ELECTRICITY INDUSTRY PARTICIPATION CODE METERING EQUIPMENT PROVIDER AUDIT REPORT



For

INFLUX ENERGY DATA LIMITED NZBN: 9429037465971

Prepared by: Brett Piskulic – Provera Date audit commenced: 22 December 2023 Date audit report completed: 9 April 2024 Audit report due date: 01-May-24

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EXECUTIVE SUMMARY

Influx Energy Data Limited (Influx) is a Metering Equipment Provider (MEP) and is required to undergo an audit by 1 May 2023 in accordance with clause 16A.17(b).

Influx is responsible for ICPs under the FCLM, TRUM and LMGL participant identifiers.

The audit found 16 non-compliances and makes one recommendation. The overall number of noncompliances has reduced by two since the last audit and there have been improvements made in a number of areas. Influx has expanded its process for monitoring load at metering installations certified at a lower category or with insufficient load, the monitoring now also identifies any cases where load exceeds the category limits. The number of errors found in certification reports from ATHs has decreased significantly since the last audit due to improvements made in ATH processes. Influx is making good progress on its recertification and maintenance of certification programs which has seen a decrease in the number of ICPs with expired or cancelled metering installation certification. A statistical sampling recertification project is nearing completion which will see the recertification of approximately 40,000 category 1 ICPs.

On 15 June 2023 the Electricity Authority published a memo detailing changes to data collection responsibilities. This memo changes the arrangements originally established in 2013, which stated that all data collection, apart from AMI data collection, was the responsibility of the reconciliation participant. The 2023 memo changes the responsibility for some data collection from the reconciliation participant to the MEP, where the MEP has not provided the capability to collect data to the reconciliation participant. EDMI NZ Limited (EDMI) collects data as an agent from some meters where Influx is the MEP. At the time of the audit there 369 meters being interrogated by EDMI. I reviewed the EDMI MEP agent audit report which was completed in August 2023 to determine compliance and the EDMI agent report will be supplied with this audit.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The future risk rating table provides some guidance on this matter and recommends an audit frequency of six months. After considering the responses from Influx to the areas of non-compliance I recommend an audit frequency of 18 months to reflect the improvements which have been made during the audit period.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Provision of accurate information	2.5	11.2 and 10.6	Some certification records not complete and accurate. Registry not always updated as soon as practicable.	Moderate	Low	2	Identified
Registry updates	3.2	2 of Schedule 11.4	Some registry updates later than 15 business days.	Strong	Low	1	Identified
Changes to registry records	4.10	3 of Schedule 11.4	Some records updated on the registry later than ten business days.	Moderate	Low	2	Identified

Accurate and complete records	5.1	4(1) of Schedule 10.6	Some inaccurate or incomplete certification records.	Moderate	Low	2	Identified
Response to switch request	6.1	1(1) of Schedule 11.4	78 late MN files.	Strong	Low	1	Identified
Provision of Registry Information	6.2	7 (1), (2) and (3) of Schedule 11.4	Some registry records are incomplete or incorrect.	Strong	Low	1	Identified
Cancellation of certification	6.4	6 of Schedule 11.4	 Certification cancelled and registry not updated for: one installation not fit for purpose due to low burden, two installations without inspections conducted by the due date, 22 installations with sum-check failures not remediated within three business days, and three metering installations with invalid statistical sampling certification. 	Strong	Low	1	Identified
Certification of metering installations	7.1	10.38 (a), clause 1 and clause 15 of Schedule 10.7	Certification cancelled or expired for 19,011 ICPs.	Strong	High	3	Identified
Certification Tests	7.2	10.38(b) and clause 9 of Schedule 10.6	All test results not recorded in a sample of 49 certification records completed by the Influx ATH.	Strong	Low	1	Investigating
Alternative Certification Requirements	7.9	32(2), (3) and (4) of Schedule 10.7	Notification of alternative certification not provided to the Authority within ten business days for three metering installations.	Strong	Low	1	Identified
Timekeeping	7.10	23 of Schedule 10.7	83 meters with time dependent registers were not monitored every 12 months.	Strong	Low	1	Identified

Compensation factors	7.14	24(3) of Schedule 10.7	Compensation factor incorrectly recorded on the registry for one FCLM category 1 metering installation.	Moderate	Low	2	Cleared
Interim certification	7.19	18 of Schedule 10.7	 190 FCLM ICPs with expired interim certification. One TRUM ICP with expired interim certification. 15,960 LMGL ICPs where most have expired interim certification. 	Strong	High	3	Disputed
Category 2 to 5 inspections	8.2	46(1) of Schedule 10.7	Inspections not conducted within the required timeframe for two category 3 FCLM metering installations.	Strong	Low	1	Cleared
Meter bridging	9.5	10.33C	One FCLM category 1 meter not reinstated after bridging within five business days of notification.	Strong	Low	1	Identified
Time Errors for Metering Installations	10.7	8(4) of Schedule 10.6	Clock errors greater than the threshold for two ICPs.	Strong	Low	1	Identified
Future Risk Rating							24
Indicative Audit Frequency							months

Future risk rating	1-2	3-6	7-9	10-19	20-24	25+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Clause	Recommendation	Status
Timekeeping Requirements	7.10	23 of Schedule 10.7	Investigate gaining an exemption from the requirements of clause 23 of schedule 10.7 for non-communicating AMI meters that become subject to this clause when the time dependent registers are no longer used for submission.	Investigating

ISSUES

Subject	Section	Issue	Description
			Nil

1. ADMINISTRATIVE

1.1. Exemptions from Obligations to Comply with Code (Section 11)

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

I checked the Electricity Authority website to confirm whether there were any exemptions in place.

Audit commentary

I checked the Electricity Authority website and I confirmed there are no exemptions in place.

1.2. Structure of Organisation

Influx Structure – March 2024.



1.3. Persons involved in this audit

Auditor:

Brett Piskulic

Provera

Electricity Authority Approved Auditor

Influx personnel assisting in this audit were.

Name	Title
Barny Barnett	Quality and Compliance Manager IHUB NZ
Shuv Biswas	System & Data Services Manager Influx
Graeme Prestidge	Head of Metering, Compliance and Approved Test House Influx
Michael Molloy	Data & Compliance Coordinator Influx
Tony McGeady	Consultant

1.4. Use of Agents (Clause 10.3)

Code reference

Clause 10.3

Code related audit information

A participant who uses a contractor

- remains responsible for the contractor's fulfillment of the participants Code obligations,
- cannot assert that it is not responsible or liable for the obligation due to the action of a contractor,
- must ensure that the contractor has at least the specified level of skill, expertise, experience, or qualification that the participant would be required to have if it were performing the obligation itself.

Audit observation

On 15 June 2023 the Electricity Authority published a memo detailing changes to data collection responsibilities. This memo changes the arrangements originally established in 2013, which stated that all data collection, apart from AMI data collection, was the responsibility of the reconciliation participant. The 2023 memo changes the responsibility for some data collection from the reconciliation participant to the MEP, where the MEP has not provided the capability to collect data to the reconciliation participant. EDMI NZ Limited (EDMI) collects data as an agent from some meters where Influx is the MEP. At the time of the audit there 369 meters being interrogated by EDMI. I reviewed the EDMI MEP agent audit report which was completed in August 2023 to determine compliance and the EDMI agent report will be supplied with this audit.

Influx engages with ATHs to conduct certification activities and they are an ATH themselves.

I reviewed the EDMI MEP agent audit report which was completed in August 2023 which confirmed the data collection processes conducted by EDMI are compliant.

1.5. Hardware and Software

Data is held in Orion and Maximo, which is subject to backup arrangements in accordance with standard industry protocols.

1.6. Breaches or Breach Allegations

Influx confirmed there are no breach allegations related to the scope of this audit.

1.7. ICF Data	1.7.	ICP	Data
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FCLM						
Metering category	Number of ICPs Apr 2019	Number of ICPs Nov 2019	Number of ICPs Oct 2020	Number of ICPs Dec 2021	Number of ICPs Nov 2022	Number of ICPs Jan 2024
1	33,275	34,638	36,601	39,797	45,078	54,811
2	1,545	1,588	1,639	1,823	2,054	2,481
3	51	51	52	55	67	72
4	10	11	13	15	21	23
5	0	0	0	0	1	1
9	8	5	9	13	11	11
TRUM	•	•	•	•		•
Metering category	Number of ICPs Jan 2019	Number of ICPs Nov 2019	Number of ICPs Oct 2020	Number of ICPs Dec 2021	Number of ICPs Nov 2022	Number of ICPs Jan 2024
1	147,063	123,967	88,089	69,427	59,417	45,591
2	1,233	1,211	1,167	1,053	741	348
3	4	4	0	7	3	2
4	6	6	0	1	1	0
5	13	13	0	6	5	5
9	15	18	17	19	19	14
LMGL						
Metering category				Number of ICPs Dec 2021	Number of ICPs Nov 2022	Number of ICPs Jan 2024
1				27,555	25,514	20,347
2				196	184	164
3				14	12	12
4				0	0	0
5				0	0	0
9				4	2	3

1.8. Authorisation Received

A letter of authorisation was not required or requested.

1.9. Scope of Audit

This audit was conducted in accordance with the Guideline for Metering Equipment Provider Audits V2.2, which was published by the Electricity Authority.

The audit analysis was based on event detail, switch breach history detail and audit compliance reports for 1 January 2023 to 22 December 2023, and registry list snapshot and metering installation information reports for 22 December 2023.

The boundaries of this audit are shown in the diagram below for greater clarity.



1.10. Summary of previous audit

The previous audit was conducted in April 2023 by Brett Piskulic. The table below shows the issues raised and their current status.

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
MEP responsibility for services access interface	2.1	10.9(2)	Services access interface not recorded in certification records for nine metering installations.	Cleared
Provision of accurate information	2.5	11.2 and 10.6	Registry not always updated as soon as practicable in some cases.	Still existing
Registry updates	3.2	2 of Schedule 11.4	Some registry updates later than 15 business days.	Still existing
Metering Installation Design & Accuracy	4.3	4(1) of Schedule 10.7	Design report not recorded for nine metering installations.	Cleared
Changes to registry records	4.10	3 of Schedule 11.4	Some records updated on the registry later than ten business days.	Still existing
Accurate and complete records	5.1	4(1) of Schedule 10.6	Some inaccurate or incomplete certification records.	Still existing
Response to switch request	6.1	1(1) of Schedule 11.4	40 late MN files.	Still existing
Provision of Registry Information	6.2	7 (1), (2) and (3) of Schedule 11.4	Some registry records are incomplete or incorrect.	Still existing

Subject	Section	Clause	Non-compliance	Status
Cancellation of certification	6.4	6 of Schedule 11.4	 Certification cancelled and registry not updated for: two installations certified as a lower category but not monitored, two installations not fit four purpose due to low burden, 58 installations without inspections conducted by the due date, six installations with sum-check failures not remediated within three business days, one control device replaced with device did not have the same characteristics, and eight metering installations with invalid statistical sampling certification. 	Still existing
Certification of metering installations	7.1	10.38 (a), clause 1 and clause 15 of Schedule 10.7	Certification cancelled or expired for 25,071 ICPs.	Still existing
Certification Tests	7.2	10.38(b) and clause 9 of Schedule 10.6	Minimum load requirement for certification tests not met during one category 2 certification. All test results not recorded in 55 certification records.	Still existing for category 1 test results
Certification as a Lower category	7.6	6(1)(b) and (d), and 6(2)(b) of Schedule 10.7	Certification cancelled for six ICPs where certification as a lower category monitoring is not conducted.	Cleared
Timekeeping	7.10	23 of Schedule 10.7	85 meters with time dependent registers with time are not monitored every 12 months.	Still existing
Statistical Sampling	7.13	16(1) of Schedule 10.7	Incorrect certification period of seven years applied to 6,104 ICPs certified using the statistical recertification method.	Cleared

