

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

For

**CENTRAL OTAGO DISTRICT COUNCIL  
AURORA DATABASE AND GENESIS ENERGY**

Prepared by: Rebecca Elliot

Date audit commenced: 23 March 2018

Date audit report completed: 7 December 2018

Audit report due date: 1 June 2018

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## EXECUTIVE SUMMARY

This audit of the Central Otago District Council (CODC) Aurora Network DUMML 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 DUMML audits version 1.1, which became effective on 1 June 2017.

The database is managed by Aurora and the data is held in their GIS system. Delta is the field contractor.

This audit was undertaken in March 2018 but was not finalised until December 2018, when an audit could be undertaken of the CODC OtagoNet data. In the intervening time Genesis have worked with CODC to get their RAMM database data to a point that it can be used for submission as Genesis intend to use this to calculate submission for all of the ICPs associated with CODC once the database accuracy is confirmed. This audit should be read in conjunction with the CODC RAMM database audit.

At the time of this audit, CODC were undertaking an LED rollout but the field audit found that many of these have not been updated in the Aurora managed database. This will have contributed to the volume of estimated over submission.

The future risk rating of 33 indicates that the next audit be completed in three months. If Genesis move to using the CODC RAMM data then this database will no longer be audited and therefore no further audits will be required. Six non-compliances were identified, and no recommendations were made. The matters raised are detailed below:

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
DUML Audit	1.10	17.295F of part 17	Audit not completed within 12 months of Part 16A coming into effect.	Strong	Low	1	Cleared
Deriving submission information	2.1	11(1) of Schedule 15.3	The database accuracy is assessed to be 61.5% indicating an estimated over submission of 342,300 kWh per annum.  Incorrect ballasts applied resulting in an estimated under submission of 2,934.18 kWh.	Weak	High	9	Identified
Description and capacity of load	2.4	11(2)(c) of Schedule 15.3	149 items of load with incomplete lamp descriptions.  24 items of load recorded with zero wattage.  14 items of load with an invalid light description.	Moderate	Low	2	Identified
All load recorded in the database	2.5	11(2A) of Schedule 15.3	Six additional items of load are missing from the database.	Weak	Low	3	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	The database accuracy is assessed to be 61.5% indicating an estimated over submission of 342,300 kWh per annum.  Incorrect ballasts applied resulting in an estimated under submission of 2,934.18 kWh.	Weak	High	9	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	The database accuracy is assessed to be 61.5% indicating an estimated over submission of 342,300 kWh per annum.  Incorrect ballasts applied resulting in an estimated under submission of 2,934.18 kWh.	Weak	High	9	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Future Risk Rating						33	

<b>Future risk rating</b>	0	1-4	5-8	9-15	16-18	19+
<b>Indicative audit frequency</b>	36 months	24 months	18 months	12 months	6 months	3 months

## RECOMMENDATIONS

Subject	Section	Description	Remedial Action
		Nil	

## 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

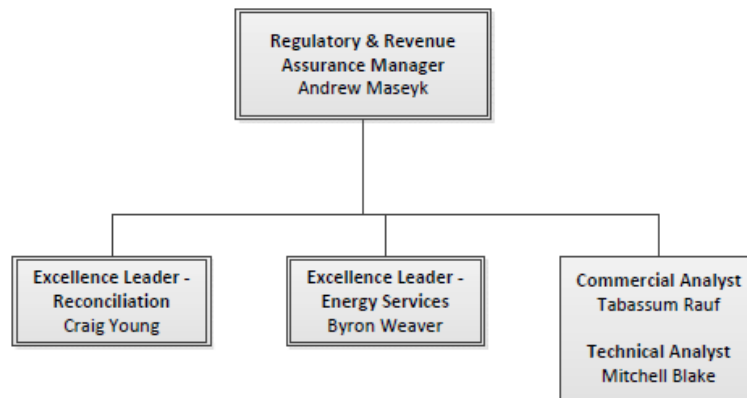
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

#### 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
Richard Starkey	Commercial Development Manager	Aurora
Neville Hopkins	Assets System Team	Aurora
Suzanne Fraser	Contracts Coordinator	Delta
Simeon Dwyer	Network Billing Analyst	Aurora

#### 1.4. Hardware and Software

The GIS database used for the management of DUML is managed by Aurora.

