

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

For

**WAKA KOTAHI GISBORNE & WAIROA AND
MERIDIAN ENERGY**

Prepared by: Rebecca Elliot

Date audit commenced: 4 May 2023

Date audit report completed: 24 August 2023

Audit report due date: 1 September 2023

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EXECUTIVE SUMMARY

This audit of the **Waka Kotahi Gisborne and Wairoa** DUML database and processes was conducted at the request of **Meridian Energy (Meridian)** 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 two ICPs are managed by different Network Outcome Contracts (**NOC**). They are expected to manage changes in the database. NZ Streetlighting provide the monthly wattage report to Meridian based on the RAMM database information.

Due to the recent weather events on the East Cape, communication with the NOC for the Waka Kotahi Wairoa ICP 0000934950WWBA3 has been difficult as the focus is on getting the roads repaired. The field contractor has been unable to be confirmed and changes aren't being advised. It is likely that Electrinet as they also manage the local council database for this area. NZ Streetlighting are working with Waka Kotahi to establish communication channels.

There are 455 items of load associated with these two ICPs. Selecting a statistical sample was difficult due to the length of many of the roads, therefore I manually selected a sample of 377 of the 455 items of load, which is 83%. I consider the error of 2.39% has statistical significance given the sample size. The database is considered accurate because the error is less than 5%. The field audit and database analysis errors have been passed to NZ Streetlighting and corrections have been made.

This audit found four non-compliances and no recommendations were made. The future risk rating of eight indicates that the next audit be completed in 18 months' time. I have considered this in conjunction with, the continued improvement in the database accuracy, the static load associated with this database, and Meridian's comments and 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 information	2.1	11(1) of Schedule 15.3	<p>Six items of load have the incorrect wattage applied resulting in a very minor estimated under submission of 299 kWh per annum.</p> <p>The current monthly report is provided as a snapshot and is non-compliant. The report contains a lamp install date, but this is not used to re-calculate historic submissions.</p>	Moderate	Low	2	Identified
All load recorded in database	2.5	11(2A) of Schedule 15.3	Three additional items of load identified by the field audit.	Moderate	Low	2	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	<p>Six items of load have the incorrect wattage applied resulting in a very minor estimated under submission of 299 kWh per annum.</p> <p>Changes in the Wairoa area not being updated in the RAMM database.</p>	Moderate	Low	2	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	<p>Six items of load have the incorrect wattage applied resulting in a very minor estimated under submission of 299 kWh per annum.</p> <p>The current monthly report is provided as a snapshot and is non-compliant. The report contains a lamp install date, but this is not used to re-calculate historic submissions.</p>	Moderate	Low	2	Identified
Future Risk Rating						8	

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	Description	Recommendation
		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

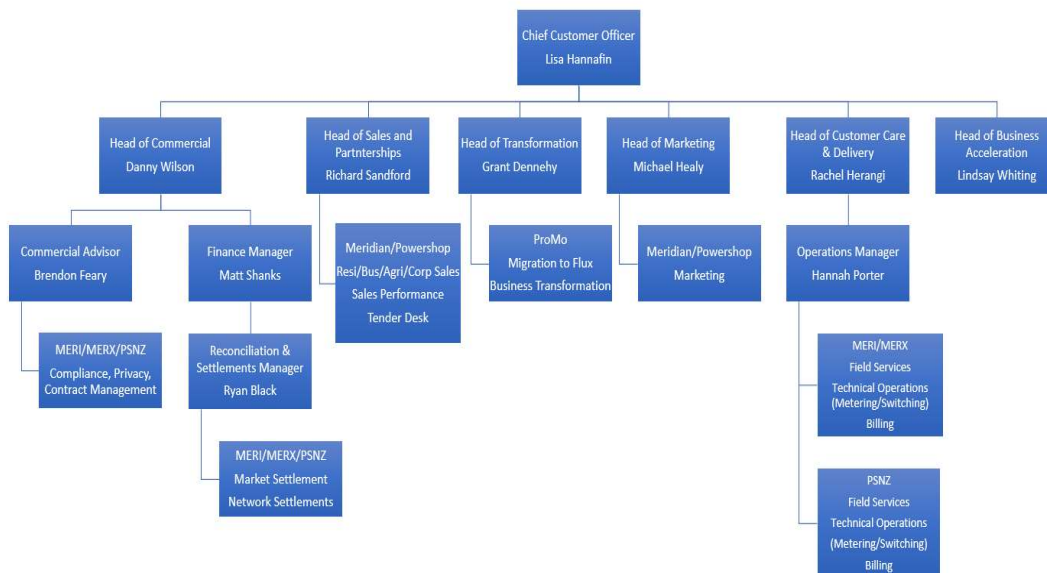
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