Subject	Section	Clause	Non-compliance	Status
Interim certification	7.19	18 of Schedule 10.7	 283 FCLM ICPs with expired interim certification. One TRUM ICP with expired interim certification. 19,274 LMGL ICPs where most have expired interim certification. 	Still existing
Category 2 to 5 inspections	8.2	46(1) of Schedule 10.7	FCLM Inspections not conducted within the allowable window for four category 2, 15 category 3 and two category 5 metering installations. TRUM Inspections not conducted within the allowable window for 34 category 2 and four category 5 metering installations. LMGL Inspections not conducted within the allowable window for three category 3 metering installations.	Still existing
Timeframe for correct defects and inaccuracies	9.4	10.46A	Remedial action not completed in required timeframe after notification of a faulty metering installation for three ICPs.	Cleared
Time Errors for Metering Installations	10.7	8(4) of Schedule 10.6	Clock errors greater than the threshold for 78 ICPs.	Still existing

Table of Recommendations

Subject	Section	Clause	Recommendation for improvement	Status
Temporary electrical connection	4.17	10.31A, 10.33 and 10.33A	Update the temporary electrical connection process and obtain an explicit blanket authorisation from both the traders and distributors.	Cleared
Timekeeping Requirements	7.10	23 of Schedule 10.7	Develop a process to identify meters which become subject to the timekeeping requirements of clause 23 of schedule 10.7 and ensure the time is monitored and corrected as required.	Cleared

Table of Issues

Subject	Section	Issue	Description	Status
Statistical sampling	7.13	Regarding: Clause 16 of schedule 10.7	I recommend that the Authority consider amending the Code to ensure that an MEP is not disadvantaged when using meters with an accuracy class higher than the minimum class required by the Code. I also suggest that the Authority consider whether AS/NZS 1284 is still fit for purpose and whether a more appropriate process can be included in or prescribed by the Code.	Resolved by code change on 1 March 2024
Data storage device certification	7.17	Regarding: Clause 36(1) of Schedule 10.7	Certification of data storage devices when statistical recertification is conducted. The code requires an MEP to ensure that each data storage device incorporated in a metering installation is certified. It is unclear how this should be applied when conducting recertification by statistical recertification under clause 16 of schedule 10.7.	Still existing

2. OPERATIONAL INFRASTRUCTURE

2.1. MEP responsibility for services access interface (Clause 10.9(2))

Code reference

Clause 10.9(2)

Code related audit information

The MEP is responsible for providing and maintaining the services access interface.

Audit observation

<u>FCLM</u>

I checked certification records for 65 metering installations, covering all relevant ATHs.

TRUM

I checked certification records for 20 metering installations, covering all relevant ATHs.

<u>LMGL</u>

I checked certification records for 20 metering installations, covering all relevant ATHs.

Audit commentary

The Code places responsibility for maintaining the services access interface on the MEP and places responsibility for determining and recording it with ATHs. The Code requires the ATH to record each services access interface and the conditions under which each services access interface may be used. There has been an improvement since the last audit with all ATHs now having processes to correctly record each services access interface.

FCLM

I checked 65 certification records and found each services access interface was recorded correctly by the ATHs for all 65 of the certification records.

TRUM

I checked 20 certification records and found each services access interface was recorded correctly by the ATHs for all 20 of the certification records.

<u>LMGL</u>

I checked 20 certification records and found each services access interface was recorded correctly by the ATHs for all 20 of the certification records.

Audit outcome

Compliant

2.2. Dispute Resolution (Clause 10.50(1) to (3))

Code reference

Clause 10.50(1) to (3)

Code related audit information

Participants must in good faith use its best endeavours to resolve any disputes related to Part 10 of the Code.

Disputes that are unable to be resolved may be referred to the Authority for determination.

Complaints that are not resolved by the parties or the Authority may be referred to the Rulings Panel by the Authority or participant.

Audit observation

<u>FCLM</u>

I checked whether any disputes had been dealt with during the audit period.

<u>TRUM</u>

I checked whether any disputes had been dealt with during the audit period.

<u>LMGL</u>

I checked whether any disputes had been dealt with during the audit period.

Audit commentary

FCLM

FCLM has not been required to resolve any disputes in accordance with this clause.

<u>TRUM</u>

TRUM has not been required to resolve any disputes in accordance with this clause.

<u>LMGL</u>

LMGL has not been required to resolve any disputes in accordance with this clause.

Audit outcome

Compliant

2.3. MEP Identifier (Clause 7(1) of Schedule 10.6)

Code reference

Clause 7(1) of Schedule 10.6

Code related audit information

The MEP must ensure it has a unique participant identifier and must use this participant identifier (if required) to correctly identify its information.

Audit observation

FCLM

I checked the registry data to ensure the correct MEP identifier was used.

<u>TRUM</u>

I checked the registry data to ensure the correct MEP identifier was used.

<u>LMGL</u>

I checked the registry data to ensure the correct MEP identifier was used.

Audit commentary

FCLM

FCLM uses the FCLM identifier in all cases.

<u>TRUM</u>

TRUM uses the TRUM identifier in all cases.

<u>LMGL</u>

LMGL uses the LMGL identifier in all cases.

Audit outcome

Compliant

2.4. Communication Equipment Compatibility (Clause 40 Schedule 10.7)

Code reference

Clause 40 Schedule 10.7

Code related audit information

The MEP must ensure that the use of its communication equipment complies with the compatibility and connection requirements of any communication network operator the MEP has equipment connected to.

Audit observation

Relevant documentation was checked to ensure the compatibility of communication equipment.

Audit commentary

<u>FCLM</u>

FCLM ensures all communication equipment is appropriately certified with the relevant telecommunications standards. This is recorded in type test certificates and other approval documents.

<u>TRUM</u>

TRUM certified one metering installation where communication equipment is present. TRUM ensures all communication equipment is appropriately certified with the relevant telecommunications standards. This is recorded in type test certificates and other approval documents.

<u>LMGL</u>

LMGL did not certify any metering installations where communication equipment is present during the audit period. It has been previously recorded that all communication equipment is appropriately certified with the relevant telecommunications standards. This is recorded in type test certificates and other approval documents.

Audit outcome

Compliant

2.5. Participants to Provide Accurate Information (Clause 11.2 and Clause 10.6)

Code reference

Clause 11.2 and Clause 10.6

Code related audit information

The MEP must take all practicable steps to ensure that information that the MEP is required to provide to any person under Parts 10 and 11 is complete and accurate, not misleading or deceptive and not likely to mislead or deceive.

If the MEP becomes aware that in providing information under Parts 10 and 11, the MEP has not complied with that obligation, the MEP must, as soon as practicable, provide such further information as is necessary to ensure that the MEP does comply.

Audit observation

FCLM

The content of this audit report was reviewed to determine whether all practicable steps had been taken to provide accurate information.

<u>TRUM</u>

The content of this audit report was reviewed to determine whether all practicable steps had been taken to provide accurate information.

<u>LMGL</u>

The content of this audit report was reviewed to determine whether all practicable steps had been taken to provide accurate information.

Audit commentary

FCLM

The content of this audit report indicates that FCLM has taken all practicable steps to ensure that information is complete and accurate in most cases; however, in **sections 5** and **6** there are some registry and certification records which are not complete and accurate, and some information was not updated as soon as practicable.

<u>TRUM</u>

The content of this audit report indicates that TRUM has taken all practicable steps to ensure that information is complete and accurate in most cases; however, in **sections 5** and **6** there are some registry and certification records which are not complete and accurate, and some information was not updated as soon as practicable.

<u>LMGL</u>

The content of this audit report indicates that LMGL has taken all practicable steps to ensure that information is complete and accurate in most cases; however, in **sections 5** and **6** there are some registry and certification records which are not complete and accurate, and some information was not updated as soon as practicable.

Audit outcome

Non-compliant

Non-compliance	Description				
Audit Ref: 2.5	Some certification records not complete and accurate.				
With: Clause 11.2 and Clause 10.6	Registry not always updated as soon as p	oracticable.			
	Potential impact: Medium				
	Actual impact: Low				
	Audit history: Multiple times				
From: 01-Jan-23	Controls: Moderate				
To: 22-Dec-23	Breach risk rating: 2				
Audit risk rating	Rationale for	audit risk rating			
Low	I have recorded the controls as moderat	e because there is	s room for improvement.		
	The impact on other participants is mino	r; therefore, the a	audit risk rating is low.		
Actions ta	aken to resolve the issue	Completion date	Remedial action status		
Incorrect records identifie	ed in the Audit updated	01/04/2024	Identified		
Preventative actions take	en to ensure no further issues will occur	Completion date			
As per Participant Respor	ise	Ongoing			

3. PROCESS FOR A CHANGE OF MEP

3.1. Change of metering equipment provider (Clause 10.22)

Code reference

Clause 10.22

Code related audit information

The MEP for a metering installation may change only if the responsible participant enters into an arrangement with another person to become the MEP for the metering installation, and if certain requirements are met in relation to updating the registry and advising the reconciliation manager.

The losing MEP must notify the gaining MEP of the proportion of the costs within 40 business days of the gaining MEP assuming responsibility. The gaining MEP must pay the losing MEP within 20 business days of receiving notification from the losing MEP.

The costs are those directly and solely attributable to the certification and calibration tests of the metering installation or its components from the date of switch until the end of the current certification period.

The gaining MEP is not required to pay costs if:

- the losing MEP has agreed in writing that the gaining MEP is not required to pay costs, or the losing MEP has failed to provide notice within 40 business days.
- within three business days, the gaining MEP replaces, removes or recertifies the metering component or metering installation,
- the losing MEP has failed to provide notice of the costs to the gaining MEP within 40 business days.

Audit observation

FCLM

I checked if FCLM had sent or received any invoices.

TRUM

I checked if TRUM had sent or received any invoices.

<u>LMGL</u>

I checked if LMGL had sent or received any invoices.

Audit commentary

FCLM

FCLM has not sent or received any invoices in relation to this clause during the audit period.

TRUM

TRUM has not sent or received any invoices in relation to this clause during the audit period.

<u>LMGL</u>

LMGL has not sent or received any invoices in relation to this clause during the audit period.

The table below shows that there is only one scenario where costs will be payable, and this is unlikely to occur.

Scenario	Likelihood of occurring	Costs payable
Gaining MEP replaces losing MEPs component	High	No
Gaining MEP removes losing MEPs component	High	No
Gaining MEP recertifies losing MEPs component	High	No
Gaining MEP replaces losing MEPs installation	High	No
Gaining MEP removes losing MEPs installation	High	No
Gaining MEP recertifies losing MEPs installation	High	No
Gaining MEP retains losing MEPs components and metering installation	Zero	Yes

Audit outcome

Compliant

3.2. Registry Notification of Metering Records (Clause 2 of Schedule 11.4)

Code reference

Clause 2 of Schedule 11.4

Code related audit information

The gaining MEP must advise the registry of the registry metering records for the metering installation within 15 days of becoming the MEP for the metering installation.

Audit observation

FCLM

I checked the audit compliance report for all records where FCLM became the MEP to evaluate the timeliness of updates.

<u>TRUM</u>

I checked the audit compliance report for all records where TRUM became the MEP to evaluate the timeliness of updates.

<u>LMGL</u>

I checked the audit compliance report for all records where LMGL became the MEP to evaluate the timeliness of updates.

Audit commentary

<u>FCLM</u>

I examined the audit compliance report for 7,972 switches in relation to this clause and the findings are shown in the table below.

Of the 672 late updates, 273 were due to late nomination by the trader. 171 of the remaining 399 late updates had event dates prior to 2023, I checked a sample of ten which confirmed that all were replaced

events due to corrections. I checked a sample of 20 of the remaining 228 late updates with event dates in 2023, and found,

- 11 were corrections where the original update was on time,
- two were due to delays in receiving the certification information from the ATHs, and
- eleven were due to processing delays by the MEP.

The Code and the audit compliance reporting assume a change of MEP code constitutes a change of MEP, however there are now several MEPs with more than one MEP code. This means that a meter change with associated recertification at the time of an MEP code change will show in the report as a change of MEP, with a 15-day allowance rather than a 10-day allowance. An unknown number of the updates reported in this section will be for changes of MEP identifier from one Influx identifier to another Influx identifier. These late updates should appear in **section 4.10** and are subject to a 10-day requirement.

