

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

WESTLAND DISTRICT COUNCIL AND
GENESIS ENERGY LIMITED
NZBN: 9429037706609

Prepared by: Rebecca Elliot

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Date audit report completed: 25 May 2023

Audit report due date: 1 June 2023

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EXECUTIVE SUMMARY

This audit of the **Westland District Council (WDC)** DUML database and processes was conducted at the request of **Genesis Energy (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.

Westland DC was switched to the GENE code on April 1st, 2023. This audit examines submission since it switched to the GENE participant code.

The Arc GIS database used for submission is managed by ElectroNet, on behalf of Westpower. New connection, fault, and maintenance work is completed by ElectroNet. GIS Field Maps is used in the field to record information. ElectroNet provide a monthly report from the database to Genesis.

Genesis reconciles the DUML load as NHH using the SST profile. The total volume submitted to the Reconciliation Manager is based on a monthly database report derived from the Arc GIS SQL database and the “burn time” which is sourced from a data logger installed on the Electronet network.

I recalculated the submissions for April 2023 using the data logger and the database information and the submission figures matched.

The field audit was undertaken of a statistical sample of 135 items of load was undertaken on 22nd and 23rd April 2023.

This found that the database is not within the allowable +/-5% accuracy threshold and over submission is likely to be occurring as a result:

- in absolute terms the installed capacity is estimated to be 3.0 kW lower than the database indicates,
- there is a 95% level of confidence that the installed capacity is between the same as the database and up to 6 kW lower than the database,
- in absolute terms, total annual consumption is estimated to be 13,700 kWh lower than the DUML database indicates, and
- there is a 95% level of confidence that the annual consumption is between 1,900 kWh p.a. to 26,600 kWh p.a. lower than the database indicates.

The audit identified three non-compliances and repeats one recommendation. The future risk rating of 12 indicates that the next audit be completed in 12 months. I have considered this in conjunction with the response from Genesis and recommend that the next audit be 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	<p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 13,700 kWh per annum.</p> <p>Nine items of load have the incorrect wattage applied indicating a very minor estimated under submission of 504 kWh per annum.</p> <p>The data used for submission does not track changes at a daily basis and is provided as a snapshot.</p>	Moderate	Medium	4	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	<p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 13,700 kWh per annum.</p> <p>Six lights recorded with a light type of "Other".</p> <p>Nine items of load have the incorrect wattage applied indicating a very minor estimated under submission of 504 kWh per annum.</p>	Moderate	Medium	4	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	<p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 13,700 kWh per annum.</p> <p>Nine items of load have the incorrect wattage applied indicating a very minor estimated under submission of 504 kWh per annum.</p> <p>The data used for submission does not track changes at a daily basis and is provided as a snapshot.</p>	Moderate	Medium	4	Identified
Future Risk Rating						12	

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
Location of each item of load	2.3	Align items of load with a single street with a uniform format of street names.

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

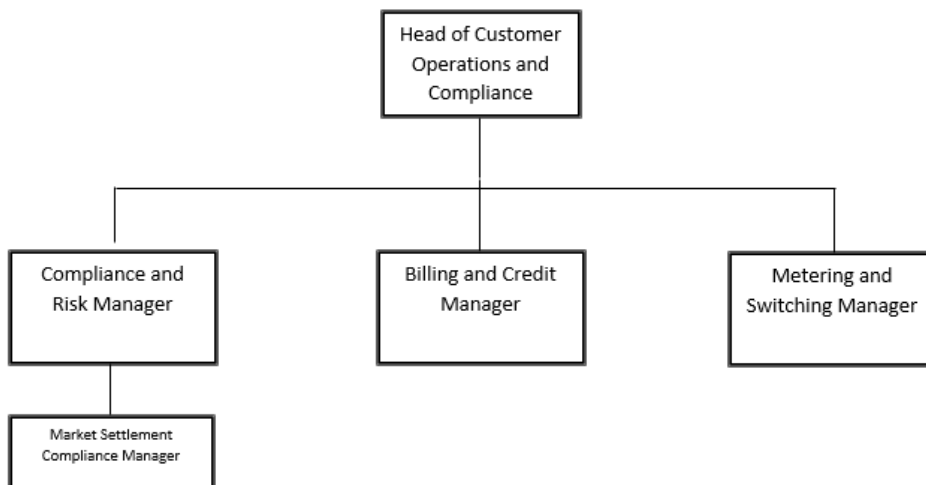
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

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

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
Nirav Teli	DUML Data & Stakeholder Lead	Genesis Energy
Callie Dando	GIS Technician	ElectroNet
Chris Busson	GIS Administrator	ElectroNet

1.4. Hardware and Software

The Arc GIS SQL database used for the management of DUML is managed by ElectroNet. The database back up is in accordance with standard industry procedures. Access to the database is restricted using a login and password.

