# ELECTRICITY INDUSTRY PARTICIPATION CODE DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

# MERCURY NZ LTD DUML AUCKLAND FOR NULITE, ACACIA COVE, AVONDALE BUSINESS ASSOCIATION AND ARDMORE AIRPORT

Prepared by: Rebecca Elliot Date audit commenced: 1 April 2018 Date audit report completed: 15 May 2018 Audit report due date: 01-Jun-18

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#### **EXECUTIVE SUMMARY**

This audit covers the small Auckland based DUML ICPs that are managed by Mercury in excel spreadsheets. This covers Acacia Cove (ICP 0949731528LC8C0), Ardmore Airport (ICP 0904114678LC7E9), Avondale Business Association (ICP 0987369148LC0CE) and Nulite with two ICPs (0987953192LC3D8 and 0136264797LC7C9). The DUML database and processes audit was conducted at the request of Mercury Energy 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, which became effective on 1 June 2017.

The spreadsheets are maintained by Mercury and the customers are expected to advise Mercury of any changes that occur. Only a small amount of change has occurred during the audit period, but these have not flowed correctly through to submission. The variances found in the field audit are largely historic as it appears that the data was not captured correctly in the first instance. Two Nulite ICPs have been decommissioned during the audit period but the field audit found these lights were still in the field and a review of the field paperwork indicates that these were items of load being removed, rather than the ICP being decommissioned. It maybe that these ICPs need to be reinstated and submission revised accordingly. Additionally, there were more lights found in the field for Nulite but these may be metered and this needs to be confirmed with the customer. Mercury are investigating this.

The audit found seven non-compliance issues and makes no recommendations. The future risk rating of 42 indicates that the next audit be completed in three months and I agree with this recommendation. 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 informatio n	2.1	11(1) of Schedule 15.3	The field audit found variances and two ICPs that appear to have load but are decommissioned in the registry resulting in an estimated under submission of 54,206.16 kWh per annum. One example of volume being truncated rather than rounded	Weak	High	9	Disputed
Location of each item of load	2.3	11(2A) of Schedule 15.3	19 items of load for Acacia Cove with no location details recorded.	Moderate	Low	2	Investigating
Description and capacity of load	2.4	11(2)(c) of Schedule 15.3	Nulite spreadsheet has no lamp descriptions recorded. 7 items of load in Acacia Cove have no lamp wattages recorded.	Moderate	Low	2	Investigating
All load recorded in the database	2.5	11(2A) of Schedule 15.3	48 additional items of load found in the field than recorded in the spreadsheets.	Weak	High	9	Disputed
Tracking of load change	2.6	11(3) of Schedule 15.3	Tracking of load change not captured correctly for Acacia Cove.	Moderate	Low	2	Investigating
Database accuracy	3.1	15.2 and 15.37B(b)	The field audit found variances and two ICPs that appear to have load but are decommissioned in the registry resulting in an estimated under submission of 49,723.38 kWh per annum	Weak	High	9	Disputed

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Volume informatio n accuracy	3.2	15.2 and 15.37B(c)	The field audit found variances and two ICPs that appear to have load but are decommissioned in the registry. Two ICPs have the incorrect daily kWh figure resulting in under submission. This is resulting in an estimated under submission of 54,206.16 kWh per annum. One example of volume being truncated rather than rounded	Weak	High	9	Disputed
Future Risk F	Rating					42	

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

## RECOMMENDATIONS

Subject	Section	Description	Action
		Nil	

# ISSUES

Subject	Section	Description	Issue
		Nil	

#### 1. ADMINISTRATIVE

#### 1.1. Exemptions from Obligations to Comply with Code

#### **Code reference**

Section 11 of Electricity Industry Act 2010.