Audit	Total ICPs	Total within 15	Average days	% Compliant
		days		
Jun 2018	367	328	6	89%
April 2019	1,562	1,465	8	94%
Nov 2019	906	841	-	93%
Oct 2020	1,102	1,031	-	94%
Dec 2021	120	117	-	97.5%
Nov 2022	3,315	3,136	-	94.6%
Jan 2024	7,972	7,300	-	91.57%

<u>TRUM</u>

I examined the audit compliance report for 36 switches in relation to this clause and the findings are shown in the table below.

The audit compliance report identified nine late updates. I checked all nine late updates and found,

- six were corrections where the original update was on time,
- one was due to a delay in receiving the certification information from the ATH, and
- two were due to other participant events preventing the MEP update.

Audit	Total ICPs	Total within 15 days	Average days	% Compliant
Nov 2019	34	23	-	68%
Oct 2020	9	5	-	56%
Dec 2021	6,534	6,255	-	95.73%
Nov 2022	3,244	12	-	0.37%
Jan 2024	36	27	-	75%

<u>LMGL</u>

I examined the audit compliance report for 16 switches in relation to this clause and the findings are shown in the table below.

The audit compliance report identified nine late updates. I checked all nine late updates and found:

- three were due to late nomination by the trader,
- two were due to processing delays by the MEP,
- two were due to delays in receiving and confirming the certification information from the ATH, and
- two were corrections where the original update was on time.

Audit	Total ICPs	Total within 15	Average days	% Compliant
		days		
Dec 2021	149	104	-	69.8%
Nov 2022	28	18	-	64.29%
Jan 2024	16	7	-	43.75%

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 3.2	Some registry updates later than 15 business days.			
With: Clause 2 of	Potential impact: Medium			
Schedule 11.4	Actual impact: Low			
	Audit history: Multiple times			
From: 01-Jan-23	Controls: Strong			
To: 22-Dec-23	Breach risk rating: 1			
Audit risk rating	Rationale for audit risk rating			
Low	Controls are in place to ensure the timeliness of updates, but Influx is often prevented from updating the registry due to late nomination by traders, late field notification or other participant's registry events preventing updates. The impact on other participants is minor; therefore, the audit risk rating is low.			
Actions ta	aken to resolve the issue	Completion date	Remedial action status	
Check discrepancy report	ing to identify MEP related issues.	Ongoing	Identified	
Preventative actions take	en to ensure no further issues will occur	Completion date		
As per Participant Respon	se	Ongoing		

3.3. Provision of Metering Records to Gaining MEP (Clause 5 of Schedule 10.6)

Code reference

Clause 5 of Schedule 10.6

Code related audit information

During an MEP switch, a gaining MEP may request access to the losing MEP's metering records.

On receipt of a request from the gaining MEP, the losing MEP has ten business days to provide the gaining MEP with the metering records or the facilities to enable the gaining MEP to access the metering records.

The losing MEP must ensure that the metering records are only received by the gaining MEP or its contractor, the security of the metering records is maintained, and only the specific metering records required for the purposes of the gaining MEP exercising its rights and performing its obligations are provided.

Audit observation

FCLM

I checked with FCLM to confirm whether there had been any requests from other MEPs.

<u>TRUM</u>

I checked with TRUM to confirm whether there had been any requests from other MEPs.

LMGL

I checked with LMGL to confirm whether there had been any requests from other MEPs.

Audit commentary

<u>FCLM</u>

This has not occurred, and no examples are available to examine. FCLM have stated that any information will be provided as necessary.

<u>TRUM</u>

This has not occurred, and no examples are available to examine. TRUM have stated that any information will be provided as necessary.

<u>LMGL</u>

This has not occurred, and no examples are available to examine. LMGL have stated that any information will be provided as necessary.

Audit outcome

Compliant

3.4. Termination of MEP Responsibility (Clause 10.23)

Code reference

Clause 10.23

Code related audit information

Even if the MEP ceases to be responsible for an installation, the MEP must either comply with its continuing obligations; or before its continuing obligations terminate, enter into an arrangement with a participant to assume those obligations.

The MEP is responsible if it:

- is identified in the registry as the primary metering contact or
- is the participant who owns the meter for the POC or to the grid or
- has accepted responsibility under clause 1(1)(a)(ii) of schedule 11.4 or
- has contracted with a participant responsible for providing the metering installation.

MEPs obligations come into effect on the date recorded in the registry as being the date on which the metering installation equipment is installed or, for an NSP the effective date set out in the NSP table on the Authority's website.

An MEPs obligations terminate only when:

- the ICP changes under clause 10.22(1)(a),
- the NSP changes under clause 10.22(1)(b), in which case the MEPs obligations terminate from the date on which the gaining MEP assumes responsibility,
- the metering installation is no longer required for the purposes of Part 15, or
- the load associated with an ICP is converted to be used solely for unmetered load.

Audit observation

FCLM

I confirmed that FCLM has ceased to be responsible for some metering installations by checking the event detail report.

<u>TRUM</u>

I confirmed that TRUM has ceased to be responsible for some metering installations by checking the event detail report.

<u>LMGL</u>

I confirmed that LMGL has ceased to be responsible for some metering installations by checking the event detail report.

Audit commentary

<u>FCLM</u>

FCLM has ceased to be responsible for some metering installations and they still continue with their responsibilities, mainly in relation to the storage or records, which are kept indefinitely.

<u>TRUM</u>

TRUM has ceased to be responsible for some metering installations and they still continue with their responsibilities, mainly in relation to the storage or records, which are kept indefinitely.

<u>LMGL</u>

LMGL has ceased to be responsible for some metering installations and they still continue with their responsibilities, mainly in relation to the storage or records, which are kept indefinitely.

Audit outcome

Compliant

4. INSTALLATION AND MODIFICATION OF METERING INSTALLATIONS

4.1. Design Reports for Metering Installations (Clause 2 of Schedule 10.7)

Code reference

Clause 2 of Schedule 10.7

Code related audit information

The MEP must obtain a design report for each proposed new metering installation or a modification to an existing metering installation, before it installs the new metering installation or before the modification commences.

Clause 2(2) and (3)—The design report must be prepared by a person with the appropriate level of skills, expertise, experience and qualifications and must include a schematic drawing, details of the configuration scheme that programmable metering components are to include, confirmation that the configuration scheme has been approved by an approved test laboratory, maximum interrogation cycle for each services access interface, any compensation factor arrangements, method of certification required, and name and signature of the person who prepared the report and the date it was signed.

Clause 2(4)—The MEP must provide the design report to the certifying ATH before the ATH installs or modifies the metering installation (or a metering component in the metering installation).

Audit observation

FCLM

FCLM has engaged six ATHs during the audit period. I checked the Influx design reports.

<u>TRUM</u>

TRUM has engaged five ATHs during the audit period. I checked the Influx design reports.

<u>LMGL</u>

LMGL has engaged three ATHs during the audit period. I checked the Influx design reports.

Audit commentary

<u>FCLM</u>

Influx has a suite of design reports, I confirmed that all the required information is included. There have been no new design reports implemented during the audit period.

TRUM

Influx has a suite of design reports, I confirmed that all the required information is included. There have been no new design reports implemented during the audit period.

<u>LMGL</u>

Influx has a suite of design reports, I confirmed that all the required information is included. There have been no new design reports implemented during the audit period.

Audit outcome

Compliant

4.2. Contracting with ATH (Clause 9 of Schedule 10.6)

Code reference

Clause 9 of Schedule 10.6

Code related audit information

The MEP must, when contracting with an ATH in relation to the certification of a metering installation, ensure that the ATH has the appropriate scope of approval for the required certification activities.

Audit observation

<u>FCLM</u>

FCLM has engaged the Accucal, Delta, Influx, Bluecurrent, Wells and Intellihub ATHs during the audit period. I checked the Authority's website to confirm they had appropriate scopes of approval.

<u>TRUM</u>

TRUM has engaged the Accucal, Delta, Influx, Wells and Intellihub ATHs during the audit period. I checked the Authority's website to confirm they had appropriate scopes of approval.

<u>LMGL</u>

LMGL has engaged Delta, Influx and Wells ATHs during the audit period. I checked the Authority's website to confirm they had appropriate scopes of approval.

Audit commentary

I checked the Authority's website and I confirm that all ATHs have appropriate scopes of approval.

Audit outcome

Compliant

4.3. Metering Installation Design & Accuracy (Clause 4(1) of Schedule 10.7)

Code reference

Clause 4(1) of Schedule 10.7

Code related audit information

The MEP must ensure:

- that the sum of the measured error and uncertainty does not exceed the maximum permitted error set out in Table 1 of schedule 10.1 for the category of the metering installation,
- the design of the metering installation (including data storage device and interrogation system) will ensure the sum of the measured error and the smallest possible increment of the energy value of the raw meter data does not exceed the maximum permitted error set out in Table 1 of schedule 10.1 for the category of installation,
- the metering installation complies with the design report and the requirements of Part 10.

Audit observation

<u>FCLM</u>

I checked the processes used by FCLM to ensure compliance with the design and with the error thresholds stipulated in Table 1. I also checked the certification records for 65 metering installations.

<u>TRUM</u>

I checked the processes used by TRUM to ensure compliance with the design and with the error thresholds stipulated in Table 1. I also checked the certification records for 20 metering installations.

<u>LMGL</u>

I checked the processes used by LMGL to ensure compliance with the design and with the error thresholds stipulated in Table 1. I also checked the certification records for 20 metering installations.

Audit commentary

FCLM

The correct design report was used in all 65 certification records checked. One of the certification records completed by the Wells ATH did not have a design report reference recorded. I have recorded compliance in this section as the design report requirements are met with the exception of the ATH recording a reference in the certification records which is recorded as non-compliance in **section 5.1**.

All ATHs are now calculating uncertainty correctly for metering installations certified using the comparative method. The certification reports checked included 21 using the comparative recertification method and one using the fully calibrated method. In all 22 cases, the ATH had correctly calculated and recorded the error and uncertainty in the certification records.

<u>TRUM</u>

The correct design report was used in all 20 certification records checked. The design report reference was recorded in all 20 certification records checked.

There was one category 5 metering installation certified using the fully calibrated method by the Accucal ATH. I checked the certification records and confirmed that the ATH had correctly calculated and recorded the error and uncertainty in the certification records.

<u>LMGL</u>

The correct design report was used in all 20 certification records checked. The design report reference was recorded in all 20 certification records checked.

There were no certifications conducted during the audit period using the comparative recertification or the fully calibrated methods, however ATHs now have compliant processes for calculating error and uncertainty.

Audit outcome

Compliant

4.4. Net metering and Subtractive Metering (Clause 10.13A and 4(2)(a) of Schedule 10.7)

Code reference

Clause 10.13A and Clause 4(2)(a) of Schedule 10.7

Code related audit information

MEPs must ensure that the metering installation records imported electricity separately from exported electricity. For category 1 and 2 installations the MEP must ensure the metering installation records imported and exported electricity separately for each phase. For category 3 or higher installations, the MEP does not need to ensure that imported and exported electricity is recorded separately for each phase.

If the metering installation contains multiple phases, the MEP may aggregate together the amounts of imported electricity recorded on different phases, or the amounts of exported electricity recorded on

different phases. However, the MEP must not aggregate imported and exported electricity together. For metering installations for ICPs that are not also NSPs, the MEP must ensure that the metering installation does not use subtraction to determine submission information used for the purposes of Part 15.

Audit observation

FCLM

I asked FCLM to confirm whether subtraction was used for any metering installations where they were the MEP.

TRUM

I asked TRUM to confirm whether subtraction was used for any metering installations where they were the MEP.

<u>LMGL</u>

I asked LMGL to confirm whether subtraction was used for any metering installations where they were the MEP.

Audit commentary

FCLM

FCLM does not have any metering installations where subtractive metering is used.

<u>TRUM</u>

TRUM does not have any metering installations where subtractive metering is used.

<u>LMGL</u>

LMGL does not have any metering installations where subtractive metering is used.

Audit outcome

Compliant

4.5. HHR Metering (Clause 4(2)(b) of Schedule 10.7)

Code reference

Clause 4(2)(b) of Schedule 10.7

Code related audit information

For metering installations for ICPs that are not also NSPs, the MEP must ensure that all category 3 or higher metering installations must be half-hour metering installations.

