

ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

NULITE ILLUMINATED SIGNS LTD AND  
MERCURY NZ LTD

Prepared by: Rebecca Elliot

Date audit commenced: 20 January 2020

Date audit report completed: 21 February 2020

Audit report due date: 01-Mar-20

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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 Mercury NZ Limited (Mercury) 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.

This audit found a similar level of accuracy as recorded in the previous two audits. There were significantly more lights found in the field resulting in an estimated annual under submission of 37,397.9 kWh. Mercury are working with Nulite to address this, but progress is slow. I have repeated the last audits recommendations to, undertake a full field audit and liaise with Nulite to put a process in place to track changes effectively to maintain visibility.

The two ICPs (0586086117LC9FB & 0825228433LCE38) that were decommissioned in error in the last audit were corrected, but this resulted in 2,384.68 kWh not being submitted as the R14 revision was submitted whilst they were incorrectly recorded as decommissioned. Whilst this is outside of the revision period the missing volume is expected to be submitted in the next available revision. I checked with Mercury and this volume still has not been submitted.

As was reported in the last two audits for Nulite, I recommend that Mercury liaise with Nulite to confirm that all items of load are being reconciled. I also recommend that the tracking of load change process is reviewed with Nulite to ensure all changes are updated in the database.

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.

The current spreadsheet is calculated as at the end of a month and this practice is non-compliant. The spreadsheet contains a “effective from date” field but there is not a field for “end date” for lighting is removed. When a wattage is changed in the database due to a physical change or a correction, only the record present at the end of the month is used, and the calculation does not reflect any changes from the date of change.

This audit found five non-compliances and makes two recommendations. The future risk rating indicates that the next audit be completed in three months. I have considered this in conjunction with Mercury’s responses, the size of the database and I recommend that the next audit be in nine 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	Database discrepancies found in the field resulting in an estimated annual under submission of 37,397.9 kWh.  The monthly spreadsheet used to calculate submission does not track changes at a daily basis.	Weak	High	9	Identified
Description and capacity of load	2.4	11(2)(c) of Schedule 15.3	No lamp descriptions recorded only a total wattage is recorded.	Moderate	Low	2	Investigating
All load recorded in the database	2.5	11(2A) of Schedule 15.3	29 additional lights found in the field.	Weak	High	9	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	The field audit found 29 additional lights resulting in an estimated under submission of 37,397.9 kWh per annum.  No lamp descriptions recorded only a total wattage is recorded.	Weak	High	9	Investigating
Volume information accuracy	3.2	15.2 and 15.37B(c)	Under submission of 2,384.68 kWh due to the ICPs being recorded as decommissioned on the registry and not subsequently submitted.  Database discrepancies found in the field resulting in an estimated annual under submission of 37,397.9 kWh.  The monthly spreadsheet used to calculate submission does not track changes at a daily basis.	Weak	High	9	Identified
Future Risk Rating						38	

<b>Future risk rating</b>	0	1-4	5-8	9-15	16-18	19+
<b>Indicative audit frequency</b>	36 months	24 months	18 months	12 months	6 months	3 months

## RECOMMENDATIONS

<b>Subject</b>	<b>Section</b>	<b>Recommendation</b>
Database accuracy	3.1	Liaise with Nulite to undertake a full field audit and confirm that all items of load are being reconciled.
		Liaise with Nulite to ensure that load changes are captured in a timely manner.

## ISSUES

<b>Subject</b>	<b>Section</b>	<b>Description</b>	<b>Issue</b>
		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**

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

## 1.2. Structure of Organisation

Mercury provided an organisational structure:



### 1.3. Persons involved in this audit

Auditor:

**Rebecca Elliot**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Other personnel assisting in this audit were:

Name	Title	Company
Kayla McJarrow	Compliance, Risk and Financial Reconciliation Analyst	Mercury NZ Ltd

### 1.4. Hardware and Software

The streetlight data for Nulite is held in an excel spreadsheet. 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.