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

1.5. Breaches or Breach Allegations

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

1.6. ICP Data

ICP Number	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0000950050WPE41	HOKITIKA S/LIGHTS HKK0661	HKK0661	SST	411	29,351.5
0000950070WP314	RURAL S/LIGHTS HKK0661	HKK0661	SST	203	10,237
0000950071WPF51	WDC KUM0661 SL AC	KUM0661	SST	28	1,417
0000950072WP391	WDC OTI1011 SL AC	OTI0111	SST	1	160
Total				643	41,165.5

1.7. Authorisation Received

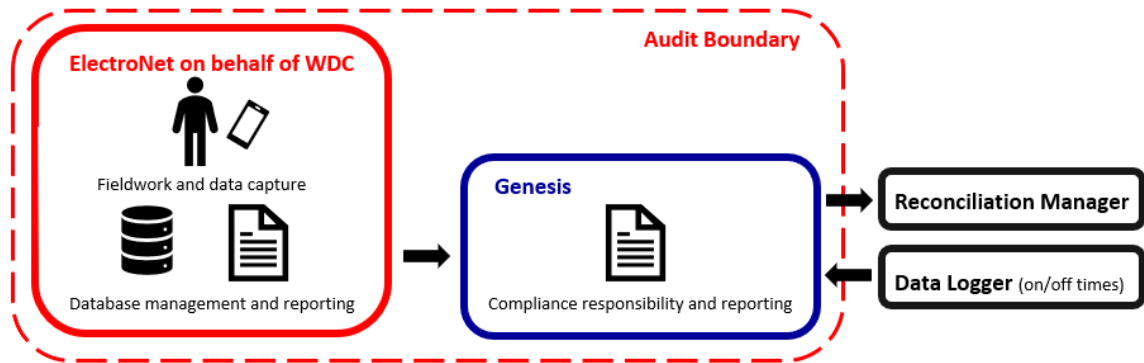
All information was provided directly by Genesis and ElectroNet.

1.8. Scope of Audit

This audit of the Westland DC DUMML 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 Arc GIS database used for submission is managed by ElectroNet, on behalf of Westpower. New connection, fault, and maintenance work is completed by ElectroNet, who update the GIS in the field using Arc GIS collector. ElectroNet provide a monthly report from the database 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 database reporting. The diagram below shows the audit boundary for clarity.



1.9. Summary of previous audit

The last audit was completed in May 2021 by Steve Woods of Veritek Limited for Meridian Energy. The table below records the current status of the non-compliant clauses:

Table of Non-compliance

Subject	Section	Clause	Non-Compliance	Status
Deriving submission information	2.1	11(1) of Schedule 15.3	The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Still existing
			In absolute terms, total annual consumption is estimated to be 11,000 kWh lower than the DUML database indicates.	Still existing
			Five lights recorded with a light type of "Other".	Still existing
All load recorded in database	2.5	11(2A) of Schedule 15.3	Four additional lights found in the field not added to database.	Cleared
Database accuracy	3.1	15.2 and 15.37B(b)	Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated under submission of 11,000 kWh per annum.	Still existing
			Five lights recorded with a light type of "Other".	Still existing
Volume information accuracy	3.2	15.2 and 15.37B(c)	The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Still existing
			In absolute terms, total annual consumption is estimated to be 11,000 kWh lower than the DUML database indicates.	Still existing
			Five lights recorded with a light type of "Other".	Still existing

Table of recommendations

Subject	Section	Recommendation for Improvement	Status
Location of each item of load	2.3	Align items of load with a single street with uniform spelling of street names	Repeated

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. DUMML 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:

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

Audit observation

The process for calculation of consumption was examined.

Audit commentary

Genesis reconciles the DUMML load as NHH using the SST profile. A database extract is sent each month. The total volume submitted to the Reconciliation Manager is based on a monthly database report derived from the Arc GIS SQL database and the “burn time” which is sourced from a data logger installed on the Electronet network.

I recalculated the submissions for April 2023 using the data logger and the database information and the submission figures matched.