Audit observation

<u>FCLM</u>

I checked FCLM's list file to confirm compliance with this requirement.

TRUM

I checked TRUM's list file to confirm compliance with this requirement.

<u>TRUM</u>

I checked LMGL's list file to confirm compliance with this requirement.

FCLM

I checked FCLM's list file, and I confirm that the 96 category 3 and above metering installations are HHR.

<u>TRUM</u>

I checked TRUM's list file, and I confirm that the eight category 3 and above metering installations are HHR.

<u>LMGL</u>

I checked LMGL's list file, and I confirm that there are no category 3 and above metering installations.

Audit outcome

Compliant

4.6. NSP Metering (Clause 4(3) of Schedule 10.7)

Code reference

Clause 4(3) of Schedule 10.7

Code related audit information

The MEP must ensure that the metering installation for each NSP that is not connected to the grid does not use subtraction to determine submission information used for the purposes of Part 15 and is a half-hour metering installation.

Audit observation

FCLM

I checked if FCLM is responsible for any NSP metering.

<u>TRUM</u>

I checked if TRUM is responsible for any NSP metering.

<u>LMGL</u>

I checked if LMGL is responsible for any NSP metering.

Audit commentary

<u>FCLM</u>

FCLM is responsible for metering at 32 NSPs. FCLM confirmed that subtraction is not used at these NSPs.

TRUM

TRUM is not responsible for metering at any NSPs.

<u>LMGL</u>

LMGL is not responsible for metering at any NSPs.

Audit outcome

Compliant

4.7. Responsibility for Metering Installations (Clause 10.26(10))

Code reference

Clause 10.26(10)

Code related audit information

The MEP must ensure that each point of connection to the grid for which there is a metering installation that it is responsible for has a half hour metering installation.

Audit observation

<u>FCLM</u>

FCLM is not responsible for any grid metering.

<u>TRUM</u>

TRUM is not responsible for any grid metering.

<u>LMGL</u>

LMGL is not responsible for any grid metering.

Audit commentary

FCLM

FCLM is not responsible for any grid metering.

<u>TRUM</u>

TRUM is not responsible for any grid metering.

<u>LMGL</u>

LMGL is not responsible for any grid metering.

Audit outcome

Compliant

4.8. Suitability of Metering Installations (Clause 4(4) of Schedule 10.7)

Code reference

Clause 4(4) of Schedule 10.7

Code related audit information

The MEP must, for each metering installation for which it is responsible, ensure that it is appropriate having regard to the physical and electrical characteristics of the POC.

Audit observation

<u>FCLM</u>

I asked FCLM to provide details of how they ensure the suitability of metering installations.

TRUM

I asked TRUM to provide details of how they ensure the suitability of metering installations.

<u>LMGL</u>

I asked LMGL to provide details of how they ensure the suitability of metering installations.

FCLM

FCLM instructions to ATH's include several clauses in relation to physical and electrical characteristics. The recent audit reports for the ATHs confirm compliance with the requirement to ensure enclosures are suitable.

<u>TRUM</u>

TRUM instructions to ATH's include several clauses in relation to physical and electrical characteristics. The recent audit reports for the ATHs confirm compliance with the requirement to ensure enclosures are suitable.

<u>LMGL</u>

LMGL instructions to ATH's include several clauses in relation to physical and electrical characteristics. The recent audit reports for the ATHs confirm compliance with the requirement to ensure enclosures are suitable.

Audit outcome

Compliant

4.9. Installation & Modification of Metering Installations (Clauses 10.34(2), (2A) and (3))

Code reference

Clauses 10.34(2), (2A) and (3)

Code related audit information

If a metering installation is proposed to be installed or modified at a POC, other than a POC to the grid, the MEP must consult with and use its best endeavours, to agree with the distributor and the trader for that POC, before the design is finalised, on the metering installation's:

- required functionality,
- terms of use,
- required interface format,
- integration of the ripple receiver and the meter,
- functionality for controllable load.

This includes where the MEP is proposing to replace a metering component or metering installations with the same or similar design and functionality but excludes where the MEP has already consulted on the design with the distributor and trader.

Each participant involved in the consultations must use its best endeavours to reach agreement and act reasonably and in good faith.

Audit observation

<u>FCLM</u>

I checked whether there were any new or modified designs during the audit period.

<u>TRUM</u>

I checked whether there were any new or modified designs during the audit period.

<u>LMGL</u>

I checked whether there were any new or modified designs during the audit period.

FCLM

There were no new design reports implemented during the audit period. In previous audits it was confirmed that Influx has provided copies of communications to relevant parties when new designs have been implemented.

<u>TRUM</u>

There were no new design reports implemented during the audit period. In previous audits it was confirmed that Influx has provided copies of communications to relevant parties when new designs have been implemented.

<u>LMGL</u>

There were no new design reports implemented during the audit period. In previous audits it was confirmed that Influx has provided copies of communications to relevant parties when new designs have been implemented.

Audit outcome

Compliant

4.10. Changes to Registry Records (Clause 3 of Schedule 11.4)

Code reference

Clause 3 of Schedule 11.4

Code related audit information

If the MEP has an arrangement with the trader the MEP must advise the registry manager of the registry metering records, or any change to the registry metering records, for each metering installation for which it is responsible at the ICP, no later than ten business days following:

- a) the electrical connection of the metering installation at the ICP,
- b) any subsequent change to the metering installation's metering records.

If the MEP is updating the registry in accordance with 8(11)(b) of schedule 10.6, it must do so within ten business days after the most recent unsuccessful interrogation.

If the MEP is updating the registry in accordance with clause 8(13) of schedule 10.6, it must do so within three business days following the expiry of the time period or date from which the MEP determines it cannot restore communications.

Audit observation

<u>FCLM</u>

I checked the audit compliance report for all records where FCLM became the MEP to evaluate the timeliness of registry updates.

<u>TRUM</u>

I checked the audit compliance report for all records where TRUM became the MEP to evaluate the timeliness of registry updates.

<u>LMGL</u>

I checked the audit compliance report for all records where LMGL became the MEP to evaluate the timeliness of registry updates.

FCLM

The table below shows that there were registry updates for 2,302 new connections completed of which 1,266 were late, and 45% of updates were compliant. Of the 1,266 late updates, 979 were due to late nomination by the trader (the nominations were made later than ten business days after event). 121 of the remaining 287 late updates had event dates prior to 2023, I checked a sample of ten and found:

- seven were corrections where the original update was on time, and
- three were due to processing delays by the MEP.

I checked a sample of 20 of the remaining 166 late updates with event dates in 2023, and found:

- one was a correction where the original update was on time,
- two were due to processing delays by the MEP,
- 14 are on Tenco embedded networks where the metering installations are installed and certified before the ICPs are available on the registry, and
- three were due to delays in receiving the certification information from the ATH.

I was unable to accurately determine the total number of updates after recertification due to duplication in the audit compliance report between AC020MEP04 (metering update after recertification) and AC020MEP01 (new MEP not a new connection). As recorded in **section 3.2**, an issue was found with the audit compliance reporting assuming that a change of MEP code constitutes a change of MEP, however there are now several MEPs with more than one MEP code. This means that a meter change with associated recertification at the time of an MEP code change will show in the report as a change of MEP, with a 15-day allowance rather than a 10-day allowance for a recertification. An unknown number of the updates reported in **section 3.2** will be for changes of MEP identifier from one Influx identifier to another Influx identifier. These late updates should appear in this section and are subject to a 10-day requirement.

I checked a sample of 20 of the 682 late updates identified and found,

- four were corrections where the original updates were on time,
- four were due to processing delays by the MEP,
- seven were due to changes from TRUM or LMGL which were delayed by late nomination by the trader, and
- five were due to delays in receiving the certification information from the ATH.

Event	Audit	Total ICPs	ICPs notified within ten days	ICPs notified greater than ten days	Average notification days	Percentage compliant
New Connection	Jun 2018	322	284	38	7	88%
	April 2019	596	489	107	8	82%
	Nov 2019	796	540	256	-	68%
	Oct 2020	597	320	277	-	54%
	Dec 2021	47	43	4	-	91.49%
	Nov 2022	1,436	597	839	-	41.57%
	Jan 2024	2,302	1,036	1,266	-	45%
Recertification	Jun 2018	19,524	18,839	685	9	96%
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	April 2019	14,123	11,967	2,156	49	85%
	Nov 2019	1,842	1,542	300	79	84%
	Oct 2020	1,818	1,632	186	20	90%
	Dec 2021	159	154	5	7.87	96.86
	Nov 2022	Unable to determine				
	Jan 2024	Unable to determine	Unable to determine	682	Unable to determine	Unable to determine

<u>TRUM</u>

The table below shows that there were registry updates for three new connections completed of which all three were late. All three were checked and found,

- one was a correction where the original update was on time, and
- two were due to delays in receiving the certification information from the ATH.

I was unable to accurately determine the total number of updates after recertification due to duplication in the audit compliance report between AC020MEP04 (metering update after recertification) and AC020MEP01 (new MEP not a new connection). The audit compliance report identified 42 late updates. I checked a sample of ten and found,

- four were corrections where the original update was on time,
- three were due to processing delays by the MEP, and
- three were due to delays in receiving the certification information from the ATH.

Event	Year	Total ICPs	ICPs notified within ten days	ICPs notified greater than ten days	Average notification days	Percentage compliant
New connection	2017	145	138	7	5.7	95.2%
	2018	2,297	2,141	156	4.5	93.2%
	2019	2,297	2,181	116	-	95%
	2020	499	439	60	-	88%
	2021	103	68	35	-	66%
	2022	9	5	4	-	55.56%
	2024	3	0	3	16	0%
Recertification	2017	17,776	5,756	12,020	24.7	32.4%
	2018	6,361	4617	1,774	129	72.6%

2024	Unable to determine	Unable to determine	36	Unable to determine	Unable to determine
2022	Unable to determine	Unable to determine	16	Unable to determine	Unable to determine
2021	187	145	42	16.69	77.54%
2020	306	268	38	15.33	88%
2019	44,770	43,991	779	14.6	98%

<u>LMGL</u>

The table below shows that there were registry updates for 196 new connections completed of which 45 were late, and 77.04% of updates were compliant. Of the 45 late updates, 17 were due to late nomination by the trader (the nominations were made later than ten business days after event). I checked a sample of ten of the remaining 28 late updates, and found:

- two where the trader nomination was received ten business days after the event,
- three were corrections where the original update was on time,
- two were due to processing delays by the MEP,
- one was due to the late update of an ICP split by the distributor, and
- two were due to delays in receiving the certification information from the ATH.

I was unable to accurately determine the total number of updates after recertification due to duplication in the audit compliance report between AC020MEP04 (metering update after recertification) and AC020MEP01 (new MEP not a new connection). The audit compliance report identified 36 late updates. I checked a sample of ten and found:

- one was a correction where the original update was on time,
- eight were due to processing delays by the MEP, and
- one was due to the late updating of cancellation of certification.

Event	Year	Total ICPs	ICPs notified within ten days	ICPs notified greater than ten days	Average notification days	Percentage compliant
New connection	2021	778	706	72	-	90.75%
	2022	556	520	36	-	93.53%
	2024	196	151	45	-	77.04%
Recertification	2021	343	220	123	83.31	64.14%
	2022	Unable to determine	Unable to determine	18	Unable to determine	Unable to determine
	2024	Unable to determine	Unable to determine	36	Unable to determine	Unable to determine

Audit outcome

Non-compliant

Non-compliance	Description				
Audit Ref: 4.10	Some records updated on the registry la	ter than ten busin	ess days.		
With: Clause 3 of	Potential impact: Low				
Schedule 11.4	Actual impact: Low				
	Audit history: Multiple times				
From: 01-Jan-23	Controls: Moderate				
To: 22-Dec-23	Breach risk rating: 2				
Audit risk rating	Rationale for	audit risk rating			
Low	I have recorded the controls as moderate in this area because they reduce risk most of the time but there is still room for improvement, especially with new connection updates. The late updates for new connections occurred after the trader had populated their records, therefore the impact on participants, customers or settlement is minor, therefore the audit risk rating is low				
Actions ta	aken to resolve the issue	Completion date	Remedial action status		
Check discrepancy report	ing to identify MEP related issues.	Ongoing	Identified		
Preventative actions take	en to ensure no further issues will occur	Completion date			
As per Participants Respo	nse	Ongoing			

4.11. Metering Infrastructure (Clause 10.39(1))

Code reference

Clause 10.39(1)

Code related audit information

The MEP must ensure that for each metering installation:

- an appropriately designed metering infrastructure is in place,
- each metering component is compatible with, and will not interfere with any other component in the installation,
- collectively, all metering components integrate to provide a functioning system,
- each metering installation is correctly and accurately integrated within the associated metering infrastructure.

