

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

GREATER WELLINGTON REGIONAL
COUNCIL AND
MERIDIAN ENERGY

Prepared by: Bernie Cross

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EXECUTIVE SUMMARY

This audit of the **Greater Wellington Regional Council Unmetered Streetlights (GWRC)** DUML database and processes was conducted at the request of **Meridian Energy Limited (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 GWRC lights are in the Porirua, Paremata and Petone Metlink station carparks. The data for these lights is held in a database created by GWRC.

GWRC has updated the database to include all of the lights, but GPS coordinates are not yet populated, and one gear wattage requires correction.

The audit found six non-compliance issues. The future risk rating of 13 indicates that the next audit be completed in 12 months. I recommend that the next audit date is 18 months given there are no further light changes or upgrades planned for the carparking lighting at these stations. If there were any light changes in the future, Meridian and GWRC have implemented a process to reflect these changes to the database in the submission volumes and also the relatively low volume impact of the database exception identified.

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>Under submission of 12.8 kWh per annum due to incorrect gear wattage.</p> <p>53 lights associated with Porirua Carpark incorrectly assigned to PNI0331 GXP and not TKR0331.</p> <p>Under submission of approx. 2,270 kWh per annum for ICP 0000161690CK4EE and over submission of 1,046 kWh per annum for ICP 0000160523CK83F due to not using the current database capacities.</p> <p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 5,164 kWh p.a.</p>	Moderate	Low	2	
ICP identifier and items of load	2.2	11(2)(a) and (aa) of Schedule 15.3	ICP assignment is not correct for all items of load resulting in incorrect allocation of submission volumes to the respective NSP.	Strong	Low	1	
Location of items of load	2.3	11(2)(b) of Schedule 15.3	Location information not sufficient to locate each item of load.	None	Low	5	
All load recorded in database	2.5	11(2A) of Schedule 15.3	One additional lamp in the field was not recorded in the database.	Strong	Low	1	

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Database accuracy	3.1	15.2 and 15.37B(b)	<p>Under submission of 12.8 kWh per annum due to incorrect gear wattage.</p> <p>53 lights associated with Porirua Carpark incorrectly assigned to PNI0331 GXP and not TKR0331.</p> <p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 5,164 kWh p.a.</p>	Moderate	Low	2	
Volume information accuracy	3.2	15.2 and 15.37B(c)	<p>Under submission of 12.8 kWh per annum due to incorrect gear wattage.</p> <p>Under submission of approx. 2,270 kWh per annum for ICP 0000161690CK4EE and over submission of 1,046 kWh per annum for ICP 0000160523CK83F due to not using the current database capacities.</p> <p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 5,164 kWh p.a.</p>	Moderate	Low	2	
Future Risk Rating						13	

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

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

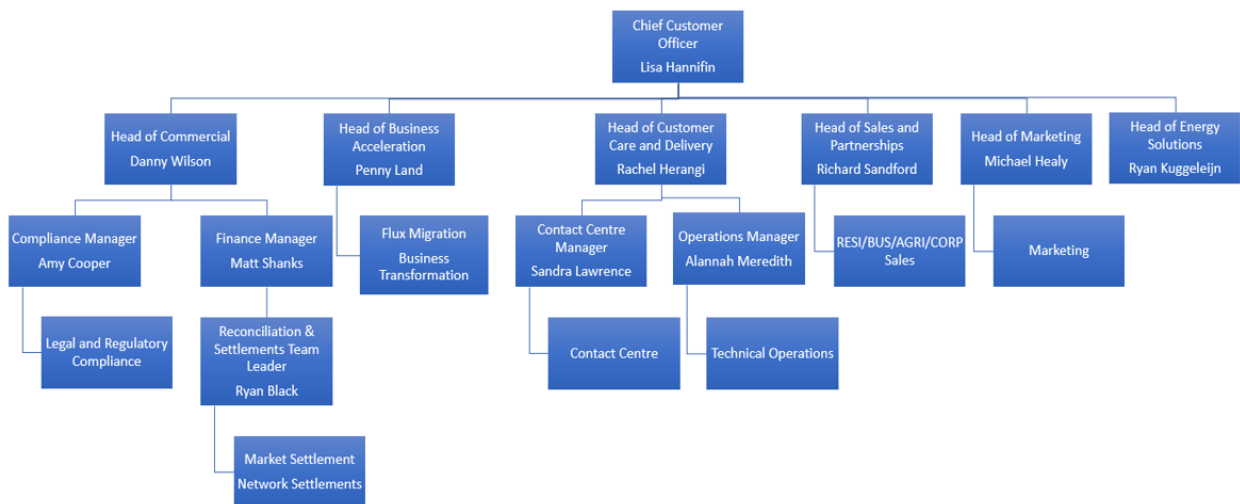
Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