Audit commentary

There are no exemptions in place relevant to the scope of this audit:

1.2. Structure of Organisation

Meridian Energy provided a copy of their organisational structure.



1.3. Persons involved in this audit

Auditor:

Name	Title	Company
Rebecca Elliot	Auditor	Veritek

Other personnel assisting in this audit were:

Name	Title	Company
Melanie Matthews	Quality and Compliance Advisor	Meridian Energy
Kara Atkinson	Director	NZ Streetlighting

1.4. Hardware and Software

The SQL database used for the management of DURL is remotely hosted by thinkproject Ltd. The database is commonly known as "RAMM" which stands for "Roading Asset and Maintenance Management". The specific module used for DURL is called RAMM Contractor.

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

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

1.5. Breaches or Breach Allegations

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

1.6. ICP Data

ICP Number	Description	NSP	Profile	Number of items of load	Database wattage (watts)
0000934950WWBA3	HWY S/LIGHTS WAIROA REGION	TUI1101	DST	109	17,549
0000740571EN424	NZTA STREETLIGHTS GIS	TUI1101	DST	346	37,659
TOTAL				455	55,208

1.7. Authorisation Received

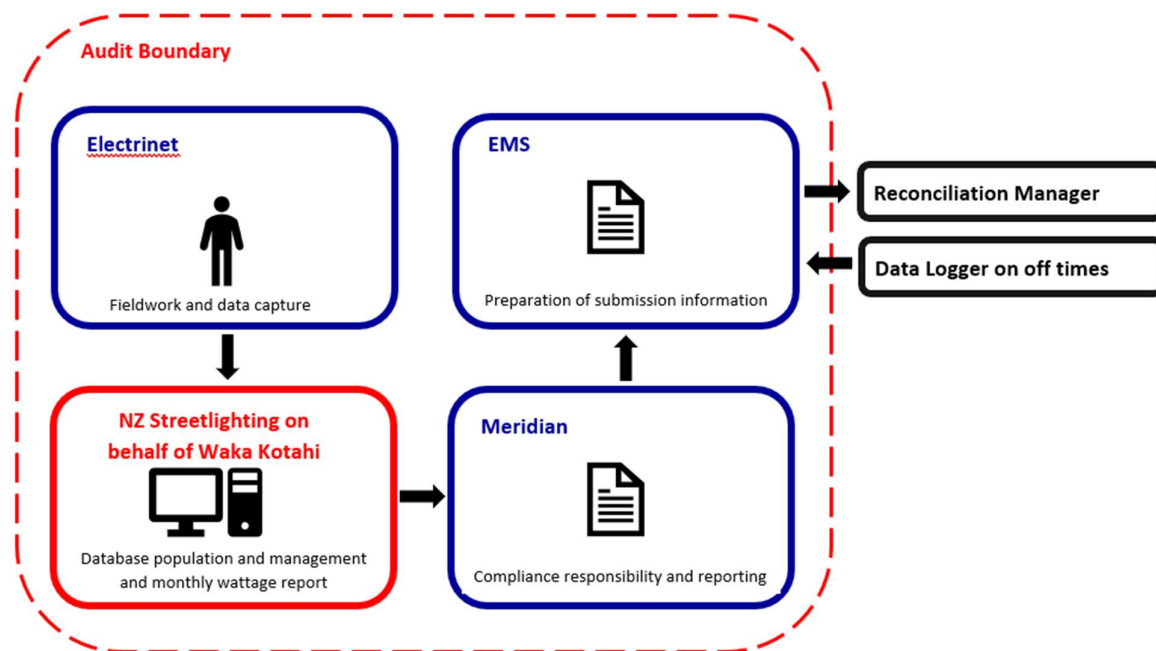
All information was provided directly by Meridian and NZ Streetlighting.

