

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

TIMARU DISTRICT COUNCIL
AND GENESIS ENERGY LIMITED

Prepared by: Rebecca Elliot

Date audit commenced: 6 May 2021

Date audit report completed: 26 May 2021

Audit report due date: 1 June 2021

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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.

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.

Genesis reconciles this DUML load using the SST profile. The methodology for deriving submission information is compliant. Wattages are derived from reports provided by TDC.

I checked the April 2021 extract provided by Timaru DC against the submission totals supplied by Genesis and confirmed them to be correct.

On 18 June 2019, the Electricity Authority issued a memo clarifying the memo of 2012 that stated that a monthly snapshot was sufficient to calculate submission from, and confirmed 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 monthly report is provided as a snapshot and this practice is non-compliant. When a wattage is changed in the database due to a physical change or a correction, only the record present at the time the report is run is recorded, not the historical information showing dates of changes

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

Changes are generally entered by TDC as soon as they receive notification via RAMM work management process that the field work is complete. Where a light type has changed, TDC updates the installation date to match the date that the change was completed.

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

The future risk rating of six indicates that the next audit be completed in 18 months. Given the minor nature of the discrepancies identified, I recommend the next audit be completed in 24 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>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>18 lamps have incorrect total wattages, resulting in an estimated under submission of 397 kWh p.a. based on 4,271 burn hours.</p>	Moderate	Low	2	Identified
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>18 lights had incorrect gear wattages recorded resulting in under submission of 93 W or 397 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>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>18 lights had incorrect gear wattages recorded resulting in under submission of 93 W or 397 kWh per annum (based on 4,271 burn hours).</p>	Moderate	Low	2	Identified
Future Risk Rating						6	

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

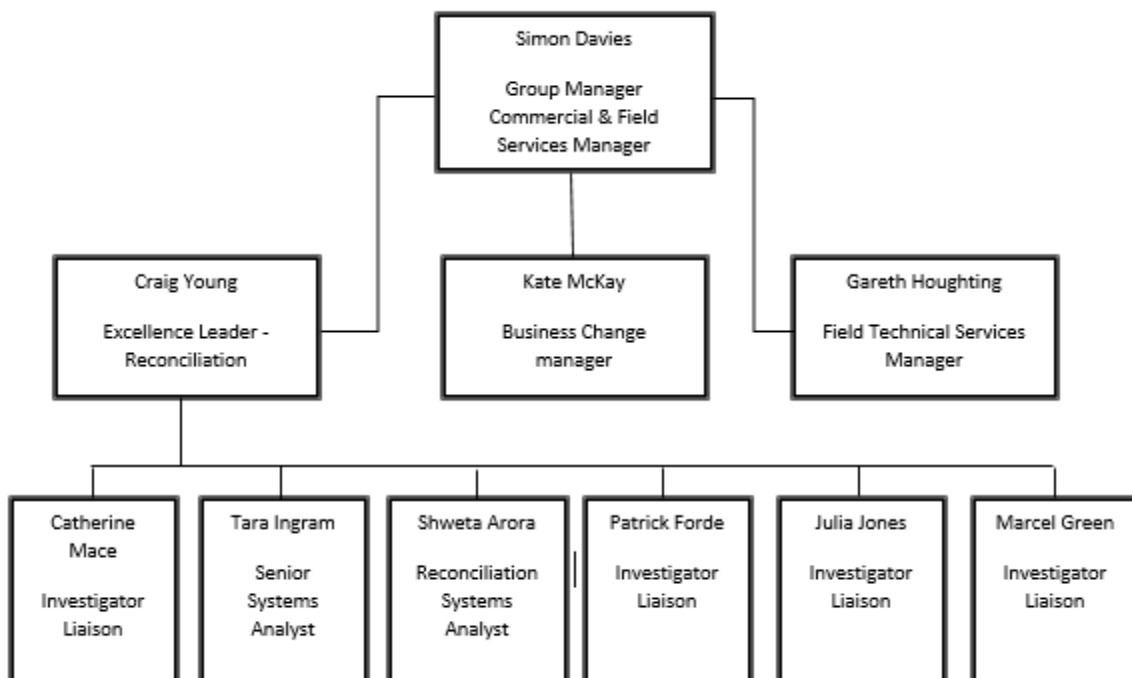
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