#### Code related audit information

Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

#### **Audit observation**

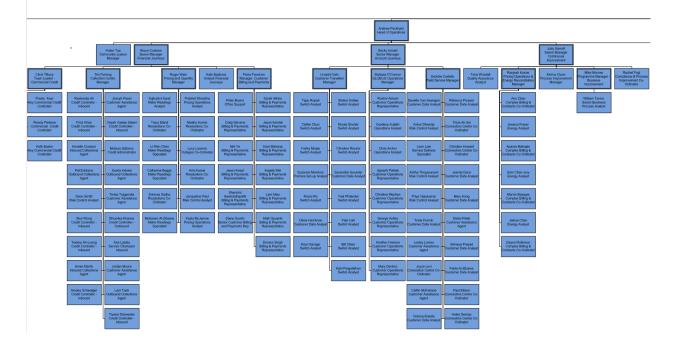
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

#### **Audit commentary**

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
Andrew Robertson	Regulatory and Compliance Strategist	Mercury NZ Ltd

#### 1.4. Hardware and Software

**Section 1.8** shows that the streetlight data is held in excel spreadsheets. These are backed up in accordance with standard industry procedures. Access to the spreadsheets 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)
0949731528LC8C0	Acacia Cove	Wattle Farm Rd	PAK0331	RPS	45	3,735
0904114678LC7E9	Ardmore Airport	ARDMORE AERODROME BULK UML	TAK0331	RPS	26	3,518
0987369148LC0CE	Avondale Business Assoc	ROSEBANK ROAD	PAK0331	RPS	135	3,240
0136264797LC7C9		East Tamaki	PAK0331	RPS	17	5,684
0586086117LC9FB		Great South Road -	WIR0331		Decommissioned 24/5/17	
0825228433LCE38	Nulite	Great South Road -	TAK0331		Decommissioned 25/5/17	
0987953192LC3D8		Great South Road -	MNG0331	RPS	5	1,520

I note that ICPs 0586086117LC9FB and 0825228433LCE38 have been decommissioned in the registry but as discussed in **section 2.5**, the lights associated with these ICPs are still evident in the field and it appears that the removal of some of the signs has resulted in the ICP being decommissioned rather than the items of load removed from the database. This is recorded as non-compliance in **sections 2.1, 3.1 & 3.2**.

#### 1.7. Authorisation Received

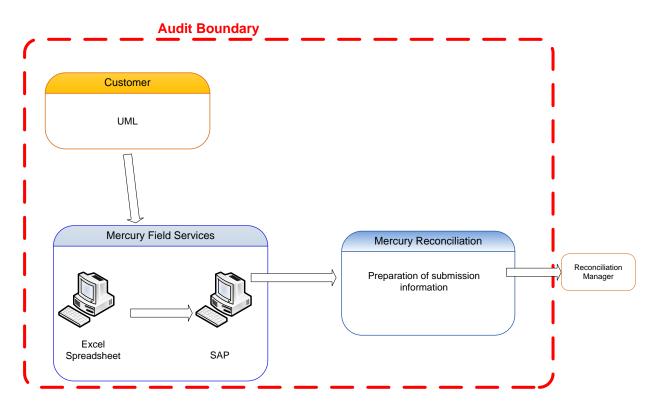
All information was provided directly by Mercury.

#### 1.8. Scope of Audit

This audit covers the small Auckland based DUML ICPs that are managed by Mercury in an excel spreadsheet. This covers Acacia Cove (ICP 0949731528LC8C0), Ardmore Airport (ICP 904114678LC7E9), Avondale Business Association (ICP 0987369148LC0CE) and Nulite with two ICPs (0987953192LC3D8 and 0136264797LC7C9).

The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1, which became effective on 1 June 2017.

The ICPs are each managed in an excel spreadsheet held by Mercury.



The field audit was carried out on April 15<sup>th</sup>, 2017 across all four databases and for 228 items of load.

## 1.9. Summary of previous audit

Mercury provided a copy of the last audit report undertaken by Rebecca Elliot of Veritek Limited in March 2017 as part of Mercury's 2017 reconciliation participant audit. This audit wasn't submitted due to the audit regime change that occurred on June 1<sup>st</sup> however I have included the findings for reference below:

# **Table of Non-Compliance**

Subject	Section	Clause	Non-compliance	Status
Deriving		11(1) of each adula	Inaccurate submission due to database inaccuracies for all four customers (7 ICPs in total).	Still existing
Submission Information	2.1	11(1) of schedule 15.3	Under-submission of an estimated 1,133 kWh per annum for Acacia Cove and 21kWh for Ardmore airport due to incorrect lamp ballasts being applied.	Still existing
ICP Identifier	2.2.1	11(2)(a) of schedule 15.3	ICP is not recorded at the item of load level for the Nulite database.	Cleared
Tracking of Load Changes	2.3	11(3) of schedule 15.3	Nulite spreadsheet has no lamp descriptions recorded.	Still existing

# Table of Recommendations

Subject	Section	Clause	Recommendation for improvement	Status
Lamp Capacities	2.2.4	11(2)(d) of Schedule 15.3	Incorrect ballast applied to 50 70W HPS lamps resulting in under submission of 1,154 kWh per annum.	Cleared
Tracking of Load Change	2.3	11(3) of Schedule 15.3	Inaccurate submission due to database inaccuracies for all four customers (7 ICPs in total).	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

Mercury has requested Veritek to undertake this street lighting audit.

