

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

TIMARU DISTRICT COUNCIL
AND GENESIS ENERGY LIMITED

Prepared by: Steve Woods

Date audit commenced: 31 March 2023

Date audit report completed: 12 May 2023

Audit report due date: 1 June 2023

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EXECUTIVE SUMMARY

This audit of the **Timaru District Council (TDC)** 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. The scope of the audit encompasses the collection, security and accuracy of the data, including the preparation of submission information.

The RAMM database used for submission is managed by TDC. New connection, fault, and maintenance work is completed by NetCon, RAMM's work management processes are used to dispatch and manage field work. TDC initiates the fieldwork and when NetCon have completed the work, TDC is notified through the RAMM work management process and RAMM is updated.

Genesis reconciles this DUML load using the SST profile. Submissions are based on the database information with on and off times derived from data logger information. Wattages are derived from a database extract Genesis receives monthly.

I recalculated the submissions for March 2023 using the data logger and the database information. I confirmed that it was calculated accurately based on the database and data logger information.

The field audit confirmed that the database is accurate within the allowable +/-5% threshold.

The monthly report is provided with additional information containing any changes made through the month, including the date the changes were made.

A small number of lights were found to have the incorrect ballast applied resulting in a very minor estimated under submission of 397 kWh. This is detailed in **section 3.1**.

This audit found four non-compliances and makes no recommendations. The future risk rating of 7 indicates that the next audit be completed in 18 months. I have considered this in conjunction with Genesis's responses and recommend that the next audit be in 18 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	<p>Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>15 lights had incorrect gear wattages recorded resulting in under submission of 167 kWh per annum (based on 4,271 burn hours).</p>	Moderate	Low	2	Identified
All load recorded in database	2.5	11(2A) of Schedule 15.3	Two additional lights found in the field of the sample of 378 items of load checked.	Strong	Low	1	Identified
Database accuracy	3.1		<p>Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>15 lights had incorrect gear wattages recorded resulting in under submission of 167 kWh per annum (based on 4,271 burn hours).</p>	Moderate	Low	2	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	<p>Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>15 lights had incorrect gear wattages recorded resulting in under submission of 167 kWh per annum (based on 4,271 burn hours).</p>	Moderate	Low	2	Identified
Future Risk Rating						7	

Future risk rating	0	1-4	5-8	9-15	16-18	19+
Indicative audit frequency	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

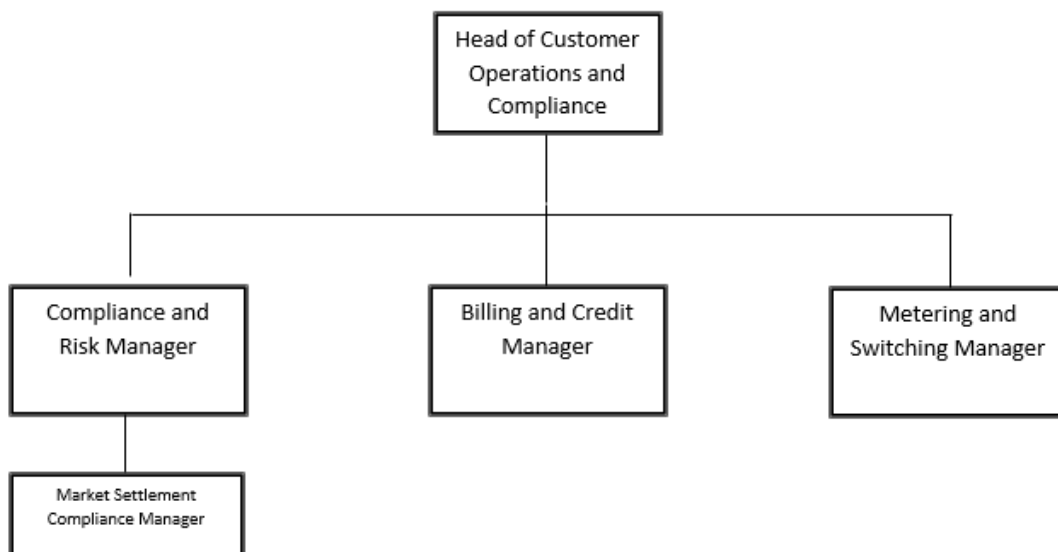
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

Audit commentary

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

1.2. Structure of Organisation

Genesis provided a copy of their organisational structure:



1.3. Persons involved in this audit

Auditor:

Name	Company	Role
Steve Woods	Veritek Limited	Lead Auditor
Claire Stanley	Veritek Limited	Supporting Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Jackie Smith	Road Officer	Timaru District Council
Ant Bacon	Road Network Operations Technician	Timaru District Council
Nirav Teli	DUML Data & Stakeholder Lead	Genesis Energy

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 were 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)
0000000001ALAE7	All TIM0111 Streets	TIM0111	SST	4,106	326,745
0000000006AL72D	All TMK0331 Streets	TMK0331	SST	1,100	75,425
Total				5,206	402,170

1.7. Authorisation Received

All information was provided directly by Genesis or TDC.

