ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

MATAMATA PIAKO DISTRICT COUNCIL AND MERIDIAN ENERGY

Prepared by: Rebecca Elliot

Date audit commenced: 31 August 2020

Date audit report completed: 15 December 2020

Audit report due date: 20-Dec-20

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This audit of the **Matamata Piako District Council Unmetered Streetlights (MPDC)** 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.

Meridian reconciles this DUML load using the DST profile. Wattages are derived from reports of database information provided by MPDC. On and off times are derived from a data logger read by EMS and are used to create a shape file. Power Solutions Limited (PSL) manages the database on behalf of MPDC. The field work is carried out by McKay Electrical.

The field audit confirmed the database to be accurate.

The incorrect ICP is recorded against 164 items of load. They have been confirmed as being reconciled elsewhere and are therefore correctly being excluded from submissions.

This audit found three non-compliances. The future risk rating of six indicates that the next audit be completed in 18 months. I have considered this in conjunction with Meridian's comments and I recommend that the next audit be in 18 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	Five items of load with missing or incorrect wattages/ballasts recorded. 952 22W lights recorded as 20W in the database, resulting in an estimated 8,132 kWh of under submission per annum. The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Moderate	Low	2	
Database accuracy	3.1	15.2 and 15.37B(b)	Five items of load with missing or incorrect wattages/ballasts recorded. 952 22W lights recorded as 20W in the database, resulting in an estimated 8,132 kWh of under submission per annum. MDPC ICP incorrectly recorded against the 124 NZTA Rural and 14 private items of load.	Moderate	Low	2	

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Volume information accuracy	3.2	15.2 and 15.37B(c)	Five items of load with missing or incorrect wattages/ballasts recorded. 952 22W lights recorded as 20W in the database, resulting in an estimated 8,132 kWh of under submission per annum. The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Moderate	Low	2	
Future Risk Rating						6	

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	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

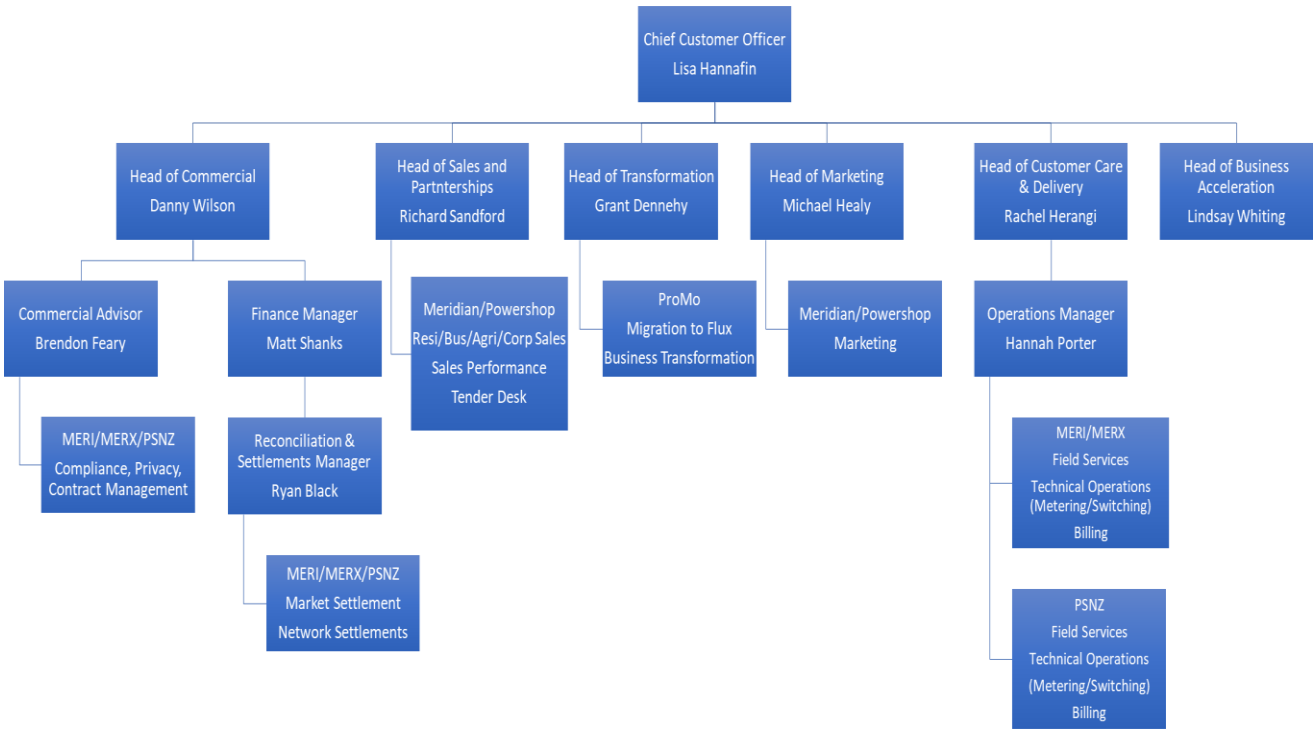
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