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

#### 1.5. Breaches or Breach Allegations

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

#### 1.6. ICP Data

ICP Number	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0000481144CEF63	CROMWELL GXP	CML0331	SST	1,006	105,560
0000002553CE07F	CLYDE GXP	CYD0331	SST	929	102,366

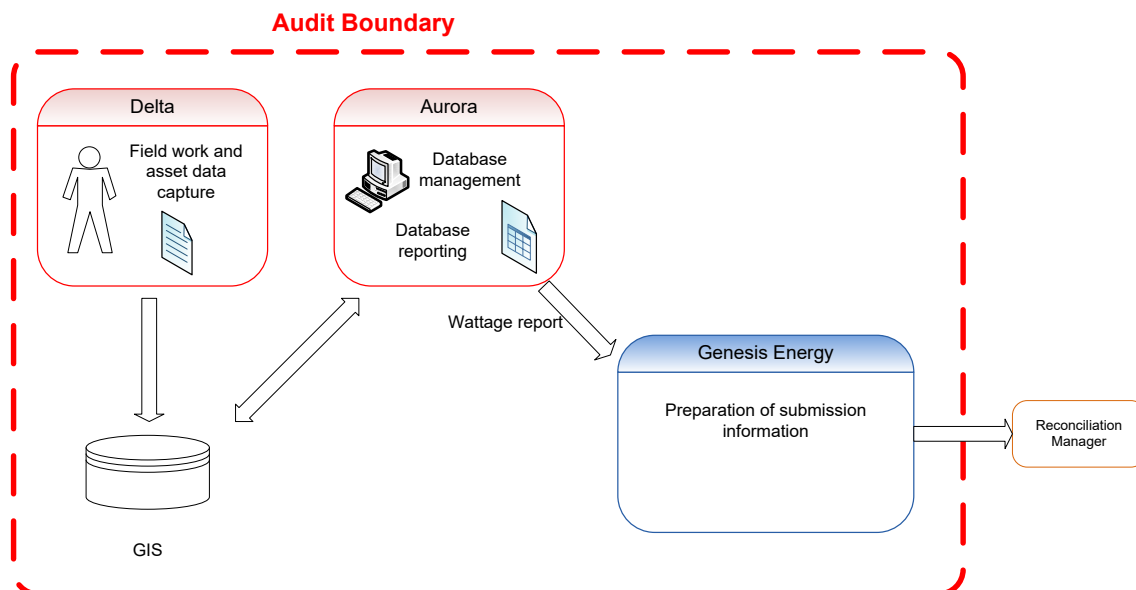
#### 1.7. Authorisation Received

All information was provided directly by Genesis and Aurora.

#### 1.8. Scope of Audit

The database is managed by Aurora and the data is held in their GIS system. Delta is the field contractor. Reports are received monthly by Genesis.

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 carried out at Aurora's premises in Cromwell on March 21<sup>st</sup>, 2018. The field audit was undertaken of 147 lights using the statistical sampling methodology.

#### 1.9. Summary of previous audit

This is the first audit undertaken of CODC for 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 was not completed within the require timeframe due to the assessment of the CODC RAMM database. The audit has now been completed but the late submission of this report is recorded as non-compliance.

##### **Audit outcome**

Non-compliant



Non-compliance	Description		
Audit Ref: 3.2 Clause 17.295F of part 17  From: 01-Jun-18 To: 16-Oct-18	Audit not completed within 12 months of Part 16A coming into effect.  Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as strong, as Genesis are reliant on the database provider to supply the data and in this case the delay caused this report to be late.  The impact is assessed to be low, as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis liaised with CODC which lead to CODC completing a field audit to validate their RAMM dataset.		01/11/2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis are receiving monthly data to validate and work with CODC on any exceptions found.		01/11/2018	

## 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 SST profile. The total volume submitted to the Reconciliation Manager is based on a monthly wattage report from Aurora and the “burn time” which is sourced from a data logger installed on the Aurora network.