Audit commentary

Meridian confirms that there are no exemptions in place relevant to the scope of this audit.

1.2. Structure of Organisation

Meridian provided the relevant organisational structure:



1.3. Persons involved in this audit

Auditor:

Bernie Cross

Veritek Limited

Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Amy Cooper	Compliance Officer	Meridian
Melanie Matthews	Quality and Compliance Advisor	Meridian
Danielle Nowell-Usticke	Senior Asset Planning Engineer	GWRC

1.4. Hardware and Software

Data is held in GWRC's Technology One ERP system, called Ngātahi. Back-up arrangements were confirmed to be in accordance with standard industry practice.

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)
0000160523CK83F	MASTER ICP GWRC STREETLIGHTS PNI0331	PNI0331	UML	72	11,419
0000161690CK4EE	PETONE WESTERN CARPARK STREETLIGHTS	GFD0331	UML	44	5,966

Both Porirua and Paremata station lights are assigned the same ICP number (0000160523CK83F) which is allocated to PNI0331 GXP. However central Porirua is generally supplied by TKR0331 which is also consistent with the GXP assignment for the metered GWRC ICP (0000071597TR80F) supplying the Porirua Station platforms and subways. Non compliance is recorded in **section 2.2** relating to the incorrect allocation of submission volumes to the respective NSP.

1.7. Authorisation Received

All information was provided directly by Meridian or GWRC.

1.8. Scope of Audit

This audit of the GWRC DUML database and processes was conducted at the request of Meridian Energy Limited (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.

Data is held in GWRC's Technology One ERP system, called Ngātahi.

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 field audit was undertaken of all lights within the carparks at the Paremata, Porirua and Petone Metlink stations on 21 February 2023.

1.9. Summary of previous audit

The previous audit of this database was undertaken by Steve Woods of Veritek Limited in July 2022. The summary table below shows the statuses of the non-compliances raised in the previous audit. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-Compliance	Status
Distributed unmetered load audits	1.10	16A.26 and 17.295F	Audit conducted late.	Cleared
Deriving submission information	2.1	11(1) of Schedule 15.3	Over submission of 192 kWh per annum due to incorrect gear wattage. Under submission of approx. 7,824 kWh per annum due to the historic incorrect database information.	Still existing
Location of items of load	2.3	11(2)(b) of Schedule 15.3	Location information not sufficient to locate each item of load.	Still existing
Database accuracy	3.1	15.2 and 15.37B(b)	Location information not sufficient to locate each item of load. Some gear wattages incorrect.	Still existing
Volume information accuracy	3.2	15.2 and 15.37B(c)	Over submission of 192 kWh per annum due to incorrect gear wattage. Under submission of approx. 7,824 kWh per annum due to the historic incorrect database information.	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

The audit was completed 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 UML profile. The total volume submitted to the Reconciliation Manager is based on the registry daily kWh figure, which is derived from a kW figure from information supplied by GWRC out of their database. The kW figure is multiplied by 11.8 hours per day reflecting the average daily burn hours for standard unmetered load streetlights in the Wellington Electricity network. I checked the most recent month, and found:

- for the Petone station ICP the current database capacity information (5,966 Watts) was not being applied by Meridian (5,439 Watts) in the calculation of the daily kWh figure; the impact of not applying the latest database capacity value is an over submission of 1,046 kWh p.a., and
- for the Porirua and Paremata stations ICP the current database capacity information (11,419 Watts) was not being applied by Meridian (11,662 Watts) in the calculation of the daily kWh figure; the impact of not applying the latest database capacity value is an under submission of 2,270 kWh p.a.

