

ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

KAIPARA DISTRICT COUNCIL  
AND GENESIS ENERGY

Prepared by: Rebecca Elliot

Date audit commenced: 16 February 2023

Date audit report completed: 27 April 2023

Audit report due date: 1 April 2023

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## EXECUTIVE SUMMARY

This audit of the **Kaipara District Council (KDC)** 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.

Streetlight load is determined by wattages held within KDC's RAMM database, and a monthly extract is provided to Genesis. I compared the database extract with the submission information for February 2023 and I confirm that the submission is accurate. The field audit of 246 items of load confirmed database accuracy to be within the acceptable +/-5% accuracy threshold. Non-compliance is recorded for an additional light found during the field audit that was not recorded in the database.

Non-compliance is recorded in three sections of the audit due to a change made in error to the total wattage applied to 849 LED lights indicating under submission of 3,988.69 kWh per annum.

Gear wattages are incorrectly recorded in the database for 51 lamps, but as the total lamp wattages for these lamps is recorded correctly there is no impact on the volumes submitted.

The future risk rating of eight indicates that the next audit be completed in 18 months. I have considered this in conjunction with Genesis' comments and agree with this recommendation.

The matters raised are detailed below:

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Deriving submission information	2.1	11(1) of Schedule 15.3	849 LED lights with incorrect wattage applied indicating under submission of 3,988.69 kWh per annum.	Moderate	Low	2	Cleared
All load recorded in database	2.5	11(2A) and (d) of Schedule 15.3	One additional item of load found in the field sample.	Moderate	Low	2	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	51 lamps with incorrect gear wattages recorded in the database.  849 LED lights with incorrect wattage applied indicating under submission of 3,988.69 kWh per annum.	Moderate	Low	2	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	849 LED lights with incorrect wattage applied indicating under submission of 3,988.69 kWh per annum.	Moderate	Low	2	Cleared
Future Risk Rating						8	

<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	Recommendation
		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

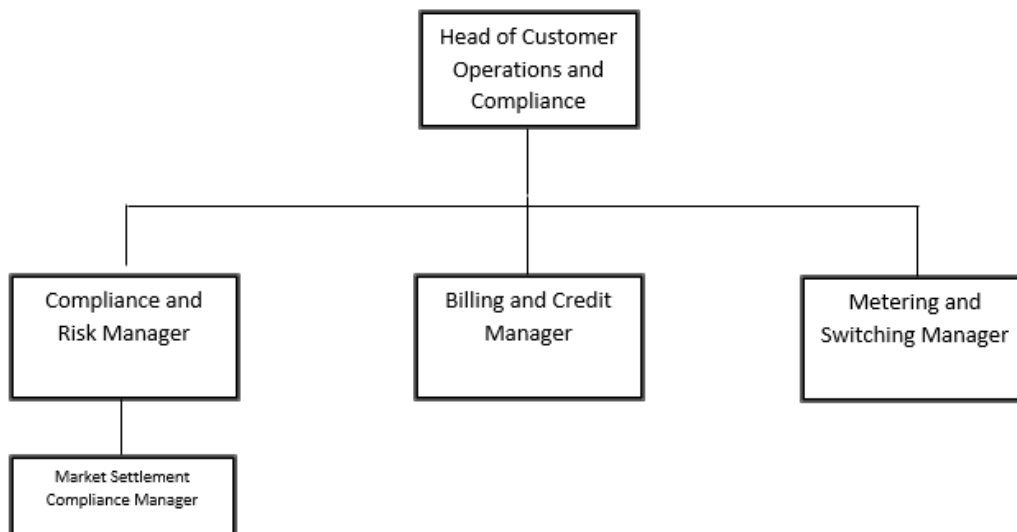
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

#### 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**

Supporting Auditor:

**Brett Piskulic**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Other personnel assisting in this audit were:

Name	Title	Company
Nirav Teli	DUML Data & Stakeholder Lead	Genesis Energy
Caleb Ngwa	Street lighting Services Specialist	KDC/Northland Transportation Alliance
Musheer Khan	Regional Operations Lead	KDC/Northland Transportation Alliance

### 1.4. Hardware and Software

The SQL database used for the management of DUML is remotely hosted by thinkproject New Zealand Limited. The database is commonly known as “RAMM” which stands for “Road Assessment and Maintenance Management”. The specific data used for DUML is held in the Streetlight tables. thinkproject New Zealand Limited backs up the database and assists with disaster recovery as part of their hosting service.

Access to the database is secure by way of password protection.

Systems used by the trader to calculate submissions are assessed as part of their reconciliation participant audits.

