



VERITEK



Electricity Industry Participation Code Audit Report

For

Contact Energy Limited



**Waimea Village
Distributed Unmetered Load**

Prepared by Rebecca Elliot – Veritek Ltd

Date of Audit: 14/08/17

Date Audit Report Complete: 23/04/18



Executive Summary

This audit of the Waimea Village (Waimea) DUML database and processes was conducted at the request of Contact Energy (**Contact**), in accordance with clause 15.37B. The purpose of this audit is to verify that the volume information is being calculated accurately, and that profiles have been correctly applied.

The audit was conducted in accordance with the audit guidelines for DUML audits version 1.1, which became effective on 01/06/17.

The maintenance of the Waimea Village lights are managed privately using Bill Ashton as the subcontractor and there is no database as such. Network Tasman are provided updates in relation to these lights and update the registry with the unmetered load details based on this, but do not manage a database of these lights. Contact use the Distributor's recorded wattage from the registry for submission purposes. The calculated load was correct for the number of lights thought to be in the village. The audit process included a field audit of all the items of load and found six lights less in the field than the calculated load. I calculated the annual kWh from the field audit findings and compared them to the figures used by Contact and estimate an over submission of 1,981 kWh per annum.

The lack of a database has resulted in a high level of non-compliance. I recommend that a full field audit is undertaken and a database created to manage this load. The future risk rating of four indicates that the next audit be completed in three months. I have considered this result in conjunction with Contact's responses and my recommendation for the next audit date is six months as Contact have detailed the steps being undertaken to resolve the non-compliances and the volume of lights involved is small.

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Deriving Submission	2.1	11(1) of Schedule 15.3	No database in place.	Weak	Low	3	Identified
ICP Identifier	2.2	11(2)(a) of Schedule 15.3	No database in place.	Weak	Low	3	Identified
Location of Load	2.3	11(2)(b) of Schedule 15.3	No database in place.	Weak	Low	3	Identified
Wattages	2.4	11(2)(c) & (d) of Schedule 15.3	No database in place.	Weak	Low	3	Identified
All Load Recorded in Database	2.5	11(2A) of Schedule 15.3	No database in place.	Weak	Low	3	Identified

Subject	Section	Clause	Non-compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Tracking of Load Change	2.6	11(3) of Schedule 15.3	No database in place.	Weak	Low	3	Identified
Audit Trail	2.7	11(4) of Schedule 15.3	No database in place.	Weak	Low	3	Identified
Database accuracy	3.1	15.2 & 15.37B(b)	No database in place.	Weak	Low	3	Identified
Volume Accuracy	3.2	15.2 & 15.37B(c)	Light volume discrepancy and therefore an estimated over submission of 1,981 kWh per annum	Weak	Low	3	Identified
Future Risk Rating						27	

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

Table of Recommendations

Subject	Section	Recommendation	Description
Volume Accuracy	3.2	Full field audit required and database established to manage this load.	Identified

Persons Involved in This Audit:

Auditor:

Rebecca Elliot
Veritek Limited
Electricity Authority Approved Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Aaron Wall	HDM Team Leader	Contact Energy
Allie Jones	HDM Team Analyst	Contact Energy
Bernie Cross	Energy Reconciliation Manager	Contact Energy
Peter Hulme	Easement Officer	Network Tasman

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1. Administrative

1.1 List of ICPs

The following ICPs are relevant to the scope of this audit.

ICP	Description	NSP	No. of items of load
0000036536NT7F0	UNMETERED STREET LIGHTS WAIMEA VILLAGE	STK0331	22 recorded in the registry

1.2 Exemptions from Obligations to Comply with Code (Section 11 of Electricity Industry Act 2010)

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.

Contact confirms that is an exemption is in place relevant to the scope of this audit:

- Exemption No. 177. Exemption to clause 8(g) of schedule 15.3 of the Electricity Industry Participation Code 2010 (“Code”) in respect of providing half-hour (“HHR”) submission information instead of non half-hour (“NHH”) submission information for distributed unmetered load (“DUML”). This exemption expires at the close of 31 October 2023.

