

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



For

**NULITE ILLUMINATED SIGNS LTD AND
GENESIS ENERGY LTD
NZBN: 9429037706609**

Auditor: Rebecca Elliot

Date audit commenced: 6 May 2024

Date audit report completed: 21 June 2024

Audit report due date: 01-Jun-24

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EXECUTIVE SUMMARY

This audit covers the **Nulite Illuminated Signs Limited (Nulite)** DUML database and processes and 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 Nulite DUML load consists of illuminated advertising signs installed at street intersections in Auckland. The previous audit only examined those items of load in East and South Auckland. This audit includes those recorded in West Auckland under ICP 0000455891UN0A2. A database has never been provided for this load. Nulite provided an extract from their internal database for the field audit. This provided locations but did not have any wattages recorded. I was able to derive estimated wattages based on whether the sign was vertical or horizontal post the field audit and calculated that there is an estimated over submission of 18,547.32 kWh per annum as there were fewer lights found in the field than recorded on the registry. I have recommended in **section 2.1**, that Genesis work with Nulite to determine a database to be used for the management of these items of load.

Genesis reconciles the Nulite DUML load as NHH using the UNM profile. The total volume submitted is derived from the trader daily unmetered kWh details recorded on the registry. Genesis received a copy of the Nulite spreadsheet prior to taking responsibility for these DUML ICPs on 1 April 2022 but this has not been used as no updates were being received. As a result of this audit Genesis has been able to engage with Nulite and they are now working with Nulite to put in place an accurate dataset and a change management process.

As noted in previous audit's, Nulite has a number of signs installed which are not included as part of the DUML load. These signs are reconciled as standard unmetered load with individual ICPs and are not included in the scope of this audit. Where possible I have excluded these from this audit. I found 11 additional signs in the field that I could not match to individual ICPs, so it is unclear how these are being reconciled. These have been passed to Genesis to work with Nulite resolve.

The lamp type was confirmed and identified that the wattages applied in the spreadsheet do not include the ballast wattage. A copy of the Electricity Authority's standardised wattage table has been provided for this to be corrected.

The current spreadsheet, if used for submission would result in an estimated under submission of 35,341.75 kWh per annum. The difference is much less when the field findings were compared to the registry calculated values and are estimated to be resulting in an annual under submission of 2,845.51 kWh. All the findings from the audit have been passed to Genesis and Nulite and they are working to put in place an accurate dataset to be used for submission going forward.

This audit found ten non-compliances and makes two recommendations. The increase in reported non-compliance is due to the lack of a database for the items of load in West Auckland. The future risk rating indicates that the next audit be completed in three months. I have considered this in conjunction with:

- Genesis having good engagement with the client to resolve the issues raised,
- the small size of the database, and
- the response from Genesis,

and I recommend a next audit period of six months. This should allow sufficient time for the issues identified in this audit to be addressed and an accurate database to be in place.

The matters raised are detailed below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Distributed unmetered load audits	1.10	16A.26	Audit not completed within the timeframe specified by the Electricity Authority.	Strong	Low	1	Identified
Deriving submission information	2.1	11(1) of Schedule 15.3	<p>The registry values are used to derive submissions with the following impacts:</p> <ul style="list-style-type: none"> no database in place for the West Auckland DUML load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh per annum, and. registry being used rather than a database resulting in an estimated annual under submission of 2,845.51 kWh per annum. <p>Ballast not being included in the submission calculations. The impact of this is included in the estimated submission variances above.</p> <p>Regular reporting is not being provided to Genesis, submission is based on a historical snapshot and does not consider changes or adjustments.</p>	Moderate	Medium	4	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
ICP Identifier	2.2	11(2)(a) and (aa) of Schedule 15.3	No database in place for the West Auckland DUML load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh.	Moderate	Medium	4	Identified
Location of each item of load	2.3	11(2)(b) of Schedule 15.3	No database and therefore no locations for the items of load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh.	Moderate	Medium	4	Identified
Description and capacity of load	2.4	11(2)(c) of Schedule 15.3	Ballast and total wattage are not recorded in the spreadsheet. No database and therefore description or capacity details for the items of load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh.	Moderate	Medium	4	Identified
All load recorded in the database	2.5	11(2A) of Schedule 15.3	11 additional lights found in the field. No database in place for the items of load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh.	Moderate	Medium	4	Identified
Tracking of load change	2.6	11(3) of Schedule 15.3	No database and therefore no tracking of load change for the items of load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh.	Moderate	Medium	4	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Audit trail	2.7	11(4) of Schedule 15.3	No database and therefore no audit trail for any changes made for the load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh.	Moderate	Medium	4	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	<p>The field audit found the spreadsheet was inaccurate resulting in an estimated under submission of 35,341.75 kWh per annum if the spreadsheet was used for submission.</p> <p>No database in place for the West Auckland DUML load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh.</p> <p>Ballast is missing for all items of load. The effect on submission if the existing spreadsheet was used for submission is calculated above.</p>	Moderate	Medium	4	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Volume information accuracy	3.2	15.2 and 15.37B(c)	<p>The registry values are used to derive submissions with the following impacts:</p> <ul style="list-style-type: none"> no database in place for the West Auckland DUML load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh per annum, and registry being used rather than a database resulting in an estimated annual under submission of 2,845.51 kWh per annum. <p>Ballast not being included in the submission calculations. The impact of this is included in the estimated submission variances above.</p> <p>Regular reporting is not being provided to Genesis, submission is based on a historical snapshot and does not consider changes or adjustments.</p>	Moderate	Medium	4	Identified
Future Risk Rating						37	
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
Deriving submission	2.1	Genesis to work with Nulite to determine a database to be used for the management of the items of load on ICP 0000455891UN0A2.
Description and capacity of load	2.4	Update light descriptions to be detailed enough to determine the correct wattage has been applied.