### 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)
0000545278NRC7A	Streetlights; Kaipara District Council	MPE1101	NST	581	26,724
0000545280NRE79	Streetlights; Kaipara District Council	MTO0331	NST	670	23,119
TOTAL				1,253	49,483

The ballast values are included in the wattage totals.

## 1.7. Authorisation Received

All information was provided directly by Genesis and KDC.

## 1.8. Scope of Audit

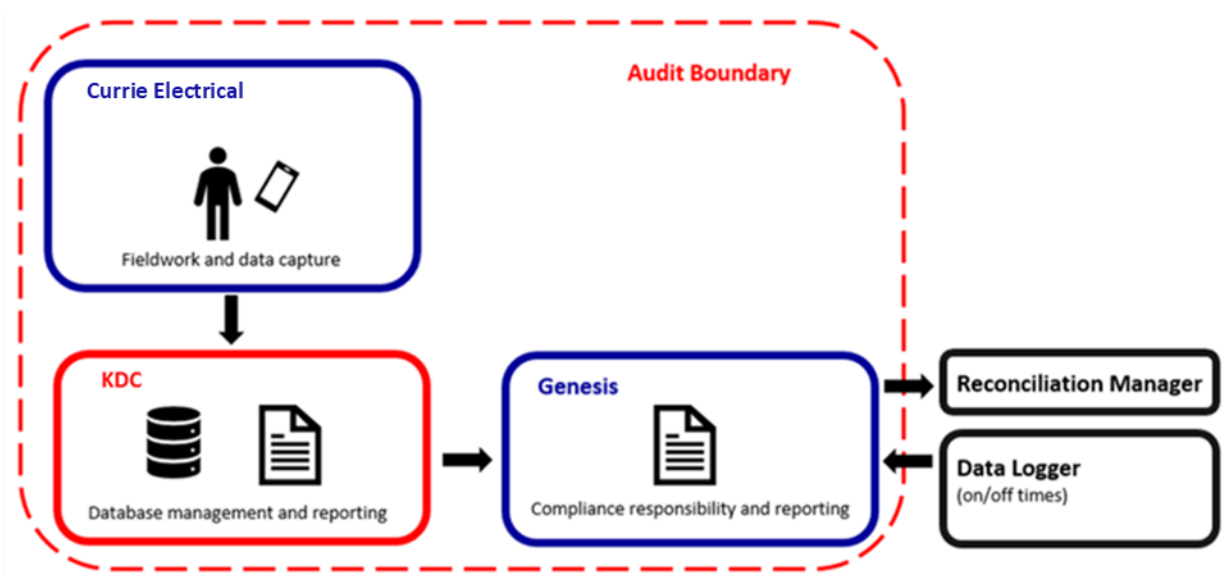
This audit of the **Kaipara District Council (KDC)** DUML database and processes was conducted at the request of **Genesis Energy Limited (Genesis)** in accordance with clause 15.37B. The purpose of this audit is to verify that the volume information is being calculated accurately, and that profiles have been correctly applied.

The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1.

Kaipara District Council Unmetered Streetlights are located on the Northpower network. Genesis reconciles this load using the KDC RAMM streetlight database.

The scope of the audit encompasses the collection, security and accuracy of the data, including the preparation of submission information based on monthly reporting which are provided intermittently. The diagram below shows the flow of information and the audit boundary for clarity.

Field work is carried out by Currie Electrical under a maintenance contract which was put in place in August 2021.



The field audit was undertaken of a statistical sample of 246 items of load on 10th March 2023.

### 1.9. Summary of previous audit

The previous audit was completed in January 2023 by Steve Woods of Veritek Limited. The current status of that audit's findings is detailed below:

### Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
DUML Audit	1.10	16A.26	Audit not completed within the timeframe specified by the Electricity Authority.	Cleared
Deriving submission information	2.1	11(1) of Schedule 15.3	A discrepancy between the submission volume and the database resulting in an estimated annual over submission of 12,568 kWh.  Database is not confirmed as accurate with a 95% level of confidence.  14 items of permanent load have the incorrect ballast applied indicating under submission of 533.875 kWh per annum.	Cleared
All load recorded in database	2.5	11(2A) and (d) of Schedule 15.3	14 additional items of load found in the field sample.	Still existing for lesser number
Database accuracy	3.1	15.2 and 15.37B(b)	Database is not confirmed as accurate with a 95% level of confidence.  14 items of permanent load have the incorrect ballast applied indicating under submission of 533.875 kWh per annum.	Cleared
Volume information accuracy	3.2	15.2 and 15.37B(c)	A discrepancy between the submission volume and the database resulting in an estimated annual over submission of 12,568 kWh.  Database is not confirmed as accurate with a 95% level of confidence.  14 items of permanent load have the incorrect ballast applied indicating under submission of 533.875 kWh per annum.	Cleared

