

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

VERITEK

For

**MACKENZIE DISTRICT COUNCIL AND
GENESIS ENERGY LIMITED**

Prepared by: Steve Woods (assisted by Deborah Anderson)

Date audit commenced: 14 May 2018

Date audit report completed: 28 May 2018

Audit report due date: 01-Jun-18

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EXECUTIVE SUMMARY

This audit of the Timaru District Council (TDC) DUML database (On behalf of Mackenzie DC) 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, which became effective on 1 June 2017.

The RAMM database used for submission is held by Mackenzie District Council (MDC).

New connection, fault and maintenance work is completed by NetCon. NetCon update the database for maintenance work using Pocket RAMM. Asset Management data eg LED upgrades in residential areas, are completed by NetCon and then advised to TDC who make those changes in the RAMM database.

TDC provide a monthly report to Genesis from the database for submissions.

All database checks have been performed on the database provided as at the end of February 2018, with submission checks performed on a database version and submission file as at the end of March 2018.

Five non-compliances were identified, and no recommendations were raised.

The future risk rating of nine indicates that the next audit be completed in 12 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	Inaccurate information in the database <ul style="list-style-type: none"> • 47 items of load without an ICP, under submission of 9,580 kWh pa • 2 lamp type and wattage errors, over submission of 1,610 kWh pa • 5 field audit errors identified, over submission of 128 kWh pa 	Strong	Low	1	Investigating
ICP Identifier and items of load	2.2	11(2)(a) and (aa) of Schedule 15.3	There are 47 items of load that do not have an ICP number recorded against them. Estimated under submission of 9,580 kWh per annum.	Strong	Low	1	Identified
Description	2.4	11(2)(c)	There are two lamp types	Moderate	Low	2	Identified

and capacity of load		and (d) of Schedule 15.3	with incorrect wattage values in the database. There are 302 lamps affected with an estimated over submission of 1,610 kWh per annum.				
All load recorded in the database	2.5	11(2A) of Schedule 15.3	The field audit discovered two additional lamps and two missing lamps in the field than were recorded in the database, and one lamp wattage difference. Result in estimated over submission of 128 kWh per annum.	Moderate	Low	2	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	Database checks identified two lamp type and wattage differences, affecting 302 lamps an estimated over submission of 1,610 kWh per annum. The field audit discovered two additional lamps and two missing lamps in the field than were recorded in the database, and one lamp wattage difference. Result in estimated over submission of 128 kWh per annum.	Moderate	Low	2	Identified
Deriving submission information	3.2	15.2 and 15.37B(c)	Inaccurate information in the database <ul style="list-style-type: none"> • 47 items of load without an ICP, under submission of 9,580 kWh pa • 2 lamp type and wattage errors, over submission of 1,610 kWh pa 5 field audit errors identified, over submission of 128 kWh pa	Strong	Low	1	Identified
Future Risk Rating						9	

Future risk rating	1-3	4-6	7-8	9-17	18-26	27+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Description	Recommendation

ISSUES

Subject	Section	Description	Issue

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.

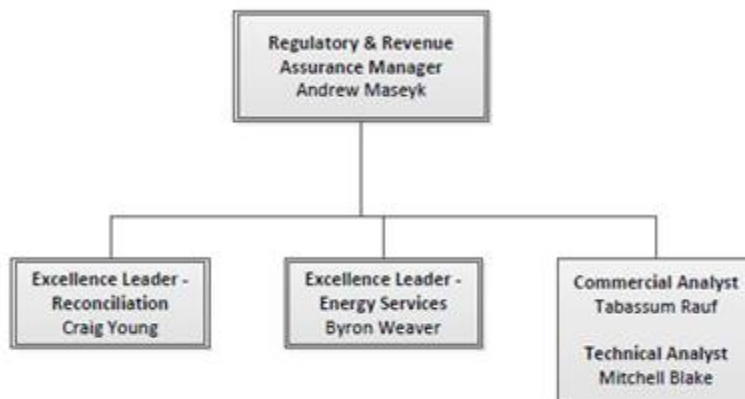
Audit observation

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



1.3. Persons involved in this audit

Auditor:

Steve Woods

Veritek Limited

Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Anthony Bacon	Road Engineering Technician	Timaru District Council
Shweta Arora	Reconciliation Systems Analyst	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”. Mackenzie District Council manage the database for the Mackenzie Region.