I checked the accuracy of the submission information by multiplying the total kW from the database by the total “on” time from the data logger file and the figures matched

There is some inaccurate data within the database used to calculate submissions. This is detailed in **sections 3.1 and 3.2.**

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3  From: unknown To: 30-Apr-18	<p>The database accuracy is assessed to be 61.5% indicating an estimated over submission of 342,300 kWh per annum.</p> <p>Incorrect ballasts applied resulting in an estimated under submission of 2,934.18 kWh.</p> <p>Potential impact: High</p> <p>Actual impact: High</p> <p>Audit history: None</p> <p>Controls: Weak</p> <p>Breach risk rating: 9</p>		
Audit risk rating	Rationale for audit risk rating		
High	<p>The controls are rated as weak, as the variances found in the field indicate a high level of error.</p> <p>The impact is assessed to be high, based on the kWh differences described above.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis liaised with CODC which lead to CODC completing a field audit to validate their RAMM dataset. Genesis have been working closely to ensure that the maintenance/implementation of lamps are recorded and reported to Genesis. Genesis will no longer be using Aurora data in their processes, Genesis will be utilising CODC		01/11/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis are receiving monthly data to validate and work with CODC on any exceptions found. Genesis has advised Aurora that the information they were providing was inaccurate. In recent communications, Aurora agree and are making the necessary changes in their database. Genesis will be working with the distributor and the customer, regarding revising submissions and over charged volumes.		01/11/2018	

## 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 an ICP is recorded for each item of load.

### **Audit commentary**

All items of load had an ICP recorded as required by this clause.

### **Audit outcome**

Compliant

## **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 and Global Positioning System (GPS) coordinates for each item of load, and users in the office and field can view these locations on a mapping system.

### **Audit outcome**

Compliant

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

### **Code reference**

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

### **Code related audit information**

*The 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**

The database contains three fields for wattage, firstly the manufacturers rated wattage, secondly the “gear wattage” and “capacity” which is the total wattage. The gear wattage is expected to be a calculated figure which accounts for any variation from the input wattage and includes losses associated with ballasts. Examination of the database found 149 items of load that had an incomplete light type recorded. This is recorded as non-compliance.

Lamp Descriptions	Quantity
2 Fluorescent Lights	4
Accessory light	1
Convenience light	8
LED Lighting	69
Monument light (100W)	2
Monument light, or ped cross, no beacons	3
Pedestrian crossing beacon with floodlights	9
Pedestrian crossing beacon without floodlights	8
Remote siren or Irrigation control	13
Street name illuminator or Bollard	10
Unknown UNK	22
<b>TOTAL</b>	<b>149</b>

21 of the “Unknown UNK” and two of the “LED Lighting” have zero wattage recorded.

14 items of load with an invalid light description are items of load recorded as 60W Metal halide as no such light exists. This is recorded as non-compliance. The accuracy of the ballasts applied is discussed in **section 3.1**.

**Audit outcome**

Non-compliant

Non-compliance	Description		
Audit Ref: 2.4 With: Clause 11(2)(c) and (d) of Schedule 15.3  From: 01-Apr-17 To: 30-Apr-18	149 items of load with incomplete lamp descriptions. 24 items of load recorded with zero wattage. 14 items of load with an invalid light description. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate as the data is correct for 93% of the Aurora load. The impact is assessed to be low, as the items all have a wattage value with the exception of 24 items of load.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis are awaiting the distributor to correct the assets updates in their system, although the source of the streetlight assets will be from the customers database (CODC) RAMM asset management system.		01/11/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis have been working with CODC since March 2018 to achieve database accuracies. The field audit conducted was finalised and Genesis worked with CODC to validate lamp information. Genesis continues to review and suggest changes as required.		01/11/2018	

## 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 147 items of load on 21<sup>st</sup> March 2018.

### Audit commentary

The field audit findings are detailed in the table below:

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
<b>New</b>					
Ethereal Crescent	1	1			
Excelsior Place	3	3			
Fache Street	5	5		5	5x LEDs with ballasts recorded incorrectly against them
Olds Crescent	6	7	1	6	1 x LED not found in the field 6x incorrect wattages recorded
<b>Rural</b>					
Alton Street	3	3		3	3x LED in the field MV recorded in the database
Harvey Street	4	5	1	4	1x light not found in the field LED in the field HPS & MV recorded in the database
Ladysmith Road	1	1		1	LED in the field HPS recorded in the database
Terrace Street	7	7		7	7x LED in the field HPS recorded in the database
<b>Urban</b>					
Antimony Crescent	12	12		7	7x LED in the field MV recorded in the database
Aronui Road	11	11			
Austin Place	4	4		4	3x LED lights & 1x 80W MV all recorded as 125W MV in the database
Branxholm Street	13	13		11	11x LED in the field HPS & MV recorded in the database
Cemetery Road	6	6			
Clare Place	4	4		3	3x LED in the field MV recorded in the database