### Table of Recommendations

Subject	Section	Recommendation for Improvement	Status
		Nil	



## 1.10. Distributed unmetered load audits (Clause 16A.26)

### **Code reference**

Clause 16A.26

### **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.

### **Audit outcome**

Compliant

## 2. DUML DATABASE REQUIREMENTS

### 2.1. Deriving submission information (Clause 11(1) of Schedule 15.3)

#### Code reference

*Clause 11(1) of Schedule 15.3*

#### Code related audit information

*The retailer must ensure the:*

- *DUML database is up to date,*
- *methodology for deriving submission information complies with Schedule 15.5.*

#### Audit observation

The process for calculation of consumption was examined.

#### Audit commentary

Genesis reconciles this DUML load using the NST profile.

Genesis is reconciling the load using the KDC RAMM streetlight database. The total volume submitted to the Reconciliation Manager is based on the most recently received database report provided by KDC.

I compared the database extract with the submission information for February 2023 and I confirm that the submission is accurate.

The field audit against the database quantities found that the database records were within 5% of the field. This is detailed in **section 3.1**.

As recorded in **section 3.1**, there are 849 LED lights with incorrect wattage applied indicating over submission of 3,988.69 kWh per annum (based on annual burn hours of 4,271 as is detailed in the DUML database auditing tool).

On 18 June 2019, the Electricity Authority issued a memo confirming that the code requirement to calculate the correct monthly load must:

- take into account when each item of load was physically installed or removed, and
- wash up volumes must take into account where historical corrections have been made to the DUML load and volumes.

KDC provides a monthly report of changes made along with the monthly wattage report. Genesis then accounts for changes which have happened in each month on a daily basis.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3  From: 01-May-22 To: 29-Mar-23	849 LED lights with incorrect wattage applied indicating under submission of 3,988.69 kWh per annum.  Potential impact: Low  Actual impact: Low  Audit history: Twice  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate as they will mitigate risk most of the time but there is room for errors to occur.  The impact is assessed to be low due to the kWh volumes.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has discussed auditor's findings with Northland Transport Alliance and have confirmation from NTA that RAMM has been updated to reflect the change. (Latest RAMM extract attached for your reference) As historic data is not available, change will be incorporated moving forward.		26/04/2023	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis continues to work with the council to increase accuracy levels in their database.		26/04/2023	

## 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 was recorded against each item of load.

### Audit commentary

All items of load had an ICP recorded.

### 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 fields for the road name, location number, pole ID, and GPS coordinates.

GPS coordinates are populated for all except 11 items of load, and there is sufficient location information recorded to readily locate these 11 items.

#### 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 fields for lamp make and model. There are three fields which record lamp wattage, gear wattage and total wattage including gear and lamp wattage.

The accuracy of lamp descriptions, wattages and ballasts is recorded in **section 3.1**.

#### Audit outcome

Compliant

### 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 DUMML for which it is responsible is recorded in this database.*

#### Audit observation

The field audit was undertaken of a statistical sample of 246 items of load on 10<sup>th</sup> March 2023.

### Audit commentary

The field audit discrepancies found are detailed in the table below.

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
Mangawai Heads Road (East), Mangawai	7	8	+1	-	1x additional 19.9W LED found in the field.
Alamar Cres, Mangawai	7	6	-1	-	1x 19.9W LED not found in field.
Moir Point Road, Mangawai	22	19	-3	-	19 x 19.9W LEDs in field, 22 x 19.9W LEDs recorded in database.
Norfolk Drive, Mangawai	9	9	-	1	8x 19.9W LEDs and 1x 70W HPS found in the field, 9x 19.9W LEDs recorded in database.
<b>Grand Total</b>	<b>246</b>	<b>243</b>	<b>5 (+1, -4)</b>	<b>1</b>	

This clause relates to lights in the field that are not recorded in the database. I found one additional lamp in the field that was not recorded in the database. 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: unknown To: 10-Mar-23	One additional item of load found in the field sample. Potential impact: Medium Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate due to the volume of additional lights found in the field. The impact is assessed to be low due to the low number of differences found in the field and total estimated kWh difference detailed in <b>section 3.1</b> .		
Actions taken to resolve the issue		Completion date	Remedial action status

Genesis has brought this to the attention of NTA who have arranged for a contractor to verify this. Findings will be updated in RAMM accordingly.	26/05/2023	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
Genesis relies on KDC to accurately maintain its database.	26/04/2023	

## 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

The database functionality achieves compliance with the code. The change management process and the compliance of the database reporting provided to Genesis is detailed in **sections 3.1** and **3.2**.