The field audit found that in absolute terms, total annual consumption is estimated to be 13,700 kWh lower than the DUMML database indicates.

Some database content inaccuracies have led to inaccurate volume information as detailed in **section 3.1**. Specifically, nine items of load have the incorrect wattage applied indicating an estimated under submission of 504 kWh per annum.

The monthly report that is provided to Genesis contains additional information containing any changes made through the month, including the date the changes were made.

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

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

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

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3 From: 28-Aug-21 To: 23-Mar-23	Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 13,700 kWh per annum. Nine items of load have the incorrect wattage applied indicating a very minor estimated under submission of 504 kWh per annum. The data used for submission does not track changes at a daily basis and is provided as a snapshot. Potential impact: Medium Actual impact: Medium Audit history: Twice previously Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls are rated as moderate as they will mitigate risk most of the time but there is room for improvement. The audit risk rating is medium based on the submission values detailed above.		
Actions taken to resolve the issue		Completion date	Remedial action status
WDC has been notified of the discrepancies. Genesis relies on WDC to accurately maintain its database. Genesis has informed WDC of the incorrect wattage being applied and will revise submission for April 2023 once an updated dataset is provided. Genesis will discuss the importance of tracking of change with WDC and will work with them to have this incorporated in their dataset.		01/09/2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis continues to work with the council to increase accuracy levels in their database.		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 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 an ICP is recorded for each item of load.

Audit commentary

All items of load have an ICP number recorded.

Audit outcome

Compliant

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

Code reference

Clause 11(2)(b) of Schedule 15.3

Code related audit information

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

Audit observation

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

Audit commentary

All items of load have a GPS location recorded, and most items of load also have a street address recorded. In the previous audit a recommendation was repeated, that the address fields be reviewed to associate an item of load with a single street rather than the current range of physical address descriptions and street name variances. I repeat this recommendation as the address descriptions remained unchanged. The GPS co-ordinates provide the detail for the specific location.

Description	Recommendation	Audited party comment	Remedial action
Location of each item of load	Align items of load with a single street with a uniform format of street names.	Genesis has brought this to the attention of WDC to review the address field	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 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 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

A light type description including the light wattage, and total wattage including ballast is recorded in the database for all items of load.

Six lights have 'Other' recorded for the light type. The accuracy of the lamp description, capacity and ballasts recorded 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

A field audit of a statistical sample of 135 items of load was undertaken on 22nd and 23rd April 2023.

Audit commentary

The field audit findings for the sample of lamps was accurate with the exception of the streets detailed in the table below:

Address	Database Count	Field Count	Count differences	Wattage differences	Comments
Greenstone Rd	8	8		3	2 x 50W SON recorded in the database but 2 x 22W LED located in the field 1 x 50W SON recorded in the database but 22W LED located in the field
Butlers Rd	5	5		2	1 x 70W SON recorded in the database but 22W LED located in the field 1 x 50W SON recorded in the database but 22W LED located in the field
Bonar Drive	6	6		1	1 x 70W SON recorded in the database but 22W LED located in the field
CNR HAMPDEN /ROLLESTON ST	36	36		1	1 x 70W SON recorded in the database but 22W LED located in the field
Cnr Kaniere Tram & Pine Tree Rd	48	48		1	1 x 70W SON recorded in the database but 22W LED located in the field
Davie Street	13	13		1	1 x 22W LED recorded in the database but 27W LED located in the field
HOFFMAN ST	11	11		1	1 x 70W SON recorded in the database but 22W LED located in the field
JOLLIE ST	24	24		3	3 x 70W SON recorded in the database but 22W LED located in the field
LIVINGSTONE ST	13	13		1	1 x 26W LED recorded in the database but 22W LED located in the field
Old Christchurch Rd	4	4		4	4 x 22W LED recorded in the database but 4 x 75W LED located in the field

Address	Database Count	Field Count	Count differences	Wattage differences	Comments
Tui Street	7	7		1	1 x 50W SON recorded in the database but 22W LED located in the field
WHITCOMBE TCE	3	3		2	2 x 70W SON recorded in the database but 22W LED located in the field
Total	135	135		21	

There were no additional items of load found in the field. The database accuracy is discussed in **section 3.1**.

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

Audit observation

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

Audit commentary

The ElectroNet 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 DUMML database must incorporate an audit trail of all additions and changes that identify:

- *the before and after values for changes*
- *the date and time of the change or addition*
- *the person who made the addition or change to the database.*

Audit observation

The database was checked for audit trails.