Audit commentary

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

1.2. Structure of Organisation

Meridian provided a copy of their organisational structure.



1.3. Persons involved in this audit

Auditor:

Name	Company	Role
Rebecca Elliot	Veritek Limited	Lead Auditor
Claire Stanley	Veritek Limited	Supporting Auditor

Other personnel assisting in this audit were:

Name	**Title**	**Company**
Helen Youngman	Energy Data Analyst	Meridian Energy
Amy Cooper	Compliance Officer	Meridian Energy
Jon Stevens	Projects Engineer	Power Solutions

1.4. Hardware and Software

Section 1.8 records that Roading Asset and Maintenance Management database, commonly known as RAMM continues to be used the management of DUML. This is remotely hosted by RAMM Software Ltd. The specific module used for DUML is called "SLIMM" which stands for "Streetlighting Inventory Maintenance Management".

Power Solutions 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)**
1000510806PC47F	Matamata-Piako District Council	WHU0331	DST	3,525	229,855

I note the MPDC ICP is recorded against items of load not yet connected, privately owned and the NZTA unmetered rural lights. These lights are all excluded manually outside of the database as these are not billed to MPDC. This is discussed in **sections 2.1** and **3.2**.

1.7. Authorisation Received

All information was provided directly by Meridian or Power Solutions.

1.8. Scope of Audit

This audit of the **Matamata Piako District Council Unmetered Streetlights (MPDC)** 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.

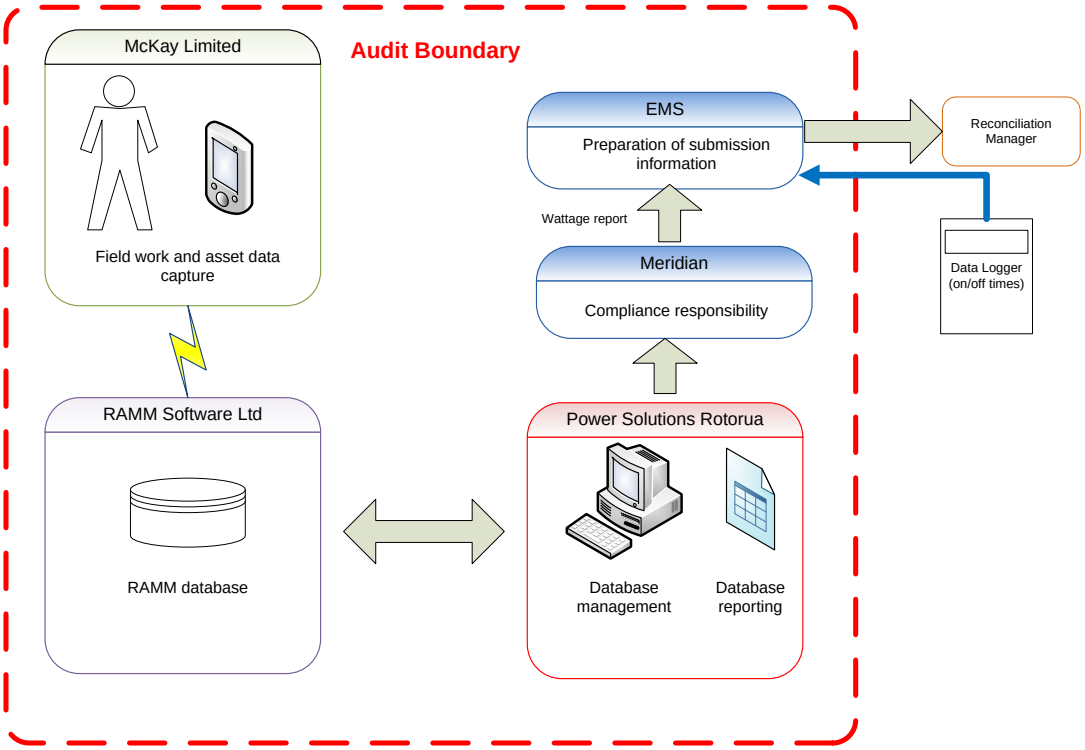
The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1.