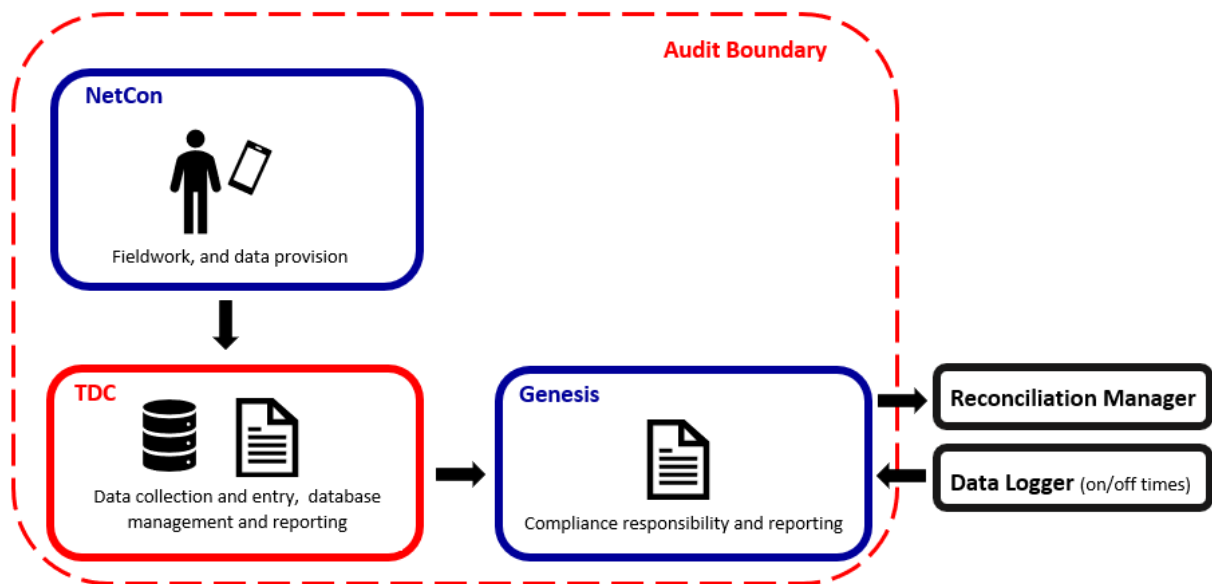
1.8. Scope of Audit

This audit of the TDC DUML database and processes was conducted at the request of 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 TDC’s RAMM database. New connection, fault, maintenance, and upgrade work is completed by NetCon. All streetlight work is initiated by TDC, and RAMM’s work management processes are used to dispatch and manage field work. Once NetCon have completed the work, TDC is notified through the RAMM work management process. TDC then verifies that the work has been completed and updates RAMM. TDC provides monthly reports from RAMM to Genesis.

The scope of the audit encompasses the collection, security, and accuracy of the data, including the preparation of submission information based on the 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 378 items of load on 30th April and 1st May 2023.

1.9. Summary of previous audit

The previous audit of this database was undertaken by Rebecca Elliot of Veritek Limited in June 2021. The findings are shown in the table below.

Subject	Section	Clause	Non-compliance	Status
Deriving submission information	2.1	11(1) of Schedule 15.3	The monthly database extract provided does not track changes at a daily basis and is provided as a snapshot.	Cleared

Subject	Section	Clause	Non-compliance	Status
			<p>Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>15 lamps have incorrect total wattages, resulting in an estimated under submission of 397 kWh p.a. based on 4,271 burn hours.</p>	<p>Still existing</p> <p>Still existing</p>
Database accuracy	3.1		<p>The monthly database extract provided does not track changes at a daily basis and is provided as a snapshot.</p> <p>Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>15 lamps have incorrect total wattages, resulting in an estimated under submission of 397 kWh p.a. based on 4,271 burn hours.</p>	<p>Cleared</p> <p>Still existing</p> <p>Still existing</p>
Volume information accuracy	3.2	15.2 and 15.37B(c)	<p>The monthly database extract provided does not track changes at a daily basis and is provided as a snapshot.</p> <p>Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>15 lamps have incorrect total wattages, resulting in an estimated under submission of 397 kWh p.a. based on 4,271 burn hours.</p>	<p>Cleared</p> <p>Still existing</p> <p>Still existing</p>

