# ELECTRICITY INDUSTRY PARTICIPATION CODE DISTRIBUTED UNMETERED LOAD AUDIT REPORT



For

# BULLER DISTRICT COUNCIL RAMM DATABASE AND MERIDIAN ENERGY

Prepared by: Steve Woods

Date audit commenced: 22 September 2020

Date audit report completed: 27 November 2020

Audit report due date: 01-Dec-20

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#### **EXECUTIVE SUMMARY**

This audit of the Buller District Council (**BDC**) DUML, Buller Electricity's RAMM 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.

This audit report includes all the unmetered streetlights recorded in the BDC RAMM database across the Buller and Network Tasman networks. The LED replacement project is being rolled out, and funding has been extended for this project, it is now expected to be completed by September 2021.

The database accuracy has declined during the audit period. It appears that changes made in the field are not being updated in the database. This was discussed and found that the database administrator is only advised when a full sheet of updates is completed in the field for the LED roll-out and this has resulted in the delay of the updates to the database. In addition to this, a variety of LED lights have been installed in the field, but these details have not been provided to the database administrator. This is being investigated.

Meridian receive a monthly wattage report from Buller District Council, this is extracted from RAMM. The daily figure on the registry is updated to match the report.

The main findings are as follows:

- 1. Two additional lights identified in the BDC RAMM database.
- 2. Assessment of the database found an estimated annual over submission of 5,813 kWh.

The audit found four non-compliances and makes two recommendations. The future risk rating of five indicates that the next audit be completed in 12 months. I have considered this in conjunction with:

- the small number of unmetered lights associated with this database, and
- Meridian's comments.

I recommend that the next audit be in 18 months.

#### **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	The database did not meet the accuracy threshold resulting in an estimated annual over submission of 5,813 kWh.  The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Weak	Low	3	Identified
Description and capacity of load	2.4	11(2)(c) of Schedule 15.3	Four lights with an unknown light type.	Moderate	Low	2	Identified
All load recorded in the database	2.5	11(2A) of Schedule 15.3	Two additional lights identified by the field audit.	Weak	Low	3	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	Assessment of the database found that an estimated annual over submission of 5,813 kWh.  Four lights with an unknown light description.	Weak	Low	3	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	The database did not meet the accuracy threshold resulting in an estimated annual over submission of 5,813 kWh.  The data used for submission does not track changes at a daily basis and is provided as a snapshot.	Weak	Low	3	Identified
Future Risk Ra	ting					14	

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
Description and capacity of load	2.4	Remove the record for the lamp that did not have description or wattage recorded. Field audit confirmed that lamp has been removed.	Identified
Database accuracy	3.1	Update lamp descriptions to detail light make and model in sufficient detail to confirm that the correct wattage has been applied.	Identified

# 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**

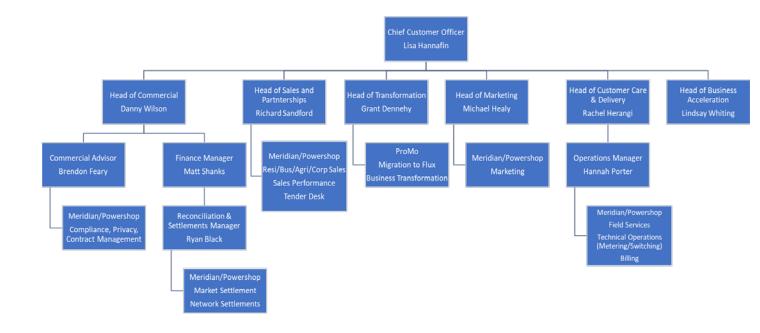
Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

#### **Audit 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:

**Steve Woods Lead Auditor** 

**Veritek Limited** 

**Electricity Authority Approved Auditor** 

**Claire Stanley Supporting Auditor Veritek** 

Other personnel assisting in this audit were:

Name	Title	Company
Kim McLaughlin	Administrator	Buller Electricity Limited
Martin Dobson	Coordinator Asset Information	Buller District Council
Amy Cooper	Compliance Officer	Meridian
Daniel Lau	Energy Data Analyst	Meridian

# 1.4. Hardware and Software

The RAMM database used for the management of DUML is remotely hosted by RAMM Software Ltd.