Audit observation

FCLM

FCLM metering infrastructure was examined as part of this audit to confirm compliance.

<u>TRUM</u>

TRUM metering infrastructure was examined as part of this audit to confirm compliance.

<u>LMGL</u>

LMGL metering infrastructure was examined as part of this audit to confirm compliance.

Audit commentary

FCLM

FCLM metering infrastructure was examined as part of this audit, and I confirm compliance.

<u>TRUM</u>

TRUM metering infrastructure was examined as part of this audit, and I confirm compliance.

<u>LMGL</u>

LMGL metering infrastructure was examined as part of this audit, and I confirm compliance.

Audit outcome

Compliant

4.12. Decommissioning of an ICP (Clause 10.23A)

Code reference

Clause 10.23A

Code related audit information

If a metering installation at an ICP is to be decommissioned, but the ICP is not being decommissioned, the MEP that is responsible for decommissioning the metering installation must:

- if the MEP is responsible for interrogating the metering installation, arrange for a final interrogation to take place before the metering installation is decommissioned, and provide the raw meter data from the interrogation to the responsible trader,
- if another participant is responsible for interrogating the metering installation, advise the other participant not less than 3 business days before the decommissioning of the time and date of the decommissioning, and that the participant must carry out a final interrogation.

To avoid doubt, if a metering installation at an ICP is to be decommissioned because the ICP is being decommissioned:

- the trader, not the MEP, is responsible for arranging a final interrogation of the metering installation,
- the responsible trader must arrange for a final interrogation of the metering installation.

Audit observation

<u>FCLM</u>

I checked whether FCLM was the MEP at any decommissioned metering installations and whether notification had been provided to relevant traders.

<u>TRUM</u>

I checked whether TRUM was the MEP at any decommissioned metering installations and whether notification had been provided to relevant traders.

<u>LMGL</u>

I checked whether LMGL was the MEP at any decommissioned metering installations and whether notification had been provided to relevant traders.

Audit commentary

<u>FCLM</u>

There were no examples of decommissioned metering installations where the ICP was not decommissioned.

<u>TRUM</u>

There were no examples of decommissioned metering installations where the ICP was not decommissioned.

<u>LMGL</u>

There were no examples of decommissioned metering installations where the ICP was not decommissioned.

Audit outcome

Compliant

4.13. Measuring Transformer Burden and Compensation Requirements (Clause 31(4) and (5) of Schedule 10.7)

Code reference

Clause 31(4) and (5) of Schedule 10.7

Code related audit information

The MEP must, before approving the addition of, or change to, the burden or compensation factor of a measuring transformer in a metering installation, consult with the ATH who certified the metering installation.

If the MEP approves the addition of, or change to, the burden or compensation factor, it must ensure the metering installation is recertified by an ATH before the addition or change becomes effective.

Audit observation

FCLM

I asked FCLM whether they had approved any burden changes during the audit period.

<u>TRUM</u>

I asked TRUM whether they had approved any burden changes during the audit period.

<u>LMGL</u>

I asked LMGL whether they had approved any burden changes during the audit period.

Audit commentary

<u>FCLM</u>

There have not been any examples of burden changes occurring during the audit period except at the time of recertification.

<u>TRUM</u>

There have not been any examples of burden changes occurring during the audit period except at the time of recertification.

<u>LMGL</u>

There have not been any examples of burden changes occurring during the audit period and no certification of category 2 and above metering installations was conducted.

Audit outcome

Compliant

4.14. Changes to Software ROM or Firmware (Clause 39(1) and 39(2) of Schedule 10.7)

Code reference

Clause 39(1) and 39(2) of Schedule 10.7

Code related audit information

The MEP must, if it proposes to change the software, ROM or firmware of a data storage device installed in a metering installation, ensure that, before the change is carried out, an approved test laboratory:

- tests and confirms that the integrity of the measurement and logging of the data storage device would be unaffected,
- documents the methodology and conditions necessary to implement the change,
- advises the ATH that certified the metering installation of any change that might affect the accuracy of the data storage device.

The MEP must, when implementing a change to the software, ROM or firmware of a data storage device installed in a metering installation:

- carry out the change in accordance with the methodology and conditions identified by the approved test laboratory under clause 39(1)(b),
- keep a list of the data storage devices that were changed,
- update the metering records for each installation affected with the details of the change and the methodology used.

Audit observation

FCLM

I checked if there were any examples of changes in accordance with these clauses.

<u>TRUM</u>

I checked if there were any examples of changes in accordance with these clauses.

<u>LMGL</u>

I checked if there were any examples of changes in accordance with these clauses.

Audit commentary

<u>FCLM</u>

FCLM has conducted updates of the communications firmware of their EDMI meters. The update process was examined during the last audit, and it was confirmed that there was no effect on the integrity of the metering or data storage functions of the meters.

<u>TRUM</u>

TRUM is not the MEP for any installations where changes to ROM, software or firmware have occurred.

<u>LMGL</u>

LMGL is not the MEP for any installations where changes to ROM, software or firmware have occurred.

Audit outcome

Compliant

4.15. Temporary Electrical Connection (Clause 10.29A)

Code reference

Clause 10.29A

Code related audit information

An MEP must not request that a grid owner temporarily electrically connect a POC to the grid unless the MEP is authorised to do so by the grid owner responsible for that POC and the MEP has an arrangement with that grid owner to provide metering services.

Audit observation

<u>FCLM</u>

FCLM is not responsible for any grid metering.

TRUM

TRUM is not responsible for any grid metering.

<u>LMGL</u>

LMGL is not responsible for any grid metering.

Audit commentary

<u>FCLM</u>

FCLM is not responsible for any grid metering.

TRUM

TRUM is not responsible for any grid metering.

<u>LMGL</u>

LMGL is not responsible for any grid metering.

Audit outcome

Compliant

4.16. Temporary Electrical Connection (Clause 10.30A)

Code reference

Clause 10.30A

Code related audit information

An MEP must not request that a distributor temporarily electrically connect an NSP that is not a POC to the grid unless the MEP is authorised to do so by the reconciliation participant responsible for that NSP and the MEP has an arrangement with that reconciliation participant to provide metering services.

Audit observation

<u>FCLM</u>

I checked if any NSPs where FCLM is the MEP had been temporarily electrically connected during the audit period.

<u>TRUM</u>

TRUM is not the MEP for any NSPs.

<u>LMGL</u>

LMGL is not the MEP for any NSPs.

Audit commentary

FCLM

There were no temporary electrical connections of NSPs where FCLM is the MEP during the audit period.

<u>TRUM</u>

TRUM is not the MEP for any NSPs.

<u>LMGL</u>

LMGL is not the MEP for any NSPs.

Audit outcome

Compliant

4.17. Temporary Electrical Connection (Clause 10.31A)

Code reference

Clause 10.31A

Code related audit information

Only a distributor may, on its network, temporarily electrically connect an ICP that is not an NSP. A MEP may only request the temporary electrical connection of the ICP if it is for the purpose of certifying a metering installation, or for maintaining, repairing, testing, or commissioning a metering installation at the ICP.

Audit observation

Clause 10.33 is also relevant to this audit because it outlines responsibilities for traders and MEPs in relation to temporary electrical connection.

<u>FCLM</u>

I checked for examples where the metering installation certification date was prior to the initial electrical energisation date of the ICP to determine whether there were any examples of temporary electrical connection for the purposes of testing and certification.

<u>TRUM</u>

I checked for examples where the metering installation certification date was prior to the initial electrical energisation date of the ICP to determine whether there were any examples of temporary electrical connection for the purposes of testing and certification.

<u>LMGL</u>

I checked for examples where the metering installation certification date was prior to the initial electrical energisation date of the ICP to determine whether there were any examples of temporary electrical connection for the purposes of testing and certification.

Audit commentary

FCLM

No examples of temporary electrical connection were identified.

<u>TRUM</u>

No examples of temporary electrical connection were identified.

LMGL

No examples of temporary electrical connection were identified.

Audit outcome

Compliant

5. METERING RECORDS

5.1. Accurate and Complete Records (Clause 4(1)(a) and (b) of Schedule 10.6, and Table 1, Schedule 11.4)

Code reference

Clause 4(1)(a) and (b) of Schedule 10.6, and Table 1, Schedule 11.4

Code related audit information

The MEP must, for each metering installation for which it is responsible, keep accurate and complete records of the attributes set out in Table 1 of schedule 11.4. These include:

- a) the certification expiry date of each metering component in the metering installation
- *b)* all equipment used in relation to the metering installation, including serial numbers and details of the equipment's manufacturer,
- c) the manufacturer's or (if different) most recent test certificate for each metering component in the metering installation,
- d) the metering installation category and any metering installations certified at a lower category,
- e) all certification reports and calibration reports showing dates tested, tests carried out, and test results for all metering components in the metering installation,
- f) the contractor who installed each metering component in the metering installation,
- *g)* the certification sticker, or equivalent details, for each metering component that is certified under schedule 10.8 in the metering installation:
- *h*) any variations or use of the 'alternate certification' process,
- i) seal identification information,
- j) any applicable compensation factors,
- k) the owner of each metering component within the metering installation,
- *I)* any applications installed within each metering component,
- *m*) the signed inspection report confirming that the metering installation complies with the requirements of Part 10.

Audit observation

FCLM

I checked all registry records and the certification records for 65 metering installations to evaluate compliance with this clause.

<u>TRUM</u>

I checked all registry records and the certification records for 20 metering installations to evaluate compliance with this clause. I also checked the latest category 1 inspection reports.

<u>LMGL</u>

I checked all registry records and the certification records for 20 metering installations to evaluate compliance with this clause. I also checked the latest category 1 inspection reports.

Audit commentary

FCLM

Some issues were identified with the content of certification reports and registry records. They are listed in the table below:

Quantity Jan 2024	Quantity Nov 2022	Quantity Dec 2021	Quantity Nov 2020	Issue	
0	5	12	0	Certification reports not provided; in many cases, job completion notes were supplied instead	
23	21	-	-	All test results were not recorded	
0	0	1	0	Incorrect metering category	
9	3	4	7	Incorrect ATH in registry	
0	0	3	0	Meter certification date and certifying ATH not recorded	
0	0	0	0	Meter certification expiry date not recorded	
16	30	12	4	HHR/NHH, maximum interrogation cycle or service access interface not correctly recorded correctly	
0	0	2	0	CT expiry date earlier than installation expiry date	
0	1	7	4	Incorrect installation certification expiry date	
0	0	1	0	Incorrect installation certification date	
0	0	6	7	CT metered installations without measuring transformer information on the registry	
0	1	4	0	Incorrect certification method	
0	0	10	0	Validity period not recorded	
0	8	9	0	Burden range not recorded	
0	0	17	0	CTs recorded as certified without re-calibration	
1	-	-	-	Design report reference not included in certification report	
4	-	-	-	Details of certification at a lower category not included in certification report	

<u>TRUM</u>

Some issues were identified with the content of certification reports and registry records. They are listed in the table below:

Quantity Jan 2024	Quantity Nov 2022	Quantity Dec 2021	Quantity Nov 2020	Quantity Nov 2019	Quantity Apr 2019	Issue
0	1	5	0	0	0	Certification reports not provided; in some cases, job completion notes were provided
14	16	-	-	-	-	All test results not recorded
0	0	0	0	0	0	Incorrect metering category
2	6	3	20	1	38	Incorrect ATH in registry
0	0	11	0	0	13	Meter certification date and certifying ATH not recorded
0	0	0	0	0	6	Meter certification expiry date not recorded
1	4	1	11	0	6 (HHR/NH H)	HHR/NHH, maximum interrogation cycle or services access interface not recorded correctly
0	0	0	0	0	0	CT expiry date earlier than installation expiry date
0	1	4	0	0	0	Incorrect installation certification expiry date
0	0	1	0	0	7	Incorrect installation certification date
0	0	0	0	-	-	CT metered installations without measuring transformer information on the registry