1.10. Distributed unmetered load audits (Clause 16A.26 and 17.295F)

Code reference

Clause 16A.26 and 17.295F

Code related audit information

Retailers must ensure that DUML database audits are completed:

1. by 1 June 2018 (for DUML that existed prior to 1 June 2017)
2. within three months of submission to the reconciliation manager (for new DUML)
3. within the timeframe specified by the Authority for DUML that has been audited since 1 June 2017.

Audit observation

Genesis have requested Veritek to undertake this streetlight audit.

Audit commentary

This audit report confirms that the requirement to conduct an audit has been met for this database within the required timeframe.

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 and the application of profiles was checked. The database was checked for accuracy.

Audit commentary

Genesis reconciles this DUML load using the SST profile. Submissions are based on the database information with on and off times derived from data logger information. Wattages are derived from a database extract Genesis receives monthly.

I recalculated the submissions for March 2023 using the data logger and the database information. I confirmed that it was calculated accurately based on the database and data logger information.

The RAMM database records an installation date, which is used to record the date of livening. There is no separate livening date. Lights are vested to the Council from the livening date.

The field audit confirmed that the database is accurate within the allowable +/-5% threshold.

The monthly report is provided with additional information containing any changes made through the month, including the date the changes were made.

A small number of lights were found to have the incorrect ballast applied resulting in a very minor estimated under submission of 397 kWh. This is detailed in **section 3.1**.

Festive lights are recorded in RAMM and managed in the same way as other lights. On and off dates are recorded in the monthly reports to Genesis.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3 From: 18-Aug-21 To: 31-Mar-23	Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change. 15 lamps have incorrect total wattages, resulting in an estimated under submission of 397 kWh p.a. based on 4,271 burn hours. Potential impact: Low Actual impact: Low Audit history: Three times previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls over the database are rated as moderate, because the database update processes will ensure that in most cases the change date reflects the date that the change is made; and only a small number of lights had incorrect gear wattages and were corrected. The impact is expected to be low based on the kWh variances identified.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis has brought this to the attention to TDC and will work with them to create a process around how they manage their new connections. Genesis will discuss with TDC if they can add a new line in the dataset for all new lamp installs and use an end date for the old lamp rather an replacing the installation date. Genesis has reviewed the auditors finding and have advised TDC of the discrepancy with the intent that TDC makes every effort to ensure the exceptions are rectified and have update RAMM. Genesis will revise submissions for March 2023 once an updated data set has been provided		01/09/2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis will work with the council to increase accuracy levels in their database.		01/09/2023	

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 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 items of load have an ICP recorded against them.

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, pole ID, and GPS coordinates.

GPS coordinates are populated for all items except 18 lights in Timaru and Geraldine. The street address and location is sufficient to locate them.

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 light type and wattage capacity;
- wattage capacities include any ballast or gear wattage; and
- each item of load has a light type, light wattage, and gear wattage recorded.

Audit commentary

The database contains gear model, light model, light wattage, and gear wattage.

All items of load have a gear model, light model, light wattage, and gear wattage recorded, and no items have invalid zero lamp or gear wattages.

The accuracy of the recorded wattages is discussed 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 DUML for which it is responsible is recorded in this database.

Audit observation

The field audit was undertaken of a statistical sample of 378 items of load on 30th April and 1st May 2023.

The sample was selected from four strata:

- A - K
- L - SH1 (F)
- Other areas
- SH1 (G) - Z

Audit commentary

Address	Database Count	Field Count	Count differences	Wattage differences	Comments
Barnes St				1	150W SON recorded in database but 103W LED located in the field
Wilson St (TIM)				1	149W LED recorded in database not located in the field
Hopkins St			+2		2 x additional 27W LED not recorded in the database but located in field
GRAND TOTAL			2	2	

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clause 11(2A) of Schedule 15.3 From: 18-Aug-21 To: 31-Mar-23	Two additional lights found in the field of the sample of 378 items of load checked. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong, as only two additional lamps identified in the field. The impact is assessed to be low due to the small number of additional lights found.		
Actions taken to resolve the issue		Completion date	Remedial action status
TDC has been notified of the auditor's findings. Genesis relies on TDC to accurately maintain its database.		01/09/2023	Identified
Preventative actions taken to ensure no further issue will occur		Completion date	
Genesis will continue to work with the council to help them increase database accuracy.		01/09/2023	

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 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

The RAMM database functionality achieves compliance with the code.