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

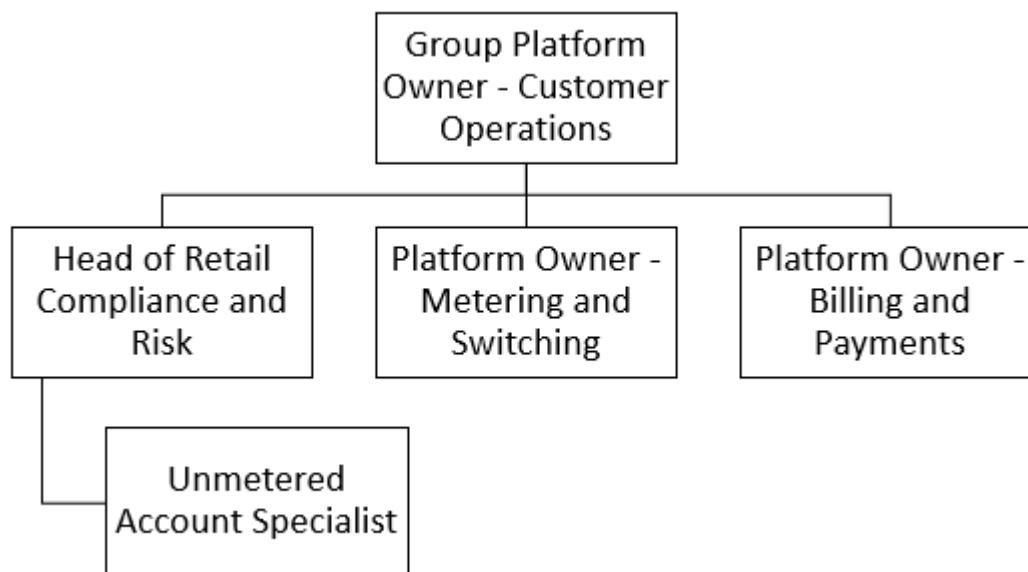
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

Audit commentary

Genesis has no exemptions in place in relation to the ICPs covered by this audit report.

1.2. Structure of Organisation

Genesis provided an organisational structure:



1.3. Persons involved in this audit

Auditors:

Name	Company	Title
Rebecca Elliot	Veritek	Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Alysha Majury	Unmetered Account Specialist	Genesis
Steve Butler	Accountant	Nulite
Tim Katzen	Director	Nulite

1.4. Hardware and Software

The streetlight data for Nulite is held in an excel spreadsheet by Genesis. This is backed up in accordance with standard industry procedures. Access to the spreadsheet is restricted by way of user log into the computer drive.