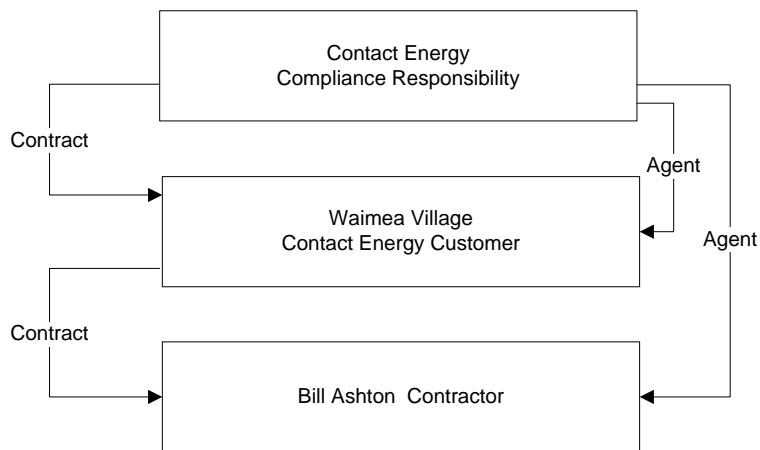
This DUML load is reconciled using the RPS profile therefore the above exemption is not applicable to this audit.

1.3 Supplier List

Bill Ashton is considered an agent under this clause and Contact clearly understands that the use of agents does not release them from their compliance obligations.

There is no direct contractual relationship between Contact and Bill Ashton for the provision of DUML services. This is discussed further in **section 1.9**.

The diagram below shows the relationships from a compliance and contractual perspective.



1.4 Hardware and Software

There is no database as the registry information is used to derive submission, therefore there is no hardware or software.

1.5 Breaches or Breach Allegations

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

1.6 Distributed unmetered load audits (Clauses 16A.26 & 17.295F)

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

Contact 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 particular database within the required timeframe.

1.7 Separate distributed unmetered load audit (Clause 16A.8(4))

Retailers must ensure that DUML audits are reported in a separate audit report.

Audit Observation

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

Audit Commentary

Compliant

Audit outcome

Compliant

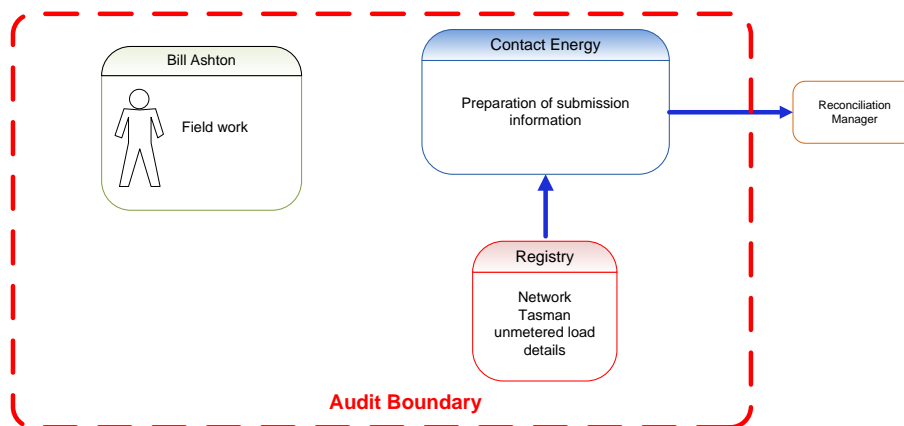
1.8 Summary of Previous Audit

This is the first audit report completed of Waimea Village DUML.

1.9 Scope of Audit

Bill Ashton manages the installation and maintenance of the Waimea lights. There is no database in place and therefore no monthly reporting is provided to Contact. They use the Distributor's unmetered load details from the registry to derive submission.

The diagram below shows the audit boundary for clarity.



The audit was conducted in accordance with the audit guidelines for DUML audits version 1.

The field audit was undertaken of all the lighting in the village. They are all streetlights and therefore treated as one population group.

1.10 Data Transmission (Clause 20 of Schedule 15.2)

Contact Energy uses the Distributor's unmetered load details on the registry to derive submission therefore there is no data sent.

2. DUML database requirements

2.1 Deriving Submission Information (Clause 11(1) of Schedule 15.3)

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.

Audit Commentary

The “total watts” information is derived from Distributor’s unmetered load details recorded on the registry which includes the burn hours. There is no database maintained and the field audit found six less items of load than is recorded on the registry. This is recorded as non-compliance.