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 database has a complete audit trail.

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	Timaru District Council streetlights
Strata	The database contains the TDC items of load in the Timaru region. The processes for the management of all TDC items of load are the same, but I decided to place the items of load into four strata: <ol style="list-style-type: none"> 1. 000000001ALAE7 road names A to K 2. 000000001ALAE7 road names L to SH1 - (F) 3. 000000001ALAE7 road names SH1 - (G) to Z 4. 000000006AL72D
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 60 sub-units.
Total items of load	378 items of load were checked.

Wattages for all items of load were checked against the published standardised wattage tables produced by the Electricity Authority or LED light specifications where available against the DUML database.

Audit commentary

A field audit was conducted of a statistical sample of 378 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	98.9%	Wattage from survey is lower than the database wattage by 1.1%
R _L	97.2%	With a 95% level of confidence, it can be concluded that the error could be -2.8%.
R _H	100.0%	

These results were categorised in accordance with the “Distributed Unmetered Load Statistical Sampling Audit Guideline”, effective from 1 February 2019 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 1.1% lower 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 4.0 kW lower than the database indicates.

There is a 95% level of confidence that the installed capacity is 11 kW lower than the database.

In absolute terms, total annual consumption is estimated to be 18,3000 kWh lower than the DUML database indicates.

There is a 95% level of confidence that the annual consumption is 48,400 kWh p.a. lower than the database indicates.

Scenario	Description
<p>A - Good accuracy, good precision</p>	<p>This scenario applies if:</p> <ul style="list-style-type: none"> (a) R_H is less than 1.05; and (b) R_L is greater than 0.95 <p>The conclusion from this scenario is that:</p> <ul style="list-style-type: none"> (a) the best available estimate indicates that the database is accurate within +/- 5 %; and (b) this is the best outcome.
<p>B - Poor accuracy, demonstrated with statistical significance</p>	<p>This scenario applies if:</p> <ul style="list-style-type: none"> (a) the point estimate of R is less than 0.95 or greater than 1.05 (b) as a result, either R_L is less than 0.95 or R_H is greater than 1.05. <p>There is evidence to support this finding. In statistical terms, the inaccuracy is statistically significant at the 95% level</p>
<p>C - Poor precision</p>	<p>This scenario applies if:</p> <ul style="list-style-type: none"> (a) the point estimate of R is between 0.95 and 1.05 (b) R_L is less than 0.95 and/or R_H is greater than 1.05 <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>

Light description and capacity accuracy

As discussed in **section 2.4**, all items of load have a gear model, light model, light wattage and gear wattage recorded, and no items have invalid zero lamp or gear wattages.

Lamp and gear wattages were compared to the expected values, and I found 15 items of load have gear wattages not matching the expected values. This will result in a very minor under submission of 167 kWh per annum (based on 4,271 burn hours). This is recorded as non-compliance below.

Model	Gear wattage	Count of lights	Expected gear wattage	Gear wattage difference
Fluorescent 26W	2	15	2.6	39
Total		15		39

Change management process findings

There have been no changes to the processes in place during the audit period. The RAMM database used for submission is managed by TDC. New connection, fault, and maintenance work is completed by NetCon, RAMM's work management processes are used to dispatch and manage field work. TDC initiates the fieldwork and when NetCon have completed the work, TDC is notified through the RAMM work management process. TDC updates RAMM. TDC provides monthly reports from RAMM to Genesis.

New subdivisions require a proposed plan to be provided (which includes approved lights) and an "as built" plan once the development is complete. NetCon advises TDC once new lights are ready, and TDC then verifies that the work has been completed and updates RAMM effective from the day of livening.

The RAMM database records an installation date, which is used to record the date of livening. There is no separate livening date.

The LED upgrade program is largely completed, there are a small number of Pedestrian and Heritage lights remaining.

Outage patrols are conducted annually for residential areas, and monthly on arterial routes. If an issue is identified a job is created in RAMM for NetCon to attend.

Festive lights

Festive lights are recorded in RAMM and managed in the same way as other lights. On and off dates are recorded in the monthly reports to Genesis.