Meridian reconciles this DUML load using the DST profile. Wattages are derived from reports of database information provided by MPDC. On and off times are derived from a data logger read by EMS and are used to create a shape file.

The database is remotely hosted by RAMM Software Ltd and is managed by PSL, on behalf of MPDC, who is Meridian's customer. McKay Limited is engaged by MPDC and conducts the fieldwork and asset data capture. Reporting is provided to Meridian on a monthly basis by PSL.

The database records all Matamata Piako lights and the NZTA urban and rural lighting for the Matamata Piako area. The NZTA items of load are only recorded in MPDC RAMM database for clarity of asset ownership, and not for submission.

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.



The field audit was undertaken of a statistical sample of 218 items of load on 21st October 2020.

1.9. Summary of previous audit

The previous audit was undertaken by Rebecca Elliot of Veritek Limited in December 2019 for Meridian Energy. Five non-compliances were identified, and no recommendations were made. The statuses of the non-compliances are described below:

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Deriving submission information	2.1	11(1) of Schedule 15.3	NZTA rural lights recorded against the MPDC ICP not reconciled resulting in an estimated annual under submission of 96,093kWh. Festive lights included in the September 2019 monthly wattage report resulting in an estimated over submission of 414kWh. The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Cleared Cleared Still existing
Description and capacity of load	2.4	11(2)(c) and (d) of Schedule 15.3	One item of load with no lamp mode, make, wattage or ballast.	Cleared
All load recorded in the database	2.5	11(2A) of Schedule 15.3	Three items of load missing from the database.	Cleared
Database accuracy	3.1	15.2 and 15.37B(b)	Six items of load with missing or incorrect wattages/ballasts recorded.	Still existing for five items
Volume information accuracy	3.2	15.2 and 15.37B(c)	NZTA rural lights recorded against the MPDC ICP not reconciled resulting in an estimated annual under submission of 96,093kWh. Festive lights included in the September 2019 monthly wattage report resulting in an estimated over submission of 414kWh. The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Cleared Cleared Still existing

Table of Recommendations

Subject	Section	Description	Action
Database Accuracy	3.1	LED light specifications to be provided for next audit to confirm the correct wattage is recorded in the database.	Cleared

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*
- *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

Meridian reconciles the 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 Meridian's reconciliation participant audit and EMS' agent audit. Compliance was confirmed for both parties.

I compared the RAMM database provided to the capacity information Meridian supplied to EMS for the month of August 2020 confirmed these to be correct.

The monthly wattage report is calculated using RAMM data, but the wattage report is calculated outside of the database. The following lights are excluded from the monthly wattage report as detailed:

- 22 "not yet connected" - these will be included once they are confirmed as electrically connected and the light install date is populated; the reporting of such changes is detailed below,
- 14 privately owned lights - these have been confirmed by the network as being billed to other ICPs so the MPDC ICP should be removed from these items and either the correct ICP or "private" be recorded,
- 124 NZTA rural lights – these lights have been checked with the NZTA trader for the area and I have confirmed that they are reconciled against ICP 0000557929UNE2C, and these items of load are only recorded in MPDC RAMM database for clarity of asset ownership, and not for submission (whilst they have the MPDC ICP recorded against them, they are technically not expected to be reconciled against this ICP).