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	Customer	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0136264797LC7C9	NULITE	BULK UML NU LITE SIGNS	PAK0331	UNM	16	5,272
0586086117LC9FB		BULK UML NULITE SIGNS	WIR0331	UNM	11	3,692
0825228433LCE38		BULK UML NULITE SIGNS	TAK0331	UNM	6	1,992
0987953192LC3D8		NULITE BULK UML	PAK0331	UNM	5	1,520
TOTAL					38	12,476

This audit includes the West Auckland distributed unmetered signs (ICP 0000455891UN0A2). The registry is being used to calculate submissions. Nulite provided a database extract from their internal database of the location of the West Auckland items of load, but the data extract did not include wattages. I recommend in **section 2.1**, that Genesis work with Nulite determine a database to be used for the management of these items of load.

1.7. Authorisation Received

All information was provided directly by Genesis or Nulite.

1.8. Scope of Audit

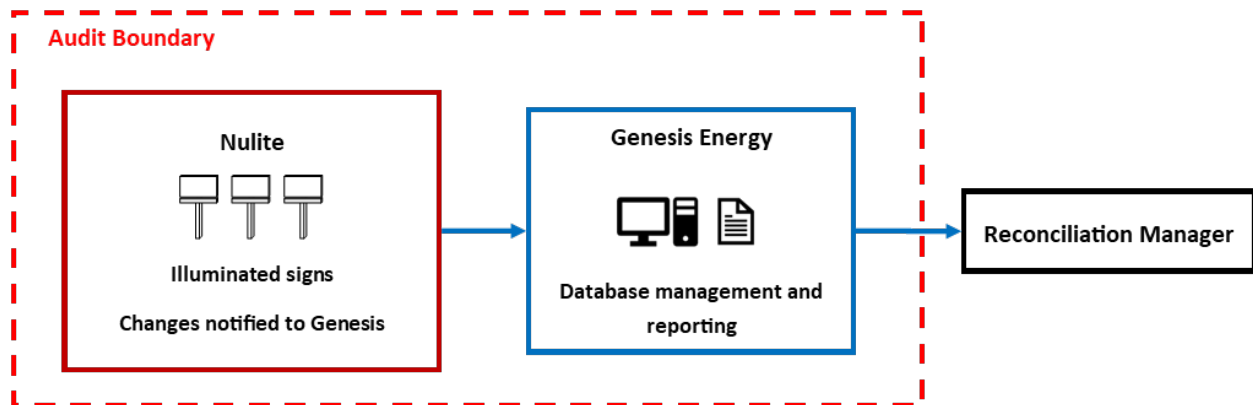
This audit covers the Nulite DUMML database and processes and was conducted at the request of Genesis Energy Limited (Genesis) in accordance with clause 15.37B. The purpose of this audit is to verify that the volume information is being calculated accurately, and that profiles have been correctly applied.

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

The Nulite DUMML load consists of illuminated advertising signs installed at street intersections in Auckland. The previous audit only examined those in East and South Auckland. This audit includes those recorded in West Auckland under ICP 0000455891UN0A2.

Genesis reconciles the Nulite DUMML load as NHH using the UNM profile. The total volume submitted is derived from the trader daily unmetered kWh details recorded on the registry. Genesis received a copy of the Nulite spreadsheet database prior to taking responsibility for these DUMML ICPs on 1 April 2022.

A spreadsheet is maintained by Genesis and the customer is expected to advise Genesis of any changes that occur.



The 100% field audit of all 38 items of load contained in the spreadsheet for South and East Auckland held by Genesis and the 13 items of load recorded as associated with ICP 0000455891UN0A2 using the data extract provided from Nulite’s internal database was carried out on 17 June 2024.

1.9. Summary of previous audit

The previous audit was completed in December 2023 by Brett Piskulic of Provera Limited. The current status of that audit's findings is detailed below:

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Distributed unmetered load audits	1.10	16A.26	Audit not completed within the timeframe specified by the Electricity Authority.	Still existing
Deriving submission information	2.1	11(1) of Schedule 15.3	<p>Incorrect submission calculations will be resulting in an estimated annual over submission of 23,146.68 kWh per annum.</p> <p>Regular reporting is not being provided to Genesis, submission is based on a historical snapshot and does not consider changes or adjustments.</p> <p>The field audit found the database was inaccurate resulting in an estimated over submission of 11,002.05 kWh if the database was used for submission.</p>	Still existing
Location of each item of load	2.3	11(2)(b) of Schedule 15.3	One item of load with insufficient details to locate it.	Still existing
Description and capacity of load	2.4	11(2)(c) of Schedule 15.3	There is insufficient information recorded to determine the capacity of the items of load as the ballast wattages are not recorded in the database.	Still existing
All load recorded in the database	2.5	11(2A) of Schedule 15.3	Two additional lights found in the field.	Still existing
Database accuracy	3.1	15.2 and 15.37B(b)	<p>The field audit found the database was inaccurate resulting in an estimated over submission of 11,002.05 kWh if the database was used for submission.</p> <p>There is insufficient information recorded to determine the capacity of the items of load as the ballast wattages are not recorded in the database.</p>	Still existing