Private lights

Private lights identified by TDC are not recorded in the database.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 18-Aug-21 To: 31-Mar-23</p>	<p>Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>18 lights had incorrect gear wattages recorded resulting in under submission of 167 kWh per annum (based on 4,271 burn hours).</p> <p>Potential impact: Low Actual impact: Low Audit history: Three times previously Controls: Moderate Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate, as they are sufficient to mitigate the risk most of the time. The database update processes will ensure that in most cases the change date reflects the date that the change is made; and only a small number of lights have incorrect gear wattages.</p> <p>The impact is expected to be low based on the kWh variances identified.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Genesis has brought this to the attention to TDC and will work with them to create a process around how they manage their new connections. Genesis will discuss with TDC if they can add a new line in the dataset for all new lamp installs and use an end date for the old lamp rather an replacing the installation date.</p> <p>Genesis has reviewed the auditors finding and have advised TDC of the discrepancy with the intent that TDC makes every effort to ensure the exceptions are rectified and have update RAMM. Genesis will revise submissions for March 2023 once an updated data set has been provided</p>		01/09/2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis will work with the council to increase accuracy levels in their database.		01/09/2023	

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 the ICP has the correct profile and submission flag; and
- checking the database extract combined with the on hours against the submitted figure to confirm accuracy.

Audit commentary

Genesis reconciles this DUML load using the SST profile. Submissions are based on the database information with on and off times derived from data logger information. Wattages are derived from a database extract Genesis receives monthly.

I recalculated the submissions for March 2023 using the data logger and the database information. I confirmed that it was calculated accurately based on the database and data logger information.

The RAMM database records an installation date, which is used to record the date of livening. There is no separate livening date. Lights are vested to the Council from the livening date.

The field audit confirmed that the database is accurate within the allowable +/-5% threshold.

The monthly report is provided with additional information containing any changes made through the month, including the date the changes were made.

A small number of lights were found to have the incorrect ballast applied resulting in a very minor estimated under submission of 397 kWh. This is detailed in **section 3.1**.

Festive lights are recorded in RAMM and managed in the same way as other lights. On and off dates are recorded in the monthly reports to Genesis.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c)</p> <p>From: 18-Aug-21 To: 31-Mar-23</p>	<p>Livening dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>15 lamps have incorrect total wattages, resulting in an estimated under submission of 397 kWh p.a. based on 4,271 burn hours.</p> <p>Potential impact: Low Actual impact: Low</p> <p>Audit history: Three times previously</p> <p>Controls: Moderate Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls over the database are rated as moderate, because the database update processes will ensure that in most cases the change date reflects the date that the change is made; and only a small number of lights had incorrect gear wattages and were corrected.</p> <p>The impact is expected to be low based on the kWh variances identified.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Genesis has brought this to the attention to TDC and will work with them to create a process around how they manage their new connections. Genesis will discuss with TDC if they can add a new line in the dataset for all new lamp installs and use an end date for the old lamp rather an replacing the installation date.</p> <p>Genesis has reviewed the auditors finding and have advised TDC of the discrepancy with the intent that TDC makes every effort to ensure the exceptions are rectified and have update RAMM. Genesis will revise submissions for March 2023 once an updated data set has been provided</p>		<p>01/09/2023</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Genesis will work with the council to increase accuracy levels in their database.</p>		<p>01/09/2023</p>	

CONCLUSION

The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1. The scope of the audit encompasses the collection, security and accuracy of the data, including the preparation of submission information.

The RAMM database used for submission is managed by TDC. New connection, fault, and maintenance work is completed by NetCon, RAMM's work management processes are used to dispatch and manage field work. TDC initiates the fieldwork and when NetCon have completed the work, TDC is notified through the RAMM work management process and RAMM is updated.

Genesis reconciles this DUML load using the SST profile. Submissions are based on the database information with on and off times derived from data logger information. Wattages are derived from a database extract Genesis receives monthly.

I recalculated the submissions for March 2023 using the data logger and the database information. I confirmed that it was calculated accurately based on the database and data logger information.

The field audit confirmed that the database is accurate within the allowable +/-5% threshold.

The monthly report is provided with additional information containing any changes made through the month, including the date the changes were made.

A small number of lights were found to have the incorrect ballast applied resulting in a very minor estimated under submission of 397 kWh. This is detailed in **section 3.1**.

This audit found four non-compliances and makes no recommendations. The future risk rating of 7 indicates that the next audit be completed in 18 months. I have considered this in conjunction with Genesis's responses and recommend that the next audit be in 18 months.

PARTICIPANT RESPONSE

Genesis continues to build on their relationship with the council. Genesis will discuss their new connection process and work with the council to manage these better.