1.8. Scope of Audit

The database is remotely hosted by RAMM Software Ltd.

The two ICPs are managed by different Network Outcome Contracts (**NOC**).

The field contractor for the Waka Kotahi Gisborne ICP 0000740571EN424 is Electrinet. Changes are made in the database by NZ Streetlighting on behalf of Waka Kotahi, who is Meridian's customer. Reporting is provided by NZ Streetlighting to Meridian on a monthly basis. The scope of the audit encompasses the collection, security and accuracy of the data, including the preparation of submission information based on the database reporting. The diagram below shows the audit boundary for clarity.



Due to the recent weather events on the East Cape, communication with the NOC for the Waka Kotahi Wairoa ICP 0000934950WWBA3 has been difficult as the focus is on getting the roads repaired. The field contractor has been unable to be determined and changes aren't being advised. It is likely that Electrinet is the contractor for this area as they manage the local council streetlights. NZ Streetlighting are working with Waka Kotahi to establish communication channels.

The field audit was undertaken of a sample of 377 items of load (83% of the database) in June 2023.

1.9. Summary of previous audit

The previous audit was completed in June 2022 by Steve Woods of Veritek Limited. Five non-compliances were identified, and no recommendations were made. The current status of compliance against the relevant clauses are detailed below.

Subject	Section	Clause	Non-compliance	Status
Deriving submission information	2.1	11(1) of Schedule 15.3	<p>The current monthly report is provided as a snapshot and is non-compliant. The report contains a lamp install date, but this is not used to re-calculate historic submissions.</p> <p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 52,200 kWh p.a.</p> <p>Six items of load with the incorrect ballast applied resulting in an estimated under submission of 51.25 kWh.</p>	<p>Still existing</p> <p>Cleared</p> <p>Still existing</p>
Description and capacity of load	2.4	11(2)(c) and (d) of Schedule 15.3	Four XSP1 3M model lamps are incorrectly recorded in the database as 116W.	Cleared
All load recorded in database	2.5	11(2A) of Schedule 15.3	Three additional lamps in the field were not recorded in the database from a sample of 178 items of load.	Still existing
Database accuracy	3.1	15.2 and 15.37B(b)	<p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 52,200 kWh p.a.</p> <p>Six items of load with the incorrect ballast applied resulting in an estimated under submission of 51.25 kWh.</p> <p>The monthly database extract provided does not track changes at a daily basis and is provided as a snapshot.</p> <p>Livening dates not recorded for new connections.</p>	<p>Cleared</p> <p>Still existing</p> <p>Recorded in sections 2.1 & 3.1.</p> <p>Cleared</p>
Volume information accuracy	3.2	15.2 and 15.37B(c)	<p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 52,200 kWh p.a.</p> <p>six items of load with the incorrect ballast applied resulting in an estimated under submission of 51.25 kWh.</p> <p>The monthly database extract provided does not track changes at a daily basis and is provided as a snapshot.</p> <p>Livening dates not recorded for new connections.</p>	<p>Cleared</p> <p>Still existing</p> <p>Still existing</p> <p>Cleared</p>

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

Meridian have requested Veritek to undertake this streetlight audit.

Audit commentary

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

Audit outcome

Compliant

2. 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, and*
- *methodology for deriving submission information complies with Schedule 15.5.*

Audit observation

The process for calculation of consumption was examined.

Audit commentary

Meridian reconciles this DUML load using the DST profile. The on and off times are derived from a data logger read by EMS and are used to create a shape file. Meridian supplies EMS with the capacity information and EMS calculates the kWh figure for each ICP and includes this in the relevant AV080 file. This process was audited during the EMS agent audit, and its accuracy and compliance was confirmed.

I compared the database output file to the capacity information Meridian supplied to EMS for April 2023 and found the totals matched.