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
Rebecca Elliot	Veritek Limited	Lead Auditor
Claire Stanley	Veritek Limited	Supporting Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Anthony Bacon	Road Network Operations Technician	Timaru District Council
Gillian Catchpowle	Road Officer	Timaru District Council
Craig Young	Excellence Leader- Reconciliation	Genesis Energy
Julia Jones	Technical Specialist - Reconciliation Team	Genesis Energy

1.4. Hardware and Software

The SQL database used for the management of DUML is remotely hosted by RAMM Software Ltd. The database is commonly known as "RAMM" which stands for "Roading Asset and Maintenance Management". The specific module used for DUML is called RAMM Contractor.

RAMM is backed-up 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)
0000000001ALAE7	All TIM0111 Streets	TIM0111	SST	4,000	337,869
0000000006AL72D	All TMK0331 Streets	TMK0331	SST	1,069	73,690
Total				5,069	411,559

Festive lights (connected from November to January):

ICP Number	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0000000001ALAE7	All TIM0111 Streets	TIM0111	SST	36	3292
0000000006AL72D	All TMK0331 Streets	TMK0331	SST	4	300
Total				40	3,592

1.7. Authorisation Received

All information was provided directly by Genesis or TDC.

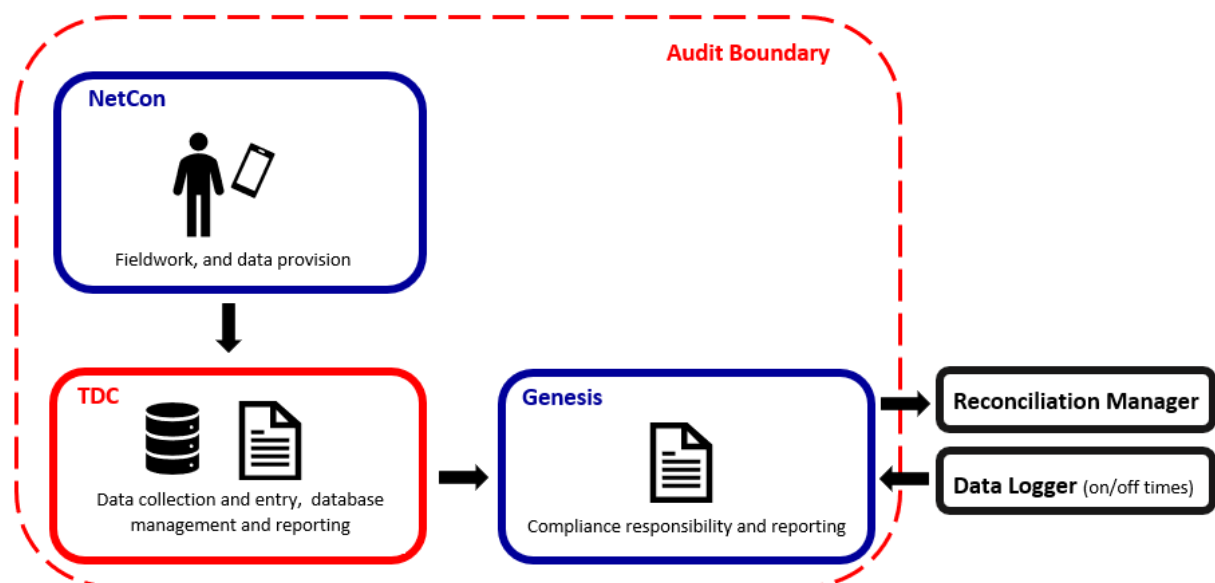
1.8. Scope of Audit

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 412 items of load on 13-14 May 2021.