### 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	East Tamaki	PAK0331	RPS	17	5,684
0586086117LC9FB		Great South Road -	WIR0331	RPS	13	4,276
0825228433LCE38		Great South Road -	TAK0331	RPS	6	1,992
0987953192LC3D8		Great South Road -	MNG0331	RPS	5	1,520
TOTAL					41	13,472

### 1.7. Authorisation Received

All information was provided directly by Mercury.

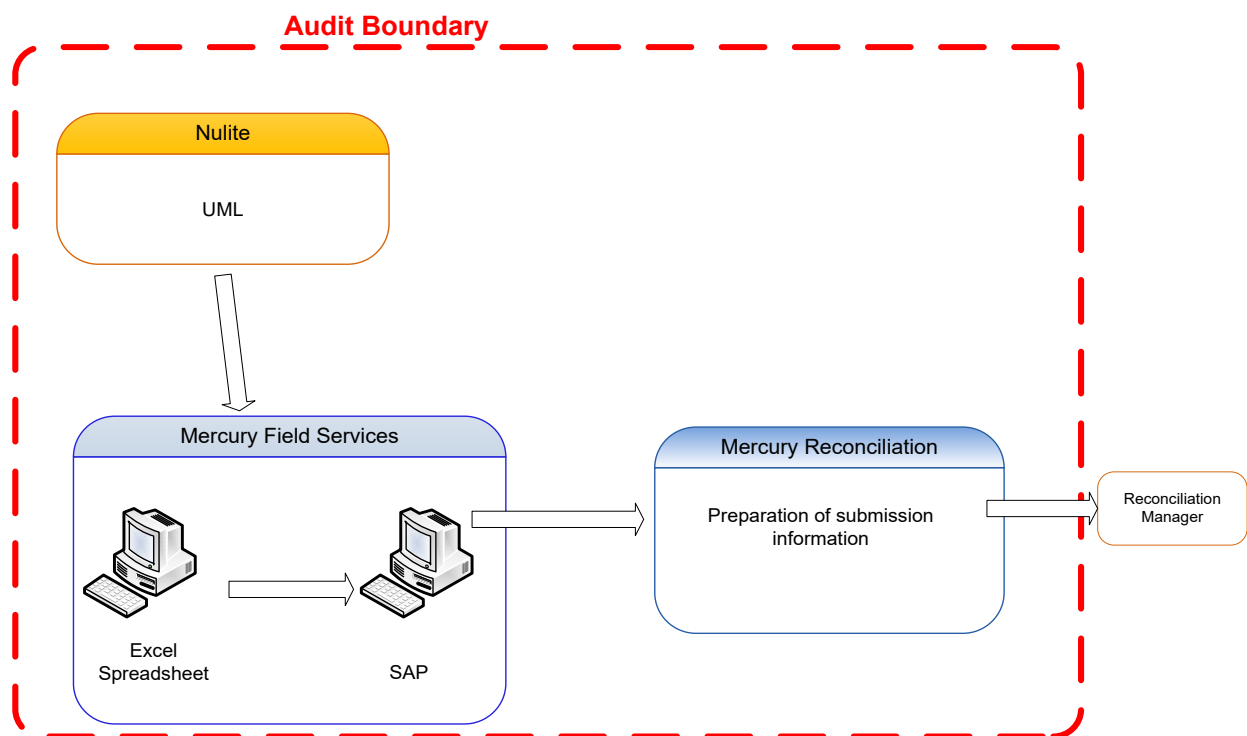


## 1.8. Scope of Audit

This audit covers the Nulite DUML database and processes and was conducted at the request of Mercury NZ Limited (Mercury) 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 spreadsheet is maintained by Mercury and the customer is expected to advise Mercury of any changes that occur.



The 100% field audit of all 41 items of load was carried out on February 7<sup>th</sup>, 2020.

## 1.9. Summary of previous audit

The previous audit was completed in May 2019 by Rebecca Elliot of Veritek Limited. Six non-compliances were identified, and two recommendations were made. The current statuses of the non-compliances are detailed below.

## Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Deriving submission information	2.1	11(1) of Schedule 15.3	Under submission of 2,384.68 kWh across May and June 2017 due to the ICPs being recorded as decommissioned on the registry.  Additional lights found in the field resulting in an estimated annual under submission of 33,518.8 kWh.	Still existing  Still existing
Description and capacity of load	2.4	11(2)(c) of Schedule 15.3	No lamp descriptions recorded only a total wattage is recorded.	Still existing
All load recorded in the database	2.5	11(2A) of Schedule 15.3	27 additional lights found in the field.	Still existing
Audit trail	2.7	11.4 of Schedule 15.3	The audit trail does not include the details of the person making the change in the spreadsheet.	Cleared
Database accuracy	3.1	15.2 and 15.37B(b)	The field audit found 27 additional lights resulting in a potential under submission of 33,518.8 kWh per annum.	Still existing
Volume information accuracy	3.2	15.2 and 15.37B(c)	Additional lights found in the field resulting in an estimated annual under submission of 33,518.8 kWh.	Still existing

## Table of Recommendations

Subject	Section	Recommendation	
All load recorded in the database	2.5	Liaise with Nulite to undertake a full field audit and confirm that all items of load are being reconciled.	Still existing- recorded in <b>section 3.1</b> in this audit
Tracking of load change	2.6	Liaise with Nulite to ensure that load changes are captured in a timely manner.	Still existing- recorded in <b>section 3.1</b> in this audit

## 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**

Mercury has requested Veritek to undertake this street lighting audit.

### **Audit commentary**

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

### **Audit outcome**

Compliant

## 2. DUML DATABASE REQUIREMENTS

### 2.1. Deriving submission information (Clause 11(1) of Schedule 15.3)

#### Code reference

*Clause 11(1) of Schedule 15.3*

#### Code related audit information

*The retailer must ensure the:*

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

#### Audit observation

The process for calculation of consumption was examined and the application of profiles was checked. The database was checked for accuracy.

#### Audit commentary

This clause requires that the distributed unmetered load database must satisfy the requirements of schedule 15.5 regarding the methodology for deriving submission information. Mercury reconciles this DUML load using the RPS profile. The daily kWh figure recorded in SAP, which is derived from the spreadsheet is used for submission. I checked the accuracy of the submission information by multiplying the daily kWh figure to the figure submitted in the AV080 for the month of January 2020. This confirmed the volume was calculated correctly.

The field audit found that the discrepancies identified in the last two audits have not been corrected in the database. This will be resulting in an estimated annual under submission of 37,397.9 kWh. This is discussed further in **section 3.1**.

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.

The current spreadsheet is calculated as at the end of a month and this practice is non-compliant. The spreadsheet contains a “effective from date” field but there is no field for “end date” for lighting that is removed. The calculation does not reflect any changes from the date of change.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: 11(1) of Schedule 15.3  From: 01-Jun-17 To: 31-Jan-20	Database discrepancies found in the field resulting in an estimated annual under submission of 37,397.9 kWh. The monthly spreadsheet used to calculate submission does not track changes at a daily basis. Potential impact: High Actual impact: High Audit history: Three times previously Controls: Weak Breach risk rating: 9		
Audit risk rating	Rationale for audit risk rating		
<b>High</b>	The controls in place are rated as weak as discrepancies identified in the last two audit reports have not been corrected. The impact is assessed to be high, based on the kWh differences detailed in <b>section 3.1.</b> and that this has been present for two years.		
Actions taken to resolve the issue		Completion date	Remedial action status
Database to be updated with auditor's field findings. 'End date' field to be added into database to track removal of items. Mercury will liaise with Nulite to ensure database accuracy.		April 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Mercury to liaise with Nulite to ensure all changes are recorded and updated in the database as they happen. Additionally, we will be seeking confirmation from the customer every 2 months that the database is accurate to ensure correct market submission. The 'end date' field will record removal of items to ensure daily tracking and correct submission calculation.		April 2020	

## 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 spreadsheet was checked to confirm the correct ICP was recorded correctly for the load.

### **Audit commentary**

The spreadsheet has been reformatted since the last audit and now contains a sheet per ICP. All items of load have an ICP associated with them.