The field audit confirmed that the database accuracy is within the allowable +/-5% threshold.

Analysis of the database identified a small number of light description vs lamp wattage discrepancies which will be resulting in a very minor under submission of 299 kWh per annum. These are detailed in **section 3.1**.

On 18 June 2019, the Electricity Authority issued a memo clarifying the memo of 2012 that stated that a monthly snapshot was sufficient to calculate submission from, and confirmed 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 monthly report is provided as a snapshot and is non-compliant. The report contains a lamp install date, but this is not used to re-calculate historic submissions.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3 From: 01-Jul-22 To: 05-Jun-23	Six items of load have the incorrect wattage applied resulting in a very minor estimated under submission of 299 kWh per annum. The current monthly report is provided as a snapshot and is non-compliant. The report contains a lamp install date, but this is not used to re-calculate historic submissions. Potential impact: Low Actual impact: Low Audit history: Multiple times previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate overall and will move to strong once processes are in place to track changes in the Wairoa area. The impact on settlement and participants is minor; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
NZTA has advised that the six items of load with the incorrect wattage have now been corrected.		23/8/2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We have assessed our processes and tools to account for historic lamp installations and changes to the database at a daily level. There are checks in place comparing month to month data to identify any material changes and confirm details for these. These are accounted for in monthly submission.		Ongoing	

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, and
- the items of load associated with the ICP identifier.

Audit observation

The database was checked to confirm an ICP is recorded for each item of load.

Audit commentary

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

Audit commentary

The database contains the nearest street address, pole numbers and Global Positioning System (GPS) coordinates for each item of load, and users in the office and field can view these locations on a mapping system.

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 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 database was checked to confirm that it contained a field for lamp type and wattage capacity and included any ballast or gear wattage.

Audit commentary

The database contains fields for lamp make and model. There are three fields which record lamp wattage, gear wattage and total wattage. The fields were populated for all items of load. The accuracy of these is detailed in **section 3.1**.

Audit outcome

Compliant

2.5. All load recorded in database (Clause 11(2A) of Schedule 15.3)

Code reference

Clause 11(2A) of Schedule 15.3

Code related audit information

The retailer must ensure that each item of DUML for which it is responsible is recorded in this database.

Audit observation

The field audit was undertaken of a statistical sample of 377 items of load.

Audit commentary

The field audit discrepancies are detailed in the table below.

Street	Database count	Field count	Light count differences	Incorrect Wattage	Comments
002-0375	10	9	-1 +1	1	1 x 67W LED not located in the field. 1x additional 67W found in the field. 1x 24W LED recorded as 67W LED.
002-0429	37	37	-	7	6 x 116W LED est. recorded as 67W LED. 1x 150W HPS recorded as 116 LED.
002-0497	18	18	-	3	2x 18W LED recorded as 150W HPS. 1x 66W LED recorded as 150W HPS.
002-0516	14	12	-2	1	2x LEDs not located in the field. 1x 18W LED recorded as 150W HPS.
002-0533	43	43	-	4	2x 66W LEDs recorded as 150 HPS. 2x 107W LED recorded as 150W HPS.
002-0562	7	7	-	1	1x 21W LED recorded as 150W HPS.
035-0180	7	8	-	1	1x 116W LED est. recorded as 67W LED.
035-0200	4	4	-	1	1x 150W HPS recorded as 67W LED.
035-0225	16	18	+1		1x additional 67W LED found in the field.
035-0238	7	7	-	1	1x 100W HPS est. recorded as 67W LED.
035-0263	20	20	-	1	1x 67W LED est. recorded as 116W LED.
035-0327	80	78	-2		2x 116W LEDs with no light head.
038-0189	24	24	+1 -1	2	1x additional spotlight 133W est. found in the field. 1x 70W HPS not found in the field. 1x 66W LED recorded as 150W HPS. 1x 18W LED recorded as 100W HPS.