Subject	Section	Clause	Non-compliance	Status
Volume information accuracy	3.2	15.2 and 15.37B(c)	<p>Incorrect submission calculations will be resulting in an estimated annual over submission of 23,146.68 kWh per annum.</p> <p>Regular reporting is not being provided to Genesis, submission is based on a historical snapshot and does not consider changes or adjustments.</p> <p>The field audit found the database was inaccurate resulting in an estimated over submission of 11,002.05 kWh if the database was used for submission.</p>	Still existing

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 has requested Veritek to undertake this DUML audit.

Audit commentary

This audit report confirms that the requirement to conduct an audit has been met for this database. Genesis was unable to complete this audit by the required timeframe as they were not able to obtain information from Nulite to update the spreadsheet prior to the due date.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 1.10 With: Clause 16A.26 From: 18-Apr-24 To: 21-Jun-24	Audit not completed within the timeframe specified by the Electricity Authority. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong, as contact has now been established with Nulite and this is not expected to occur again. The impact is assessed to be low, as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Communication has been established between Genesis and Nulite and we have made progress on getting a corrected datasheet with full data in place.		Continuous Improvement	

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

Submission process and accuracy

Genesis reconciles the Nulite DUML load as NHH using the UNM profile. The total volume submitted is derived from the trader daily unmetered kWh details recorded on the registry. This is recorded as non-compliance below.

Genesis received a copy of the Nulite DUML spreadsheet prior to taking responsibility for the South Auckland and East Auckland ICPs on 1 April 2022 but has been unable to get any updates from Nulite. Genesis has now engaged with Nulite, and they plan to work together to get a current dataset.

This audit includes the West Auckland ICP 0000455891UN0A2 which has always been with Genesis but there has never had a database. For the field audit, Nulite provided a database extract from their internal database. This provided locations but did not have any wattages recorded. I was able to derive estimated wattages based on whether the sign was vertical or horizontal post the field audit. I have used these values to calculate the submission variances:

ICP	kWh value submitted derived from the registry	Calculated kWh value from field audit	Differences
0000455891UN0A2	3,320.10	1,774.49	-1,545.61

The registry recorded 18 items of load, but the field found 11 items of load. This will be resulting in an estimated annual over submission of 18,547 kWh. This is recorded as non-compliance below and in sections 3.1 and 3.2.

I recommend that Genesis work with Nulite to determine a database to be used for the management of these items of load.

Recommendation	Description	Audited party comment	Remedial action
Deriving submission information	Genesis to work with Nulite to determine a database to be used for the management of the items of load on ICP 0000455891UN0A2.	Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field	Identified

I checked the Nulite spreadsheet for South and East Auckland held by Genesis against the latest submission totals supplied by Genesis and found the following differences for the month of May 2024:

ICP	kWh value submitted derived from the registry	Calculated kWh value from field audit	Differences
0136264797LC7C9	3,379.00	3,344.16	-34.84
0586086117LC9FB	1,936.88	2,170.61	233.73
0825228433LCE38	464.38	512.69	48.31
0987953192LC3D8	543.12	962.16	419.04
Total kWh variance			666.24

The incorrect submission calculations will be resulting in an estimated annual under submission of 2,845.51 kWh per annum.

As recorded in **section 3.1**, examination of the wattages applied for the two different sign types identified that the ballast values were missing resulting in an under submission of 73 W for the vertical signs and 77W for horizontal signs. This has been accounted for in the submission variances calculated above. This is recorded as non-compliance