1.9. Summary of previous audit

The previous audit of this database was undertaken by Tara Gannon of Veritek Limited in November 2019. 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	<p>The database is not confirmed as accurate with a 95% level of confidence as recorded in section 3.1.</p> <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>Five lights had incorrect gear wattages recorded resulting in under submission of 6 W or 26 kWh per annum (based on 4,271 burn hours). The discrepancies were corrected prior to the November 2019 database extract being provided to Genesis.</p>	<p>Resolved</p> <p>Still existing</p> <p>Still existing</p> <p>Cleared</p>
All load recorded in the database	2.5	11(2A) of Schedule 15.3	<p>For the sample of lights checked, there was one less light in the database than was present in the street. The missing light was added to the database during the audit.</p>	Existing for a different light
Database accuracy	3.1	Clause 15.2 and 15.37B(b)	<p>The database is not confirmed as accurate with a 95% level of confidence.</p> <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>Five lights had incorrect gear wattages recorded resulting in under submission of 6 W or 26 kWh per annum (based on 4,271 burn hours). The discrepancies were corrected prior to the November 2019 database extract being provided to Genesis.</p>	<p>Resolved</p> <p>Still existing</p> <p>Still existing</p> <p>Cleared</p>
Volume Information accuracy	3.2	15.2 and 15.37B(c)	<p>The database is not confirmed as accurate with a 95% level of confidence as recorded in section 3.1.</p> <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>Five lights had incorrect gear wattages recorded resulting in under submission of 6 W or 26 kWh per annum (based on 4,271 burn hours). The discrepancies were</p>	<p>Resolved</p> <p>Still existing</p> <p>Still existing</p> <p>Cleared</p>

Subject	Section	Clause	Non-compliance	Status
			corrected prior to the November 2019 database extract being provided to Genesis.	

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. The methodology for deriving submission information is compliant. Wattages are derived from reports provided by TDC.

I checked the April 2021 extract provided by Timaru DC against the submission totals supplied by Genesis and confirmed them to be correct .

On 18 June 2019, the Electricity Authority issued a memo clarifying the memo of 2012 that stated that a monthly snapshot was sufficient to calculate submission from, and confirmed 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 monthly report is provided as a snapshot and this practice is non-compliant. When a wattage is changed in the database due to a physical change or a correction, only the record present at the time the report is run is recorded, not the historical information showing dates of changes

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

Changes are generally entered by TDC as soon as they receive notification via RAMM work management process that the field work is complete. Where a light type has changed, TDC updates the installation date to match the date that the change was completed.

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

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: 2.1 With: Clause 11(1) of Schedule 15.3</p> <p>From: 01-Nov-19 To: 06-May-21</p>	<p>The monthly database extract provided does not track changes at a daily basis and is provided as a snapshot.</p> <p>Living dates are not recorded for new connections, and lamp installation dates are replaced where lights change.</p> <p>18 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 Audit history: Twice Controls: Moderate Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<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 have discussed the requirement in length with the council. Genesis and TDC are trying to ascertain a resolution to how the requirements can be met. Genesis has received the May report which has a vast improvement with only 5 exceptions that remain.</p> <p>As the lamp replacements within May 2021 have occurred as @ 01/05/2021 it is had at confirm whether the reporting is able to meet the required change tracking.</p>		01/06/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis continues to assist the council in providing the required information to meet the obligations of DUML.			

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 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 one light in Timaru. The location of the light can be mapped using pole location information in RAMM.

Pole ID	Road Name	Displacement	Pole Purpose
5155	ROXBURGH ST	128m	Community Lighting

No inaccurate locations were identified.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

The DUML database must contain:

- *a description of load type for each item of load and any assumptions regarding the capacity*
- *the capacity of each item in watts.*

Audit observation

The database was checked to confirm that:

- it contained a field for 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 412 items of load on 13th – 14th May 2021.

Audit commentary

No errors were found in the field audit.

Audit outcome

Compliant

2.6. Tracking of load changes (Clause 11(3) of Schedule 15.3)

Code reference

Clause 11(3) of Schedule 15.3

Code related audit information

The DUML database must track additions and removals in a manner that allows the total load (in kW) to be retrospectively derived for any given day.

Audit observation

The process for tracking of changes in the database was examined.

Audit commentary

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 DUMML 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 DUMML database is complete and accurate.

Audit observation

The DUMML 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	<p>The database contains the TDC items of load for both DUMML ICPs in the Timaru region.</p> <p>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:</p> <ol style="list-style-type: none">1. 000000001ALAE7 road names A to K2. 000000001ALAE7 road names L to SH1 - (F)3. 000000001ALAE7 road names SH1 - (G) to Z4. 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	412 items of load were checked.

Wattages were checked for alignment with the published standardised wattage table produced by the Electricity Authority against the database or in the case of LED lights against the LED light specification.