Street	Database count	Field count	Light count differences	Incorrect Wattage	Comments
GRAND TOTAL	377	371	10 (-6, +3)	23	

The field audit found three additional lights. This is recorded as non-compliance. The database accuracy is detailed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clause 11(2A) of Schedule 15.3 From: 01-Jul-22 To: 05-Jun-23	Three additional items of load identified by the field audit. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is expected to be minor as the overs and unders balance the impact out.		
Actions taken to resolve the issue		Completion date	Remedial action status
NZTA has advised that the three additional items of load have now been added.		23/8/23	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

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 database was examined.

Audit commentary

The RAMM database functionality achieves compliance with the code.

The change management process and the compliance of the database reporting provided to Meridian is detailed in **sections 3.1** and **3.2**.

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 database was checked for audit trails.

Audit commentary

The database contains a complete audit trail of all additions and changes to the database 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

The DUML Statistical Sampling Guideline was used to determine the database accuracy. The table below shows the survey plan.

Plan Item	Comments
Area of interest	Waka Kotahi Gisborne & Wairoa
Strata	The database contains items of load in the Gisborne and Wairoa areas. Selecting a statistical sample was difficult due to the length of many of the roads, therefore the sample was selected manually.
Area units	I manually selected 23 roads .
Total items of load	377 items of load or 83% of the total database were checked.

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

A field audit was conducted of a sample of 377 items of load or 83 % of the database. As more than half of the database was checked the database auditing tool was not used.

The field audit found the load is estimated to be 2.39% less than the database has recorded. As this is within the +/-5% allowable threshold, compliance is confirmed.

The errors found in the field have been passed to NZ Streetlighting and have been corrected.

Lamp description and capacity accuracy

Wattages for all items of load were checked against the published standardised wattage tables produced by the Electricity Authority, and the manufacturer's specifications. The following discrepancies were found.

Lamp description and wattage applied discrepancies:

Make	Total lamp wattage applied	Correct total lamp wattage	No. of lights	Wattage difference
150W HP Sodium	83	168	1	85
150W HP Sodium	114	168	1	54
150W HP Sodium	133	168	2	70
70W HP Sodium	168	83	1	-85
100W HP Sodium	168	114	1	-54
Total			6	70
Estimated total annual kWh				299

The incorrect lamp wattages applied will be resulting in a very minor under submission of 299 kWh per annum. The impact is minor as the over and unders balance the impact out.

Two lights have the incorrect light type of "Roadcharm BRP712". These were included in the field audit and were confirmed to be 150W HPS.

The errors found in the database have been passed to NZ Streetlighting to be corrected.

The lamp ballasts applied aligned with the wattage.

Location accuracy

The field audit did not identify any location discrepancies.

ICP number and owner accuracy

The field audit did not identify any ICP or owner discrepancies.

Change management process findings

The processes were reviewed for new lamp connections and the tracking of load changes due to faults and maintenance. As detailed in **section 1.8**, the two ICPs are managed by different NOCs. Both ICPs are on the Firstlight Network so any new connections require a new connection form to be completed and are added to the database upon electrical connection. The streetlight load in this area is static so this is an infrequent event.

Maintenance in the Gisborne area is undertaken by Electrinet. Changes are made in the database by NZ Streetlighting on behalf of Waka Kotahi. Reporting is provided by NZ Streetlighting to Meridian on a monthly basis.

The contractor for the Wairoa area is not confirmed but is thought to be Electrinet. As a result, changes being made in the field aren't being advised so are not being updated in the RAMM database. This is evident with the discrepancies detailed in **section 2.5** in the Wairoa area. NZ Streetlighting are working with Waka Kotahi to establish communication channels to correct this.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 01-Jun-22 To: 05-Jun-23	Six items of load have the incorrect wattage applied resulting in a very minor estimated under submission of 299 kWh per annum. Changes in the Wairoa area not being updated in the RAMM database. Potential impact: Low Actual impact: Low Audit history: Three times previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate overall and will move to strong once processes are in place to track changes in the Wairoa area. The audit risk rating is assessed to be low as the discrepancies found have been passed to NZ Streetlighting and are expected to be corrected.		
Actions taken to resolve the issue		Completion date	Remedial action status
NZTA has advised that the six items of load with the incorrect wattage have now been corrected. NZTA advises that all changes for Wairoa are now up to date in the RAMM database.		23/8/23	Identified
		23/8/23	
Preventative actions taken to ensure no further issues will occur		Completion date	

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, and
- profiles for DUML have been correctly applied.