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

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

Reporting of changes made in the field is not being provided to Genesis by Nulite. Submission is calculated from the registry and is based on a historical snapshot and does not consider changes or adjustments. Genesis is working with Nulite to establish a regular update process as discussed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3 From: Unknown To: 21-Jun-24</p>	<p>The registry values are used to derive submissions with the following impacts:</p> <ul style="list-style-type: none"> • no database in place for the West Auckland DUML load associated with ICP 0000455891UNOA2 resulting in an estimated over submission of 18,547.32kWh per annum, and • registry being used rather than a database resulting in an estimated annual under submission of 2,845.51 kWh per annum. <p>Ballast not being included in the submission calculations. The impact of this is included in the estimated submission variances above.</p> <p>Regular reporting is not being provided to Genesis, submission is based on a historical snapshot and does not consider changes or adjustments.</p> <p>Potential impact: Medium Actual impact: Medium Audit history: Once previously Controls: Moderate Breach risk rating: 4</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Medium</p>	<p>The controls are rated as moderate as Genesis is working with Nulite to have an accurate database in place.</p> <p>The impact is assessed to be medium due to the impact on submission.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UNOA2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field.</p> <p>Once the database has been established and is accurate the registry load will be corrected for submissions.</p>		<p>Continuous Improvement</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.</p>		<p>Continuous Improvement</p>	

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 spreadsheet was checked to confirm an ICP was recorded for all items of load.

Audit commentary

The spreadsheet used for the East and South Auckland ICPs contains a sheet per ICP. All items of load have an ICP associated with them.

The registry is used to derive submission for the West Auckland DML load and there is no database being used to manage this load. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: 11(2)(a) and (aa) of Schedule 15.3 From: Unknown To: 21-Jun-24	No database in place for the West Auckland DUMML load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh. Potential impact: Medium Actual impact: Medium Audit history: None Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls in place are rated as moderate as Genesis is working with Nulite to determine a database source for ICP 0000455891UN0A2. The audit risk rating is assessed to be medium based on the impact of over submission for ICP 0000455891UN0A2.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field. Once the database has been established and is accurate the registry load will be corrected for submissions.		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.		Continuous Improvement	

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

Audit commentary

The spreadsheet contains the road intersection for each sign for the East and South Auckland ICPs. The location of the light that was recorded as being at the intersection of East Tamaki Rd and Ti Rakau Drive has been confirmed as Ti Rakau and Chapel Road. This is confirmed as removed.

The registry is used to derive submission for the West Auckland DML load and there is no database being used to manage this load. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.3 With: Clause 11(2)(b) of Schedule 15.3 From: Unknown To: 21-Jun-24	No database and therefore no locations for the items of load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh. Potential impact: Medium Actual impact: Medium Audit history: Three times previously Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls in place are rated as moderate as Genesis is working with Nulite to determine a database source for ICP 0000455891UN0A2. The audit risk rating is assessed to be medium based on the impact of over submission for ICP 0000455891UN0A2.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field. Once the database has been established and is accurate the registry load will be corrected for submissions.		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.		Continuous Improvement	

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 spreadsheet 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

The spreadsheet contains a "Lamp Type/Description" field, and all lamps are recorded as fluorescent tubes. The light types have been determined and I recommend descriptions are updated to add these details.

Recommendation	Description	Audited party comment	Remedial action
Description and capacity of load	Update light descriptions to be detailed enough to determine the correct wattage has been applied.	Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field. Once the database has been established and is accurate the registry load will be corrected for submissions.	Identified

There are three wattage fields, "Wattage", "Ballast" and "Total". The "Wattage" fields are populated for all lamps and the "Ballast" and "Total" fields are all blank. I have confirmed that the ballast is missing and would result in under submission if the spreadsheet were used for submission. This is being corrected. This is recorded as non-compliance.

No database in place for ICP 0000455891UN0A2.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.4 With: 11(2)(c) of Schedule 15.3 From: Unknown To: 21-Jun-24	Ballast and total wattage are not recorded in the spreadsheet. No database and therefore description or capacity details for the items of load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh. 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 in place are rated as moderate as Genesis is working with Nulite to confirm these details and determine a database source for ICP 0000455891UN0A2. The audit risk rating is assessed to be medium based on the impact of over submission for ICP 0000455891UN0A2.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field. Once the database has been established and is accurate the registry load will be corrected for submissions.		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.		Continuous Improvement	

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 100% field audit of all 38 items of load contained in the spreadsheet for South and East Auckland held by Genesis was carried out on 17 June 2024.

Audit commentary

The field audit discrepancies are detailed in the table below:

Discrepancy	Quantity
Lights in the spreadsheet not in the field	0
Lights in the field, not in the spreadsheet	11
Incorrect wattage	38

As detailed in **sections 2.4** and **3.1**, the ballast is missing from all items of load in the spreadsheet for the East and South Auckland ICPs. The field found 11 additional lights in the field. This is recorded as non-compliance below. These have been passed to Genesis and Nulite to investigate. The accuracy of the spreadsheet is detailed in **section 3.1**.