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
Down Street	1	1		1	LED in the field MV recorded in the database
Electric Place	2	2			
Ellis Street	1	1			
Ennis Street	4	4			
Fastnet Street	5	5		2	2x LED in the field HPS recorded in the database
Finlay Street	2	2			
Horace Street	7	7		6	6x LED in the field MV recorded in the database
Iles Street	17	18	1	16	1 double headed light recorded as single in database in car park 15x 17W LED recorded as 70W HPS 1 x 150W HPS recorded as 250W
Kelman Street	2	2			
Lakeview Terrace	4	4		4	4x LED in the field HPS recorded in the database
Monaghan Street	8	8		8	
Old Bridge Road	7	7			
O'Neill Crescent	4	4			
Ree Crescent	11	11			
Selkirk Place	7	7			
Spruce Close	1	1			
Tarbert Street	32	29	+3-6	9	<ul style="list-style-type: none"> <li>• 3 additional lights found in the field</li> <li>• 6 lights plotted in database but not found in the field</li> <li>• 9 incorrect wattages</li> </ul>



Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
Thelma Place	2	2			
Wishart Crescent	13	13		10	10x LED in the field MV recorded in the database
Grand total	210	210	12	107	

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

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clause 11(2A) of Schedule 15.3  From: unknown To: 30-Apr-18	Six additional items of load are missing from the database.  Potential impact: High  Actual impact: Low  Audit history: None  Controls: Weak  Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as weak, as the variances found in the field indicate a high level of error as detailed in <b>section 3.1</b> .  The impact is rated as low as there were as many missing lights as additional lights found in the sample checked.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis are awaiting the distributor to correct the assets updates in their system, although the source of the streetlight assets will be from the customers database (CODC) RAMM asset management system.		01/11/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis have been working with CODC since March 2018 to achieve database accuracies. The field audit conducted was finalised and Genesis worked with CODC to validate lamp information. Genesis continues to review and suggest changes as required.		01/11/2018	

## 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 production of a monthly “snapshot” report is sufficient to achieve compliance.

The database tracks additions and removals as required by this clause.

The database is managed by Aurora and the data is held in their GIS system. Delta contracting currently carry out all fault and maintenance work. This is expected to go out to tender in the near future. Any changes made in the field are passed to Aurora to update the database.

Currently work packages are provided to Aurora for new developments but these are not passed to the GIS team to load until the work is complete and signed off. This can be sometime after electrical connection has occurred. The new connection process is under review to improve the timeliness and accuracy of the data going into the database.

CODC are carrying out an LED roll out with a CMS system. The field audit found that these are not getting updated in the database in a timely way resulting in over submission as detailed in **section 3.1**.

There is no formal outage patrol arrangement with Delta, but inspections are carried out on parts of the network every month as Delta undertake their network patrols.

There is no festive lighting used in the CODC area.

### 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 DUMML database must incorporate an audit trail of all additions and changes that identify:*

- *the before and after values for changes*
- *the date and time of the change or addition*
- *the person who made the addition or change to the database*

### Audit observation

The database was checked for audit trails.

**Audit commentary**

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

**Audit outcome**

Compliant

### 3. ACCURACY OF DUML DATABASE

#### 3.1. Database accuracy (Clause 15.2 and 15.37B(b))

##### Code reference

Clause 15.2 and 15.37B(b)

##### Code related audit information

Audit must verify that the information recorded in the retailer's DUML database is complete and accurate.