### 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

The KDC RAMM database has an 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

A database extract was provided, and I assessed the accuracy of this by using the DUML Statistical Sampling Guideline. The table below shows the survey plan.

Plan Item	Comments
Area of interest	Kaipara District Council area
Strata	The database contains the KDC items of load in two ICPs in the Kaipara region area. The processes for the management of all KDC items of load are the same, but I decided to place the items of load into four strata: <ol style="list-style-type: none"> <li>1. Dargaville (streets A-M) and Poutu,</li> <li>2. Dargaville (streets N-Z), Aranga, Mangatu, Pukehuia and Tangowahine,</li> <li>3. Mangawhai, and</li> <li>4. Kaiwaka, Matakoho, Maungaturoto and Ruawai.</li> </ol>
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 56 sub-units (roads).
Total items of load	246 items of load were checked.

Wattages were checked for alignment with the published standardised wattage table produced by the Electricity Authority or LED light specifications as available against the RAMM database.

##### Audit commentary

##### Field Audit Findings

A field audit was conducted of a statistical sample of 246 items of load. The “database auditing tool” was used to analyse the results, which are shown in the table below.

Result	Percentage	Comments
The point estimate of R	100.1	Wattage from survey is higher than the database wattage by 0.1%
R <sub>L</sub>	97.4	With a 95% level of confidence, it can be concluded that the error could be between -2.6% and 3.6%
R <sub>H</sub>	103.6	

The conclusion from Scenario A (see table below) is that the variability of the sample results across the strata means that the true wattage (installed in the field) could be between 2.6% lower and 3.6% higher than the wattage recorded in the DUML database. Compliance is recorded because the potential error is less than 5.0%.

In absolute terms the installed capacity is estimated to be equal to the capacity indicated by the database. There is a 95% level of confidence that the installed capacity is between 1kW lower and 2kW higher than the wattage recorded in the database.

In absolute terms, total annual consumption is estimated to be 100kWh higher than the DUML database indicates.

There is a 95% level of confidence that the annual consumption is between 5,400kWh p.a. lower to 7,700kWh p.a. higher than the database indicates.

Scenario	Description
<b>A - Good accuracy, good precision</b>	<p>This scenario applies if:</p> <ul style="list-style-type: none"> <li>(a) <math>R_H</math> is less than 1.05; and</li> <li>(b) <math>R_L</math> is greater than 0.95</li> </ul> <p>The conclusion from this scenario is that:</p> <ul style="list-style-type: none"> <li>(a) the best available estimate indicates that the database is accurate within +/- 5 %; and</li> <li>(b) this is the best outcome.</li> </ul>
<b>B - Poor accuracy, demonstrated with statistical significance</b>	<p>This scenario applies if:</p> <ul style="list-style-type: none"> <li>(a) the point estimate of <math>R</math> is less than 0.95 or greater than 1.05</li> <li>(b) as a result, either <math>R_L</math> is less than 0.95 or <math>R_H</math> is greater than 1.05.</li> </ul> <p>There is evidence to support this finding. In statistical terms, the inaccuracy is statistically significant at the 95% level</p>
<b>C - Poor precision</b>	<p>This scenario applies if:</p> <ul style="list-style-type: none"> <li>(a) the point estimate of <math>R</math> is between 0.95 and 1.05</li> <li>(b) <math>R_L</math> is less than 0.95 and/or <math>R_H</math> is greater than 1.05</li> </ul> <p>The conclusion from this scenario is that the best available estimate is not precise enough to conclude that the database is accurate within +/- 5 %</p>

### Lamp wattage and gear wattage accuracy findings

I checked the total lamp wattages and gear wattages being applied and found that 51 lamps had incorrect gear wattages recorded in the database. Non-compliance is recorded for the incorrect recording of gear wattages but as the total lamp wattages for these lamps is recorded correctly there is no impact on the volumes submitted. This is detailed in the table below:



Lamp Type	Database Wattage	Gear	EA Standardised Gear Wattage	Database Total Wattage	EA Standardised Total Wattage	Database Quantity
100W HPSV Lamp		13	14	114	114	2
150W SON Lamp		14	18	168	168	1
150W HPSV Lamp		13	18	168	168	39
250W HPSV		18	28	278	278	9

I reviewed the LED light descriptions to confirm if the wattages applied were correct. The most common LED light used is the AEC I-Tron Zero STA4.49-2M with 849 installed in the field. In the previous two audits KDC provided the results of an investigation and testing carried out which confirmed that the correct wattage for these lamps is 21 watts which differed from a previously supplied specification which stated 19.9 watts. Analysis of the database extract provided for this audit found that the wattage recorded for all of these lamps had been changed to 19.9 watts. KDC confirmed that the change had been made in error in May 2022 and confirmed that it plans to correct the wattage back to 21 watts. The incorrect wattage will be resulting in an estimated under submission of 3,988.69 kWh per annum (based on annual burn hours of 4,271 as is detailed in the DUML database auditing tool).