### **Audit outcome**

Compliant

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

### **Code reference**

*Clause 11(2)(b) of Schedule 15.3*

### **Code related audit information**

*The 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.

### **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 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**

As recorded in the last audit the Nulite spreadsheet contains only the wattage and no lamp descriptions. This has been requested but not yet provided by the customer. This is recorded as non-compliance.

## Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.4 With: 11(2)(c) of Schedule 15.3  From: 01-Jun-17 To: 30-Apr-19	No lamp descriptions recorded only a total wattage is recorded.  Potential impact: Low Actual impact: Unknown Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls in place are rated as moderate as this information has been requested from the customer but has not been provided as yet.  The impact is assessed to be low as the volume of lights associated with this database are small.		
Actions taken to resolve the issue		Completion date	Remedial action status
Customer does not have records of lamp descriptions. Further investigation is required on their end to gather correct data. Once confirmation of lamp descriptions is received, the database will be updated accordingly.		April 2020	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Mercury to liaise with Nulite to ensure all changes are recorded and updated in the database as they happen. Additionally, we will be seeking confirmation from the customer every 2 months that the database is accurate to ensure correct market submission.		June 2020	

## 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 was undertaken of all 41 items of load.

### Audit commentary

The findings from the field audit are detailed below:

ICP	Database Count	Field Count	Field count differences	Wattage differences	Comments
0136264797LC7C9 Pakuranga	17	42	+25		25 additional signs (20 additional locations and 5 extra signs at existing locations) found in the field than recorded in the database.
0987953192LC3D8 Otahuhu	5	6	+1	1	Additional sign at corner of Roscommon Road and Browns Road.  1 vertical not horizontal sign recorded resulting in wattage being overstated.
0825228433LCE38- Takanini	6	4	+1 -3		1 additional sign found and 3 no longer present.
0586086117LC9FB Wiri	13	18	+5	1	5 additional signs found in the field.  1 horizontal not vertical sign recorded resulting in wattage being understated.
<b>TOTAL</b>	<b>41</b>	<b>70</b>	<b>35</b>	<b>2</b>	

29 extra lights were found in the field. Many of these are the same items reported in the last two audit reports. The additional lights found in the field are recorded as non-compliance below. The accuracy of the database is detailed in **section 3.1**.

### Audit outcome

Non-compliant



Non-compliance	Description		
Audit Ref: 2.5 With: 11(2A) of Schedule 15.3 From: 01-Jun-17 To: 31-Jan-20	29 additional lights found in the field. Potential impact: High Actual impact: High Audit history: Three times previously Controls: Weak Breach risk rating: 9		
Audit risk rating	Rationale for audit risk rating		
High	The controls in place are rated as weak as discrepancies identified in the last two audit reports have not been corrected.  The impact is assessed to be high, based on the kWh differences detailed in <b>section 3.1.</b> and that this has been present for two years.		
Actions taken to resolve the issue		Completion date	Remedial action status
Database to be updated with auditor's field findings. Mercury will liaise with Nulite to confirm MEEN load and ensure database accuracy.		April 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Mercury to liaise with Nulite to ensure all changes are recorded and updated in the database as they happen. Additionally, we will be seeking confirmation from the customer every 2 months that the database is accurate to ensure correct market submission.		June 2020	

## 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 spreadsheets was examined.

### Audit commentary

The spreadsheet has been changed during the audit period. Each ICP has been allocated a separate tab. Changes are noted for each ICP each tab as required by this clause.

### Audit outcome

Compliant

## 2.7. Audit trail (Clause 11(4) of Schedule 15.3)

### **Code reference**

*Clause 11(4) of Schedule 15.3*

### **Code related audit information**

*The DUML database must incorporate an audit trail of all additions and changes that identify:*

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

### **Audit observation**

The spreadsheet was checked for audit trails.

### **Audit commentary**

The spreadsheet has been changed during the audit period. This now records the date of any change, action taken, person making the change and the details.

### **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

A full field audit of all 41 items of load was undertaken to confirm the accuracy of the spreadsheet.