BDC 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 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	Number of items of load	Database wattage (watts)
0003970474BUE6B	DUML Streetlights	ORO1102	65	5,059
0000090008NT5BE	BULLER CC STREETLIGHTING MURCHISON GXP	MCH0111	9	1,427
TOTAL			74	6,486

The bulk of the Buller DC lights are on metered circuits. Buller Network confirmed this by undertaking a complete field audit prior to the last audit.

#### 1.7. Authorisation Received

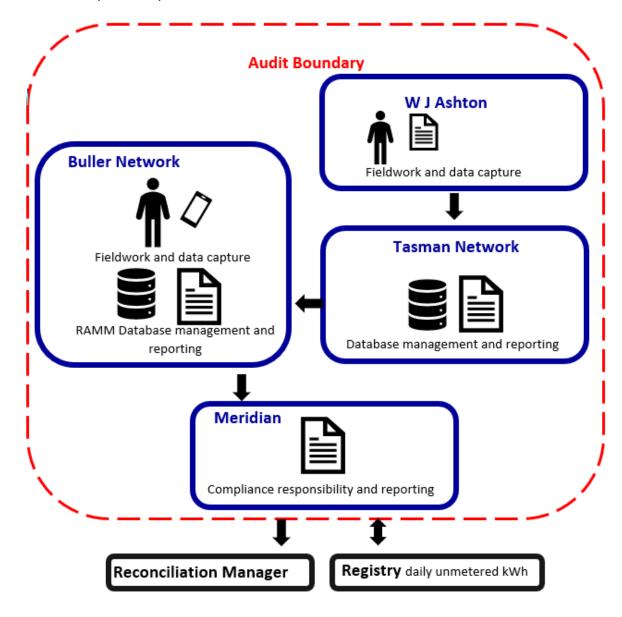
All information was provided directly by Meridian, BDC and Buller Electricity.

# 1.8. Scope of Audit

This audit of the BDC DUML, Buller Electricity's RAMM database and processes was conducted at the request of Meridian Energy 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.

This audit report includes all the unmetered streetlights recorded in the RAMM database. This covers lights on both the Buller and Network Tasman networks.

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

The field audit was undertaken of all 74 unmetered load items recorded in the RAMM database on the 24th September 2020.

# 1.9. Summary of previous audit

Meridian provided a copy of the last audit report undertaken by Rebecca Elliot of Veritek Limited in November 2019. The current status of the non-compliances found in the last audit are detailed below:

# **Table of Non-Compliance**

Subject	Section	Clause	Non-Compliance	Status
Deriving submission information	2.1	11(1) of Schedule 15.3	The registry daily kWh figure is used for submission and this does not track change daily as required by the code resulting in under submission of approx. 3,708kWh per annum.	Still existing
All load recorded in the database	2.5	11(2A) of Schedule 15.3	Seven NZTA items of load missing from the BDC RAMM database resulting in an estimated annual under submission of 3,408 kWh.	Still existing for 2 different lights
Database accuracy	3.1	15.2 and 15.37B(b)	Seven NZTA items of load missing from the BDC RAMM database resulting in an estimated annual under submission of 3,408 kWh.	Still existing for 2 different lights
Volume information accuracy	3.2	15.2 and 15.37B(c)	The registry daily kWh figure is used for submission and this does not track change daily as required by the code resulting in in under submission of approx. 3,708kWh per annum.	Still existing

#### **RECOMMENDATIONS**

Subject	Section	Description	Status
Deriving submission information	2.1	Buller DC to send Meridian a monthly wattage report that tracks load change daily from RAMM.	A monthly report is now provided to Meridian.
Database accuracy	3.1	Update lamp descriptions to detail light make and model in sufficient detail to confirm that the correct wattage has been applied.	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**

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 this DUML load using the RPS profile and the daily unmetered figures for both ICPs. I checked the values being submitted and confirmed the calculations are correct.

Meridian Energy receive a monthly wattage report from Buller District Council, this is extracted from RAMM. This is used and multiplied by 11.5 burn hours per day to update the daily figure on the registry.

The full field audit found that the database was not accurate to within +/- 5% accuracy threshold. This will be resulting in an estimated annual over submission of 5,813 kWh p.a. This is recorded as non-compliance below.

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 data supplied to Meridian each month is based on a snapshot and does not achieve compliance with the requirements above.