# Audit commentary

The audit report for this DUML database is separate from other audit reports.

## 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 spreadsheets is used for submission. I checked the accuracy of the submission information by multiplying the daily kWh figure from SAP to the figure submitted in the AV080 for the month of March. This found the values were correct with the exception of Avondale Business Association ICP 0987369148LCOCE where the kWh figure was truncated rather than rounded e.g the figure was 1330.82 but was in the AV080 as 1330.00. This is recorded as non-compliance.

There is some inaccurate data within the spreadsheets, and two examples of incorrect calculations between the spreadsheet and the figure recorded in SAP to calculate submission. This is recorded as non-compliance and discussed in **section 3.1** and **3.2**.

#### Audit outcome

Non-compliance	Non-compliance Description				
Audit Ref: 2.1 With: 11(1) of Schedule 15.3	The field audit found variances and two ICPs that appear to have load but are decommissioned in the registry resulting in an estimated under submission of 54,206.16 kWh per annum.				
	One example of volume being trunca	ated rather than	rounded.		
From: 01-Jun-17	Potential impact: High				
To: 31-May-18	Actual impact: High				
	Audit history: Once				
	Controls: Weak				
	Breach risk rating: 9				
Audit risk rating	Rationale for	audit risk rating	g		
High	The controls are rated as weak as the field audit found variances between the spreadsheets for all but one customer.				
	The impact is assessed to be high, ba above.	ased on the kWh	differences described		
Actions ta	ken to resolve the issue	Completion date	Remedial action status		
For the ICP's decommis database reflects this a	ssioned Mercury believes the ccurately.	June 2018	Disputed		
•	issioned sites Mercury will look to based upon this field audit.				
Preventative actions ta	aken to ensure no further issues will occur	Completion date			
Mercury will look to de consistent treatment o	velop a DUML process to ensure f DUML databases	May 2019			

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

#### Audit commentary

Each spreadsheet records the correct ICP relative to the load and if there are multiple ICPs then the ICP is recorded against each item of load.

#### Audit outcome

Compliant

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

#### **Code reference**

Clause 11(2)(b) of Schedule 15.3

#### **Code related audit information**

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

#### **Audit observation**

The spreadsheets were checked to confirm the location is recorded for all items of load.

#### **Audit commentary**

The spreadsheets contain the street name and number of each item of load with the exception of the 19 items of load added to Acacia Cove. These are awaiting location confirmation details from the Village Manager.

Audit outcome

Non-compliance	Des	cription	
Audit Ref: 2.3	19 items of load for Acacia Cove with	n no location det	ails recorded.
With: 11(2)(b)	Potential impact: None		
	Actual impact: None		
From: 01-Jun-17	Audit history: None		
To: 31-May-18	Controls: Moderate		
	Breach risk rating: 2		
Audit risk rating	Rationale for	audit risk rating	3
Low	The controls in place mitigate risk me associated with these ICPs have a low		
	The number of items of load is small	therefore the a	udit risk rating is low.
Actions ta	ken to resolve the issue	Completion date	Remedial action status
Mercury is working wit location details.	h the building manager to obtain	October 2018	Investigating
Preventative actions ta	aken to ensure no further issues will occur	Completion date	
Implementation of con improved documentati	sistent DUML procedures via on	June 2019	

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

# Code reference

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

#### **Code related audit information**

The DUML database must contain:

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

## Audit observation

The 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

Each type of load contains the lamp construction in its description for all spreadsheets except for the Nulite ICPs and 7 items of load recorded in the Acacia Cove spreadsheet. The Nulite spreadsheet contains only the wattage and no lamp descriptions. The seven items of load for Acacia Cove are awaiting confirmation from the Village Manager. This is recorded as non-compliance.