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

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

##### Audit commentary

##### Field Audit Findings

The field audit findings are detailed in **section 2.5**. The discrepancies found in the field indicate that the database is under reporting kWh by 63%:

ICP	Daily Database kWh	Daily Field kWh calculation	Daily kWh difference	Annualised kWh variance
0136264797LC7C9 Pakuranga	68.21	158.69	90.48	33,025.2
0987953192LC3D8 Otahuhu	18.24	21.02	2.78	1,014.7
0825228433LCE38- Takanini	23.90	15.46	-8.44	-3,080.6
0586086117LC9FB Wiri	51.91	69.55	17.64	6,438.6
Sub totals	162.26	264.72	102.46	37,397.9
<b>TOTAL ANNUALISED UNDER SUBMISSION</b>				<b>37,397.9</b>

This is outside of the allowable +/-5% threshold and will be resulting in an estimated annual under submission is 37,397.9 kWh. This is recorded as non-compliance.

##### Light description and capacity accuracy

The check of database wattage alignment with the standardised wattage table was unable to be confirmed as the database contains no lamp descriptions and only a total wattage. This is recorded as non-compliance in **section 2.4** and below.

## Change Management

An annual audit is expected to be carried out by the property owner to confirm that the database is correct. The customer is expected to advise if any changes occur so that the database can be updated accordingly, and notes of the light type, wattage and ballast and the date of change are recorded. Mercury are working with Nulite, but they have advised they have no records themselves. I repeat the last audits recommendations, that a full field audit is undertaken and that the change management process is reviewed to address this.

Description	Recommendation	Audited party comment	Remedial action
Tracking of load change	Liaise with the Nulite to ensure that load changes are captured in a timely manner.	Mercury will be highlighting the importance of timely and accurate database updates with Nulite and will request that all changes are recorded and updated in the database as they happen. Additionally, we will be seeking confirmation from the customer every 2 months, that the database is accurate to ensure correct market submission.	Identified

Description	Recommendation	Audited party comment	Remedial action
All load recorded in the database	Liaise with Nulite to undertake a full field audit and confirm that all items of load are being reconciled.	Nulite to carry out further investigation to confirm load items and descriptions. Mercury to liaise with Nulite to ensure all changes are recorded and updated in the database as they happen.	Investigating

## Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: 15.2 and 15.37B(b)  From: 01-Jun-17 To: 31-Jan-20	<p>The field audit found 29 additional lights resulting in an estimated under submission of 37,397.9 kWh per annum.</p> <p>No lamp descriptions recorded only a total wattage is recorded.</p> <p>Potential impact: High</p> <p>Actual impact: High</p> <p>Audit history: Three times previously</p> <p>Controls: Weak</p> <p>Breach risk rating: 9</p>		
Audit risk rating	Rationale for audit risk rating		
<b>High</b>	<p>The controls in place are rated as weak as discrepancies identified in the last two audit reports have not been corrected.</p> <p>The impact is assessed to be medium, based on the kWh differences described above and that this has been present for two years.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Database to be updated with auditor's field findings. Mercury will liaise with Nulite to confirm MEEN load and ensure database accuracy.</p> <p>Customer does not have records of lamp descriptions - further investigation required on their end to gather correct data. Once confirmation of lamp descriptions is received, the database will be updated accordingly.</p>		April 2020	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Mercury to liaise with Nulite to ensure all changes are recorded and updated in the database as they happen. Additionally, we will be seeking confirmation from the customer every 2 months that the database is accurate to ensure correct market submission.</p>		June 2020	

### 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

This clause requires that the distributed unmetered load database must satisfy the requirements of schedule 15.5 regarding the methodology for deriving submission information. Mercury reconciles this DUML load using the RPS profile. The daily kWh figure recorded in SAP, which is derived from the spreadsheet is used for submission. I checked the accuracy of the submission information by multiplying the daily kWh figure to the figure submitted in the AV080 for the month of January 2020. This confirmed the volume was calculated correctly.