No database in place for ICP 0000455891UN0A2. The results of the field check against the Nulite provided internal database extract for this ICP are detailed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: 11(2A) of Schedule 15.3 From: Unknown To: 21-Jun-24	<p>11 additional lights found in the field.</p> <p>No database in place for the items of load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh.</p> <p>Potential impact: Medium</p> <p>Actual impact: Medium</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 4</p>		
Audit risk rating	Rationale for audit risk rating		
Medium	<p>The controls are rated as moderate as Genesis is working with Nulite to have an accurate database.</p> <p>The audit risk rating is assessed to be medium based on the impact of over submission for ICP 0000455891UN0A2.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field.</p> <p>Once the database has been established and is accurate the registry load will be corrected for submissions.</p>		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.</p>		Continuous Improvement	

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 spreadsheet was examined.

Audit commentary

The spreadsheet for the East and South Auckland ICPs contains a separate tab for each ICP. Details of the dates of any additions and removals are recorded in the “Comments” field within each tab. Compliance is recorded in this section but non-compliance is recorded in **sections 2.1, 3.1 and 3.2** as whilst the spreadsheet has the ability for changes to be recorded, it has not been updated since April 2022.

No database in place for ICP 0000455891UN0A2.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.6 With: 11(3) of Schedule 15.3 From: Unknown To: 21-Jun-24	No database and therefore no tracking of load change for the items of load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh. Potential impact: Medium Actual impact: Medium Audit history: None Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls in place are rated as moderate as Genesis is working with Nulite to determine a database source for ICP 0000455891UN0A2. The audit risk rating is assessed to be medium based on the impact of over submission for ICP 0000455891UN0A2.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field. Once the database has been established and is accurate the registry load will be corrected for submissions.		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.		Continuous Improvement	

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 spreadsheet was checked for audit trails.

Audit commentary

The spreadsheet for the East and South Auckland ICPs contains a separate tab for each ICP. Details of the dates of any additions and removals are recorded in the “Comments” field within each tab. Compliance is recorded in this section but non-compliance is recorded in **sections 2.1, 3.1 and 3.2** as whilst the spreadsheet has the ability for changes to be recorded, it has not been updated since April 2022.

No database in place for ICP 0000455891UN0A2.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.7 With: 11(4) of Schedule 15.3 From: Unknown To: 21-Jun-24	No database and therefore no audit trail for any changes made for the load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh. Potential impact: Medium Actual impact: Medium Audit history: None Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls in place are rated as moderate as Genesis is working with Nulite to determine a database source for ICP 0000455891UN0A2. The audit risk rating is assessed to be medium based on the impact of over submission for ICP 0000455891UN0A2.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field. Once the database has been established and is accurate the registry load will be corrected for submissions.		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.		Continuous Improvement	

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

A full field audit of all 38 items of load was undertaken to confirm the accuracy of the spreadsheet. A field audit of the location of the West Auckland items of load was undertaken but this data extract provided did not include wattages.

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

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

Audit commentary

Field Audit Findings

The field audit findings are detailed in **section 2.5**. The discrepancies found in the field indicate that if the current spreadsheet were used for submission it would result in an estimated under submission of kWh by 42.93%:

ICP	Spreadsheet Wattage (Watts)	Field Wattage (Watts)	Wattage difference (Watts)	Annualised kWh variance
0136264797LC7C9 - Pakuranga	5,272	8,147	2,875	-11,989.75
0987953192LC3D8 - East Tamaki	1,520	4,919	3,339	-14,173.83
0825228433LCE38 - Takanini	644	1,249	605	-2,522.85
0586086117LC9FB - Wiri	3,692	5,288	1,596	-6,655.32
ESTIMATED UNDER SUBMISSION if spreadsheet were used				-35,341.75

This is outside the allowable +/-5% threshold and would be resulting in an estimated annual under submission of 35,341.75 kWh if the spreadsheet was used for submission. The change from an estimated over submission recorded in the last audit to this audit is a combination of more signs being identified and ballast being included in this audit's calculation. Genesis is working with Nulite to have an accurate database that can be used to derive volumes.

There is no database for the West Auckland DUML load associated with ICP 0000455891UN0A2. The field found less lights installed than recorded on the registry. This will be resulting in an estimated annual over submission of 18,547 as detailed in **section 2.1**. This is recorded as non-compliance below and in **sections 2.1 and 3.2**.