The field audit confirmed the database to within the +/-5% accuracy threshold and therefore compliant.

The accuracy of the lamp wattage and ballasts in the database was examined and found some wattage and ballast inaccuracies. This will be resulting in an estimated under submission of 8,132 kWh per annum. This is recorded as non-compliance below and in **sections 3.1** and **3.2**.

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 monthly report is provided as a snapshot. This practice is non-compliant. The database contains a "light install date". This is populated once the light has been electrically connected. When a wattage is changed or added in the database due to a physical change or a correction, only the record present at the time the report is run is recorded, not the historical information showing dates of changes.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3 From: 12-Dec-19 To: 31-Aug-20	Five items of load with missing or incorrect wattages/ballasts recorded. 952 22W lights recorded as 20W in the database, resulting in an estimated 8,132 kWh of under submission per annum. The data used for submission does not track changes at a daily basis and is provided as a snapshot. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as moderate as the processes in place will mitigate risk most of the time. The impact is assessed to be low as the database is relatively static and the overall database accuracy was found to be high.

Actions taken to resolve the issue	Completion date	Remedial action status
Correction of LED and other incorrect wattages identified is in progress and will be completed by end of December.	31 Dec 2020	Identified
Preventative actions taken to ensure no further issue will occur	**Completion date**	
Processes to manage the database are considered robust and a high level of accuracy is reported.		

2.2. ICP identifier and items of load (Clause 11(2)(a) and (aa) of Schedule 15.3)

Code reference

Clause 11(2)(a) and (aa) of Schedule 15.3

Code related audit information

The DUML database must contain:

- *each ICP identifier for which the retailer is responsible for the DUML*
- *the items of load associated with the ICP identifier.*

Audit observation

The database was checked to confirm the correct ICP was recorded against each item of load.

Audit commentary

All items of load have an ICP recorded. The accuracy of the ICPs is discussed in **section 3.1**.

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 and that each item of load had a value recorded in these fields.

Audit commentary

All lamps in RAMM have a lamp model, lamp wattage and gear wattage recorded. No missing, or invalid zero lamp or gear wattages were identified.

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 218 items of load on 21st October 2020.

Audit commentary

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

Street	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
STATE HIGHWAY 26	9	9		2	2 x 60W LED recorded in the database as MV 80W
Various Streets	62	62		62	62x 22W LED recorded as 20W LED in the database
Grand Total	**218**	**218**		**64**	

No additional lamps were found in the field. Database accuracy is discussed in **section 3.1**.

Audit outcome

Compliant

2.6. Tracking of load changes (Clause 11(3) of Schedule 15.3)

Code reference

Clause 11(3) of Schedule 15.3

Code related audit information

The 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.

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 RAMM database has 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	Matamata Piako district
Strata	The database contains items of load in Matamata Piako area. The processes for the management of MPDC items of load are the same, but I decided to place the items of load into four strata, as follows: 1. A-J, 2. K-R, and 3. S-Y
Area units	I created a pivot table of the roads by strata and used a random number generator in a spreadsheet to select a total of 40 sub-units.
Total items of load	218 items of load were checked.

Wattages were checked for alignment with the published standardised wattage table produced by the Electricity Authority or LED light specifications where available against the RAMM database.

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

Audit commentary

Database accuracy based on the field audit

A field audit was conducted of a statistical sample of 218 items of load. The assessment of database accuracy without the NZTA Rural lights included (these are discussed below) confirmed that the database falls within in the accuracy thresholds and this is what I have recorded.

The “database auditing tool” was used to analyse the results, which are shown in the table below.

