

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

For

**FAR NORTH DISTRICT COUNCIL  
AND GENESIS ENERGY**

Prepared by: Steve Woods

Date audit commenced: 21 June 2022

Date audit report completed: 27 October 2022

Audit report due date: 1 September 2022

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## EXECUTIVE SUMMARY

This audit of the Far North District Council (**FNDC**) 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.

A RAMM database is held by FNDC, who is Genesis' customer. This database is hosted by RAMM Software Limited. FNDC engages McKay Ltd as their fieldwork and asset data capture service provider. Night inspections of all streetlights are conducted every six months and pedestrian lights are inspected every three months. There is an annual inspection of all lights which checks the condition of the equipment and accuracy of the database.

The field audit confirmed that a high level of accuracy has been maintained with only a small number of discrepancies identified.

The future risk rating of eight indicates that the next audit be completed in 18 months and I 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
DUML Audit	1.10	16A.26	Audit not completed within the timeframe specified by the Electricity Authority.	Moderate	Low	1	Cleared
Deriving submission information	2.1	11(1) of Schedule 15.3	The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Moderate	Low	2	Investigating
All load recorded in database	2.5	11(2A) and (d) of Schedule 15.3	Six additional items of load found in the field sample.	Moderate	Low	2	Investigating
Volume information accuracy	3.2	15.2 and 15.37B(c)	The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Moderate	Low	2	Investigating
Future Risk Rating						7	

<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	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

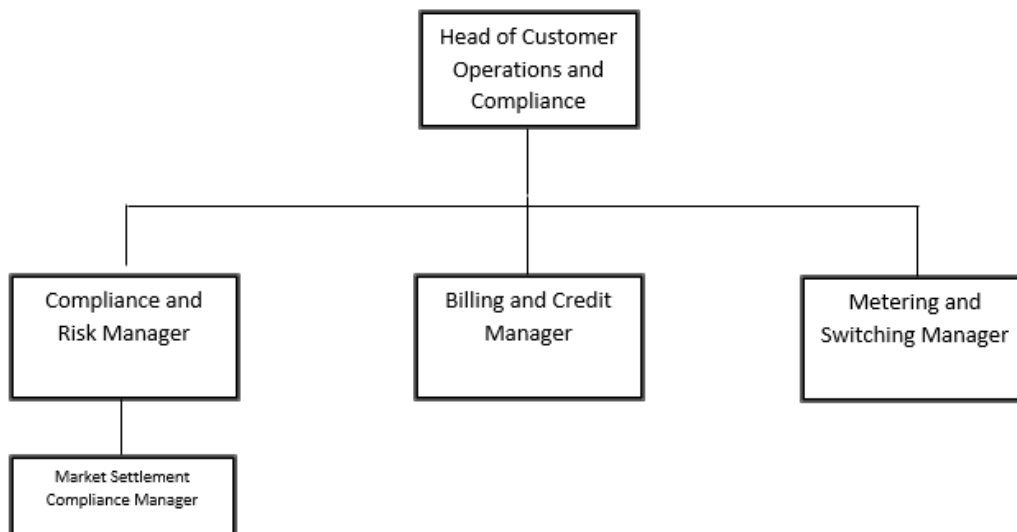
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

#### 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:

**Steve Woods**

**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
Craig Young	Excellence Leader - Reconciliation	Genesis Energy
Nirav Teli	DUML Data & Stakeholder Lead	Genesis Energy
Aaron Reilly	Operations Specialist Lighting & Transport	Far North District Council

#### 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.

There are also 31 amenity lights not recorded in RAMM which are recorded separately in a spreadsheet and added manually to the monthly billing report.

Far North DC confirmed that the database back-up is in accordance with standard industry procedures.

#### 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)
0000003756TE0CD	UNMETERED DECORATIVE LIGHTING	KOE1101	NST	10	561
0000910800TE359	SOUTHERN UNMETERED GROUP LIGHTING	KOE1101	NST	28	1,992
0000003545TECA7	PAI001 CARPARK DOUBLEHEADED	KOE1101	NST	32	2,224
0000910300TE057	SL1298 SOUTHERN CARPARK	KOE1101	NST	1,031	45,318

ICP Number	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0000911400TEEF5	SOUTHERN UNMETERED STREETLIGHTS ON TE POLES FNDC	KOE1101	NST	270	9,674
0000003546TE067	TRIPLE HEAD STREETLIGHTS FNDC	KOE1101	NST	7	369
0000910900TEA5D	NORTHERN UNMETERED GROUP LIGHTING	KOE1101	NST	7	581
0000003758TE356	STREETLIGHTS DOUBLE HEADS FNDC	KOE1101	NST	4	344
0000003759TEF13	STREETLIGHTS DOUBLE HEAD X 1 RECORD FNDC	KOE1101	NST	-	Reconciled under ICP 0000003758TE356
0000910200TE953	NORTHERN UNMETERED STREETLIGHTS FNDC	KOE1101	NST	475	16,029
0000911000TE2F4	NORTHERN UNMETERED STREETLIGHTS ON TE POLES FNDC	KOE1101	NST	115	4,237
Total				1,918	78,367

The ballast values are included in the wattage totals.