The field audit found that the database accuracy was not confirmed as accurate with a 95% level of confidence resulting in an estimated annual under submission of 5,164 kWh. This is detailed in **section 3.1**.

Some database inaccuracies were found as detailed in **section 3.1** and summarised below:

Description	Items of load	Estimated annual kWh impact
Incorrect ballasts applied	1	12.8 kWh pa under submission
Incorrect NSP assignment for Porirua Carpark lights	53	N/A

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 2.1</p> <p>With: Clause 11(1) of Schedule 15.3</p> <p>From: 01-Jul-22</p> <p>To: 25-Jan-23</p>	<p>Under submission of 12.8 kWh per annum due to incorrect gear wattage.</p> <p>53 lights associated with Porirua Carpark incorrectly assigned to PNI0331 GXP and not TKR0331.</p> <p>Under submission of approx. 2,270 kWh per annum for ICP 0000161690CK4EE and over submission of 1,046 kWh per annum for ICP 0000160523CK83F due to not using the current database capacities.</p> <p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 5,164 kWh p.a.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are recorded as moderate, as while the database accuracy has improved, the process to revise Meridian’s database capacities for the two ICPs is not robust resulting in out-of-date information being used.</p> <p>The volume impact is small therefore the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We have met with GWRC to review all audit findings.</p> <p>Field audit findings will be validated with GWRC contractors and database corrections made where required.</p> <p>We are confirming with Wellington Electricity the GXP that Porirua Station is fed from and will have a new ICP created for these lights if this is confirmed.</p>		<p>27 Feb 23</p> <p>30 April 23</p> <p>30 April 23</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>We have agreed a process for GWRC to notify us of any future updates to the DUMML database. These are expected to be infrequent now their station lighting upgrade projects are complete.</p>		<p>Ongoing</p>	

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

Code reference

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

Code related audit information

The DUMML database must contain:

- each ICP identifier for which the retailer is responsible for the DUMML,

- *the items of load associated with the ICP identifier.*

Audit observation

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

Audit commentary

The database contains an ICP identifier for each item of load.

All items of load were plotted to ensure the correct network supply point (NSP) was allocated through the ICP assignment.

Both Porirua and Paremata station lights are assigned the same ICP number (0000160523CK83F) which is allocated to PNI0331 GXP. However central Porirua is generally supplied by TKR0331 which is also consistent with the GXP assignment for the metered GWRC ICP (0000071597TR80F) supplying the Porirua Station platforms and subways.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: Clause 11(2)(a) and (aa) of Schedule 15.3 From: 01-Jul-22 To: 25-Jan-23	ICP assignment is not correct for all items of load resulting in incorrect allocation of submission volumes to the respective NSP. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as strong as all lights are assigned an ICP on entry to the database. The impact is rated as low as both NSPs are part of the same balancing area.		
Actions taken to resolve the issue		Completion date	Remedial action status
We are confirming with Wellington Electricity the GXP that Porirua Station is fed from and will have a new ICP created for these lights if this is confirmed.		30 April 23	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