The two ICPs (0586086117LC9FB & 0825228433LCE38) that were identified as decommissioned in error in the last audit were returned to active with no inactive period on the registry on 4/9/18. This resulted in no volumes being submitted for ICP 0586086117LC9FB from 23/5/17 - 30/6/17, and ICP 0825228433LCE38 from 24/5/17 - 30/6/17. This has occurred because the R14 revisions were submitted whilst these ICPs were incorrectly recorded as decommissioned. This resulted in under submission of 2,384.68 kWh. Whilst this is now outside of the revision period the missing volume is expected to be submitted in the next available revision. I checked with Mercury and this volume still has not been submitted and is recorded as non-compliance below.

The field audit found that the discrepancies identified in the last two audits have not been corrected in the database. This will be resulting in an estimated annual under submission of 37,397.9 kWh. This is discussed further in **section 3.1**.

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.

The current spreadsheet is calculated as at the end of a month and this practice is non-compliant. The spreadsheet contains a “effective from date” field but there is no field for “end date” for lighting that is removed. The calculation does not reflect any changes from the date of change.

### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.2 With: 15.2 and 15.37B(c)  From: 01-Jun-17 To: 30-Apr-19</p>	<p>Under submission of 2,384.68 kWh due to the ICPs being recorded as decommissioned on the registry and not subsequently submitted.</p> <p>Database discrepancies found in the field resulting in an estimated annual under submission of 37,397.9 kWh.</p> <p>The monthly spreadsheet used to calculate submission does not track changes at a daily basis.</p> <p>Potential impact: High Actual impact: High Audit history: Three times previously Controls: Weak Breach risk rating: 9</p>		
Audit risk rating	Rationale for audit risk rating		
<p><b>High</b></p>	<p>The controls in place are rated as weak as discrepancies identified in the last two audit reports have not been corrected.</p> <p>The impact is assessed to be high, based on the kWh differences detailed in <b>section 3.1.</b> and that this has been present for two years.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Database to be updated with auditor's field findings. Mercury will liaise with Nulite to confirm MEEN load and ensure database accuracy.</p> <p>End date field to be added into database to track removal of items.</p>		<p>April 2020</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Mercury to liaise with Nulite to ensure all changes are recorded and updated in the database as they happen. Additionally, we will be seeking confirmation from the customer every 2 months that the database is accurate to ensure correct market submission. Thee 'end date' field will record removal of items to ensure daily tracking and correct submission calculation.</p>		<p>April 2020</p>	

## CONCLUSION

This audit found a similar level of accuracy as recorded in the previous two audits. There were significantly more lights found in the field resulting in an estimated annual under submission of 37,397.9 kWh. Mercury are working with Nulite to address this, but progress is slow. I have repeated the last audits recommendations to, undertake a full field audit and liaise with Nulite to put a process in place to track changes effectively to maintain visibility.

The two ICPs (0586086117LC9FB & 0825228433LCE38) that were decommissioned in error in the last audit were corrected but this resulted in 2,384.68 kWh not being submitted as the R14 revision was submitted whilst they were incorrectly recorded as decommissioned. Whilst this is outside of the revision period the missing volume is expected to be submitted in the next available revision. I checked with Mercury and this volume still has not been submitted.

As was reported in the last two audits for Nulite, I recommend that Mercury liaise with Nulite to confirm that all items of load are being reconciled. I also recommend that the tracking of load change process is reviewed with Nulite to ensure all changes are updated in the database.

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.

The current spreadsheet is calculated as at the end of a month and this practice is non-compliant. The spreadsheet contains a “effective from date” field but there is not a field for “end date” for lighting is removed. When a wattage is changed in the database due to a physical change or a correction, only the record present at the end of the month is used, and the calculation does not reflect any changes from the date of change.

This audit found five non-compliances and makes two recommendations. The future risk rating indicates that the next audit be completed in three months. I have considered this in conjunction with Mercury’s responses, the size of the database and I recommend that the next audit be in nine months.



## PARTICIPANT RESPONSE

Mercury will be raising the non-compliance issues with Nulite and will work with them to ensure the database is complete and accurate for correct market submission. We will be updating our database with the findings from this audit until further updates are received from Nulite.

An end date field will be added into the database to allow for daily tracking.