#### **Audit outcome**

Non-compliance	Description
Audit Ref: 2.1 With: Clause 11(1) of Schedule 15.3	The database did not meet the accuracy threshold resulting in an estimated annual over submission of 5,813 kWh.  The data used for submission does not track changes at a daily basis and is provided
Schedule 13.3	as a snapshot.  Potential impact: Low
From: 29-Nov-19	Actual impact: Low
To: 25-Sep-20	Audit history: Three times previously  Controls: Weak
	Breach risk rating: 3

Audit risk rating	Rationale for audit risk rating				
Low	The controls are rated as weak as changes in the field are not being reflected in the database.				
	The impact is assessed to be low due to described above.	the estimated am	ount of over submission		
Actions to	iken to resolve the issue	Completion date	Remedial action status		
findings and requirement accurate reflection of what be revised taking into acc	r DC and Buller Network regarding audit to update the database so this is an at is installed. Historic submissions will ount the dates lights were this information is available.	Nov 2020	Identified		
Preventative actions tak	en to ensure no further issue will occur	Completion date			
	ller DC regarding improvements to ocesses so that these are received more	Dec 2020			

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

# **Code reference**

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

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

The 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 against them.

#### **Audit outcome**

Compliant

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

#### **Code reference**

Clause 11(2)(b) of Schedule 15.3

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

The 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**

The RAMM database has fields for make, model and wattage.

Four lamps were identified with a description of Unknown. The Wattage and Ballast for these lights appears to be correct so there is no impact on settlement.

One lamp did not have description or wattage recorded, this was checked in the field and was not found. I recommend this record is removed.

Recommendation	Description	Audited party comment	Remedial action
Clause 11(2)(c) and (d) of Schedule 15.3	Remove the record for the lamp that did not have description or wattage recorded. Field audit confirmed that lamp has been removed.	We will advise Buller Network to remove this redundant record.	Identified

The accuracy of these are discussed in section 3.1.

#### **Audit outcome**

Non-compliance	Description		
Audit Ref: 2.4	Four lights with an unknown light type.		
With: Clause 11(2)(c)	Potential impact: Low		
of Schedule 15.3	Actual impact: Low		
	Audit history: None		
From: 29-Nov-19	Controls: Moderate		
To: 25-Sep-20	Breach risk rating: 2		
Audit risk rating	Rationale for	audit risk rating	
Low	The controls are rated as moderate as light descriptions are required to be provided when changes are made.		
	The impact is assessed to be low due to the small number of lights affected.		
Actions taken to resolve the issue		Completion date	Remedial action status
We are liaising with Buller DC and Buller Network regarding audit findings and requirement to update the database so this is an accurate reflection of what is installed. Historic submissions will be revised taking into account the dates lights were installed/removed where this information is available.		Nov 2020	Identified
_	e for the 4 lights with an unknown light accurate during the field audit.		
Preventative actions taken to ensure no further issue will occur		Completion date	
We will follow up with Buller DC regarding improvements to database maintenance processes so that these are received more regularly as they occur.		Dec 2020	

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

# **Code reference**

Clause 11(2A) of Schedule 15.3

# **Code related audit information**

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

# **Audit observation**

A field audit was undertaken of the all the unmetered 74 items of load on 24th September 2020.

# **Audit commentary**

The field audit discrepancies are detailed in the table below:

Street/Area	Database Count	Field Count	Lamp no. difference	No of incorrect lamp wattage	Comments
Caledonian Rd	2	1	-1		1x 70W HPS not found in the field
Calcuoman Nu		_			1 x 70W HPS found
Camp Street	4	5	+1		in the field
Newcastle Street	43	3	-1	2	1 x record with zero wattage recorded not found in the field. 1x 27W LED recorded but 22W LED found 1x 70W HPS recorded but 22W LED found.
Newcastie street					1 x 70W HPS recorded
Adderley St (North)	2	2		1	but 22W LED found
Beach Rd (Charleston)	1	1		1	1 x 100W HPS recorded but 70WHPS found
	2	2		4	1 x 70W HPS recorded
Cape Foulwind Rd	3	3		1	but 22W LED found
Collins Rd	1	1		1	1 x 100W HPS recorded but 22W LED found
Kew Rd	4	4		4	All recorded as 27W LED but 2 X 22W LED and 2 X 23W LED found in the field
Martin Pl	2	2		1	1x L27W LED recorded but 22W LED found
MacIntyre Rd (West)	1	1		1	1x 27W LED recorded but 22W LED found
McKenna Rd	1	1		1	1x 70w HPS recorded but 22W LED found
Powell Place	1	1		1	1 x 70W HPS recorded but 22W LED found
Reedys Rd	1	1		1	1 x 70W HPS recorded but 27W LED found
SH 67 GRANITY / TOREA ST	1	1		1	1 x 70W HPS recorded but 27W LED found
SH 67 NGAKAWAU	1	1		1	1 x 100W HPS recorded but 27W LED found
SH 67 WAIMANGAROA	10	9	+1	4	2x 100W HPS not found in the field. 1x additional 27W LED found in the field 2 x 100 HPS recorded but 27w LEDs found 2 x 100w HPS recorded but 22W LEDs found
Stafford St	3	3		2	2 x 27W LED recorded but 22W LEDs found