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

Code reference

Clause 11(2)(b) of Schedule 15.3

Code related audit information

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

Audit observation

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

Audit commentary

The database contains a description field for location but there is not sufficient information to locate each item of load within each carpark. GPS coordinates are preferable.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.3 With: Clause 11(2)(b) of Schedule 15.3 From: 01-Jul-22 To: 25-Jan-23	Location information not sufficient to locate each item of load. Potential impact: Low Actual impact: Low Audit history: Twice Controls: None Breach risk rating: 5		
Audit risk rating	Rationale for audit risk rating		
Low	The database does not contain location details apart from a description field identifying the carpark the light is located. The impact on settlement and participants is minor; therefore, the audit risk rating is low. The main impact is that the audit is difficult to conduct, and discrepancies are difficult to identify.		
Actions taken to resolve the issue		Completion date	Remedial action status
The addition of GPS co-ordinates to the GWRC database is a planned future improvement.		31 Dec 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

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 database contains fields for lamp make, model, wattage and gear wattage. The gear wattage for one lamp is not correct, this is recorded as non-compliance 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

I checked all lights at Porirua, Paremata and Petone Metlink carparks.

Audit commentary

I checked all lights at Porirua, Paremata and Petone Metlink carparks. The database does not contain location details; therefore, it was difficult to assess the accuracy of the database.

The field audit discrepancies are detailed below:

Station	Database count	Field count	Light count differences	Wattage recorded incorrectly	Comments
Petone Station	44	39	-5	0	5 x 149W LED lights not found in the field.
Porirua Station	53	52	+1, -2	2	1 x 149W LED light found in the field. 2 x 150W SON not found in the field. 2 x 102W LED lights incorrectly recorded as 150W SON (168W).
Paremata Station	19	19	0	4	2x 75W LED lights incorrectly recorded as 149W LED. 2 x 149W LED lights incorrectly recorded as 150W LED.
Grand Total	116	110	8 (+1 -7)	6	

The field audit found one additional light and seven lights were not found in the field. Also, six lights were recorded with the incorrect capacity.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.5 With: Clause 11(2A) of Schedule 15.3 From: 01-Jul-22 To: 25-Jan-23	One additional lamp in the field was not recorded in the database. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong as recent installations of new lights at the Porirua station in October 2022 have been reflected in the database. The audit risk rating is low based on the small volume of lights across the database population.		
Actions taken to resolve the issue		Completion date	Remedial action status
Field audit findings will be validated with GWRC contractors and database corrections made where required.		30 April 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 discussed with GWRC.

Audit commentary

Fieldwork is conducted by Commercial Signals, who maintain a spreadsheet of changes. These are passed to GWRC and entered into the database. The database contains a "commission date", which was populated for all items of load.

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 has a complete audit trail of all additions and changes to the database information.

Audit outcome

Compliant

3. ACCURACY OF DUMML 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 DUMML database is complete and accurate.

Audit observation

I reviewed the contents of the database, and I checked the three relevant railway carparks to determine accuracy.

Audit commentary

Database accuracy based on the field audit

I checked all lights at Porirua, Paremata and Petone Metlink carparks. The database does not contain location details; therefore, it was difficult to assess the accuracy of the database.

The field audit identified the total capacity of the lights as being 16,201 watts compared to the database capacity of 17,400 watts. This difference is 6.9% indicating that the database has poor accuracy.

In absolute terms, total annual consumption is assessed to be 5,164 kWh lower than the DUMML database indicates.

Lamp description and capacity accuracy

The database contains lamp description and wattage information. The gear wattage was incorrect for one non-LED light. The figure used is 10% of the lamp wattage, which is close but not exact. There is potential for under submission of 12.8 kWh per annum.

I was unable to confirm the wattage of two models of LED lamps due to incomplete lamp model descriptions being populated or the light specifications being unable to be reviewed before the audit is due. I have recorded this as a recommendation in **section 2.4**.

NZTA lighting

NZTA lighting is included in a separate NZTA database with different ICPs.

ICP accuracy

The ICP is recorded for all items of load.

Both Porirua and Paremata station lights are assigned the same ICP number (0000160523CK83F) which is allocated to PNI0331 GXP. However central Porirua is generally supplied by TKR0331 which is also consistent with the GXP assignment for the metered GWRC ICP (0000071597TR80F) supplying the Porirua Station platforms and subways.