Result	Percentage	Comments
The point estimate of R	100.5	Wattage from survey is greater than the database wattage by 0.5%
R_L	98.9	With a 95% level of confidence, it can be concluded that the error could be between - 1.1% and + 1.5%.
R_H	101.5	

These results were categorised in accordance with the “Distributed Unmetered Load Statistical Sampling Audit Guideline”, effective from 01/02/19 and the table below shows that Scenario A (detailed below) applies. Compliance is recorded because the best estimate indicates that the database is accurate within ±5.0%.

In absolute terms the installed capacity is estimated to be the same as the database indicates.

There is a 95% level of confidence that the installed capacity is the same as the database.

In absolute terms, total annual consumption is estimated to be 300 kWh higher than the DUML database indicates.

There is a 95% level of confidence that the annual consumption is between 500 kWh p.a. lower to 700 kWh p.a. higher than the database indicates.

Scenario	Description
A - **Good accuracy, good precision**	This scenario applies if: (a) R_H is less than 1.05; and (b) R_L is greater than 0.95 The conclusion from this scenario is that: (a) the best available estimate indicates that the database is accurate within +/- 5 %; and (b) this is the best outcome.
B - **Poor accuracy, demonstrated with statistical significance**	This scenario applies if: (a) the point estimate of R is less than 0.95 or greater than 1.05 (b) as a result, either R_L is less than 0.95 or R_H is greater than 1.05. There is evidence to support this finding. In statistical terms, the inaccuracy is statistically significant at the 95% level
C - **Poor precision**	This scenario applies if: (a) the point estimate of R is between 0.95 and 1.05 (b) R_L is less than 0.95 and/or R_H is greater than 1.05 The conclusion from this scenario is that the best available estimate is not precise enough to conclude that the database is accurate within +/- 5 %

Lamp description and capacity accuracy

I checked the wattages being applied in the RAMM database and found:

- 4x 35W MH lights with a ballast of 6W applied instead of 10W;
- 1x 50W MV light with a ballast of 9W applied instead of 11W; and

This will be resulting in a very minor amount of under submission for the five items of load with incorrect ballast applied. The incorrect ballasts applied to the five items of load above is recorded as non-compliance below.

- 61 I-Tron 2 module 575mA LED lights were identified in the field as being 22W, they were recorded in the database as 20W. The correct information has been confirmed by referencing the supplier details. There is a total of 952 I-Tron 2 module 575mA LED lights in the database that should all be updated to 22W.

This will be resulting in under submission for the 952 lights with the incorrect wattage recorded resulting in an estimated 8,132 kWh of under submission per annum. Power Solutions are working to get these corrected in the database. This is recorded as non-compliance below.

ICP Accuracy

Examination of the database identified 124 NZTA rural lights. These lights have been checked with the NZTA trader for the area, I have confirmed that they are reconciled against ICP 0000557929UNE2C. This is recorded as non-compliance below. These items of load are only recorded in MPDC RAMM database for clarity of asset ownership, and not for submission. Whilst they have the MPDC ICP recorded against them, they are technically not expected to be reconciled against this ICP. For accuracy, these lights should have the ICP updated in the RAMM database to the correct ICP.

There were 14 private lights recorded with the MPDC ICP against them. These have been confirmed to be reconciled as either standard unmetered load or shared unmetered load and therefore they have the incorrect ICP recorded. It is a similar situation to the NZTA Rural lights, the MPDC records these items of load in the RAMM database for clarity of ownership and not for reconciliation. This is recorded as non-compliance below.

Festive lights

The last audit noted that these had been included in the monthly report outside of the connected period. I examined the monthly wattage report for August 2020 and confirmed that they not included in the submission.

Change management process findings

The processes were reviewed for ensuring that changes in the field are notified through to PSL and there have been no changes to these processes since the last audit. McKay Electrical enters all field data via "Pocket RAMM" directly into RAMM Contractor. "As built" plans are also provided and PSL then conduct a field check to ensure the database has been populated accurately. The high level of accuracy found in the field audit confirms the process has robust controls.