#### Audit outcome

Non-compliance	Description			
Audit Ref: 2.4	Nulite spreadsheet has no lamp descriptions recorded.			
With: 11(2)(c) of	7 items of load in Acacia Cove have no lamp wattages recorded.			
Schedule 15.3	Potential impact: Low			
	Actual impact: Unknown			
From: 01-Jun-17	Audit history: Once			
To: 31-May-18	Controls: Moderate			
Breach risk rating: 2				
Audit risk rating	Rationale for audit risk rating			
Low	The controls are rated as moderate as the missing details relate only to Nulite and these are historic and affect a small volume of load, and the 7 items of load for Acacia Cove are under investigation.			
	The risk rating is assessed as low as the volume of items of load is small.			
Actions ta	ken to resolve the issue	Completion date	Remedial action status	
Working with the custo	mers to confirm database accuracy.	October 2018	Investigating	
Preventative actions ta	aken to ensure no further issues will occur	Completion date		
Implementation of a DI	JML procedure	June 2019		

# 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 items of load.

# Audit commentary

# All items of load in the spreadsheets for the four customers were checked. The field audit found:

Street/Area	Database Count	Field Count	Field count differences	Wattage differences	Comments
Acacia Cove- retirement village					
Private Road	83	83			
Ardmore Airport					
Village Way	5	5			
Harvard Lane	16	18	2		The two 70W SON lights are double headed.
McBride Lane	2	2			
Kitty Hawk Lane	2	2			
Victa Lane	2	2			
Nulite					
0136264797LC7C9 Pakuranga	17	31	14		14 additional signs found in the field than that recorded in the database.
0987953192LC3D8 Otahuhu	5	7	2		Two additional signs found at the intersection of Springs and Smales Road and intersection of Crooks and Harris Roads.
0825228433LCE38- Takanini decommissioned					Checked four of six items of load and found three still present. One of these has the illuminated road sign only. The advertising billboard has been removed.
0586086117LC9FB Wiri decommissioned					Checked six locations and found one removed and two additional items of load on the corner of Great South Road and Cavendish Drive
Avondale Business A	ssociation				
Corner block of 38 Rosebank Road to 1898 Great North Road	38	33	-5		5 less lights in the field - address should read 58 Rosebank Road.
Block 54 to 56 Rosebank Road	5	5			
Block 65 Rosebank Road	5	11	6		6 additional lights found in the field.

Street/Area	Database Count	Field Count	Field count differences	Wattage differences	Comments
Block 72 Rosebank Road to 80 Rosebank Road	10	10			
Block 1861 Great North Road to 1865 Great North Rd	11	11			
Block 1954 Great North Road to 2000 Great North Road	32	41	9		9 additional lights found in the field.
Block 1973 Great North Road to 1981 Great North Road	14	29	15		15 additional energy saving lights found.
Block Cnr St Judes, 2 St Georges Road to 8 St Georges Road	20	20			
TOTAL	267	310	48		

The field audit found 48 additional lights in the field than recorded in the database. This volume excludes the two Nulite ICPs detailed in the table above that have been decommissioned but where I found items of load still present in the field. The missing items of load are recorded as non-compliance. The accuracy of the database is detailed in **section 3.1**.

#### Audit outcome

Non-compliance	Description			
Audit Ref: 2.5 With: 11(2A) of Schedule 15.3	48 additional items of load found in the field than recorded in the spreadsheets. Potential impact: Low			
From: 01-Jun-17 To: 31-May-18	Actual impact: Low Audit history: Once Controls: Weak			
	Breach risk rating: 9			
Audit risk rating	Rationale for	audit risk rating	3	
High	The controls are weak as the inaccuracies found indicate that the database load has not been captured correctly in all instances. The impact is assessed to be high, based on the kWh differences associated			
Actions ta	with these variances.         Actions taken to resolve the issue       Completion       Remedial action         date       status			
incorrect information p been referred back, Me	he decommissioned sites and the rovided by Veritek last year and has ercury will update the databases ation contained in the audit.	June 2018	Disputed	
Preventative actions ta	aken to ensure no further issues will occur	Completion date		
As previously indicated documented.	, DUML procedures to be	June 2019		

#### 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

Any changes that are made during any given month take effect from the beginning of that month. The information is available which would allow for the total load in kW to be retrospectively derived for any day. On 20<sup>th</sup> September 2012, the Authority sent a memo to Retailers and auditors advising that tracking of load changes at a daily level was not required as long as the database contained an audit trail. I have interpreted this to mean that the production of a monthly "snapshot" report is sufficient to achieve compliance.

