ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTED UNMETERED LOAD AUDIT REPORT

VERITEK

For

VODAFONE AND MERCURY NZ LTD

Prepared by: Steve Woods

Date audit commenced: 10 March 2022

Date audit report completed: 2 June 2022

Audit report due date: 20-Apr-22

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EXECUTIVE SUMMARY

This audit covers the **Vodafone** DUML database and processes and was conducted at the request of **Mercury NZ Limited (Mercury)** 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 database is for items of load supplying Vodafone's telecommunications network. Each item of load contains a transformer and the secondary side of the transformer supplies voltage to part of the Vodafone network. The previous audit recorded that wattage figures in the database were derived from measurements taken at the secondary side of the transformers, which meant transformer losses were not considered. The voltage and current measurements should have been taken on the primary side of the transformers, which was a recommendation in the previous report. Incorrect wattage calculations had led to under submission by approx. 400,000 kWh per annum. Mercury adjusted the figures by an additional 15% after the last audit as an interim step whilst more analysis was done to determine the correct wattages. This adjustment was the right action to take based on the limited information available at the time of the last audit, which only included XM3 analysis, there were no primary vs secondary measurements for Alpha units.

Vodafone has now provided correct wattages for all 97 XM3 cabinets and they conducted primary and secondary measurements of a sample of 36 Alpha pedestals. These results show that the secondary results are 72% of the primary results. I recommend Mercury uses the results of the sample of 36 Alpha Pedestals and applies the 72% factor (by dividing the secondary daily kWh by 0.72) to all of the daily kWh figures currently derived from the secondary side measurements. The XM3 results can be used without adjustment. This will result in an additional 450,100 kWh per annum.

The analysis didn't include the 11 fittings in Auckland or the three in Christchurch, which appear to be incorrect, as recorded in sections 2.1, 3.1 and 3.2.

All other details in the database were confirmed as accurate.

The future risk rating indicates that the next audit be completed in six months. Vodafone has now confirmed the daily kWh per unit based on an appropriate sample. Mercury intends to adjust the submission information, including revisions for the previous 14 months, therefore the only outstanding issue is the accuracy of the Christchurch and Auckland kWh figures for five ICPs (23 items of load). Given Mercury and Vodafone's willingness to resolve the accuracy issues associated with this database, I recommend the next audit is undertaken in 12 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	Under submission of 450,100 kWh per annum due to previously incorrect wattage figures in the database. Incorrect submission for Auckland and Christchurch ICPs.	Moderate	High	6	Identified
Database accuracy	3.1	15.2 and 15.37B(b)	Under submission of 450,100 kWh per annum due to previously incorrect wattage figures in the database. Incorrect submission for Auckland and Christchurch ICPs.	Moderate	High	6	Identified
Volume information accuracy	3.2	15.2 and 15.37B(c)	Under submission of 450,100 kWh per annum due to previously incorrect wattage figures in the database. Incorrect submission for Auckland and Christchurch ICPs.	Moderate	High	6	Identified
Future Risk Rating						18	

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	Recommendation
Deriving submission information	2.1	Conduct primary measurements to confirm the accuracy of the daily kWh figures in Christchurch and Auckland.