Light description and capacity accuracy

The spreadsheet contains a “Lamp Type/Description” field, and all lamps are recorded as fluorescent tubes. There are three wattage fields, “Wattage”, “Ballast” and “Total”. The “Wattage” fields are populated for all lamps and the “Ballast” and “Total” fields are all blank. Through discussion with Nulite I have been able to determine the lamps installed in the field. There are two types of signs:

Vertical:

Light unit type	Wattage	Ballast	Number of lamps	TOTAL WATTAGE
4ft Fluorescent tube	58	14	4	288
2x Fluorescent 30w Tubes	60	17	1	77
TOTAL				365

These are recorded on the spreadsheet with a total wattage of 292W as the ballast hasn’t been added. This is being corrected.

Horizontal:

Light unit type	Wattage	Ballast	Number of lamps	TOTAL WATTAGE
4ft Fluorescent tube	58	14	4	288
2x Fluorescent 30w Tubes	60	17	2	154
TOTAL				442

These are recorded in the spreadsheet with a total wattage of 352W as the ballast hasn’t been added. This is being corrected.

I recommend in **section 2.4** that the spreadsheet include the more specific lamp descriptions. The incorrect wattage being recorded is recorded as non-compliance below.

Change Management

The change management process in place was not working as expected. Nulite were not clear who to provide any updates to and these were being reviewed every few months. Genesis is working with Nulite to establish regular updates are provided at least monthly updates. These should include the date of any changes made in the field.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: 15.2 and 15.37B(b) From: Unknown To: 21-Jun-24	The field audit found the spreadsheet was inaccurate resulting in an estimated under submission of 35,341.75 kWh per annum if the spreadsheet was used for submission. No database in place for the West Auckland DUML load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh. Ballast is missing for all items of load. The effect on submission if the existing spreadsheet was used for submission is calculated above. 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 Genesis is working with Nulite to have an accurate database in place. The audit risk rating is assessed to be medium based on the impact of over submission for ICP 0000455891UN0A2.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field. Once the database has been established and is accurate the registry load will be corrected for submissions.		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.		Continuous Improvement	

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 expected kWh against the submitted figure to confirm accuracy.

Audit commentary

Genesis reconciles the Nulite DUML load as NHH using the UNM profile. The total volume submitted is derived from the trader daily unmetered kWh details recorded on the registry. This is recorded as non-compliance below.

Genesis received a copy of the Nulite DUML spreadsheet prior to taking responsibility for the South Auckland and East Auckland ICPs on 1 April 2022 but has been unable to get any updates from Nulite. Genesis has now engaged with Nulite and they plan to work together to get a current dataset.

This audit includes the West Auckland ICP 0000455891UN0A2 which has always been with Genesis but there has never had a database. For the field audit, Nulite provided a database extract from their internal database. This provided locations but did not have any wattages recorded. I was able to derive estimated wattages based on whether the sign was vertical or horizontal post the field audit. I have used these values to calculate the submission variances:

ICP	kWh value submitted derived from the registry	Calculated kWh value from field audit	Differences
0000455891UN0A2	3,320.10	1,774.49	-1,545.61

The registry recorded 18 items of load, but the field found 11 items of load. This will be resulting in an estimated annual over submission of 18,547 kWh. This is recorded as non-compliance below and in **sections 3.1** and **3.2**.

I recommend in **section 2.1**, that Genesis work with Nulite to determine a database to be used for the management of these items of load.

I checked the Nulite spreadsheet for South and East Auckland held by Genesis against the latest submission totals supplied by Genesis and found the following differences for the month of May 2024:

ICP	kWh value submitted derived from the registry	Calculated kWh value from field audit	Differences
0136264797LC7C9	3,379.00	3,344.16	-34.84
0586086117LC9FB	1,936.88	2,170.61	233.73
0825228433LCE38	464.38	512.69	48.31
0987953192LC3D8	543.12	962.16	419.04
Total kWh variance			666.24

The incorrect submission calculations will be resulting in an estimated annual under submission of 2,845.51 kWh per annum.