Location accuracy

The database contains a street name but there is not sufficient information to locate each item of load. GPS coordinates are preferable.

Change management process findings

Fieldwork is conducted by Commercial Signals, who maintain a spreadsheet of changes. These are passed to GWRC and entered into the database. The database contains a "commission date", which is populated.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 01-Jul-22 To: 25-Jan-23	Under submission of 12.8 kWh per annum due to incorrect gear wattage. 53 lights associated with Porirua Carpark incorrectly assigned to PNI0331 GXP and not TKR0331. Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 5,164 kWh p.a. 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 recorded as moderate due to poor accuracy found in the field. The database is largely accurate therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have met with GWRC to review all audit findings. Field audit findings will be validated with GWRC contractors and database corrections made where required. We are confirming with Wellington Electricity the GXP that Porirua Station is fed from and will have a new ICP created for these lights if this is confirmed.		27 Feb 23 30 April 23 30 April 23	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We have agreed a process for GWRC to notify us of any future updates to the DUMML database. These are expected to be infrequent now their station lighting upgrade projects are complete.		Ongoing	

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 DUMML is being calculated accurately,
- profiles for DUMML 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 this DUML load using the UML profile. The total volume submitted to the Reconciliation Manager is based on the registry daily kWh figure, which is derived from a kW figure from information supplied by GWRC out of their database. The kW figure is multiplied by 11.8 hours per day reflecting the average daily burn hours for standard unmetered load streetlights in the Wellington Electricity network. I checked the most recent month, and found:

- for the Petone station ICP the current database capacity information (5,966 Watts) was not being applied by Meridian (5,439 Watts) in the calculation of the daily kWh figure; the impact of not applying the latest database capacity value is an over submission of 1,046 kWh p.a., and
- for the Porirua and Paremata stations ICP the current database capacity information (11,419 Watts) was not being applied by Meridian (11,662 Watts) in the calculation of the daily kWh figure; the impact of not applying the latest database capacity value is an under submission of 2,270 kWh pa.

Some database inaccuracies were found as detailed in **section 3.1** and summarised below:

Description	Items of load	Estimated annual kWh impact
Incorrect ballasts applied	1	12.8
Incorrect NSP assignment for Porirua Carpark lights	53	N/A

The field audit found that the database accuracy was not confirmed as accurate with a 95% level of confidence resulting in an estimated annual under submission of 5,164 kWh. This is detailed in **section 3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.2</p> <p>With: Clause 15.2 and 15.37B(c)</p> <p>From: 01-Jul-22</p> <p>To: 25-Jan-23</p>	<p>Under submission of 12.8 kWh per annum due to incorrect gear wattage.</p> <p>Under submission of approx. 2,270 kWh per annum for ICP 0000161690CK4EE and over submission of 1,046 kWh per annum for ICP 0000160523CK83F due to not using the current database capacities.</p> <p>Database is not confirmed as accurate with a 95% level of confidence resulting in an estimated over submission of 5,164 kWh p.a.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are recorded as moderate, as while the database accuracy has improved, the process to revise Meridian’s database capacities for the two ICPs is not robust resulting in out-of-date information being used.</p> <p>The volume impact is small therefore the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We have met with GWRC to review all audit findings.</p> <p>Field audit findings will be validated with GWRC contractors and database corrections made where required.</p>		<p>27 Feb 23</p> <p>30 April 23</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>We have agreed a process for GWRC to notify us of any future updates to the DUML database. These are expected to be infrequent now their station lighting upgrade projects are complete.</p>		<p>Ongoing</p>	

CONCLUSION

The GWRC lights are in the Porirua, Paremata and Petone Metlink station carparks. The data for these lights is held in a database created by GWRC.