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

1.5. Breaches or Breach Allegations

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

1.6. ICP Data

ICP Number	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0000000007ALB68	Streetlighting	TKA0331	SST	336	15,946
0000000008AL4B6	Streetlighting	TWZ0331	SST	468	20,925
0000000003ALA62	Streetlighting	ABY0111	SST	211	21,015
No ICP no.				47	2,243

1.7. Authorisation Received

All information was provided directly by Genesis and TDC.

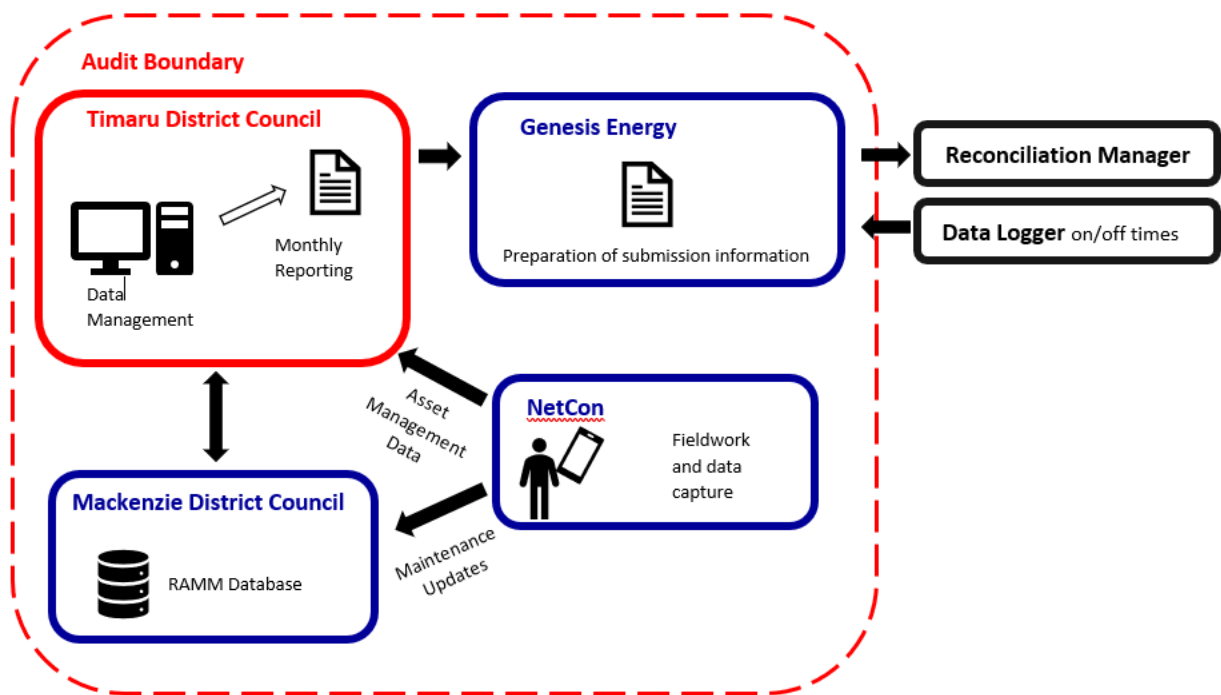
1.8. Scope of Audit

This audit of the Timaru District Council (**TDC**) DUML database (Mackenzie region) 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, which became effective on 1 June 2017.

The scope of the audit encompasses the collection, security and accuracy of the data, including the preparation of submission information based on the database reporting.

The diagram below shows the audit boundary for clarity.



The field audit was undertaken of a statistical sample of 150 items of load on 15th May 2018

1.9. Summary of previous audit

The previous audit was completed in March 2017 by Allie Jones of Contact Energy Limited. One non-compliance was identified. The status of the non-compliance is described below.

Subject	Section	Clause	Non-compliance	Status
Tracking of Load	2.3	Clause 11 (3) of Schedule 15.3	Some Tracking of Load Changes for MDC to be confirmed	Resolved

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 3 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. Compliance is confirmed.