As recorded in **section 3.1**, examination of the wattages applied for the two different sign types identified that the ballast values were missing resulting in an under submission of 73 W for the vertical signs and 77W for horizontal signs. This has been accounted for in the submission variances calculated above. This is recorded as non-compliance

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

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

Reporting of changes made in the field is not being provided to Genesis by Nulite. Submission is calculated from the registry and is based on a historical snapshot and does not consider changes or adjustments. Genesis is working with Nulite to establish a regular update process as discussed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 With: Clauses 15.2 and 15.37B(c) From: Unknown To: 21-Jun-24	The registry values are used to derive submissions with the following impacts: <ul style="list-style-type: none"> • no database in place for the West Auckland DUML load associated with ICP 0000455891UN0A2 resulting in an estimated over submission of 18,547.32kWh per annum, and • registry being used rather than a database resulting in an estimated annual under submission of 2,845.51 kWh per annum. Ballast not being included in the submission calculations. The impact of this is included in the estimated submission variances above. Regular reporting is not being provided to Genesis, submission is based on a historical snapshot and does not consider changes or adjustments. Potential impact: Medium Actual impact: Medium Audit history: Once previously Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls are rated as moderate as Genesis is working with Nulite to have an accurate database in place. The impact is assessed to be medium due to the impact on submission.		
Actions taken to resolve the issue		Completion date	Remedial action status
Genesis and Nulite have been working together to create a manageable database for all ICP load including 0000455891UN0A2. Communication has been built and Nulite are aware of the expectation and importance of notifying Genesis in a timely manner of any changes in field. Once the database has been established and is accurate the registry load will be corrected for submissions.		Continuous Improvement	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Communication has been established between Genesis and Nulite and we have made progress in getting a corrected datasheet with full data in place.		Continuous Improvement	

CONCLUSION

The Nulite DUML load consists of illuminated advertising signs installed at street intersections in Auckland. The previous audit only examined those items of load in East and South Auckland. This audit includes those recorded in West Auckland under ICP 0000455891UN0A2. A database has never been provided for this load. Nulite provided an extract from their internal database for the field audit. This provided locations but did not have any wattages recorded. I was able to derive estimated wattages based on whether the sign was vertical or horizontal post the field audit and calculated that there is an estimated over submission of 18,547.32 kWh per annum as there were fewer lights found in the field than recorded on the registry. I have recommended in **section 2.1**, that Genesis work with Nulite to determine a database to be used for the management of these items of load.

Genesis reconciles the Nulite DUML load as NHH using the UNM profile. The total volume submitted is derived from the trader daily unmetered kWh details recorded on the registry. Genesis received a copy of the Nulite spreadsheet prior to taking responsibility for these DUML ICPs on 1 April 2022 but this has not been used as no updates were being received. As a result of this audit Genesis has been able to engage with Nulite and they are now working with Nulite to put in place an accurate dataset and a change management process.

As noted in previous audit's, Nulite has a number of signs installed which are not included as part of the DUML load. These signs are reconciled as standard unmetered load with individual ICPs and are not included in the scope of this audit. Where possible I have excluded these from this audit. I found 11 additional signs in the field that I could not match to individual ICPs, so it is unclear how these are being reconciled. These have been passed to Genesis to work with Nulite resolve.

The lamp type was confirmed and identified that the wattages applied in the spreadsheet do not include the ballast wattage. A copy of the Electricity Authority's standardised wattage table has been provided for this to be corrected.

The current spreadsheet, if used for submission would result in an estimated under submission of 35,341.75 kWh per annum. The difference is much less when the field findings were compared to the registry calculated values and are estimated to be resulting in an annual under submission of 2,845.51 kWh. All the findings from the audit have been passed to Genesis and Nulite and they are working to put in place an accurate dataset to be used for submission going forward.

This audit found ten non-compliances and makes two recommendations. The increase in reported non-compliance is due to the lack of a database for the items of load in West Auckland. The future risk rating indicates that the next audit be completed in three months. I have considered this in conjunction with:

- Genesis having good engagement with the client to resolve the issues raised,
- the small size of the database, and
- the response from Genesis,

and I recommend a next audit period of six months. This should allow sufficient time for the issues identified in this audit to be addressed and an accurate database to be in place.

PARTICIPANT RESPONSE

Genesis agrees with the audit findings.

Genesis has established communication with Nulite and have been working with Nulite in creating a manageable database with accurate data.

Nulite are aware of the importance of communicating changes in field in a timely manner to ensure the database is kept up to date and accurate. Nulite are also now confident on who to report these changes to.

Once Genesis and Nulite have completed creating an accurate database the registry load data will also be corrected.