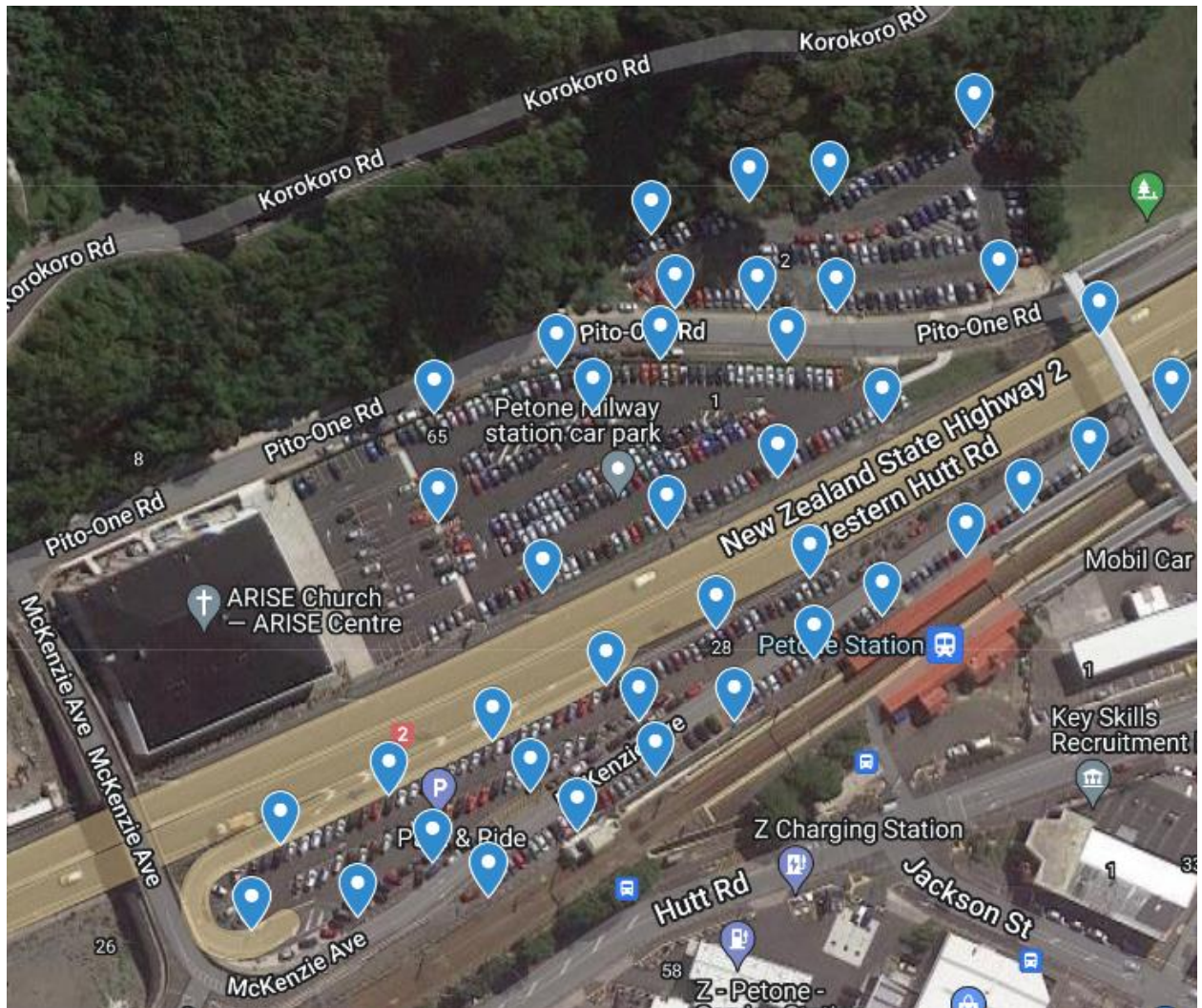
GWRC has updated the database to include all of the lights, but GPS coordinates are not yet populated, and one gear wattage requires correction.