The methodology to calculate submission was checked and is correct.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 2.1 With: 11(1) of Schedule 15.3 From: entire audit period	No database in place. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are rated as weak, as there is no database. The volume of lights is low therefore the impact on reconciliation is low.	
Actions taken to resolve the issue		Completion date
While the distributor has an accurate representation of the DUML load at this ICP we appreciate their concerns at being considered a DUML database owner for what is considered private lights. Contact has initiated an exercise to develop a DUML database in conjunction with Waimea Village We do not believe the absence of a formal DUML database has resulted in any material submission inaccuracy		July 2018
Preventative actions taken to ensure no further issues will occur		Completion date
		Remedial action status
		Identified

2.2 ICP Identifier (Clause 11(2)(a) of Schedule 15.3)

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

There is no database and therefore the ICP is not recorded against each item of load.

Audit Commentary

There is no database and therefore ICPs not being recorded against each item of load is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: 11(2)(a) of Schedule 15.3 From: entire audit period	No database in place. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as weak, as there is no database. The volume of lights is low therefore the impact on reconciliation is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
While the distributor has an accurate representation of the DUML load at this ICP we appreciate their concerns at being considered a DUML database owner for what is considered private lights. Contact has initiated an exercise to develop a DUML database in conjunction with Waimea Village We do not believe the absence of a formal DUML database has resulted in any material submission inaccuracy		July 2018	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)

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

Audit Observation

There is no database and therefore there are no location details recorded for each item of load.

Audit Commentary

There is no database and therefore no location details for each item of load is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.3 With: 11(2)(b) of Schedule 15.3 From: entire audit period	No database in place. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as weak, as there is no database. The volume of lights is low therefore the impact on reconciliation is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
While the distributor has an accurate representation of the DUML load including schematics identifying where each light is located at this ICP we appreciate their concerns at being considered a DUML database owner for what is considered private lights. Contact has initiated an exercise to develop a DUML database in conjunction with Waimea Village We do not believe the absence of a formal DUML database has resulted in any material submission inaccuracy		July 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

2.4 Description of Load Type (Clause 11(2)(c) & (d) of Schedule 15.3)

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

There is no database and therefore there is no description of load type.

Audit Commentary

There is no database and therefore no description of load type is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.4 With: 11(2)(c)&(d) of Schedule 15.3 From: entire audit period	No database in place. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as weak, as there is no database. The volume of lights is low therefore the impact on reconciliation is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
While the distributor has an accurate representation of the DUML load including schematics identifying where each light is located at this ICP we appreciate their concerns at being considered a DUML database owner for what is considered private lights. Contact has initiated an exercise to develop a DUML database in conjunction with Waimea Village We do not believe the absence of a formal DUML database has resulted in any material submission inaccuracy		July 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

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

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

Audit Observation

There is no database to record the load in.

Audit Commentary

Non-compliant.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 2.5 With: 11(2A) of Schedule 15.3 From: entire audit period	No database in place. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are rated as weak, as there is no database. The volume of lights is low therefore the impact on reconciliation is low.	
Actions taken to resolve the issue		Completion date
While the distributor has an accurate representation of the DUML load including schematics identifying where each light is located at this ICP we appreciate their concerns at being considered a DUML database owner for what is considered private lights. Contact has initiated an exercise to develop a DUML database in conjunction with Waimea Village We do not believe the absence of a formal DUML database has resulted in any material submission inaccuracy		July 2018
Preventative actions taken to ensure no further issues will occur		Completion date
		Remedial action status
		Identified

2.7 Tracking of Load Changes (Clause 11(3) of Schedule 15.3)

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 was examined.

Audit Commentary

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

There is no database to manage this DUML load. Network Tasman do receive updates on the changes occurring for Waimea Village lights and they pass this information to Contact, but this does not meet the requirements of this clause.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 2.6 With: 11(3) of Schedule 15.3 From: entire audit period	No database in place. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are rated as weak, as there is no database. The volume of lights is low therefore the impact on reconciliation is low.	
Actions taken to resolve the issue		Completion date
<p>While the distributor has an accurate representation of the DUML load including schematics identifying where each light is located at this ICP we appreciate their concerns at being considered a DUML database owner for what is considered private lights.</p> <p>Contact has initiated an exercise to develop a DUML database in conjunction with Waimea Village</p> <p>We do not believe the absence of a formal DUML database has resulted in any material submission inaccuracy.</p> <p>The streetlight load is quite static resulting in a very small number of changes of the previous lifetime of this site.</p>		July 2018
Preventative actions taken to ensure no further issues will occur		Completion date
Remedial action status		Identified

2.8 Audit Trail (Clause 11(4) of Schedule 15.3)

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

There is no database to record the load in.