The data for ICPs 0000910800TE359 and 0000910900TEA5D (31 items in total) are recorded on an excel spreadsheet. These relate to amenity lighting in the rural areas. The intention is that when any changes are made to these lights the records will be added to RAMM.

The load associated with ICP 0000003759TEF13 is reconciled under ICP 0000003758TE356. The ICP is recorded as status "inactive - reconciled elsewhere" with ICP 0000003758TE356 referenced.

#### 1.7. Authorisation Received

All information was provided directly by Genesis and FNDC.

#### 1.8. Scope of Audit

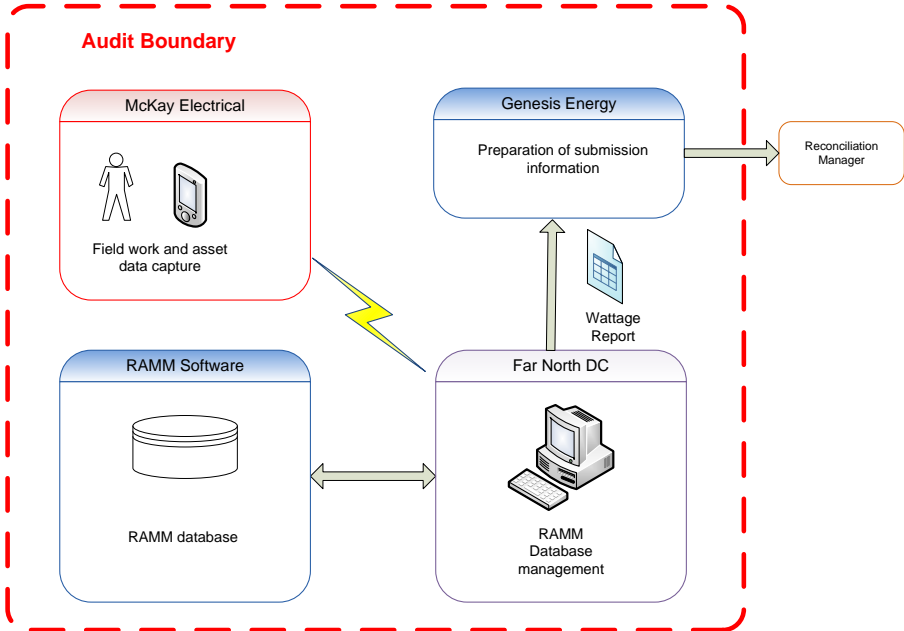
This audit of the Far North District Council (**FNDC**) DUML database and processes was conducted at the request of Genesis Energy Limited (**Genesis**) in accordance with clause 15.37B. The purpose of this audit is to verify that the volume information is being calculated accurately, and that profiles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

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

FNDC is located on the Top Energy network. McKay Ltd is engaged as the streetlighting maintenance contractor and FNDC maintain the RAMM database, which is used by Genesis to calculate submission information. The data for ICPs 0000910800TE359 and 0000910900TEA5D (31 items in total) are recorded on an excel spreadsheet by FNDC. These relate to amenity lighting in the rural areas. The intention is that when any changes are made to these lights the records will be added to RAMM.

FNDC provides reporting to Genesis on a monthly basis which includes the RAMM and spreadsheet data.

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



The field audit was undertaken of a statistical sample of 231 items of load between 20<sup>th</sup> August and 16<sup>th</sup> September 2022.

**1.9. Summary of previous audit**

The previous audit was completed in September 2020 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
Deriving submission information	2.1	11(1) of Schedule 15.3	Error in process used to calculate submission resulting in additional submission for 30 lights which would result in an annual over submission of 4,651 kWh.	Cleared
			No input wattage being recorded for two permanently connected decorative lights in Kaeo.	Cleared
			One item of load has the incorrect ballast applied in the DUML database which would result in over submission of 428.15 kWh per annum if used for submission.	Cleared
			The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Still existing
Description and capacity of load	2.4	11(2)(c) and (d) of Schedule 15.3	No lamp model or input wattage being recorded for two permanently connected decorative lights in Kaeo.	Cleared
Database accuracy	3.1	15.2 and 15.37B(b)	One item of load has the incorrect ballast applied in the DUML database which would result in over submission of 428.15 kWh per annum if used for submission.  No lamp model or input wattage being recorded for two permanently connected decorative lights in Kaeo.	Cleared
Volume information accuracy	3.2	15.2 and 15.37B(c)	Error in process used to calculate submission resulting in additional submission for 30 lights which would result in an annual over submission of 4,651 kWh.	Cleared
			Incorrect status recorded for ICP 0000003759TEF13.	Cleared
			No input wattage being recorded for two permanently connected decorative lights in Kaeo.	Cleared
			One item of load has the incorrect ballast applied in the DUML database which would result in over submission of 428.15 kWh per annum if used for submission.	Cleared
The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Still existing			