The audit found six non-compliance issues. The future risk rating of 13 indicates that the next audit be completed in 12 months. I recommend that the next audit date is 18 months given there are no further light changes or upgrades planned for the carparking lighting at these stations. If there were any light changes in the future, Meridian and GWRC have implemented a process to reflect these changes to the database in the submission volumes and also the relatively low volume impact of the database exception identified.

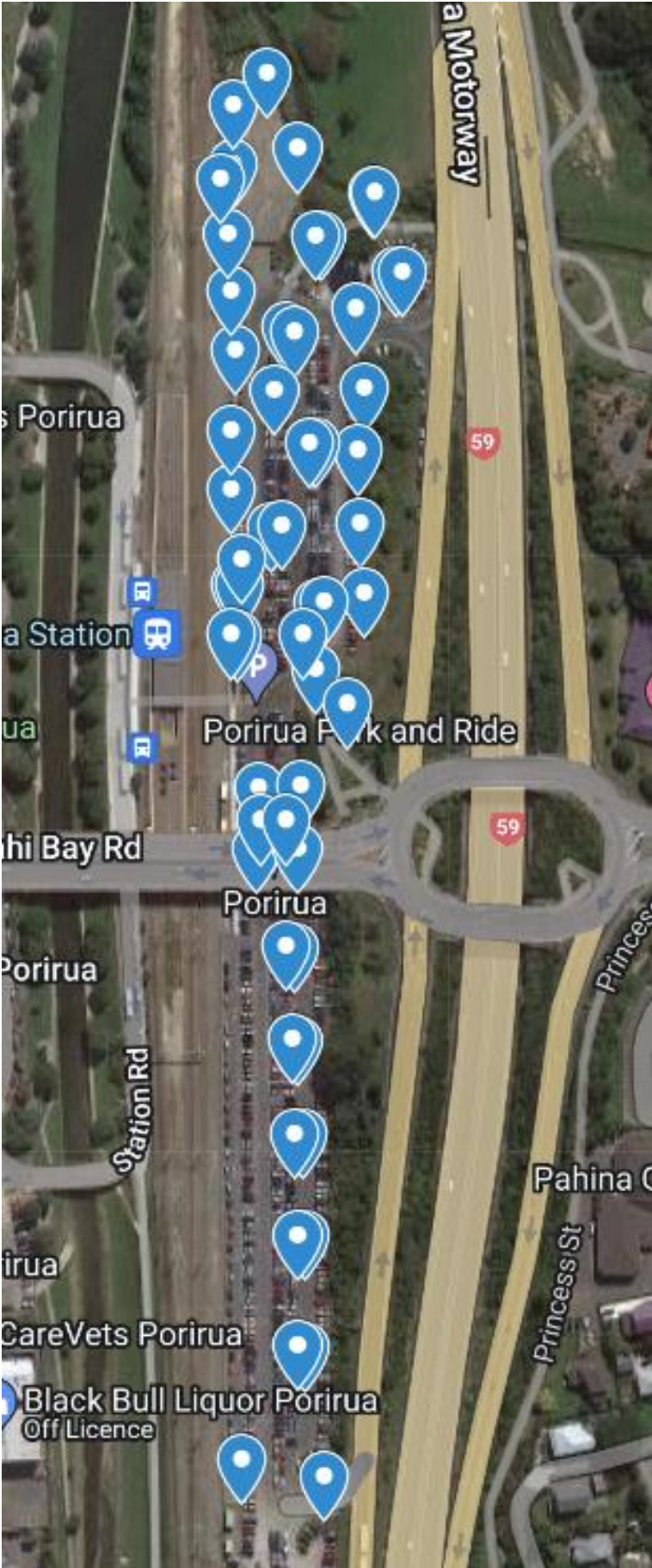
PARTICIPANT RESPONSE

APPENDIX: CARPARK LAYOUTS

Petone Station



Porirua Station



Paremata Station