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 provided monthly from TDC, with on and off times derived from data logger information.

I recalculated the submissions for March 2018 for ICPs using the data logger and TDC's database information. I confirmed that the calculation method was correct. Festive lights were correctly excluded from the calculation because they were not connected.

I checked the March 2018 extract provided by TDC against the submission totals supplied by Genesis and found that submission matched the database.

The methodology for deriving submission information is compliant.

There is some inaccurate data within the database, detailed in later sections, used to calculate submissions. This is recorded as non-compliance

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 2.1 With: Clauses 11(1) of Schedule 15.3 From: 01-Mar-17 To: 30-Apr-18	Inaccurate information in the database used for submission calculation <ul style="list-style-type: none"> 47 items of load without an ICP number recorded, section 2.2, estimated under submission of 9,580 kWh per annum. 2 lamp type and wattage errors, section 2.4, estimated over submission of 1,610 kWh per annum. 5 field audit errors identified, section 2.5, estimated over submission of 128 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are rated as strong because only of the low number of database inaccuracies found. The impact is low, the estimated kWh under 8,000 per annum.	
Actions taken to resolve the issue	Completion date	Remedial action status
Genesis are working with the database owner to maintain exceptions as identified.	12/2018	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
Database owner to implement validation checks, Genesis will be working with McKenzie DC to maintain the database of record as required.	12/2018	

2.2. ICP identifier and items of load (Clause 11(2)(a) and (aa) of Schedule 15.3)

Code reference

Clause 11(2)(a) and (aa) of Schedule 15.3

Code related audit information

The DUMML database must contain:

- each ICP identifier for which the retailer is responsible for the DUMML
- the items of load associated with the ICP identifier.

Audit observation

The database was checked to confirm the correct ICP was recorded against each item of load.

Audit commentary

There are 47 items of load that do not have an ICP number recorded against them in the database.

These items of load have a wattage of 2,243 watts. This will result in estimated under submission of 9,580 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUML database auditing tool).

Pole ID	Road Name	Light ID	Model	Northing	Easting
1139	D'ARCHIAC DRIVE	1190	36w Low Pressure Sodium	5124499	1397208
1140	D'ARCHIAC DRIVE	1191	36w Low Pressure Sodium	5124515	1397210
1141	D'ARCHIAC DRIVE	1192	36w Low Pressure Sodium	5124504	1397192
1142	D'ARCHIAC DRIVE	1193	36w Low Pressure Sodium	5124521	1397189
1143	D'ARCHIAC DRIVE	1194	36w Low Pressure Sodium	5124520	1397153
1144	D'ARCHIAC DRIVE	1195	36w Low Pressure Sodium	5124538	1397147
1145	D'ARCHIAC DRIVE	1196	36w Low Pressure Sodium	5124531	1397132
1146	D'ARCHIAC DRIVE	1197	36w Low Pressure Sodium	5124555	1397114
1147	D'ARCHIAC DRIVE	1198	36w Low Pressure Sodium	5124550	1397087
1148	ERUBUS PLACE	1199	36w Low Pressure Sodium	5124546	1397081
1149	ERUBUS PLACE	1200	36w Low Pressure Sodium	5124530	1397063
1150	ERUBUS PLACE	1201	36w Low Pressure Sodium	5124519	1397073
1151	ERUBUS PLACE	1202	36w Low Pressure Sodium	5124509	1397059
1152	ERUBUS PLACE	1203	36w Low Pressure Sodium	5124501	1397070
1153	ERUBUS PLACE	1204	36w Low Pressure Sodium	5124486	1397091
1154	ERUBUS PLACE	1205	36w Low Pressure Sodium	5124481	1397070
1155	D'ARCHIAC DRIVE	1206	36w Low Pressure Sodium	5124571	1397084
1156	D'ARCHIAC DRIVE	1207	36w Low Pressure Sodium	5124562	1397064
1157	D'ARCHIAC DRIVE	1208	36w Low Pressure Sodium	5124584	1397060
1158	D'ARCHIAC DRIVE	1209	36w Low Pressure Sodium	5124578	1397038
1159	D'ARCHIAC DRIVE	1210	36w Low Pressure Sodium	5124600	1397034
1160	D'ARCHIAC DRIVE	1211	36w Low Pressure Sodium	5124594	1397011
1161	D'ARCHIAC DRIVE	1212	36w Low Pressure Sodium	5124619	1397006
1162	CAIRNS AVENUE	1213	36w Low Pressure Sodium	5124529	1397191
1163	CAIRNS AVENUE	1214	36w Low Pressure Sodium	5124525	1397210
1164	CAIRNS AVENUE	1215	36w Low Pressure Sodium	5124560	1397195
1165	CAIRNS AVENUE	1216	36w Low Pressure Sodium	5124548	1397210
1166	CAIRNS AVENUE	1217	36w Low Pressure Sodium	5124578	1397204
1167	CAIRNS AVENUE	1218	36w Low Pressure Sodium	5124590	1397184
1168	CAIRNS AVENUE	1219	36w Low Pressure Sodium	5124611	1397192
1169	CAIRNS AVENUE	1220	36w Low Pressure Sodium	5124636	1397165
1170	CAIRNS AVENUE	1221	36w Low Pressure Sodium	5124660	1397160
1171	CAIRNS AVENUE	1222	36w Low Pressure Sodium	5124677	1397159
1172	CAIRNS AVENUE	1223	36w Low Pressure Sodium	5124693	1397159
1173	CAIRNS AVENUE	1224	36w Low Pressure Sodium	5124691	1397184
1174	CAIRNS AVENUE	1225	36w Low Pressure Sodium	5124677	1397178
1175	CAIRNS AVENUE	1226	36w Low Pressure Sodium	5124651	1397180
1176	WALTER BLACK PLACE	1227	36w Low Pressure Sodium	5124304	1397293
1177	WALTER BLACK PLACE	1228	36w Low Pressure Sodium	5124290	1397287
1178	WALTER BLACK	1229	36w Low Pressure Sodium	5124284	1397300