## Table of Recommendations

Subject	Section	Recommendation for Improvement	Status
		Nil	

### 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. The audit was not able to be completed by the required timeframe due to delays completing the field audit after road closures due to bad weather.

#### Audit outcome

Compliant

Non-compliance	Description		
Audit Ref: 1.10 With: Clause 16A.26  From: 01-Sep-22 To: 27-Oct-22	Audit not completed within the timeframe specified by the Electricity Authority. 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 the delay was outside of Genesis' control. 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

Audit was delayed due to circumstances which could not be controlled like bad weather, road closure etc.	26/10/2022	Cleared
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
Genesis has discussed with the auditors and has started to complete audits in advance to avoid delays.	26/10/2022	

## 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 derives the hours of operation information using a data logger. I compared the database extract with the submission information for July 2022 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**.

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.

The current data used is a snapshot and this practice is non-compliant.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3  From: 01-Oct-20 To: 16-Sep-22	The data used for submission does not track changes at a daily basis and is provided as a snapshot.  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>	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 kWh volumes.

Actions taken to resolve the issue	Completion date	Remedial action status
Genesis has reviewed the auditors finding and have advised FNDC of requirement of visibility of tracking of change within their data base and are working with FNDC to incorporate this in the dataset.	26/11/2022	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
FNDC has been notified of the discrepancies. Genesis relies on FNDC to accurately maintain its database.	26/11/2022	

## 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

All currently connected items of load had an ICP recorded. The extract contained records for items of loads which have been disconnected or are yet to be connected. The ICP number is removed when items of load are disconnected and is added to new items of load at the time of connection.

### 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 DUML database must contain the location of each DUML item.*

### Audit observation

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

### Audit commentary

The database contains fields for the road name, location number, sub-area, pole ID, and GPS coordinates.

GPS coordinates are populated for all except 30 lights, the location information is sufficient to locate all items of load.

### 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

The database contains a lamp make field and two lamp model fields which were populated appropriately for all items of load.

The database contains two records for wattage, firstly the lamp wattage and secondly the total wattage including any gear wattage which were populated appropriately for all items of load.

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

### Audit observation

The field audit was undertaken of a statistical sample of 231 items of load between 20<sup>th</sup> August and 16<sup>th</sup> September 2022.

### 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
LANDING ROAD, Kerikeri	11	12	+1	-	Database = 1x 70W HPS, 1x 37W LED, 1x 76W LED, 1x 64W LED, 2x 57W LED, 4 x 21W LED and 1x 71W LED.

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
					1x additional 37W LED found in the field.
MARITIME LANE, Waipapa	6	8	+2	-	Database = 6x 76W LED. 2x additional 21W LEDs found in field.
WAIPAPA LOOP RD, Waipapa	5	6	+1	-	Database = 3x 76W LED, 1x 27W LED and 1x 21W LED. 1x additional 76W LED found in field.
KERIKERI INLET ROAD, Kerikeri	7	8	+1	-	Database = 4x 150W HPS, 1x 52W LED and 2x 52W LED. 1x additional 51W LED found in field.
TAMATEA ROAD, Awanui	5	6	+1	3	Database = 2x 70W HPS, 1x 50W LED and 2x 21W LED. 4x 50W LED, 2x 21W LED and security cameras 20W(estimated) found in field.
<b>Grand Total</b>	<b>231</b>	<b>237</b>	<b>+6</b>	<b>3</b>	

I have recorded non-compliance as an additional six lamps were found in the field that were 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: 16-Sep-22	Six additional items of load found in the field sample. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 1
<b>Audit risk rating</b>	<b>Rationale for audit risk rating</b>

<b>Low</b>	<p>The controls are rated as moderate due to the volume of additional lights found in the field.</p> <p>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>.</p>		
<b>Actions taken to resolve the issue</b>		<b>Completion date</b>	<b>Remedial action status</b>
Genesis has reviewed the auditors finding and have advised FNDC of the discrepancy with the intent that FNDC makes every effort to ensure the exceptions are rectified.		15/11/2022	Investigating
<b>Preventative actions taken to ensure no further issues will occur</b>		<b>Completion date</b>	
FNDC has been notified of the asset discrepancies. Genesis relies on FNDC to accurately maintain its database.		15/11/2022	

## 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 RAMM 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 RAMM database has a complete audit trail of all additions and changes to the database information. There are also 31 amenity lights not recorded in RAMM which are recorded separately in a spreadsheet and there has been no change to these lights for some years, so no changes have been logged. The intention is that when any changes are made to these lights the records will be added to RAMM.