Audit commentary

The database has a complete and compliant 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	Westland DC streetlights.
Strata	The database contains 643 items of load in the Westland DC region. The management process is the same for all lights. I created two strata: <ol style="list-style-type: none"> 1. Rural and 2. Urban.
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 30 sub-units.
Total items of load	135 items of load were checked.

Wattages were checked for alignment with the published standardised wattage table produced by the Electricity Authority, and the manufacturer's specifications or in the case of LED lights against the LED light specification.

The process to manage changes made in the field being updated in the database was examined.

Audit commentary

Database accuracy

A field audit was conducted of a statistical sample of 135 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	92.2	Wattage from the survey is lower than the database wattage by 7.8%
R _L	84.9	With a 95% level of confidence, it can be concluded that the error could be between -15.1% and - 1.1%.
R _H	98.9	

These results were categorised in accordance with the "Distributed Unmetered Load Statistical Sampling Audit Guideline", effective from 1 February 2019. The conclusion from Scenario B is that the variability of the sample results across the strata with statistical significance means that the true wattage (installed in the field) could be between 1.1% to 15.1% lower than the wattage recorded in the DUML database. Non-compliance is recorded because the potential error is greater than 5.0%.

- In absolute terms the installed capacity is estimated to be 3.0 kW lower than the database indicates.
- There is a 95% level of confidence that the installed capacity is between the same as the database and up to 6 kW lower than the database.
- In absolute terms, total annual consumption is estimated to be 13,700 kWh lower than the DUML database indicates.
- There is a 95% level of confidence that the annual consumption is between 1,900 kWh p.a. to 26,600 kWh p.a. lower than the database indicates.

Scenario	Description
A - Good accuracy, good precision	<p>This scenario applies if:</p> <p>(a) R_H is less than 1.05; and</p> <p>(b) R_L is greater than 0.95</p> <p>The conclusion from this scenario is that:</p> <p>(a) the best available estimate indicates that the database is accurate within +/- 5 %; and</p> <p>(b) this is the best outcome.</p>
B - Poor accuracy, demonstrated with statistical significance	<p>This scenario applies if:</p> <p>(a) the point estimate of R is less than 0.95 or greater than 1.05</p> <p>(b) as a result, either R_L is less than 0.95 or R_H is greater than 1.05.</p> <p>There is evidence to support this finding. In statistical terms, the inaccuracy is statistically significant at the 95% level</p>
C - Poor precision	<p>This scenario applies if:</p> <p>(a) the point estimate of R is between 0.95 and 1.05</p> <p>(b) R_L is less than 0.95 and/or R_H is greater than 1.05</p> <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>

Audit commentary

Lamp description and capacity accuracy

Wattages for all items of load were checked against the published standardised wattage tables produced by the Electricity Authority. As discussed in **section 2.4**, all lights have a lamp and gear wattage recorded. There are six lights recorded with a light type of "Other". The details are insufficient to determine if the correct wattage has been recorded. This is recorded as non-compliance below.

The following exceptions were identified:

Model	Database wattage	Correct total wattage	Quantity	Total difference
70 SONE E	19	77	1	58
150 SON	150	168	2	36
100W SON T	110	114	6	24
Total			9	118

This could result in an estimated annual over submission of 504 kWh per annum (based on annual burn hours of 4,271 as is detailed in the DUML database auditing tool).

Change management process findings

There have been no changes to the processes in place during the audit period. The Arc GIS database used for submission is managed by ElectroNet, on behalf of Westpower. New connection, fault, and maintenance work is completed by ElectroNet, who update the GIS. GIS Field Maps is used in the field to record information. Westpower office staff validate the data and post it to the database after the field devices are synchronised to the main database.

Maximo workflow is used to manage all new connections and includes a step to update GIS information. Once the installation job is complete, a work task is created for the GIS team to check the Arc GIS database is up to date.

Westland DC currently has no plans to roll out LED lights to replace the existing lights in the council area. LEDs are used to replace faulty lights where necessary and for new lamp connections.