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

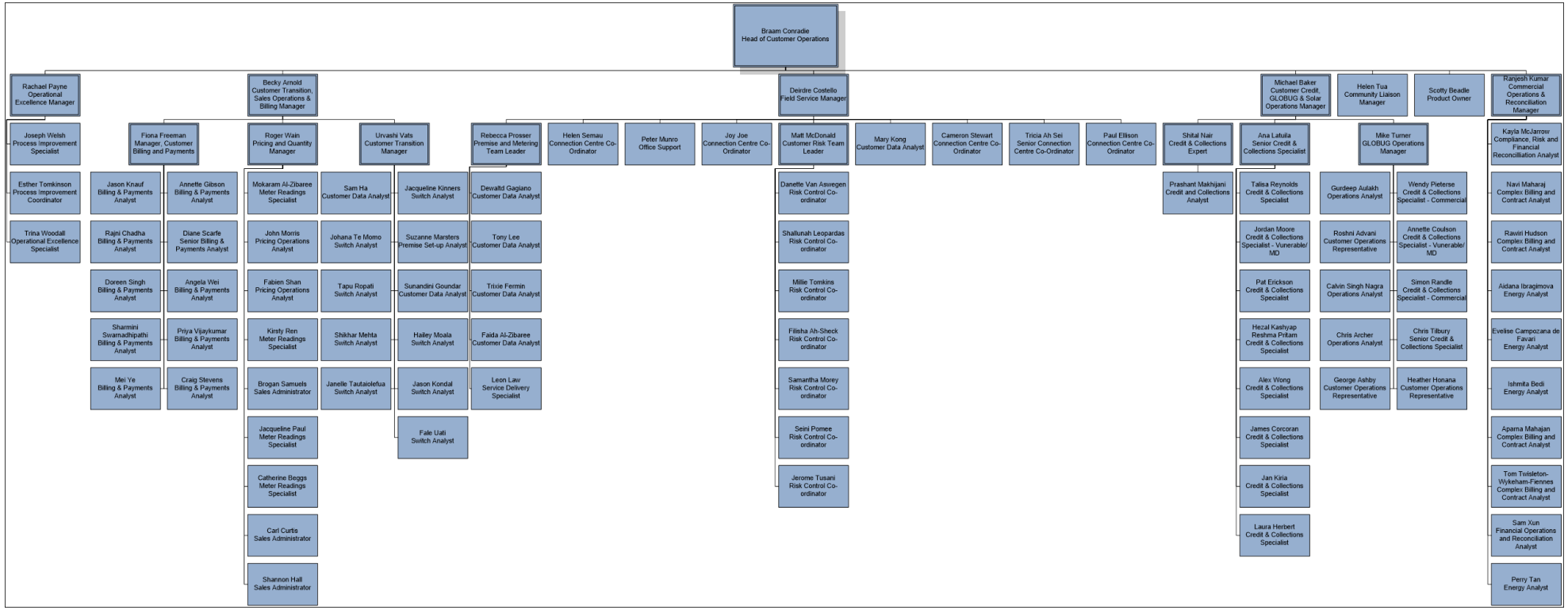
The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

Audit commentary

Mercury has no exemptions in place in relation to the ICPs covered by this audit report.

1.2. Structure of Organisation

Mercury provided an organisational structure:



1.3. Persons involved in this audit

Auditors:

Name	Title
Steve Woods	Lead Auditor

Other personnel assisting in this audit were:

Name	Title	Company
Chris Posa	Compliance, Risk and Financial Reconciliation Analyst	Mercury NZ Ltd
Sarah Dark	Business Development Manager – Large Commercial	Mercury NZ Ltd
Christian White	Access DevOps Engineer, Platforms - Fixed Access Network	Vodafone

1.4. Hardware and Software

The streetlight data for Vodafone is held in an excel spreadsheet. This is backed up in accordance with standard industry procedures. Access to the spreadsheet is restricted by way of user log into the computer drive.

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	Profile	Number of items of load	Database wattage (watts)
0000161894CK3EF	VODAFONE DUML GXP CPK0331	CPK0331	RPS	111	48,864
0000161895CKFAA	VODAFONE DUML GXP GFD0331	GFD0331	RPS	60	25,329
0000161896CK36A	VODAFONE DUML GXP KWA0111	KWA0111	RPS	10	3,732
0000161897CKF2F	VODAFONE DUML GXP HAY0331	HAY0331	RPS	19	8,158
0000161898CK0F1	VODAFONE DUML GXP TKR0331	TKR0331	RPS	42	16,090
0000161899CKCB4	VODAFONE DUML GXP UHT0331	UHT0331	RPS	41	18,125
0000161900CK406	VODAFONE DUML GXP WIL0331	WIL0331	RPS	42	19,135
0000164960CKCD6	VODAFONE DUML GXP CPK0111	CPK0111	RPS	14	5,469
0000190118TR62B	VODAFONE DUML GXP MLG0331	MLG0331	UML	50	20,963
0001261460UN08E	VODAFONE BULK UNMETERED	WRD0331	UML	9	4,555