Audit Commentary

Non-compliant.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 2.7 With: 11(4) of Schedule 15.3 From: entire audit period	No database in place. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are rated as weak, as there is no database. The volume of lights is low therefore the impact on reconciliation is low.	
Actions taken to resolve the issue		Completion date
While the distributor has an accurate representation of the DUML load including schematics identifying where each light is located at this ICP we appreciate their concerns at being considered a DUML database owner for what is considered private lights. Contact has initiated an exercise to develop a DUML database in conjunction with Waimea Village We do not believe the absence of a formal DUML database has resulted in any material submission inaccuracy. The streetlight load is quite static resulting in a very small number of changes of the previous lifetime of this site.		July 2018
Preventative actions taken to ensure no further issues will occur		Completion date
Remedial action status		Identified

3. Accuracy of DUML database

3.1 Database Accuracy (Clause 15.2 & 15.37B(b))

The Audit must verify that the information recorded in the retailer's DUML database is complete and accurate.

Audit Observation

There is no database and therefore database accuracy cannot be assessed.

Audit Commentary

There is no database and this is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 3.1 With: 15.2 & 15.37B(b) From: entire audit period	No database in place. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are rated as weak, as there is no database. The volume of lights is low therefore the impact on reconciliation is low.	
Actions taken to resolve the issue		Completion date
While the distributor has an accurate representation of the DUML load including schematics identifying where each light is located at this ICP we appreciate their concerns at being considered a DUML database owner for what is considered private lights. Contact has initiated an exercise to develop a DUML database in conjunction with Waimea Village We do not believe the absence of a formal DUML database has resulted in any material submission inaccuracy. The streetlight load is quite static resulting in a very small number of changes of the previous lifetime of this site.		July 2018
Preventative actions taken to ensure no further issues will occur		Completion date
Remedial action status		Identified

3.2 Volume Information Accuracy (Clause 15.2 & 15.37B(c))

The audit must verify that:

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

Audit Observation

The volume information accuracy was examined based on the field audit findings versus the registry value.

Audit Commentary

Contact Energy reconciles this DUML load using the RPS profile. The “total watts” information is derived from Distributor’s unmetered load details recorded on the registry which includes the burn hours. The load is calculated against 42 items of load, and the field audit found 36 lights, six lights less than the calculated load. There is no database maintained. Network Tasman were advised by the sub-contractor that 23 of the lights have been changed from 70W SONs to 18W LED and it appears that the load calculation has been adjusted to account for this. I calculated the annualised difference between

the load recorded by Contact and the field audit findings and have calculated that this load is being over submitted by an estimated 1,981 kWh per annum. This is recorded as non-compliance below.

I recommend that a full field audit is undertaken and a database created to manage this DUML.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 15.2 & 15.37B(c)	Full field audit required and database established to manage this load.	As part of developing a formal DUML database we will confirm with the customer the correct number and type of lights	Identified

Audit outcome

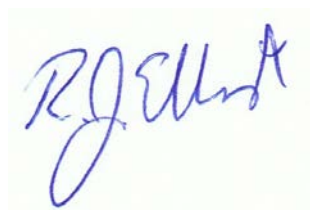
Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 With: 15.2 & 15.37B(c) From: entire audit period	Light volume discrepancy and therefore an estimated over submission of 1,981 kWh per annum. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as weak, as this is not managed via a database and the field audit found a different number of lights than being submitted for. The volume of lights is low therefore the impact on reconciliation is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
As part of developing a formal DUML database we will confirm with the customer the correct number and type of lights		July 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

4. Conclusions

The maintenance of the Waimea Village lights are managed privately using Bill Ashton as the subcontractor and there is no database as such. Network Tasman are provided updates in relation to these lights and update the registry with the unmetered load details based on this, but do not manage a database of these lights. Contact use the Distributor's recorded wattage from the registry for submission purposes. The calculated load was correct for the number of lights thought to be in the village. The audit process included a field audit of all the items of load and found six lights less in the field than the calculated load. I calculated the annual kWh from the field audit findings and compared them to the figures used by Contact and estimate an over submission of 1,981 kWh per annum.

The lack of a database has resulted in a high level of non-compliance. I recommend that a full field audit is undertaken and a database created to manage this load. The future risk rating of four indicates that the next audit be completed in three months. I have considered this result in conjunction with Contact's responses and my recommendation for the next audit date is six months as Contact have detailed the steps being undertaken to resolve the non-compliances and the volume of lights involved is small.



Rebecca Elliot
Veritek Limited
Electricity Authority Approved Auditor

5. Contact Energy Comments

Contact have reviewed this audit and their comments are recorded in the report. No further comments were provided.