##### Audit observation

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

Plan Item	Comments
Area of interest	CODC area on the Aurora network
Strata	<p>The database contains items of load on the Aurora network area for CODC.</p> <p>The area has two distinct sub groups of urban and rural.</p> <p>The processes for the management of CODC Aurora items of load are the same, but I decided to place the items of load into three strata, as follows:</p> <ol style="list-style-type: none"><li>1. New</li><li>2. Urban</li><li>3. Rural</li></ol>
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 33 sub-units.
Total items of load	210 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 210 items of load found that the field data was 61.5% of the database data for the sample checked. This is outside the required database accuracy of 2.5%+/- . The statistical sampling tool reported with 95% confidence the precision of the sample was 25.8% and the true load in the field will be between 47.6% to 73.4% of the load recorded in the database. The sample is not sufficiently precise to be able to determine the database accuracy but indicates that the database is potentially over submitting.

The tool indicated that there is potentially 342,300 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUML database auditing tool) of over submission. The statistical sampling tool reported with 95% confidence that there is a potential estimated submission variance range of between 465,700 kWh per annum and 236,000 kWh per annum of over submission.

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority and found 642 items of load with the incorrect ballast applied. This will be resulting in an estimated under submission of 2,934.18 kWh.

**Audit outcome**

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b)  From: unknown To: 30-Apr-18	The database accuracy is assessed to be 61.5% indicating an estimated over submission of 342,300 kWh per annum.  Incorrect ballasts applied resulting in an estimated under submission of 2,934.18 kWh.  Potential impact: High Actual impact: High  Audit history: None Controls: Weak Breach risk rating: 9		
Audit risk rating	Rationale for audit risk rating		
<b>High</b>	The controls are rated as weak, as the variances found in the field indicate a high level of error.  The impact is assessed to be high, based on the kWh differences described above.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis are awaiting the distributor to correct the assets updates in their system, although the source of the streetlight assets will be from the customers database (CODC) RAMM asset management system.		01/11/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis have been working with CODC since March 2018 to achieve database accuracies. The field audit conducted was finalised and Genesis worked with CODC to validate lamp information. Genesis continues to review and suggest changes as required.		01/11/2018	

## 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 STL profile. The on and off times are derived from data logger information. Genesis receive a monthly wattage report.

I recalculated the submissions for February 2018 using the data logger and the database information. I confirmed that the calculation method was correct, and the figures aligned.

There is some inaccurate data within the database used to calculate submissions. This is detailed in **sections 2.1 and 3.2.**

### 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 database accuracy is assessed to be 61.5% indicating an estimated over submission of 342,300 kWh per annum. Incorrect ballasts applied resulting in an estimated under submission of 2,934.18 kWh. Potential impact: High Actual impact: High Audit history: None Controls: Weak Breach risk rating: 9		
Audit risk rating	Rationale for audit risk rating		
<b>High</b>	The controls are rated as weak, as the variances found in the field indicate a high level of error.  The impact is assessed to be high, based on the kWh differences described above.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis are awaiting the distributor to correct the assets updates in their system, although the source of the streetlight assets will be from the customers database (CODC) RAMM asset management system.		01/11/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis have been working with CODC since March 2018 to achieve database accuracies. The field audit conducted was finalised and Genesis worked with CODC to validate lamp information. Genesis continues to review and suggest changes as required.		01/11/2018	

## CONCLUSION

The database is managed by Aurora and the data is held in their GIS system. Delta is the field contractor.

This audit was undertaken in March 2018 but was not finalised until December 2018, when an audit could be undertaken of the CODC OtagoNet data. In the intervening time Genesis have worked with CODC to get their RAMM database data to a point that it can be used for submission as Genesis intend to use the this to calculate submission for all of the ICPs associated with CODC once the database accuracy is confirmed. This audit should be read in conjunction with the CODC RAMM database audit.

At the time of this audit, CODC were undertaking an LED rollout but the field audit found that many of these have not been updated in the Aurora managed database. This will have contributed to the volume of estimated over submission.

The future risk rating of 33 indicates that the next audit be completed in three months. If Genesis move to using the CODC RAMM data then this database will no longer be audited and therefore no further audits will be required. Six non-compliances were identified, and no recommendations were made.



## PARTICIPANT RESPONSE

Genesis have already moved to utilise the CODC data. Genesis also provided this data to the distributor stating Genesis will be using this information moving forward. CODC have discussed this with Aurora, Genesis will be considering the revisions and charges to CODC to have these amended.

All future reporting will be directly from the CODC dataset. The continuation and improvement of data will be driven from Genesis reviewing supplied information and feedback provided back to the council directly.