	PLACE				
1179	WALTER BLACK PLACE	1230	36w Low Pressure Sodium	5124288	1397328
1180	WALTER BLACK PLACE	1231	36w Low Pressure Sodium	5124269	1397329
1181	WALTER BLACK PLACE	1232	36w Low Pressure Sodium	5124271	1397312
1133	FREDA DU FAUR AVENUE	1184	30w x2 Fluroescent	5093662	1365995
1134	FREDA DU FAUR AVENUE	1185	30w x2 Fluroescent	5093652	1366027
1135	FREDA DU FAUR AVENUE	1186	30w x2 Fluroescent	5093660	1366110
1136	FREDA DU FAUR AVENUE	1187	30w x2 Fluroescent	5093688	1366041

It is worth noting that of the 47 items of load with no ICP number recorded, all except the last four items shown as 'FREDA DU FAUR AVENUE' are shown in the database to be '36w Low Pressure Sodium' 'Nexus 1200mm Bollard' in Tekapo.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: Clauses 11(2)(a) and (aa) of Schedule 15.3 From: 01-Mar-17 To: 30-Apr-18	There are 47 items of load that do not have an ICP number recorded against them. Estimated under submission of 9,580 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because only 47 of the 1,062 lamps in the database have no ICP number recorded. The impact is low, the estimated kWh under 10,000 per annum.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis are working with the database owner to maintain exceptions as identified.		12/2018	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Database owner to implement validation checks, Genesis will be working with McKenzie DC to maintain the database of record as required.		12/2018	

2.3. Location of each item of load (Clause 11(2)(b) of Schedule 15.3)

Code reference

Clause 11(2)(b) of Schedule 15.3

Code related audit information

The DUMML database must contain the location of each DUMML item.

Audit observation

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

Audit commentary

All items of load have the address, pole id and GPS co-ordinates in the database.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

The DUMML database must contain:

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

Audit observation

The database was checked to confirm that it contained a field for lamp type and wattage capacity and included any ballast or gear wattage and that each item of load had a value recorded in these fields.

Audit commentary

Lamp make, model, lamp wattage and ballast wattage are included in the database.

TDC's database contains the manufacturers rated wattage and the ballast wattage.

The differences found when wattages were checked for alignment with the published standardised wattage table were two lamp type and wattage differences, affecting 302 lamps with an overall wattage difference of 377 W, or an estimated over submission of 1,610 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUMML database auditing tool).

