lamp was not included on the wattage table. The database contains two records for wattage: the lamp wattage, and the gear wattage. The "total wattage" reported to Genesis is calculated as the total rated wattage plus the gear wattage.

In the summarised data provided to Genesis along with the detailed data, LED lamps are recorded with the full wattage in the gear wattage field as shown below. Although the total wattage is correct, I recommend that the lamp and gear wattage fields are updated to reflect the correct values in **section 2.4**.

ICP Number	Description	Gear wattage	Lamp wattage	Count	Total kW
7012016000CH5A1	Viasys Speed Sign	200	0	2	0.400
7012016000CH5A1	AEC LED SV 1M	16	0	1	0.016
7012016000CH5A1	AEC LED Soled LED 20W	20	0	5	0.100
7012016000CH5A1	AEC LED STW 4M	103	0	4	0.412
7012016000CH5A1	AEC LED STA 2M	27.5	0	1	0.028
7012016000CH5A1	GL520 33W LED	33	0	6	0.198

In the detailed lamp level data, the two speed signs below are recorded with blank lamp wattage, and the full wattage in the gear field.

Road Name	Pole ID	Model	Gear Wattage	Lamp Wattage
PORANGAHAU ROAD	955	Blank	200	Blank

Road Name	Pole ID	Model	Gear Wattage	Lamp Wattage
RUATANIWHA STREET (WAIPAWA)	305	Blank	200	Blank

Five lamp models had different gear wattages to the manufacturer's specifications listed, and two lamp models have no gear wattage recorded:

Model	Quantity	Recorded watts	Expected watts	Difference
100W HP Sodium	316	12	14	-632W
150W High Pressure Sodium	12	20	18	24W
150W HP Sodium	1	20	18	2W
2 x 36W Fluoro	2	10	12	-4W
250W HP Sodium	38	26	28	-76W
160W SB Mercury Vapour	3	Blank	0	-
24W Compact Fluoro E27	3	Blank	2	-6W
Total	369			-692W

I have calculated that the discrepancies in lamp and gear wattages result in under submission of 692W or approximately 3,030 kWh per annum.

Centralines' 2018 distributor audit identified five ICPs with unmetered speed signs connected. Three of the speed signs were excluded from the database, and two were recorded against ICP 7012016000CH5A1. The speed signs are expected to have different load profiles to the streetlights connected and should be recorded against the correct ICP so that load can be calculated correctly.

Based on expected wattage of 200 per sign, and 24 hour operation, each sign is expected to use approximately 1752 kWh per annum. For the two signs included in the database, streetlight burn hours have been applied resulting in submissions of approximately 875 kWh per annum per sign. I estimate that the total under submission for the five signs is approximately 7010 kWh per annum.

Pope Electrical, who maintain the CHBDC were advised of these discrepancies during Centralines' audit and intend to update the database. The affected ICPs are listed below.

ICP	ICP Creation date	Physical Address Street	Expected wattage	Comments
0000033686CHB8A	31/08/2017	Bibby Street	200	Excluded from existing database

ICP	ICP Creation date	Physical Address Street	Expected wattage	Comments
0000033688CH811	31/08/2017	Tavistock Road	200	Excluded from existing database
0000033690CH0A8	31/08/2017	Tamumu Road	200	Excluded from existing database
0000033687CH7CF	31/08/2017	Ruataniwha Street	200	Included in the existing database under ICP 7012016000CH5A1.
0000033689CH454	31/08/2017	Porangahau Road	200	Included in the existing database under ICP 7012016000CH5A1.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.1</p> <p>With: Clause 15.2 and 15.37B(b)</p> <p>From: unknown</p> <p>To: 16-Jan-18</p>	<p>369 items of load have incorrect or missing lamp or gear wattages.</p> <p>Three speed sign ICPs are excluded from the database. Two speed signs are included with incorrect ICP numbers.</p> <p>Potential impact: Low</p> <p>Actual impact: Unknown</p> <p>Audit history: Once previously</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as weak, as they are not sufficient to ensure that total wattage is accurately recorded most of the time.</p> <p>The impact is assessed as low, because the difference has resulted in under reporting of approximately 10,040 kWh per annum. Once corrected, revised data will be submitted.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis have requested the corrections be made to rectify these errors.		10/2018	Identified

Preventative actions taken to ensure no further issues will occur	Completion date
Genesis are working with the contracted party to ensure accuracies are maintained within the database.	10/2018

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 load as NHH using the CST profile, based on the data provided by Pope Electrical from CHBDC's RAMM database. I checked the submission for December 2017 and confirmed the calculation method was correct.

While Genesis are using up to date database information, there is some inaccurate data within the database. This is recorded as non-compliance and discussed in **sections 2.4 and 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c) From: unknown To: 16-Jan-18	The database used to prepare submissions contains some inaccurate 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	<p>Controls are rated as moderate, because they are sufficient to ensure that data for most lamps is recorded correctly.</p> <p>The impact is assessed as low, because the difference has resulted in under reporting of approximately 10,040 kWh per annum. Once corrected, revised data will be submitted.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis have requested the corrections be made to rectify these errors.		10/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis are working with the contracted party to ensure accuracies are maintained within the database.		10/2018	

CONCLUSION

A RAMM database is held by Central Hawke's Bay District Council (CHBDC). Pope Electrical complete new connection and maintenance work, maintain the database information, and report to Genesis monthly.

The audit process included a field audit of 204 items of load and found 100% accuracy. Review of the entire database identified five lamp models with different gear wattages to the manufacturer's specifications listed, and two lamp models with no gear wattage recorded.

Centralines' 2018 distributor audit identified five ICPs with unmetered speed signs connected. Three of the speed signs were excluded from the database, and two were recorded against ICP 7012016000CH5A1. The speed signs are expected to have different load profiles to the streetlights connected and should be recorded against the correct ICP so that load can be calculated correctly.

Pope Electrical, who maintain the CHBDC were advised of these discrepancies during Centralines' audit and intend to update the database.

The audit found five non-compliances and makes two recommendations. The future risk rating of 11 indicates that the next audit be completed in 12 months.

PARTICIPANT RESPONSE

Genesis have reviewed this report and their comments are contained within its body.