0001393839UN86B	VODAFONE DUML GXP HAY0111	HAY0111	UML	17	5,727
0001409085UN545	VODAFONE BULK UNMETERED	ALB0331	UML	11	5,452
0007106261RN1C3	Clear Mux Box	ISL0661	UML	1	368
0007145198RN5F3	Telstra Clear Cabinet	ISL0661	UML	1	312
0007146145RN50A	Telstra Clear Cabinet	ISL0661	UML	1	273
0015723581ELA43	TELSTRACLEAR LTD	PRM0331	RPS	94	42,897
1001146090UN1CE	VODAFONE DUML GXP MLG0111	MLG0111	UML	21	7,557
				544	**233,006**

1.7. Authorisation Received

All information was provided directly by Mercury.

1.8. Scope of Audit

This audit covers the Vodafone DUML database and processes and was conducted at the request of Mercury NZ Limited (Mercury) 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 spreadsheet is maintained by Vodafone and an updated version is expected to be sent to Mercury each month.

A field audit of 98 items of load was carried out in April 2022.

1.9. Summary of previous audit

The previous audit was undertaken in August 2021 by Steve Woods of Veritek limited. The results are shown in the table below.

Subject	Section	Clause	Non-Compliance	Status
Distributed unmetered load audits	1.10	16A.26 and 17.295F	Audit not conducted within the required timeframe.	Cleared
Deriving submission information	2.1	11(1) of Schedule 15.3	Under submission of 400,000 kWh per annum due to incorrect wattage figures in the database.	Resolved based on information available at the time of the last audit. Repeated in this report based on additional analysis.

Subject	Section	Clause	Non-Compliance	Status
Database accuracy	3.1	15.2 and 15.37B(b)	Under submission of 400,000 kWh per annum due to incorrect wattage figures in the database.	Resolved based on information available at the time of the last audit. Repeated in this report based on additional analysis.
Volume information accuracy	3.2	15.2 and 15.37B(c)	Under submission of 400,000 kWh per annum due to incorrect wattage figures in the database.	Resolved based on information available at the time of the last audit. Repeated in this report based on additional analysis.

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

Mercury has requested Veritek to undertake this distributed unmetered load audit.

Audit commentary

The completion of this audit report confirms compliance with this clause.

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

This clause requires that the distributed unmetered load database must satisfy the requirements of schedule 15.5 regarding the methodology for deriving submission information. Mercury reconciles this DUML load using the RPS and UML profiles. I checked the accuracy of the submission information from the database with the registry, which is used as the source data, to confirm the volume was calculated correctly.

Vodafone has now provided correct wattages for all 97 XM3 cabinets and they conducted primary and secondary measurements of a sample of 36 of the 428 Alpha pedestals. Some of the Alpha units are mounted on overhead poles, but the technology is the same. These results show that the secondary results are 72% of the primary results. I recommend Mercury uses the results of the sample of 36 Alpha Pedestals and applies the 72% factor (by dividing the secondary daily kWh by 0.72) to all of the daily kWh figures currently derived from the secondary side measurements. The XM3 results can be used without adjustment. This will result in an additional 450,100 kWh per annum.

The analysis didn't include the 11 fittings in Auckland or the three in Christchurch, which are discussed further on in this section.

The table below shows the results of my calculations which are based on the measurements provided by Vodafone.