Street/Area	Database Count	Field Count	Lamp no. difference	No of incorrect lamp wattage	Comments
Sunderland St	2	2		2	1x 27W LED recorded but 22W LED found 1 x 70W HPS recorded but 22W LED found
The Esplanade	1			1	1 x 70W HPS recorded but 22W LED found
Grand Total	74	72	6 (+2-4)	26	

The field audit found two additional lights in the field and this is recorded as a non-compliance below.

The accuracy of the database is discussed in **section 3.1**.

# **Audit outcome**

Non-compliance	Description			
Audit Ref: 2.5	Two additional lights identified by the field audit.			
With: Clause 11(2A) of	Potential impact: Low			
Schedule 15.3	Actual impact: Low			
	Audit history: None			
	Controls: Weak			
From: 29-Nov-19	Breach risk rating: 3			
To: 25-Sep-20				
Audit risk rating	Rationale for	audit risk rating		
Low	The controls are rated as weak due to th	e high number of	errors found in the field.	
	The impact is assessed to be low due to	the small number	of additional lights found.	
Actions taken to resolve the issue		Completion date	Remedial action status	
We are liaising with Buller DC and Buller Network regarding audit findings and requirement to update the database so this is an accurate reflection of what is installed. Historic submissions will be revised taking into account the dates lights were installed/removed where this information is available.		Nov 2020	Identified	
Preventative actions taken to ensure no further issue will occur		Completion date		
We will follow up with Buller DC regarding improvements to database maintenance processes so that these are received more regularly as they occur.		Dec 2020		

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

#### **Code reference**

Clause 11(3) of Schedule 15.3

#### Code related audit information

The DUML database must track additions and removals in a manner that allows the total load (in kW) to be retrospectively derived for any given day.

#### **Audit observation**

The process for tracking of changes in the database was examined.

#### **Audit commentary**

The RAMM database functionality achieves compliance with the code if used for submission. 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 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 field audit was undertaken of all 74 items of unmetered load items recorded in the RAMM database on the 24<sup>th</sup> September 2020.

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

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

#### **Audit commentary**

#### **Database accuracy**

The field audit found a large number of errors. These are detailed in **section 2.5**. I calculated an error rate across the database of 20.98%. This will be resulting in an estimated annual over submission of 5,813 kWh p.a. This is not within the allowable database accuracy threshold of +/-5%. This is recorded as noncompliance below.

# Lamp description and capacity accuracy

Wattages for all items of load were checked against the published standardised wattage table produced by the Electricity Authority or LED light specifications and found to be correct.

As detailed in **section 2.4**, four lamps were identified with a description of Unknown. The Wattage and Ballast for these lights is recorded. I recommend that the light descriptions are updated to include sufficient detail to confirm the correct lamp wattage has been applied.

Recommendation	Description	Audited party comment	Remedial action
Database Accuracy	Update lamp descriptions to detail light make and model in sufficient detail to confirm that the correct wattage has been applied.	We will request that the unknown light types are updated	Identified

#### Tracking of load change

The processes were reviewed for new lamp connections and the tracking of load changes due to faults and maintenance. Fault, maintenance and LED upgrade work is completed by Buller Electricity on the Buller Network lights and by WJ Ashton for the Network Tasman NZTA lights in Murchison.

Any new streetlight connections are metered therefore the volume of unmetered lights is not expected to increase.

Buller Electricity update RAMM directly as maintenance is performed. It appears that changes made in the field are not being updated in the database. This was discussed and found that the database

administrator is only advised when a full sheet of updates is completed in the field for the LED roll-out and this has resulted in the delay of the updates to the database. In addition to this a variety of LED lights have been installed in the field but these details have not been provided to the database administrator. This is being investigated.

The LED replacement project is still being rolled out, the funding has been extended for this project and it is now expected to be completed by September 2021.

Private lights are on their own metered ICPs.