An annual audit is carried out by the property owner to confirm that the database is correct. There are few changes to these databases. 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. The tracking of load change is evident in the spreadsheets where change has occurred, but as recorded in **section 3.2** the changes haven't flowed through to submission for Acacia Cove. The field audit indicates that the databases were not all captured correctly in the first instance and I recommend that a full field audit is undertaken of Avondale Business Association and Nulite.

#### Audit outcome

Non-compliance	Description				
Audit Ref: 2.6	Tracking of load change not captured correctly for Acacia Cove.				
With: 11(3) of	Potential impact: Low				
Schedule 15.3	Actual impact: Low				
	Audit history: Once				
From: 01-Jun-17	Controls: Moderate				
To: 31-May-18	Breach risk rating: 2				
Audit risk rating	Rationale for	audit risk rating	3		
Low	The controls are moderate as the controls to manage load changes will mitigate risk most of the time.				
	The audit risk rating is low due to the small volume of load associated.				
Actions ta	ken to resolve the issue	Completion date	Remedial action status		
•	vith the customer to confirm an IT ticket to ensure flow through	October 2018	Investigating		
Preventative actions ta	aken to ensure no further issues will occur	Completion date			
DUML procedure to be	developed	Not provided			

## 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 spreadsheets were checked for audit trails.

#### **Audit commentary**

Mercury has demonstrated a complete audit trail of all additions and changes to the spreadsheet information.

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 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.

#### Audit commentary

The load variances between the database and the field audit are calculated below:

ICP	Customer	Estimated Annual kWh Variance	Comment
0949731528LC8C0	Acacia Cove	Matched	
0904114678LC7E9	Ardmore Airport	708.99	2 additional lights found in the field
0987369148LC0CE	Avondale Business Assoc	2,901.75	25 additional lights found in the field
0136264797LC7C9	Nulite	19,184.40	14 additional fittings found- these may be metered but this needs to be confirmed with the customer.
0586086117LC9FB	Nulite	17,187.12	This ICP has been decommissioned but the sample checked found one item of load removed but 2 additional items of load therefore I have assumed at least the same amount of load is still connected.
0825228433LCE38	Nulite	7,183.20	This ICP has been decommissioned but the sample checked found these were still in the field except one. I have calculated the load assuming 5 items.
0987953192LC3D8	Nulite	2,557.92	2 additional items of load found in the field.
Total		49,723.38	

Two Nulite ICPs have been decommissioned during the audit period but the field audit found these lights were still in the field and a review of the field paperwork indicate that these were items of load being removed rather than the ICP being decommissioned. It maybe that these ICPs need to be reinstated and submission revised accordingly. Additionally, there were more lights found in the field for Nulite but these may be metered and this needs to be confirmed with the customer. Mercury are investigating this. The variances above indicate an estimated under submission of 49,723.38 kWh per annum.

The check of wattages and ballasts confirmed compliance.

## Audit outcome

Non-compliance	Description			
Audit Ref: 3.1 With: 15.2 and 15.37B(b)	The field audit found variances and two ICPs that appear to have load but are decommissioned in the registry resulting in an estimated under submission of 49,723.38 kWh per annum.			
From: 01-Jun-17 To: 31-May-18	Potential impact: High Actual impact: High Audit history: Once			
	Controls: Weak Breach risk rating:			
Audit risk rating	Rationale for	audit risk ratin	g	
High	The controls are rated as weak as the field audit found variances between the spreadsheets for all but one customer.			
	The impact is assessed to be high, based on the kWh differences described above.			
Actions ta	ken to resolve the issue	Completion date	Remedial action status	
	decommissioned ICP's e database and systems based on h the site managers to clarify	October 2018	Disputed	
Preventative actions ta	aken to ensure no further issues will occur	Completion date		
DUML procedures to be	e documented.	June 2019		

#### 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
- checking the expected kWh against the submitted figure to confirm accuracy.

#### Audit commentary

Mercury reconciles this DUML load using the RPS profile. The daily kWh figure recorded in SAP (which is derived from the spreadsheets) is used for submission. The registry was checked and confirmed that all ICPs have the correct profile and submission flag.