ICP	Daily kWh Alpha cabinets	Corrected daily kWh (divided by 0.72)	XM3 daily kWh	Calculated daily kWh per ICP	Current daily kWh from the registry
0000161894CK3EF	947.51	1,315.98	225.23	1,541.21	1,225.00
0000161895CKFAA	469.76	652.44	138.12	790.57	651.00
0000161896CK36A	80.40	111.67	9.17	120.84	101.00
0000161897CKF2F	144.77	201.07	51.03	252.10	218.00
0000161898CK0F1	319.24	443.39	66.91	510.30	437.00
0000161899CKCB4	295.88	410.95	139.10	550.06	461.00
0000161900CK406	323.11	448.77	136.12	584.89	471.00

0000164960CKCD6	102.99	143.05	28.27	171.32	146.00
0000190118TR62B	435.72	605.16	67.39	672.55	544.00
0001393839UN86B	137.46	190.91	59.82	250.73	217.00
0015723581ELA43	744.96	1,034.67	284.57	1,319.24	1,099.70
1001146090UN1CE	172.52	239.61	8.85	248.46	206.00
Total	**4,174**	**5,798**	**1,215**	**7,012**	**5,777**

The daily kWh difference is 1,236 kWh per day which equals 450,100 kWh per annum.

The data provided for this audit did not include refreshed data for the three Christchurch ICPs or the two Auckland ICPs. As recorded in the previous audit, the registry daily kWh figure is incorrect for these five ICPs. The table below shows the differences.

ICP	Database daily kWh	Registry daily kWh	Annual kWh difference
0001261460UN08E	109.33	64.8	16,253
0001409085UN545	130.84	79.2	18,849
0007106261RN1C3	8.83	84	-27,437
0007145198RN5F3	7.50	27.6	-7,337
0007146145RN50A	6.54	27.6	-7,687

I recommend primary measurements are taken for a sample of these units to confirm the correct daily kWh.

Recommendation	Description	Audited party comment	Remedial action
kWh accuracy	Conduct primary measurements to confirm the accuracy of the daily kWh figures in Christchurch and Auckland.	We agree with this recommendation and will liaise with Vodafone to proceed with it.	Identified

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: 11(1) of Schedule 15.3 From: 01-Mar-21 To: 21-May-22	Under submission of 450,100 kWh per annum due to previously incorrect wattage figures in the database. Incorrect submission for Auckland and Christchurch ICPs. Potential impact: High Actual impact: High Audit history: Once Controls: Moderate Breach risk rating: 6
Audit risk rating	**Rationale for audit risk rating**
High	The controls in place are rated as moderate because Mercury relied on information from the database holder, and it has taken until May 2022 for updated information to be supplied. The impact is assessed to be high based on the under submission of 450,100 kWh per annum.

Actions taken to resolve the issue	Completion date	Remedial action status
Vodafone's efforts have resulted in significant improvements to the database. We will apply the 72% factor to adjust the submission information, corrections will be reflected in revision files for the previous 14 months.	June 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Mercury and Vodafone have worked hard to ensure that the database is as accurate as possible; we will continue to collaborate to resolve any accuracy issues.	Ongoing	

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

Code reference

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

Code related audit information

The DUML database must contain:

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

Audit observation

The spreadsheet was checked to confirm the correct ICP was recorded correctly for the load.

Audit commentary

The spreadsheet contains correct ICP identifiers.

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

Audit commentary

The spreadsheet contains the street address for each item of load, which is sufficient to locate them.

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 spreadsheet was checked to confirm that it contained fields for load type and wattage.

Audit commentary

The spreadsheet contains fields for wattage and a description of the type of load.

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

A field audit was undertaken of 98 items of load.

Audit commentary

No discrepancies were identified.

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 spreadsheets was examined.

Audit commentary

The spreadsheet contains a separate sheet for recording changes. Vodafone advised that the voltage and current figures will be re-checked when any changes to the load are conducted.

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 spreadsheet was checked for audit trails.

Audit commentary

The spreadsheet includes a change log for each ICP which records the date of any change, action taken, person making the change and the details.