The inspection process identified the following incorrect TRUM data fields out of 316 inspections of TRUM and LMGL metering installations:

Quantity Jan 2024	Quantity Nov 2022	Quantity Dec 2021	Quantity Nov 2019	Quantity April 2019	Issue
14	9	27	22	24	TARIFF ERROR – meter configuration discrepancy
0	0	0	0	19	CERT EXPIRY – Installation Expiry date incorrectly recorded
0	0	0	0	34	RELAY DETAILS – incorrect details in records

LMGL

Some issues were identified with the content of certification reports and registry records. They are listed in the table below:

Quantity Jan 2024	Quantity Nov 2022	Quantity Dec 2021	Issue
0	15	3	Certification reports not provided, in some cases, job completion notes were provided
12	18	-	All test results not recorded
0	0	0	Incorrect metering category
2	2	0	Incorrect ATH in registry
0	0	1	Meter certification date not recorded
0	0	0	Meter certification expiry date not recorded
1	18	1	HHR/NHH, maximum interrogation cycle or services access interface not recorded correctly
0	0	0	CT expiry date earlier than installation expiry date
0	0	0	Incorrect installation certification expiry date
0	0	0	Incorrect installation certification date
0	0	0	CT metered installations without measuring transformer information on the registry
0	0	1	Certification method not recorded
0	0	1	Burden range not recorded

The inspection process identified the following incorrect LMGL data fields out of 316 inspections of TRUM and LMGL metering installations:

Quantity Jan 2024	Quantity Nov 2022	Quantity Dec 2021	Issue
1	6	8	TARIFF ERROR – meter configuration discrepancy
	0	0	CERT EXPIRY – Installation Expiry date incorrectly recorded
	0	0	RELAY DETAILS – incorrect details in records

Audit outcome

Non-compliant

Non-compliance	Description					
Audit Ref: 5.1	Some inaccurate or incomplete certificat	tion records.				
With: Clause 4(1) of	Potential impact: Medium					
Schedule 10.6	Actual impact: Low					
	Audit history: Multiple times					
From: 01-Jan-23	Controls: Moderate					
To: 22-Dec-23	Breach risk rating: 2					
Audit risk rating	Rationale for audit risk rating					
Low	I have recorded the controls as moderate because there is room for improvement.					
	There is a minor impact on other particip	oants; therefore, t	he audit risk rating is low.			
Actions ta	aken to resolve the issue	Completion date	Remedial action status			
Identified records update	d	01/05/2024	Identified			
Preventative actions take	en to ensure no further issues will occur	Completion date				
Regular meetings schedul	ed with ATHs	Ongoing				
Checks on returned certs.						

5.2. Inspection Reports (Clause 4(2) of Schedule 10.6)

Code reference

Clause 4(2) of Schedule 10.6

Code related audit information

The MEP must, within ten business days of receiving a request from a participant for a signed inspection report prepared under clause 44 of Schedule 10.7, make a copy of the report available to the participant.

Audit observation

FCLM

I asked FCLM whether any requests had been made for copies of inspection reports.

TRUM

I asked TRUM whether any requests had been made for copies of inspection reports.

<u>LMGL</u>

I asked LMGL whether any requests had been made for copies of inspection reports.

Audit commentary

<u>FCLM</u>

FCLM has not been requested to supply any inspection reports, but these are available and can be supplied on request.

<u>TRUM</u>

TRUM has not been requested to supply any inspection reports, but these are available and can be supplied on request.

<u>LMGL</u>

LMGL has not been requested to supply any inspection reports, but these are available and can be supplied on request.

Audit outcome

Compliant

5.3. Retention of Metering Records (Clause 4(3) of Schedule 10.6)

Code reference

Clause 4(3) of Schedule 10.6

Code related audit information

The MEP must keep metering installation records for 48 months after any metering component is removed, or any metering installation is decommissioned.

Audit observation

<u>FCLM</u>

I checked the FCLM record keeping processes to confirm compliance.

<u>TRUM</u>

I checked the TRUM record keeping processes to confirm compliance.

LMGL

I checked the LMGL record keeping processes to confirm compliance.

Audit commentary

<u>FCLM</u>

FCLM keeps metering records indefinitely.

TRUM

TRUM keeps metering records indefinitely.

<u>LMGL</u>

LMGL keeps metering records indefinitely.

Audit outcome

Compliant

5.4. Provision of Records to ATH (Clause 6 Schedule 10.6)

Code reference

Clause 6 Schedule 10.6

Code related audit information

If the MEP contracts with an ATH to recertify a metering installation and the ATH did not previously certify the metering installation, the MEP must provide the ATH with a copy of all relevant metering records not later than ten business days after the contract comes into effect.

Audit observation

<u>FCLM</u>

FCLM has provided information to ATH's in the past and this may occur in future. There are no current examples to examine.

<u>TRUM</u>

TRUM has provided information to ATH's in the past and this may occur in future. There are no current examples to examine.

<u>LMGL</u>

LMGL has provided information to ATH's in the past and this may occur in future. There are no current examples to examine.

Audit commentary

FCLM

FCLM will comply with this requirement as it arises. There are no current examples where this has occurred.

<u>TRUM</u>

TRUM will comply with this requirement as it arises. There are no current examples where this has occurred.

<u>LMGL</u>

LMGL will comply with this requirement as it arises. There are no current examples where this has occurred.

Audit outcome

Compliant

6. MAINTENANCE OF REGISTRY INFORMATION

6.1. MEP Response to Switch Notification (Clause 1(1) of Schedule 11.4)

Code reference

Clause 1(1) of Schedule 11.4

Code related audit information

Within ten business days of being advised by the registry manager that it is the gaining MEP for the metering installation for the ICP, the MEP must enter into an arrangement with the trader and advise the registry manager it accepts responsibility for the ICP and of the proposed date on which it will assume responsibility.

Audit observation

FCLM

I checked the switch breach history detail report to confirm whether all responses were within ten business days.

TRUM

I checked the switch breach history detail report to confirm whether all responses were within ten business days.

<u>LMGL</u>

I checked the switch breach history detail report to confirm whether all responses were within ten business days.

Audit commentary

FCLM

The switch breach history detail report for the audit period contained 61 ICPs where the FCLM response was later than ten business days.

<u>TRUM</u>

The switch breach history detail report for the audit period contained 14 ICPs where the TRUM response was later than ten business days. All 14 were rejected as no work orders had been received from the trader or another MEPs metering had been installed.

<u>LMGL</u>

The switch breach history detail report for the audit period contained three ICPs where the LMGL response was later than ten business days. All three were rejected as another MEPs metering had been installed.

Audit outcome

Non-compliant

Non-compliance	Des	cription			
Audit Ref: 6.1	78 late MN files.				
With: 1(1) of Schedule	Potential impact: Low				
11.4	Actual impact: None				
	Audit history: Multiple times				
From: 01-Jan-23	Controls: Strong				
To: 22-Dec-23	Breach risk rating: 1				
Audit risk rating	Rationale for audit risk rating				
Low	The controls are recorded as strong because they mitigate risk to an acceptable level.				
	There was no impact; therefore, the au	dit risk rating is lo	w.		
Actions ta	iken to resolve the issue	Completion date	Remedial action status		
Files were accepted		Ongoing	Identified		
Preventative actions t	aken to ensure no further issues will occur	Completion date			
Review acceptance proce	dure.	01/10/2024			

6.2. Provision of Registry Information (Clause 7 (1), (2) and (3) of Schedule 11.4)

Code reference

Clause 7 (1), (2) and (3) of Schedule 11.4

Code related audit information

The MEP must provide the information indicated as being 'required' in Table 1 of clause 7 of Schedule 11.4 to the registry manager, in the prescribed form for each metering installation for which the MEP is responsible.

The MEP does not need to provide 'required' information if the information is only for the purpose of a distributor direct billing consumers on its network.

From 1 April 2015, a MEP is required to ensure that all the registry metering records of its category 1 metering installations are complete, accurate, not misleading or deceptive, and not likely to mislead or deceive.

The information the MEP provides to the registry manager must derive from the metering equipment provider's records or the metering records contained within the current trader's system.

Audit observation

<u>FCLM</u>

I checked the audit compliance report and list file to identify discrepancies.

<u>TRUM</u>

I checked the audit compliance report and list file to identify discrepancies.

<u>LMGL</u>

I checked the audit compliance report and list file to identify discrepancies.

Audit commentary

<u>FCLM</u>

Analysis of the list file and audit compliance report for all FCLM ICPs found the issues detailed in the table below:

Jan 2024	Nov 2022	Dec 2021	Oct 2020	Nov 2019	Apr 2019	Jul 2018	Issue	FCLM comment
6	7	10	2	3	11	30	Blank metering records	Unmetered, decommissioned, meters removed or FCLM meters never installed
0	0	6	3	0	0	0	Category 2 ICP recorded as category 1	-
0	1	-	-	-	-	-	Incorrect category	-
1	2	1	1	1	0	0	Compensation factor of 3 on recently certified installations	Registry error has been corrected, compensation factor = x1
0	0	0	0	0	0	1	ICPs over category 1 with interim certification	-
0	0	0	0	0	0	15	ICPs with Y for the HHR flag but with NHH installations	-
0	5	2	2	1	0	1	Category 2 installations certified for more than ten years or for zero years (cert date = expiry date)	-
0	1	1	0	1	0	1	Category 4 installations certified for more than five years	-
0	0	0	2	2	6	3	Category 1 installations certified for more than 15 years or for zero years (cert date = expiry date)	-
2	5	0	0	2	-	-	Day + Night not equal to 24	Corrected
0	2	3	8	10	2	1	ICPs with IN24. The EA has advised that IN24 should not be used.	-
0	0	0	0	0	0	0	ICPs with IN0	-

0	0	3	3	3	0	0	ICPs with UN0	-
0	0	0	1	1	-	-	ICPs with UN19	-
0	0	1	-	-	-	-	ICPs with UN12	-
1	3	0	1	1	0	0	Day without night	Corrected
2	3	5	5	3	3	296	Night without day	Corrected
0	0	0	0	0	0	3	CN only, these should have an associated code, or they could be IN	-
3,224	3,555	3,632	73	189	12	592	Controlled load with no control device	Mostly AMI not communicating EDMI meters with integrated relay
140	133	276	174	195			UN only with a relay installed	Historical data not held by FCLM; update on compliance rollout
0	2	6	7	8	19	56	Installations without CT information populated on the registry	-
1	1	2	2	2	0	0	Interim certification expiry dates incorrect	0000001057ED281
0	0	0	0	1	2	2	Category 3 or 4 with a NHH meter installation type	-
0	0	6	0	3			Category 1 with CTs.	-
0	1	3	4	2			Certification or expiry dates incorrect	-
73	286	11	7	-	-	-	Incorrect ATH Identifier	Corrected

<u>TRUM</u>

Analysis of the audit compliance report for all TRUM ICPs found the issues detailed in the table below:

Jan 2024	Nov 2022	Dec 2021	Oct 2020	Nov 2019	Dec 2018	Dec 2017	Issue	TRUM Response
3,790	4,771	5,620	7,602	11,94 9	2	46	No control device information on the registry.	Working through these continuously - low impact numbers have reduced