The load variances between the field audit and submission are calculated below:
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ICP	Customer	Estimated Annual kWh Submission Variance	Comment
0949731528LC8C0	Acacia Cove	3,203.25	The additional load added during the audit period has not been included in the submission calculation and therefore the daily kWh figure used for submission is incorrect and is resulting in under submission. This figure also includes the additional lights identified in <b>section 3.1</b>
0904114678LC7E9	Ardmore Airport	1,988.52	The daily figure used from SAP does not match the database value resulting in under submission.
0987369148LC0CE	Avondale Business Assoc	2,901.75	The daily SAP figures matched but 25 additional lights were found in the field
0136264797LC7C9	Nulite	19,184.40	The daily SAP figures matched but 14 additional fittings found- these may be metered but this needs to be confirmed with the customer
0586086117LC9FB	Nulite	17,187.12	This ICP has been decommissioned but the sample checked found one item of load removed but 2 additional items of load therefore I have assumed at least the same amount of load is still connected.
0825228433LCE38	Nulite	7,183.20	This ICP has been decommissioned but the sample checked found these were still in the field except one. I have calculated the load assuming 5 items

ICP	Customer	Estimated Annual kWh Submission Variance	Comment
0987953192LC3D8	Nulite	2,557.92	The daily SAP figures matched but 2 additional items of load found in the field
Total		54,206.16	

The variances above indicate an estimated under submission of 54,206.16 kWh per annum. This is different to the figure recorded in **section 3.1** due to the incorrect daily kWh figure being used for the Acacia Cove and Ardmore airport ICPs as detailed in the table above.

I checked the accuracy of the submission information by multiplying the daily kWh figure from SAP to the figure submitted in the AV080 for the month of March. This found the values were correct with the exception of Avondale Business Association ICP 0987369148LCOCE where the kWh figure was truncated rather than rounded e.g the figure was 1330.82 but was in the AV080 as 1330.00. This is recorded as non-compliance.

Audit outcome

Non-compliance	Description			
Audit Ref: 3.2 With: 15.2 and 15.37B(c)	The field audit found variances and two ICPs that appear to have load but are decommissioned in the registry. Two ICPs have the incorrect daily kWh figure resulting in under submission. This is resulting in an estimated under submission of 54,206.16 kWh per annum.			
France 01 how 17	One example of volume being trunca	ated rather than	rounded.	
From: 01-Jun-17	Potential impact: High			
To: 31-May-18	Actual impact: High			
	Audit history: Once			
	Controls: Weak			
	Breach risk rating:			
Audit risk rating	Rationale for audit risk rating			
High	The controls are rated as weak as the field audit found variances and the incorrect daily kWh figure used for two ICPs in SAP.			
	The impact is assessed to be high, based on the kWh differences described above.			
Actions ta	ken to resolve the issue	Completion date	Remedial action status	
Mercury disputes that	the 2 ICP's are not decommissioned.	June 2018	Disputed	
Variances will be correct through to submissions	cted based on this audit and will flow 5.			
Preventative actions ta	aken to ensure no further issues will occur	Completion date		
DUML procedures to be	e documented.	June 2019		

## CONCLUSION

The spreadsheets are maintained by Mercury and the customers are expected to advise Mercury of any changes that occur. Only a small amount of change has occurred during the audit period, but these have not flowed correctly through to submission. The variances found in the field audit are largely historic as it appears that the data was not captured correctly in the first instance. Two Nulite ICPs have been decommissioned during the audit period but the field audit found these lights were still in the field and a review of the field paperwork indicates that these were items of load being removed, rather than the ICP being decommissioned. It maybe that these ICPs need to be reinstated and submission revised accordingly. Additionally, there were more lights found in the field for Nulite but these may be metered and this needs to be confirmed with the customer. Mercury are investigating this.

The audit found seven non-compliance issues and makes no recommendations. The future risk rating of 42 indicates that the next audit be completed in three months and I agree with this recommendation

# PARTICIPANT RESPONSE

Mercury will use this audit as the basis to correct our databases and improving our controls by developing consistent and documented procedures. Mercury would request a re-audit period of 18-24 months to allow for not only the completion of the documentation and consistent processes but also a full 6 month cycle of bedding in new processes with the customers to obtain more accurate information.