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

A field audit of all 140 items of load was undertaken to confirm the accuracy of the spreadsheet. I checked the wattage calculations to ensure accuracy.

Audit commentary

Field Audit Findings

No discrepancies were identified.

Wattage accuracy

Vodafone has now provided correct wattages for all 97 XM3 cabinets and they conducted primary and secondary measurements of a sample of 36 of the 428 Alpha pedestals. Some of the Alpha units are mounted on overhead poles, but the technology is the same. These results show that the secondary results are 72% of the primary results. I recommend Mercury uses the results of the sample of 36 Alpha Pedestals and applies the 72% factor (by dividing the secondary daily kWh by 0.72) to all of the daily kWh figures currently derived from the secondary side measurements. The XM3 results can be used without adjustment. This will result in an additional 450,100 kWh per annum.

The analysis didn't include the 11 fittings in Auckland or the three in Christchurch, which are discussed further on in this section.

The table below shows the results of my calculations which are based on the measurements provided by Vodafone.

ICP	Daily kWh Alpha cabinets	Corrected daily kWh (divided by 0.72)	XM3 daily kWh	Calculated daily kWh per ICP	Current daily kWh from the registry
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0000161898CK0F1	319.24	443.39	66.91	510.30	437.00
0000161899CKCB4	295.88	410.95	139.10	550.06	461.00
0000161900CK406	323.11	448.77	136.12	584.89	471.00
0000164960CKCD6	102.99	143.05	28.27	171.32	146.00

0000190118TR62B	435.72	605.16	67.39	672.55	544.00
0001393839UN86B	137.46	190.91	59.82	250.73	217.00
0015723581ELA43	744.96	1,034.67	284.57	1,319.24	1,099.70
1001146090UN1CE	172.52	239.61	8.85	248.46	206.00
Total	**4,174**	**5,798**	**1,215**	**7,012**	**5,777**

The daily kWh difference is 1,236 kWh per day which equals 450,100 kWh per annum.

The data provided for this audit did not include refreshed data for the three Christchurch ICPs or the two Auckland ICPs. As recorded in the previous audit, the registry daily kWh figure is incorrect for these five ICPs. The table below shows the differences.

ICP	Database daily kWh	Registry daily kWh	Annual kWh difference
0001261460UN08E	109.33	64.8	16,253
0001409085UN545	130.84	79.2	18,849
0007106261RN1C3	8.83	84	-27,437
0007145198RN5F3	7.50	27.6	-7,337
0007146145RN50A	6.54	27.6	-7,687

I recommend in **Section 2.1** that primary measurements are taken for a sample of these units to confirm the correct daily kWh.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.1 With: 15.2 and 15.37B(b) From: 01-Mar-21 To: 21-May-22	Under submission of 450,100 kWh per annum due to previously incorrect wattage figures in the database. Incorrect submission for Auckland and Christchurch ICPs. Potential impact: High Actual impact: High Audit history: Once Controls: Moderate Breach risk rating: 6
Audit risk rating	**Rationale for audit risk rating**

High	The controls in place are rated as moderate because Mercury relied on information from the database holder, and it has taken until May 2022 for updated information to be supplied. The impact is assessed to be high based on the under submission of 450,100 kWh per annum.

Actions taken to resolve the issue	Completion date	Remedial action status
Vodafone's efforts have resulted in significant improvements to the database. We will apply the 72% factor to adjust the submission information, corrections will be reflected in revision files for the previous 14 months.	June 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Mercury and Vodafone have worked hard to ensure that the database is as accurate as possible; we will continue to collaborate to resolve any accuracy issues.	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 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 expected kWh against the submitted figure to confirm accuracy.

Audit commentary

The process for calculation of consumption was examined and the application of profiles was checked. The database was checked for accuracy.