14	19	1	21	28	0	0	Blank metering records on the registry.	Unmetered, decommissioned, meters removed, or TRUM meters never installed
27	0	0	47	47	-	-	Day + Night not equal to 24	Ok, all are NC/DC
0	0	0	0	0	0	0	Day without night.	-
0	0	0	1	0	0	1	Night without day.	-
0	0	0	0	0	0	1	UN12 - these are metered streetlights. They are likely to be NC12, but this needs to be confirmed.	-
170	231	270	353	488	1,474	1680	UN only with a relay installed	Working through these continuously on compliance and Legacy to Smart
0	0	0	2	2	0	0	HHR profile with NHH meter.	-
0	0	0	0	0	0	1	Category 2 with no CTs on the registry.	-
1	0	0	0	1	30	957	Certification or expiry dates incorrect	0000545312NR81F
6	7	5	11	11	13	22	Compensation factor of 3 certified after 29/08/13.	Certification cancelled, project in progress to replace meters
0	0	0	0	0	0	2	Category 1 with CTs.	-
17	22	26	30	37	58	18	CN only on residential ANZSIC code (these are all pumps and are correct)	All correct
2	4	2	-	-	-	-	Incorrect ATH identifier of NPOW	Corrected

<u>LMGL</u>

Analysis of the audit compliance report for all LMGL ICPs found the issues detailed in the table below:

Jan 2022	Nov 2022	Dec 2021	Issue	LMGL Response

2,863	3,653	4,028	No control device information on the registry.	Data quality on acquisition
3	3	25	Blank metering records on the registry.	Unmetered, decommissioned and investigating
0	1	6	Day + Night not equal to 24	-
0	0	0	Day without night.	-
0	2	1	Night without day.	-
0	0	0	UN without POA of 24	-
24	35	53	UN only with a relay installed	Data Quality
0	0	0	HHR profile with NHH meter.	-
0	0	0	Category 2 with no CTs on the registry.	-
1	3	12	Certification or expiry dates incorrect	0000514953DE29A
26	43	0	Compensation factor of 3 certified after 29/08/13.	Certification cancelled, project in progress to replace meters
0	0	0	Category 1 with CTs.	-
0	0	0	CN only on residential ANZSIC code	-
71	86	0	Incorrect ATH identifier of VEMS instead of VCOM.	Working through corrections
2	2	-	Incorrect ATH identifier.	Corrected

Audit outcome

Non-compliant

Non-compliance	Description				
Audit Ref: 6.2	Some registry records are incomplete or incorrect.				
and (3) of Schedule	Potential impact: Medium				
11.4	Actual impact: Low				
	Audit history: Multiple times				
From: 01-Jan-23	Controls: Strong				
To: 22-Dec-23	Breach risk rating: 1				
Audit risk rating	Rationale for audit risk rating				

Low	I have recorded the controls as strong in this area as the number of discrepancies is low and continues to decrease. Very few of the discrepancies have an impact on participants, customers or settlement. The only relevant ones in this regard are tariff-related and there were only a small number. The audit risk rating is low.				
Actions ta	aken to resolve the issue	Completion date	Remedial action status		
Look to carry out data qu data and consolidate ME	ality scrubbing as we look to migrate ² Codes	01/10/2024	Identified		
Preventative actions take	en to ensure no further issues will occur	Completion date			
Control current and new	data collected and submitted	01/10/2024			

6.3. Correction of Errors in Registry (Clause 6 of Schedule 11.4)

Code reference

Clause 6 of Schedule 11.4

Code related audit information

By 0900 hours on the 13th business day of each reconciliation period, the MEP must obtain from the registry:

- a list of ICPs for the metering installations the MEP is responsible for,
- the registry metering records for each ICP on that list.

No later than five business days following collection of data from the registry, the MEP must compare the information obtained from the registry with the MEP's own records.

Within five business days of becoming aware of any discrepancy between the MEP's records and the information obtained from the registry, the MEP must correct the records that are in error and advise the registry manager of any necessary changes to the registry metering records.

Audit observation

FCLM

I conducted a walkthrough of the validation processes to confirm compliance.

TRUM

I conducted a walkthrough of the validation processes to confirm compliance.

<u>LMGL</u>

I conducted a walkthrough of the validation processes to confirm compliance.

Audit commentary

Influx now uses the same daily "Discrepancy Manager" process for all three MEP codes.

<u>FCLM</u>

FCLM runs a discrepancy report on a nightly basis, exceptions are reported daily, and corrections are made within five days of confirming an error is present. I checked examples of recent reports to confirm the process was followed.

<u>TRUM</u>

TRUM runs a discrepancy report on a nightly basis, exceptions are reported daily, and corrections are made within five days of confirming an error is present. I checked examples of recent reports to confirm the process was followed.

<u>LMGL</u>

LMGL runs a discrepancy report on a nightly basis, exceptions are reported daily, and corrections are made within five days of confirming an error is present. I checked examples of recent reports to confirm the process was followed.

Audit outcome

Compliant

6.4. Cancellation of Certification (Clause 20 of Schedule 10.7)

Code reference

Clause 20 of Schedule 10.7

Code related audit information

The certification of a metering installation is automatically cancelled on the date on which one of the following events takes place:

- a) the metering installation is modified otherwise than under sub clause 19(3), 19(3A) or 19(3C),
- b) the metering installation is classed as outside the applicable accuracy tolerances set out in Table 1 of Schedule 10.1, defective or not fit for purpose under this Part or any audit,
- c) an ATH advises the metering equipment provider responsible for the metering installation of a reference standard or working standard used to certify the metering installation not being compliant with this Part at the time it was used to certify the metering installation, or the failure of a group of meters in the statistical sampling recertification process for the metering installation, or the failure of a certification test for the metering installation,
- d) the manufacturer of a metering component in the metering installation determines that the metering component does not comply with the standards to which the metering component was tested,
- e) an inspection of the metering installation, that is required under this Part, is not carried out in accordance with the relevant clauses of this Part,
- *f) if the metering installation has been determined to be a lower category under clause 6 and:*
 - a. the MEP has not received the report under 6(2A)(a) or 6(2A)(b); or
 - b. the report demonstrates the maximum current is higher than permitted; or
 - c. the report demonstrates the electricity conveyed exceeds the amount permitted,
- g) the metering installation is certified under clause 14 and sufficient load is available for full certification testing and has not been retested under clause 14(4),
- *h*) a control device in the metering installation certification is, and remains for a period of at least ten business days, bridged out under clause 35(1),
- *i)* the metering equipment provider responsible for the metering installation is advised by an ATH under clause 48(6)(b) that a seal has been removed or broken and the accuracy and continued integrity of the metering installation has been affected.
- j) the installation is an HHR AMI installation certified after 29 August 2013 and

- a. the metering installation is not interrogated within the maximum interrogation cycle; or
- b. the HHR and NHH register comparison is not performed; or
- c. the HHR and NHH register comparison for the same period finds a difference of greater than 1 kWh and the issue is not remediated within three business days.

A metering equipment provider must (unless the installation has been recertified within the ten business days) within ten business days of becoming aware that one of the events above has occurred in relation to a metering installation for which it is responsible, update the metering installation's certification expiry date in the registry.

If any of the events in clause 20(1)(j) of schedule 10.7 have occurred, update the AMI flag in the registry to 'N'.

Audit observation

<u>FCLM</u>

I checked for examples of all of the points listed above, and checked whether certification had been cancelled, and whether the registry had been updated within ten business days.

TRUM

I checked for examples of all of the points listed above, and checked whether certification had been cancelled, and whether the registry had been updated within ten business days.

<u>FCLM</u>

I checked for examples of all of the points listed above, and checked whether certification had been cancelled, and whether the registry had been updated within ten business days.

Audit commentary

FCLM

I checked all of the points mentioned above and found the following:

Insufficient load certification

There was one example of insufficient load certification conducted during the audit period at ICP 0000172643CKF6D. The ATH returned and completed testing within a week of the initial certification when sufficient load became available. There was no need for monitoring to be conducted and the testing confirmed the accuracy of the metering installation.

Lower Category certification

FCLM has expanded its monthly monitoring process to include monitoring of all ICPs. The monitoring now identifies any ICPs that have exceeded the category limit that they are certified under. ICPs that exceed the threshold are followed up by the technical team and will include any that are certified at a lower category. There were no examples of metering installations certified at a lower category exceeding the category limits or not being monitored during the audit period.

Low Burden

I checked for examples of low burden on CT metered installations. The Code requires ATHs to: *"ensure that the in-service burden on the measuring transformer is within the range specified in the certification report for the measuring transformer by installing burdening resistors to increase the in-service burden if necessary"*. Analysis of the certification records for 30 category 2 and above metering installations found none were certified with burden lower than the lowest test point during the audit period.

There was one metering installation recorded in the previous two audits as being certified with low burden where certification was cancelled but the registry was not updated, and the registry had not been

updated at the commencement of this audit. Non-compliance is recorded for this ICP as certification was not cancelled within ten business days.

ІСР	Certification date	ATH	CT make/ model	Ratio	Rated burden	Lowest in- service burden	Comment
0000616050WPE6E	16 June 2021	WELL	TWS	300/5	5VA	1.12	No burden resistors added

Inspection

I checked the registry records to identify category 2 and above ICPs where inspections were due. There were nine category 3, three category 4 and one category 5 metering installations due to be inspected during the audit period. Inspections were conducted for all but two category 3 metering installations and certification was not cancelled within ten business days. The inspection jobs were issued to the ATH but were not completed due to lack of staff resources. Non-compliance is recorded in this section as the certification was not cancelled within ten business days of the latest inspection date and in **section 8.2** for not conducting the inspections.

ICP	Category	Certification date	Latest inspection date
0000103297TRA98	3	15 August 2018	15 November 2023
0000189556TRF55	3	4 April 2018	4 July 2023

Maximum interrogation cycle

I checked for examples where meters were not interrogated within the maximum interrogation and the AMI flag is still "Y" and certification was not cancelled. As recorded in **section 10.5** the Influx process ensures that the AMI flag is switched to "N" before the maximum interrogation cycle is reached, there were no examples of meters exceeding the maximum interrogation cycle.

Sum-check failure

As recorded in **section 10.9**, 23 ICPs failed sum-check and the cause was not remediated within three business days, therefore certification is cancelled. Analysis of the 23 cases in the report found that work orders had been issued to replace the meters and 19 of the meters had been replaced and the metering installations recertified, but only one was completed within ten business days. There was no process to cancel certification on the registry within ten business days and cancellation only happens at the time of recertification. Non-compliance is recorded for the 22 ICPs that had failed sum-check and were not resolved within three business days where the registry was not updated with the cancellation within ten business days. Prior to completion of the audit FCLM advised that an automated step had been added to the process which will cancel certification of the metering installation when a failed sum-check is not remedied within three business days.

<u>TRUM</u>

I checked all the points mentioned above and no issues were found:

Inspection

I checked the registry records to identify category 2 and above ICPs where inspections were due. There were one category 3 and two category 5 metering installations due to be inspected during the audit period. Inspections were conducted for all three metering installations; compliance is recorded for TRUM.

<u>LMGL</u>

I checked all the points mentioned above and found the following:

Inspection

I checked the registry records to identify category 2 and above ICPs where inspections were due. There was one category 3 metering installation due to be inspected during the audit period. The inspection was conducted as required for this metering installation; compliance is recorded for LMGL.

Invalid statistical sampling certification

The previous audit identified eight ICPs with invalid statistical sampling certification for which certification had not been cancelled. At the time of my analysis for this audit three of the eight had not been cancelled. All three were the second metering installations at ICPs with two metering installations where certification had been cancelled for the first metering installation only, these are detailed in the table below:

ІСР	Metering installation number	Certification date	Certification expiry date	Certification number
0000013175MOD98	2	19 October 2020	24 August 2027	LMG_SS_20120-10
0000013700MO38C	2	19 October 2020	24 August 2027	LMG_SS_2020-10
0000021045MO108	2	19 October 2020	24 August 2027	LMG_SS_2020-10

Audit outcome

Non-compliant

Non-compliance	Description						
Audit Ref: 6.4	Certification cancelled and registry not updated for:						
With: Clause 20 of Schedule 10.7	 one installation not fit for purpose due to low burden, two installations without inspections conducted by the due date, 22 installations with sum-check failures not remediated within three business days, and three metering installations with invalid statistical sampling certification. Potential impact: Medium Actual impact: Low 						
	Audit history: Multiple times						
From: 01-Jan-23	Controls: Strong						
To: 05-Mar-24	Breach risk rating: 1						
Audit risk rating	Rationale for	audit risk rating					
Low	I have recorded the controls as strong in responsibility to cancel certification and requiring cancellation.	this area as Influx has good process	x is aware of its es to identify issues				
	The responsibility for the MEP is to cancel certification on the registry once they know certification is cancelled and the impact of not doing this is minor and there are a low number of ICPs which were not cancelled in the required timeframe, therefore the audit risk rating is low.						
Actions ta	aken to resolve the issue	Completion date	Remedial action status				

Raise SR to automate check-sum failure process.	20/03/2024	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Automation of sum check process.	30/04/2024	

6.5. Registry Metering Records (Clause 11.8A)

Code reference

Clause 11.8A

Code related audit information

The MEP must provide the registry manager with the required metering information for each metering installation the MEP is responsible for and update the registry metering records in accordance with Schedule 11.4.