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

Audit commentary

Field audit findings

The field audit was undertaken of a statistical sample of 412 items of load. No errors were found in the field indicating that it is 100% accurate. Compliance is confirmed.

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 18 items of load have gear wattages not matching the expected values. This will result in a very minor under submission of 397 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
High Pressure Sodium 100W	0	3	18	54
Fluorescent 26W	2	15	2.6	39
Total		18		+93

ICP number accuracy

All items of load have the correct ICP recorded.

Change management process findings

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.

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. TDC are to audit 10% of all field work completed by NetCon.

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

Change dates are automatically generated by RAMM when records change but cannot be selected by the user. Changes are generally entered by TDC as soon as they receive notification via RAMM work management process that the field work is complete. Where a light type has changed, TDC updates the installation date to match the date that the change was completed.

LED upgrades are underway by region and are managed using RAMM’s work management processes.

There are currently no outage patrols, TDC will schedule a regular inspection to be completed by NetCon.

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: 01-Nov-19 To: 06-May-21</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 93 W or 397 kWh per annum (based on 4,271 burn hours).</p> <p>Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Moderate Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<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 have discussed the requirement in length with the council. Genesis and TDC are trying to ascertain a resolution to how the requirements can be met. Genesis has received the May report which has a vast improvement with only 5 exceptions that remain.</p> <p>As the lamp replacements within May 2021 have occurred as @ 01/05/2021 it is had at confirm whether the reporting is able to meet the required change tracking.</p>		01/06/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis continues to assist the council in providing the required information to meet the obligations of DUML.			

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. The methodology for deriving submission information is compliant. Wattages are derived from reports provided by TDC.

I checked the April 2021 extract provided by Timaru DC against the submission totals supplied by Genesis and confirmed them to be correct.

On 18 June 2019, the Electricity Authority issued a memo clarifying the memo of 2012 that stated that a monthly snapshot was sufficient to calculate submission from, and confirmed 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 monthly report is provided as a snapshot and this practice is non-compliant. When a wattage is changed in the database due to a physical change or a correction, only the record present at the time the report is run is recorded, not the historical information showing dates of changes

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

Changes are generally entered by TDC as soon as they receive notification via RAMM work management process that the field work is complete. Where a light type has changed, TDC updates the installation date to match the date that the change was completed.

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

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: 01-Nov-19 To: 06-May-21</p>	<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>18 lights had incorrect gear wattages recorded resulting in a very minor under submission of 397 kWh per annum (based on 4,271 burn hours).</p> <p>Potential impact: Low Actual impact: Low Audit history: Multiple times 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 have discussed the requirement in length with the council. Genesis and TDC are trying to ascertain a resolution to how the requirements can be met. Genesis has received the May report which has a vast improvement with only 5 exceptions that remain.</p> <p>As the lamp replacements within May 2021 have occurred as @ 01/05/2021 it is had at confirm whether the reporting is able to meet the required change tracking.</p>		<p>01/06/2021</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Genesis continues to assist the council in providing the required information to meet the obligations of DUML.</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.

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.

Genesis reconciles this DUML load using the SST profile. The methodology for deriving submission information is compliant. Wattages are derived from reports provided by TDC.

I checked the April 2021 extract provided by Timaru DC against the submission totals supplied by Genesis and confirmed them to be correct.

On 18 June 2019, the Electricity Authority issued a memo clarifying the memo of 2012 that stated that a monthly snapshot was sufficient to calculate submission from, and confirmed 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 monthly report is provided as a snapshot and this practice is non-compliant. When a wattage is changed in the database due to a physical change or a correction, only the record present at the time the report is run is recorded, not the historical information showing dates of changes

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

Changes are generally entered by TDC as soon as they receive notification via RAMM work management process that the field work is complete. Where a light type has changed, TDC updates the installation date to match the date that the change was completed.

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

The future risk rating of six indicates that the next audit be completed in 18 months. Given the minor nature of the discrepancies identified, I recommend the next audit be completed in 24 months.

PARTICIPANT RESPONSE

Genesis and the council have been proactively trying to resolve the outstanding compliance requirements. Genesis would be seeking a 24-month review period as the council has demonstrated good intent to rectifying the anomalies and disputing the missing assets in the field.