#### Change management process findings

The RAMM database used for submission is managed by KDC. The processes to track load changes due to faults and maintenance were examined. Currie Electrical was appointed as the maintenance contractor in August 2021. The maintenance contract requires quarterly night inspections of pedestrian crossing lights, six monthly night inspection of all lights and an annual condition inspection of all lights. Currie Electrical update any changes directly in the database using RAMM Contractor.

The processes for new lamp connections were examined. "As-built" plans are expected to be submitted to KDC as part of this process. The new lights are recorded in the database from the date of vesting as advised by the installation contractor. A site visit is conducted to confirm the accuracy of the details recorded in RAMM.

There are no festive lights connected to the unmetered streetlight circuits. Private lights are not held in the database.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 01-May-22 To: 29-Mar-23	51 lamps with incorrect gear wattages recorded in the database. 849 LED lights with incorrect wattage applied indicating over submission of 3,988.69 kWh per annum. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate, as they are sufficient to mitigate the risk most of the time but there is room for improvement.  The impact is assessed to be low due to the impact on submission.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has advised NTA of auditor's findings with an intent that NTA takes every effort to ensure exceptions are rectified. Wattage has been corrected for the 849 LED lights.		26/05/2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis relies on KDC to accurately maintain its database.		26/04/2023	

### 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, and
- checking the database extract combined with the burn hours against the submitted figure to confirm accuracy.

#### Audit commentary

Genesis reconciles this DUML load using the NST profile.

I compared the database extract with the submission information for February 2023 and I confirm that the submission is accurate.

As recorded in **section 3.1**, 849 LED lights with incorrect wattage applied indicating over submission of 3,988.69 kWh per annum (based on annual burn hours of 4,271 as is detailed in the DUML database auditing tool).

The field audit against the database quantities found that the database records were within 5% of the field. This is detailed in **section 3.1**.

On 18 June 2019, the Electricity Authority issued a memo confirming that the code requirement to calculate the correct monthly load must:

- take into account when each item of load was physically installed or removed, and
- wash up volumes must take into account where historical corrections have been made to the DUML load and volumes.

KDC provides a monthly report of changes made along with the monthly wattage report. Genesis then accounts for changes which have happened in each month on a daily basis.

### Audit outcome

#### Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c)  From: 01-May-22 To: 29-Mar-23	849 LED lights with incorrect wattage applied indicating under submission of 3,988.69 kWh per annum.  Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate as they will mitigate risk most of the time but there is room for errors to occur.  The impact is assessed to be low due to the kWh volumes.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has discussed auditor's findings with Northland Transport Alliance and have confirmation from NTA that RAMM has been updated to reflect the change. (Latest RAMM extract attached for your reference) As historic data is not available, change will be incorporated moving forward.		26/04/2023	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis continues to work with the council to increase accuracy levels in their database.		26/04/2023	

## CONCLUSION

Streetlight load is determined by wattages held within KDC's RAMM database, and a monthly extract is provided to Genesis. I compared the database extract with the submission information for February 2023 and I confirm that the submission is accurate. The field audit of 246 items of load confirmed database accuracy to be within the acceptable +/-5% accuracy threshold. Non-compliance is recorded for an additional light found during the field audit that was not recorded in the database.

Non-compliance is recorded in three sections of the audit due to a change made in error to the total wattage applied to 849 LED lights indicating under submission of 3,988.69 kWh per annum.

Gear wattages are incorrectly recorded in the database for 51 lamps, but as the total lamp wattages for these lamps is recorded correctly there is no impact on the volumes submitted.

The future risk rating of eight indicates that the next audit be completed in 18 months. I have considered this in conjunction with Genesis' comments and agree with this recommendation.

## PARTICIPANT RESPONSE

It is Genesis intension to attend to the non-compliances raised in the audit. Genesis continues to work with the NTA to increase accuracy levels in their database. Genesis will continue to review and report exceptions back to NTA where exceptions are identified.