Monthly "outage patrols" are conducted, and this process is used to check database accuracy.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 12-Dec-19 To: 31-Aug-20	Five items of load with missing or incorrect wattages/ballasts recorded. 952 22W lights recorded as 20W in the database, resulting in an estimated 8,132 kWh of under submission per annum. MDPC ICP incorrectly recorded against the 124 NZTA Rural and 14 private items of load. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as moderate, because they are sufficient to ensure that changes to the database are correctly recorded most of the time. The impact is assessed to be low due to the minor impact to submission accuracy noted above. .

Actions taken to resolve the issue	Completion date	Remedial action status
Correction of LED and other incorrect wattages identified is in progress and will be completed by end of December. Removal of the MPDC ICP from NZTA rural and private lights has been requested.	31 Dec 2020 31 Dec 2020	Identified
Preventative actions taken to ensure no further issue will occur	**Completion date**	
Processes to manage the database are considered robust and a high level of accuracy is reported.		

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 database extract combined with the burn hours against the submitted figure to confirm accuracy.

Audit commentary

Meridian reconciles the 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 Meridian's reconciliation participant audit and EMS' agent audit. Compliance was confirmed for both parties.

I compared the RAMM database provided to the capacity information Meridian supplied to EMS for the month of August 2020 confirmed these to be correct.

The monthly wattage report is calculated using RAMM data, but the wattage report is calculated outside of the database. The following lights are excluded from the monthly wattage report as detailed:

- 22 "not yet connected" - these will be included once they are confirmed as electrically connected and the light install date is populated; the reporting of such changes is detailed below,
- 14 privately owned lights - these have been confirmed by the network as being billed to other ICPs so the MPDC ICP should be removed from these items and either the correct ICP or "private" be recorded,
- 124 NZTA rural lights – these lights have been checked with the NZTA trader for the area and I have confirmed that they are reconciled against ICP 0000557929UNE2C, and these items of load are only recorded in MPDC RAMM database for clarity of asset ownership, and not for submission (whilst they have the MPDC ICP recorded against them, they are technically not expected to be reconciled against this ICP).

The field audit confirmed the database to within the +/-5% accuracy threshold and therefore compliant.

The accuracy of the lamp wattage and ballasts in the database was examined and found some wattage and ballast inaccuracies. This will be resulting in an estimated under submission of 8,132 kWh per annum. This is recorded as non-compliance below and in **sections 3.1** and **3.2**.

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 monthly report is provided as a snapshot. This practice is non-compliant. The database contains a "light install date". This is populated once the light has been electrically connected. When a wattage is changed or added in the database due to a physical change or a correction, only the record present at the time the report is run is recorded, not the historical information showing dates of changes.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.2 With: Clause 15.2 and 15.37B(c) From: 12-Dec-19 To: 31-Aug-20	Five items of load with missing or incorrect wattages/ballasts recorded. 952 22W lights recorded as 20W in the database, resulting in an estimated 8,132 kWh of under submission per annum. The data used for submission does not track changes at a daily basis and is provided as a snapshot. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as moderate as the processes in place will mitigate risk most of the time. The impact is assessed to be low as the database is relatively static and the overall database accuracy was found to be high.

Actions taken to resolve the issue	Completion date	Remedial action status
Correction of LED and other incorrect wattages identified is in progress and will be completed by end of December.	31 Dec 2020	Identified
Preventative actions taken to ensure no further issue will occur	**Completion date**	
Processes to manage the database are considered robust and a high level of accuracy is reported.		

CONCLUSION

Meridian reconciles this DUML load using the DST profile. Wattages are derived from reports of database information provided by MPDC. On and off times are derived from a data logger read by EMS and are used to create a shape file. Power Solutions Limited (PSL) manages the database on behalf of MPDC. The field work is carried out by McKay Electrical.

The field audit confirmed the database to be accurate.

The incorrect ICP is recorded against 164 items of load. They have been confirmed as being reconciled elsewhere and are therefore correctly being excluded from submissions.

This audit found three non-compliances. The future risk rating of six indicates that the next audit be completed in 18 months. I have considered this in conjunction with Meridian's comments and I recommend that the next audit be in 18 months.

PARTICIPANT RESPONSE

Meridian has reviewed this report and their comments are contained within the report.