Christmas lights in the Buller district are connected to metered circuits. Currently they are only in the Palmerston Street area.

#### **Audit outcome**

Non-compliance	Description			
Audit Ref: 3.1 With: Clause 15.2 and	Assessment of the database found that an estimated annual over submission of 5,813 kWh.			
15.37B(b)	Four lights with an unknown light descri	ption.		
	Potential impact: Low			
	Actual impact: Low			
From: 29-Nov-19	Audit history: Once previously			
To: 25-Sep-20	Controls: Weak			
	Breach risk rating: 3			
Audit risk rating	Rationale for audit risk rating			
Low	The controls are rated as weak as changes in the field are not being reflected in the database.			
	The impact is assessed to be low due to the estimated amount of over submission described above.			
Actions taken to resolve the issue		Completion date	Remedial action status	
We are liaising with Buller DC and Buller Network regarding audit findings and requirement to update the database so this is an accurate reflection of what is installed. Historic submissions will be revised taking into account the dates lights were installed/removed where this information is available.		Nov 2020	Identified	
Preventative actions taken to ensure no further issue will occur		Completion date		
We will follow up with Buller DC regarding improvements to database maintenance processes so that these are received more regularly as they occur.		Dec 2020		

# 3.2. Volume information accuracy (Clause 15.2 and 15.37B(c))

#### **Code reference**

Clause 15.2 and 15.37B(c)

#### Code related audit information

The audit must verify that:

- volume information for the DUML is being calculated accurately
- profiles for DUML have been correctly applied.

#### **Audit observation**

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

- checking the registry to confirm that the ICP has the correct profile and submission flag
- 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 RPS profile and the daily unmetered figures for both ICPs. I checked the values being submitted and confirmed the calculations are correct.

Meridian Energy receive a monthly wattage report from Buller District Council, this is extracted from RAMM. This is used and multiplied by 11.5 burn hours per day to update the daily figure on the registry.

The full field audit found that the database was not accurate to within +/- 5% accuracy threshold. This will be resulting in an estimated annual over submission of 5,813 kWh p.a. This is recorded as non-compliance below.

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 data supplied to Meridian each month is based on a snapshot and does not achieve compliance with the requirements above.

#### **Audit outcome**

Non-compliance	Description			
Audit Ref: 3.2 With: Clause 15.2 and	The database did not meet the accuracy threshold resulting in an estimated annual over submission of 5,813 kWh.			
15.37B(c)	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			
From: 29-Nov-19	Audit history: Three times previously			
	Controls: Weak			
To: 25-Sep-20	Breach risk rating: 3			
Audit risk rating	Rationale for audit risk rating			
Low	The controls are rated as weak as changes in the field are not being reflected in the database.			
	The impact is assessed to be low due to the estimated amount of over submission described above.			
Actions taken to resolve the issue		Completion date	Remedial action status	
We are liaising with Buller DC and Buller Network regarding audit findings and requirement to update the database so this is an accurate reflection of what is installed. Historic submissions will be revised taking into account the dates lights were installed/removed where this information is available.		Nov 2020	Identified	
Preventative actions taken to ensure no further issue will occur		Completion date		
We will follow up with Buller DC regarding improvements to database maintenance processes so that these are received more regularly as they occur.		Dec 2020		

# CONCLUSION

This audit report includes all the unmetered streetlights recorded in the BDC RAMM database across the Buller and Network Tasman networks. The LED replacement project is being rolled out, and funding has been extended for this project; it is now expected to be completed by September 2021.

The database accuracy has declined during the audit period. It appears that changes made in the field are not being updated in the database. This was discussed and found that the database administrator is only advised when a full sheet of updates is completed in the field for the LED roll-out and this has resulted in the delay of the updates to the database. In addition to this a variety of LED lights have been installed in the field but these details have not been provided to the database administrator. This is being investigated.

Meridian receive a monthly wattage report from Buller District Council, this is extracted from RAMM. The daily figure on the registry is updated to match the report.

The main findings are as follows:

- 1. Two additional lights identified in the BDC RAMM database.
- 2. Assessment of the database found that an estimated annual over submission of 5,813 kWh.

The audit found four non-compliances and makes two recommendations. The future risk rating of five indicates that the next audit be completed in 12 months. I have considered this in conjunction with:

- the small number of unmetered lights associated with this database, and
- Meridian's comments.

I recommend that the next audit be in 18 months.

# PARTICIPANT RESPONSE