Audit observation

The submission was checked for accuracy for the month the database extract was supplied. This included:

- checking the registry to confirm that all ICPs have the correct profile and submission flag, and
- checking the database extract combined with the burn hours against the submitted figure to confirm accuracy.

Audit commentary

Meridian reconciles this DUML load using the DST profile. The on and off times are derived from a data logger read by EMS and are used to create a shape file. Meridian supplies EMS with the capacity information and EMS calculates the kWh figure for each ICP and includes this in the relevant AV080 file. This process was audited during EMS' agent audit, and its accuracy and compliance was confirmed.

I compared the database output file to the capacity information Meridian supplied to EMS for April 2023 and found the totals matched.

The field audit confirmed that the database accuracy is within the allowable +/-5% threshold.

Analysis of the database identified a small number of light description vs lamp wattage discrepancies which will be resulting in a very minor under submission of 299 kWh per annum. These are detailed in **section 3.1**.

On 18 June 2019, the Electricity Authority issued a memo clarifying the memo of 2012 that stated that a monthly snapshot was sufficient to calculate submission from, and confirmed 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 monthly report is provided as a snapshot and is non-compliant. The report contains a lamp install date, but this is not used to re-calculate historic submissions.

On 18 June 2019, the Electricity Authority issued a memo clarifying the memo of 2012 that stated that a monthly snapshot was sufficient to calculate submission from, and confirmed 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 monthly report is provided as a snapshot and is non-compliant. The report contains a lamp install date, but this is not used to re-calculate historic submissions.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.2 With: Clause 15.2 and 15.37B(b)</p> <p>From: 01-Jul-22 To: 05-Jun-23</p>	<p>Six items of load have the incorrect wattage applied resulting in a very minor estimated under submission of 299 kWh per annum.</p> <p>The current monthly report is provided as a snapshot and is non-compliant. The report contains a lamp install date, but this is not used to re-calculate historic submissions.</p> <p>Potential impact: Low Actual impact: Low Audit history: Multiple times previously Controls: Moderate Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are recorded as moderate overall and will move to strong once processes are in place to track changes in the Wairoa area.</p> <p>The impact on settlement and participants is minor; therefore, the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>NZTA has advised that the six items of load with the incorrect wattage have now been corrected.</p>		<p>23/8/23</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>We have assessed our processes and tools to account for historic lamp installations and changes to the database at a daily level. There are checks in place comparing month to month data to identify any material changes and confirm details for these. These are accounted for in monthly submission</p>		<p>Ongoing</p>	

CONCLUSION

The two ICPs are managed by different Network Outcome Contracts (**NOC**). They are expected to manage changes in the database. NZ Streetlighting provide the monthly wattage report to Meridian based on the RAMM database information.

Due to the recent weather events on the East Cape, communication with the NOC for the Waka Kotahi Wairoa ICP 0000934950WWBA3 has been difficult as the focus is on getting the roads repaired. The field contractor has been unable to be confirmed and changes aren't being advised. It is likely that Electrinet as they also manage the local council database for this area. NZ Streetlighting are working with Waka Kotahi to establish communication channels.

There are 455 items of load associated with these two ICPs. Selecting a statistical sample was difficult due to the length of many of the roads, therefore I manually selected a sample of 377 of the 455 items of load, which is 83%. I consider the error of 2.39% has statistical significance given the sample size. The database is considered accurate because the error is less than 5%. The field audit and database analysis errors have been passed to NZ Streetlighting and corrections have been made.

This audit found four non-compliances and no recommendations were made. The future risk rating of eight indicates that the next audit be completed in 18 months' time. I have considered this in conjunction with, the continued improvement in the database accuracy, the static load associated with this database, and Meridian's comments and agree with this recommendation.

PARTICIPANT RESPONSE

Meridian have reviewed this report and their comments are recorded in the body of the report. No further comments were provided.