The database contains some permanent festive lighting, and the seasonal festive lights are added to the database when are electrically connected and removed when they are disconnected.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 28-Aug-21 To: 23-Mar-23	Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 13,700 kWh per annum. Six lights recorded with a light type of "Other". Nine items of load have the incorrect wattage applied indicating a very minor estimated under submission of 504 kWh per annum. Potential impact: Medium Actual impact: Medium Audit history: Multiple times Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls are rated as moderate as they will mitigate risk most of the time but there is room for improvement. The audit risk rating is medium based on the submission values detailed above.		
Actions taken to resolve the issue		Completion date	Remedial action status
WDC has been notified of the discrepancies. Genesis relies on WDC to accurately maintain its database. Genesis has brought this to the attention to WDC with an intent that WDC reviews the light type "other" and add relevant information. Genesis has informed WDC of the incorrect wattage being applied and will revise submission once an updated dataset is provided.		01/09/2023	Identified
Genesis will work with the council to help them increase database accuracy.		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 all ICPs have the correct profile and submission flag, and
- checking the database extract combined with the burn hours against the submitted figure to confirm accuracy.

Audit commentary

Genesis reconciles the DUMML load as NHH using the SST profile. A database extract is sent each month. The total volume submitted to the Reconciliation Manager is based on a monthly database report derived from the Arc GIS SQL database and the “burn time” which is sourced from a data logger installed on the Electronet network.

I recalculated the submissions for April 2023 using the data logger and the database information and the submission figures matched.

The field audit found that in absolute terms, total annual consumption is estimated to be 13,700 kWh lower than the DUMML database indicates.

Some database content inaccuracies have led to inaccurate volume information as detailed in **section 3.1**. Specifically, nine items of load have the incorrect wattage applied indicating an estimated under submission of 504 kWh per annum.

The monthly report that is provided to Genesis contains additional information containing any changes made through the month, including the date the changes were made.

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

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

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

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c)</p> <p>From: 28-Aug-21 To: 23-Mar-23</p>	<p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 13,700 kWh per annum.</p> <p>Nine items of load have the incorrect wattage applied indicating a very minor estimated under submission of 504 kWh per annum.</p> <p>The data used for submission does not track changes at a daily basis and is provided as a snapshot.</p> <p>Potential impact: Medium Actual impact: Medium Audit history: Twice previously Controls: Moderate Breach risk rating: 4</p>		
Audit risk rating	Rationale for audit risk rating		
Medium	<p>The controls are rated as moderate as they will mitigate risk most of the time but there is room for improvement.</p> <p>The audit risk rating is medium based on the submission values detailed above.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>WDC has been notified of the discrepancies. Genesis relies on WDC to accurately maintain its database.</p> <p>Genesis has informed WDC of the incorrect wattage being applied and will revise submission once an updated dataset is provided.</p> <p>Genesis will discuss the importance of tracking of change with WDC and will work with them to have this incorporated in their dataset.</p>		01/09/2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Genesis continues to work with the council to increase accuracy levels in their database.		01/09/2023	

CONCLUSION

Westland DC was switched to the GENE code on April 1st, 2023. This audit examines submission since it switched to the GENE participant code.

The Arc GIS database used for submission is managed by ElectroNet, on behalf of Westpower. New connection, fault, and maintenance work is completed by ElectroNet. GIS Field Maps is used in the field to record information. ElectroNet provide a monthly report from the database to Genesis.

Genesis reconciles the DUML load as NHH using the SST profile. The total volume submitted to the Reconciliation Manager is based on a monthly database report derived from the Arc GIS SQL database and the “burn time” which is sourced from a data logger installed on the Electronet network.

I recalculated the submissions for April 2023 using the data logger and the database information and the submission figures matched.

The field audit was undertaken of a statistical sample of 135 items of load was undertaken on 22nd and 23rd April 2023.

This found that the database is not within the allowable +/-5% accuracy threshold and over submission is likely to be occurring as a result:

- in absolute terms the installed capacity is estimated to be 3.0 kW lower than the database indicates,
- there is a 95% level of confidence that the installed capacity is between the same as the database and up to 6 kW lower than the database,
- in absolute terms, total annual consumption is estimated to be 13,700 kWh lower than the DUML database indicates, and
- there is a 95% level of confidence that the annual consumption is between 1,900 kWh p.a. to 26,600 kWh p.a. lower than the database indicates.

The audit identified three non-compliances and repeats one recommendation. The future risk rating of 12 indicates that the next audit be completed in 12 months. I have considered this in conjunction with the response from Genesis and recommend that the next audit be in 12 months.

PARTICIPANT RESPONSE

Genesis has only switched in the council from 01/04/2023 and will engage with council to improve database accuracy. Genesis has reviewed the auditors finding and will discuss the importance of visibility of tracking of change within their data base and will work with WDC to incorporate this.