Audit commentary

This clause requires that the distributed unmetered load database must satisfy the requirements of schedule 15.5 regarding the methodology for deriving submission information. Mercury reconciles this DUML load using the RPS and UML profiles. I checked the accuracy of the submission information from the database with the registry, which is used as the source data, to confirm the volume was calculated correctly.

Vodafone has now provided correct wattages for all 97 XM3 cabinets and they conducted primary and secondary measurements of a sample of 36 of the 428 Alpha pedestals. Some of the Alpha units are mounted on overhead poles, but the technology is the same. These results show that the secondary results are 72% of the primary results. I recommend Mercury uses the results of the sample of 36 Alpha

Pedestals and applies the 72% factor (by dividing the secondary daily kWh by 0.72) to all of the daily kWh figures currently derived from the secondary side measurements. The XM3 results can be used without adjustment. This will result in an additional 450,100 kWh per annum.

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0007145198RN5F3	7.50	27.6	-7,337

0007146145RN50A	6.54	27.6	-7,687

I recommend in **Section 2.1** that primary measurements are taken for a sample of these units to confirm the correct daily kWh.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.2 With: 15.2 and 15.37B(c) From: 14-Jun-17 To: 15-May-21	Under submission of 450,100 kWh per annum due to previously incorrect wattage figures in the database. Incorrect submission for Auckland and Christchurch ICPs. Potential impact: High Actual impact: High Audit history: Once Controls: Moderate Breach risk rating: 6
Audit risk rating	**Rationale for audit risk rating**
High	The controls in place are rated as moderate because Mercury relied on information from the database holder, and it has taken until May 2022 for updated information to be supplied. The impact is assessed to be high based on the under submission of 450,100 kWh per annum.

Actions taken to resolve the issue	Completion date	Remedial action status
Vodafone's efforts have resulted in significant improvements to the database. We will apply the 72% factor to adjust the submission information, corrections will be reflected in revision files for the previous 14 months.	June 2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Mercury and Vodafone have worked hard to ensure that the database is as accurate as possible; we will continue to collaborate to resolve any accuracy issues.	Ongoing	

CONCLUSION

This database is for items of load supplying Vodafone's telecommunications network. Each item of load contains a transformer and the secondary side of the transformer supplies voltage to part of the Vodafone network. The previous audit recorded that wattage figures in the database were derived from measurements taken at the secondary side of the transformers, which meant transformer losses were not considered. The voltage and current measurements should have been taken on the primary side of the transformers, which was a recommendation in the previous report. Incorrect wattage calculations had led to under submission by approx. 400,000 kWh per annum. Mercury adjusted the figures by an additional 15% after the last audit as an interim step whilst more analysis was done to determine the correct wattages. This adjustment was the right action to take based on the limited information available at the time of the last audit, which only included XM3 analysis, there were no primary vs secondary measurements for Alpha units.

Vodafone has now provided correct wattages for all 97 XM3 cabinets and they conducted primary and secondary measurements of a sample of 36 Alpha pedestals. These results show that the secondary results are 72% of the primary results. I recommend Mercury uses the results of the sample of 36 Alpha Pedestals and applies the 72% factor (by dividing the secondary daily kWh by 0.72) to all of the daily kWh figures currently derived from the secondary side measurements. The XM3 results can be used without adjustment. This will result in an additional 450,100 kWh per annum.

The analysis didn't include the 11 fittings in Auckland or the three in Christchurch, which appear to be incorrect, as recorded in sections 2.1, 3.1 and 3.2.

All other details in the database were confirmed as accurate.

The future risk rating indicates that the next audit be completed in six months. Vodafone has now confirmed the daily kWh per unit based on an appropriate sample. Mercury intends to adjust the submission information, including revisions for the previous 14 months, therefore the only outstanding issue is the accuracy of the Christchurch and Auckland kWh figures for five ICPs (23 items of load). Given Mercury and Vodafone's willingness to resolve the accuracy issues associated with this database, I recommend the next audit is undertaken in 12 months.

PARTICIPANT RESPONSE