**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	Far North District Council area
Strata	The database contains items of load in the Far North District Council area.  The processes for the management of all FNDC items of load are the same, but I decided to place the items of load into four strata based on their location: <ol style="list-style-type: none"> <li>1. Far North</li> <li>2. North West</li> <li>3. Bay of Islands</li> <li>4. Kerikeri.</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 58 sub-units.
Total items of load	231 items of load were checked.

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

The change management process to track changes and timeliness of database updates was evaluated.

##### Audit commentary

##### Database accuracy based on the field audit

A field audit was conducted of a statistical sample of 231 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	102.2%	Wattage from survey is higher than the database wattage by 2.2%
R <sub>L</sub>	100.7%	

R <sub>H</sub>	104.4%	With a 95% level of confidence it can be concluded that the error could be between +0.7% and +4.4%
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These results were categorised in accordance with the “Distributed Unmetered Load Statistical Sampling Audit Guideline”, effective from 01/02/19 and the table below shows that Scenario A (detailed below) applies.

The conclusion from Scenario A is that the variability of the sample results across the strata means that the true wattage (installed in the field) could be between 0.7% and 4.4% 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 2kW higher than the capacity indicated by the database.

There is a 95% level of confidence that the installed capacity is between 1kW and 4kW higher than the wattage recorded in the database.

In absolute terms, total annual consumption is estimated to be 7,500kWh higher than the DUML database indicates.

There is a 95% level of confidence that the annual consumption is between 2,400kWh p.a. to 15,200kWh 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) R<sub>H</sub> is less than 1.05; and</li> <li>(b) R<sub>L</sub> 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 R is less than 0.95 or greater than 1.05</li> <li>(b) as a result, either R<sub>L</sub> is less than 0.95 or R<sub>H</sub> 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 R is between 0.95 and 1.05</li> <li>(b) R<sub>L</sub> is less than 0.95 and/or R<sub>H</sub> 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 description and capacity accuracy

I checked the ballasts being applied in the database and found that there were no discrepancies when compared to the standardised wattage table.

### Change management process findings

The RAMM database used for submission is managed by WDC. The streetlight contractor McKay Ltd update the database using Pocket RAMM.

The maintenance contract with McKay Ltd requires quarterly night inspections and 6-monthly day inspections of all lights.

As changes occur the contractor, McKay Ltd, provides the information to FNDC directly from the field using Pocket RAMM. Night inspections of all streetlights are conducted every six months and pedestrian lights are inspected every three months. There is an annual inspection of all lights which checks the condition of the equipment and accuracy of the database.

As detailed in **section 1.6**, there are 31 amenity lights recorded separately in an excel spreadsheet. The intention is that when any changes are made to these lights the records will be added to RAMM.

For new subdivisions, the lighting information is provided by the developer to FNDC as part of the vesting process. They are added to RAMM prior to livening but not recorded against an ICP until the Council has given their approval and the lights are livened. FNDC accept that the “as built” are what is installed in the field. FNDC is in the process of implementing a field check of newly connected lights to ensure information from “as built” is correct.

### Audit outcome

Compliant

## 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 July 2022 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**.

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.

The current data used is a snapshot and this practice is non-compliant.

**Audit outcome**

Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c)  From: 01-Oct-20 To: 16-Sep-22	The data used for submission does not track changes at a daily basis and is provided as a snapshot.  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>	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 kWh volumes.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has reviewed the auditors finding and have advised FNDC of requirement of visibility of tracking of change within their data base and are working with FNDC to incorporate this in the dataset.		26/11/2022	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
FNDC has been notified of the discrepancies. Genesis relies on FNDC to accurately maintain its database.		26/11/2022	

## CONCLUSION

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

A RAMM database is held by FNDC, who is Genesis' customer. This database is hosted by RAMM Software Limited. FNDC engages McKay Ltd as their fieldwork and asset data capture service provider. Night inspections of all streetlights are conducted every six months and pedestrian lights are inspected every three months. There is an annual inspection of all lights which checks the condition of the equipment and accuracy of the database.

The field audit confirmed that a high level of accuracy has been maintained with only a small number of discrepancies identified.

The future risk rating of eight indicates that the next audit be completed in 18 months and I agree with this recommendation.

## PARTICIPANT RESPONSE

Genesis has discussed the requirement of visibility of tracking of change within FNDC's data base and are working with FNDC to incorporate this in the dataset.