Lamp Type	Description	Wattage	Lamp Type Category	TDC database	Correct wattage	Lamps affected	wattage difference	total difference
26w Fluorescent	Unknown	32	Fluorescent	26w Fluorescent	28	25	-4	-100
35w Low Pressure Sodium	36w Low Pressure Sodium	45	High Pressure Sodium	36w Low Pressure Sodium	44	277	-1	-277

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 150 items of load on the 15th May.

Audit commentary

The field audit findings are detailed in the table below:

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
Strata					
Albury					
DUKE STREET	2	2		38 W	1 x 35w LPS (DB value was 45 W) is a 70w HPS
Fairlie					
STRUTHERS STREET	2	2			
TALBOT ROAD	16	16			
KIRKE STREET	4	4			
AYR STREET	3	5	2	54 W	2 x additional L27 LEDs
Tekapo					
SIBBALD LANE	8	7	-1	-45 W	1 x missing 35w LP (DB value was 45 W)
06 SH 8 RS 85 HALDON ROAD	5	5			
MISTAKE DRIVE (Lochinvar Dr?)	44	44			
MANNING PLACE	10	10			
Twizel					
RUATANIWHA ROAD	8	8			
OSTLER ROAD	20	19	-1	-17 W	1 x missing 17w LED
FRASER CRESCENT	12	12			
OHAU ROAD	4	4			
GLENCAIRN CRESCENT	12	12			
Total by Type	150	150		-30 W	

I found two additional and two missing lamps in the field than were recorded in the database, and one lamp wattage difference. This is recorded as a non-compliance.

The field data was 99.6% of the database data for the sample checked. The total wattage recorded in the database for the sample was 7,542 watts. The total wattage found in the field for the sample

checked was 7,512 watts, a difference of 30 watts. This will result in estimated over submission of 128 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUMML database auditing tool).

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clauses 11(2A) of Schedule 15.3 From: 01-Mar-17 To: 30-Apr-18	The field audit discovered two additional lamps and two missing lamps in the field than were recorded in the database, and one lamp wattage difference. Result in estimated over submission of 128 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate because both additional and missing lamps were identified in the field. The impact is low because of an estimated over submission of 128 kWh per annum.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis are working with the database owner to maintain exceptions as identified.		12/2018	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Database owner to implement validation checks, Genesis will be working with McKenzie DC to maintain the database of record as required.		12/2018	

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

Code reference

Clause 11(3) of Schedule 15.3

Code related audit information

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

Audit observation

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

The processes were reviewed for new lamp connections and the tracking of load changes due to faults and maintenance.

Audit commentary

NetCon is the maintenance contractor for TDC region. Outage patrols are conducted on a regular basis. Lamp outages are notified to TDC by residents and work requests are made to NetCon personnel. NetCon update the database directly when maintenance is performed.

LED upgrades are underway by region by street. NetCon report to TDC as upgrades completed and the database is updated within the month of notification.

New subdivisions require a proposed plan to be provided and an “as built” plan once the development is complete. The Councils have an acceptance process for new subdivisions. NetCon’s site foreman advises when able to be livened. TDC then go and check these are installed and livened and add them to the database within the month as at the day of livening.

There is no Festive light installation to be accounted for in TDC’s Mackenzie region.

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

RAMM records audit trail information of changes made.

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, Mackenzie region								
Strata	The database contains 1,062 items of load in the area. The processes for the management of all items of load are the same, I decided to place the items of load into strata by settlement, as follows: <ol style="list-style-type: none"> 1. Albury 2. Fairlie 3. Tekapo 4. Twizel 								
Area units	I created a pivot table of the roads in each area and I used a random number generator in a spreadsheet to select a total of 14 subunits.								
Total items of load	150 items of load were checked. <table style="margin-left: 20px;"> <tr> <td>Albury</td> <td>2</td> </tr> <tr> <td>Fairlie</td> <td>25</td> </tr> <tr> <td>Tekapo</td> <td>67</td> </tr> <tr> <td>Twizel</td> <td>56</td> </tr> </table>	Albury	2	Fairlie	25	Tekapo	67	Twizel	56
Albury	2								
Fairlie	25								
Tekapo	67								
Twizel	56								

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

Audit commentary

The database was found to contain some inaccuracies.

Database lamp and wattage checks identified two lamp type and wattage differences, affecting 302 lamps with an overall wattage difference of 377 W, or an estimated over submission of 1,610 kWh per annum. This is reported as a non-compliance in **section 2.4**.

The field audit found one lamp type and wattage difference as well as two additional lamps and two missing lamps.

The field data was 99.6% of the database data for the sample checked. The total wattage recorded in the database for the sample was 7,542 watts. The total wattage found in the field for the sample

checked was 7,512 watts, a difference of 30 watts. This will result in estimated over submission of 128 kWh per annum (based on annual burn hours of 4,271 as detailed in the DUMML database auditing tool).

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clauses 15.2 and 15.37B(b) From: 01-Mar-17 To: 30-Apr-18	Database checks identified two lamp type and wattage differences, affecting 302 lamps an estimated over submission of 1,610 kWh per annum. The field audit discovered two additional lamps and two missing lamps in the field than were recorded in the database, and one lamp wattage difference. Result in estimated over submission of 128 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate because both additional and missing lamps were identified in the field. The impact is low because of an estimated over submission of less than 2,000 kWh per annum.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis are working with the database owner to maintain exceptions as identified.		12/2018	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Database owner to implement validation checks, Genesis will be working with McKenzie DC to maintain the database of record as required.		12/2018	

3.2. Volume information accuracy (Clause 15.2 and 15.37B(c))

Code reference

Clause 15.2 and 15.37B(c)

Code related audit information

The audit must verify that:

- volume information for the DUMML is being calculated accurately
- profiles for DUMML 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
- 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 SST profile.

Submissions are based on the database information provided monthly from TDC, with on and off times derived from data logger information.

I recalculated the submissions for March 2018 for ICPs using the data logger and TDC's database information. I confirmed that the calculation method was correct. Festive lights were correctly excluded from the calculation because they were not connected.

I checked the March 2018 extract provided by TDC against the submission totals supplied by Genesis and found that submission matched the database.

The methodology for deriving submission information is compliant.

There is some inaccurate data within the database, detailed in later sections, used to calculate submissions. This is recorded as non-compliance

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 3.2 With: Clauses 15.2 and 15.37B(c) From: 01-Mar-17 To: 30-Apr-18	Inaccurate information in the database used for submission calculation <ul style="list-style-type: none"> • 47 items of load without an ICP number recorded, section 2.2, estimated under submission of 9,580 kWh per annum. • 2 lamp type and wattage errors, section 2.4, estimated over submission of 1,610 kWh per annum. • 5 field audit errors identified, section 2.5, estimated over submission of 128 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are rated as strong because only of the low number of database inaccuracies found. The impact is low, the estimated kWh under 8,000 per annum.	
Actions taken to resolve the issue		Completion date
		Remedial action status

Genesis are working with the database owner to maintain exceptions as identified.	12/2018	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
Database owner to implement validation checks, Genesis will be working with McKenzie DC to maintain the database of record as required.	12/2018	

CONCLUSION

Timaru District Council access and update the DURL database for the Mackenzie region held by Mackenzie District Council.

New connection, fault and maintenance work is completed by NetCon. NetCon update the database for maintenance work using Pocket RAMM. Asset Management data eg LED upgrades in residential areas, are completed by Netcon and then advised to TDC who make those changes in the RAMM database.

TDC provide a monthly report to Genesis from the database for submissions.

The field audit was undertaken of a statistical sample of 150 items of load on the 15th May.

All database checks have been performed on the database provided as at the end of February 2018, with submission checks performed on a database version and submission file as at the end of March 2018.

Six non-compliances were identified, and no recommendations were raised.

The future risk rating of nine indicates that the next audit be completed in 12 months.

Future risk rating	1-3	4-6	7-8	9-17	18-26	27+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

PARTICIPANT RESPONSE

Genesis have been unable to communicate the detail of this audit due to the timing of the delivery. Genesis have been working with McKenzie DC to maintain their database. Genesis will continue with the intension of rectifying the exception outlined in this audit.