Audit observation

<u>FCLM</u>

This clause refers to schedule 11.4 which is discussed in **section 6.2**, apart from the requirement to provide information in the "prescribed form". I checked for examples of FCLM not using the prescribed form.

<u>TRUM</u>

This clause refers to schedule 11.4 which is discussed in **section 6.2**, apart from the requirement to provide information in the "prescribed form". I checked for examples of TRUM not using the prescribed form.

<u>LMGL</u>

This clause refers to schedule 11.4 which is discussed in **section 6.2**, apart from the requirement to provide information in the "prescribed form". I checked for examples of LMGL not using the prescribed form.

Audit commentary

<u>FCLM</u>

This clause refers to schedule 11.4 which is discussed in **section 6.2**, apart from the requirement to provide information in the "prescribed form". I checked for examples of FCLM not using the prescribed form and did not find any exceptions.

<u>TRUM</u>

This clause refers to schedule 11.4 which is discussed in **section 6.2**, apart from the requirement to provide information in the "prescribed form". I checked for examples of TRUM not using the prescribed form and did not find any exceptions.

<u>LMGL</u>

This clause refers to schedule 11.4 which is discussed in **section 6.2**, apart from the requirement to provide information in the "prescribed form". I checked for examples of LMGL not using the prescribed form and did not find any exceptions.

Audit outcome

Compliant

7. CERTIFICATION OF METERING INSTALLATIONS

7.1. Certification and Maintenance (Clause 10.38 (a), clause 1 and clause 15 of Schedule 10.7)

Code reference

Clause 10.38 (a), clause 1 and clause 15 of Schedule 10.7

Code related audit information

The MEP must obtain and maintain certifications for all installations and metering components for which it is responsible. The MEP must ensure it:

- performs regular maintenance, battery replacement, repair/replacement of components of the metering installations,
- updates the metering records at the time of the maintenance,
- has a recertification programme that will ensure that all installations are recertified prior to expiry.

Audit observation

<u>FCLM</u>

I conducted the following checks to identify metering installations with expired, cancelled or late certification:

- the audit compliance report was checked to identify ICPs with expired certification,
- the new connections process was checked by using the event detail report, PR255 and the list file to identify ICPs where the certification was not conducted within five business days of energisation, and
- I checked ICPs where certification was cancelled to ensure the registry was updated accordingly.

<u>TRUM</u>

I conducted the following checks to identify metering installations with expired, cancelled or late certification:

- the audit compliance report was checked to identify ICPs with expired certification,
- the new connections process was checked by using the event detail report, PR255 and the list file to identify ICPs where the certification was not conducted within five business days of energisation, and
- I checked ICPs where certification was cancelled to ensure the registry was updated accordingly.

<u>LMGL</u>

I conducted the following checks to identify metering installations with expired, cancelled or late certification:

- the audit compliance report was checked to identify ICPs with expired certification,
- the new connections process was checked by using the event detail report, PR255 and the list file to identify ICPs where the certification was not conducted within five business days of energisation, and
- I checked ICPs where certification was cancelled to ensure the registry was updated accordingly.

Audit commentary

Influx provided details of their action plan for recertification of ICPs with expired or cancelled certification for all three participant codes. Details were also provided showing progress made through the audit period and details of issues with access and technical issues preventing recertification. 16% of all recertification jobs attempted by the ATHs have been turned down for the following reasons,

- 9% unable to isolate,
- 12% wiring issues,
- 14% meter board condition,
- 29% customer refusal, and
- 36% require customer contact.

Influx is currently working on developing solution to decrease the rate of turndowns.

A statistical recertification project is currently in progress and is expected to be completed in April 2024; the results after calibration of 489 of the required sample of 500 meters indicate a likely recertification period of at seven years for a total of approximately 40,000 ICPs, of which approximately 8,000 are currently expired or cancelled and the remainder are due to expire in the next few years. The remaining ICPs with expired or cancelled certification have been scheduled as priority for replacement.

Details of the numbers of uncertified ICPs for each Influx MEP code at the time of my analysis are included below.

FCLM

891 ICPs have expired or cancelled certification. The table below gives a breakdown of these.

Jan	Nov	Dec	Oct	Nov	April	Jul	Sep	Description
2024	2022	2021	2020	2019	2019	2018	2017	
190	283	302	702	826	896	1,118	1,648	Expired interim certification
635	751	735	1607	1507	1,572	1800	1,539	Expired full certification (category 1)
52	122	192	137	52	50	67	39	Expired full certification (category 2)
0	0	1	1					Expired alternative certification (category 2)
3	1	0	2	0	2	2	0	Expired full certification (category 3)
4	4	0	0	1	1	0	0	Expired full certification (category 4)
			•					Cancelled certification due to overdue
0	4	0	0	1	0	0	0	inspections (category 2)
2	15	0	0	1	F		0	Cancelled certification due to overdue
2	15	0	0	1	5	0	0	inspections (category 3,4 & 5)
0	2	c	0	2	-	-	0	Cancelled certification due to certification as a
0	2	0	0	3	5	/	9	lower category and monitoring not conducted
1	2	1	11	3	17	0	0	Cancelled due to low burden
								Cancelled certification due to certification as a
0	0	1					lower category and the consumption threshol	
								exceeded
	0							Cancelled certification due to insufficient load
0	0	1						certification without monitoring
0	0	11						Invalid statistical sampling certification
	C	10						Sum-check failures not remediated within
4	b	19						three business days
891	1,190	1,269	2,549	2,395	2,558	2,995	3,236	Total

<u>TRUM</u>

The registry shows 1,565 ICPs have expired or cancelled certification. The table below gives a breakdown of these.

Quantity 2024	Quantity 2022	Quantity 2021	Quantity 2020	Quantity 2019	Description	
0	0	0	1	2	Interim certified without another MEP nominated	
1	1	0	0	1	Interim certified with another MEP nominated	
164	320	379	126	37	Cancelled or expired category 2 installations	
1	2	4	-	-	Cancelled or expired category 3 installations	
0	0	2	-	-	Cancelled or expired category 5 installations	
0	34	17	9	19	Cancelled category 2 due to inspections not conducted within the allowable window	
0	0	0	0	1	Cancelled category 4 due to inspection not conducted within the allowable window	
0	1	-	-	-	Cancelled category 1 due to modification of metering installation	
0	4	-	-	Cancelled category 5 due to inspection conducted within the allowable window		
1,399	1,854	1,014	26	13	Category 1 fully certification expired	
1,565	2,216	1,402	162	73	Total	

<u>LMGL</u>

16,555 ICPs have cancelled or expired certification. The table below gives a breakdown of these.

Quantity	Quantity	Quantity	Description
2024	2022	2021	
0	6	6	Cancelled certification due to late inspections
1	3	-	Cancelled category 3 due to inspection not conducted within the allowable window
15	6	6	Cancelled or expired category 2 installations
579	1,107	137	Category 1 full certification cancelled or expired
15,960	19,274	22,547	Cancelled certification due to invalid statistical sampling
16,555	20,396	22,696	Total

Audit outcome

Non-compliant

Non-compliance	Description					
Audit Ref: 7.1	Certification cancelled or expired for 19,011 ICPs.					
With: Clause 10.38 (a),						
clause 1 and clause 15	Potential impact: High					
of Schedule 10.7	Actual impact: Medium					
	Audit history: Multiple times					
From: 01-Jan-23	Controls: Strong					
To: 05-Mar-24	Breach risk rating: 3					
Audit risk rating	Rationale for audit risk rating					
High	I have recorded the controls as strong in this area as Influx has demonstrated that it is making good progress on its plans to recertify the remaining uncertified metering installations. The impact on settlement is recorded as high because of the increased likelihood of failure or inaccuracy for metering installations with expired certification, therefore the audit risk rating is high					
Actions ta	aken to resolve the issue	Completion date	Remedial action status			
Plan formulated and bein	g actioned.	Ongoing	Identified			
Preventative actions take	en to ensure no further issues will occur	Completion date				
Continue with compliance Sampling and Displaceme	e plan which includes Statistical nt	Ongoing				

7.2. Certification Tests (Clause 10.38(b) and clause 9 of Schedule 10.6)

Code reference

Clause 10.38(b) and clause 9 of Schedule 10.6

Code related audit information

For each metering component and metering installation an MEP is responsible for, the MEP must ensure that:

- an ATH performs the appropriate certification and recertification tests,
- the ATH has the appropriate scope of approval to certify and recertify the metering installation.

Audit observation

<u>FCLM</u>

I checked the certification records for 65 metering installations to confirm compliance.

TRUM

I checked the certification records for 20 metering installations to confirm compliance.

<u>LMGL</u>

I checked the certification records for 20 metering installations to confirm compliance.

Audit commentary

FCLM

Certification activities have been conducted by the Accucal, Delta, Influx, Bluecurrent, Wells and Intellihub ATHs.

Category 2 and above certification tests

The certification records for all 30 category 2 and above metering installations included test results which confirmed that all required testing had been completed.

Category 1 certification tests

I checked a sample of 35 category 1 certification records to confirm if all required testing had been completed. The certification records included confirmation that testing had been conducted. As recorded in **section 5.1** there were a number of certification records with inaccurate or missing information including the results of testing conducted by the Influx ATH. The 23 certification reports checked which were completed by the Influx ATH did not include all details of the raw meter data test. The reports included the details of register advance but did not record the time taken or measurement of the load applied.

<u>TRUM</u>

Certification activities have been conducted by the Accucal, Delta, Influx, Wells and Intellihub ATHs.

Category 1 certification tests

I checked a sample of 19 category 1 certification records to confirm if all required testing had been completed. The certification records included confirmation that testing had been conducted. As recorded in **section 5.1** the 14 certification reports checked which were completed by the Influx ATH did not include all details of the raw meter data test. The reports included the details of register advance but did not record the time taken or measurement of the load applied.

Category 2 and above certification tests

The certification record for one category 5 metering installation included test results which confirmed that all required testing had been completed.

<u>LMGL</u>

Certification activities have been conducted by the Delta, Influx and Wells ATHs.

Category 1 certification tests

I checked a sample of 20 category 1 certification records to confirm if all required testing had been completed. The certification records included confirmation that testing had been conducted. As recorded in **section 5.1** the 12 certification reports checked which were completed by the Influx ATH did not include all details of the raw meter data test. The reports included the details of register advance but did not record the time taken or measurement of the load applied.

Audit outcome

Non-compliant

Non-compliance

Description

Audit Ref: 7.2 With: Clause 10.38(b) and clause 9 of	All test results not recorded in a sample of 49 certification records completed by the Influx ATH.					
Schedule 10.6	Potential impact: Low					
	Actual impact: Low					
	Audit history: Twice					
From: 01-Jan-23	Controls: Strong					
To: 22-Dec-23	Breach risk rating: 1					
Audit risk rating	Rationale for audit risk rating					
Low	The controls are recorded as strong because sufficient testing is conducted to ensure the installation is accurate.					
	The impact is low as the accuracy of the metering installation has been confirmed by the testing completed, the audit risk rating is low.					
Actions ta	iken to resolve the issue	Completion date	Remedial action status			
Discussions with ATHs		01/12/2023	Investigating			
Preventative actions t	aken to ensure no further issues will occur	Completion date				
As per Participant Respor	nse	Ongoing				

7.3. Active and Reactive Capability (Clause 10.37(1) and 10.37(2)(a))

Code reference

Clause 10.37(1) and 10.37(2)(a)

Code related audit information

For any category 2 or higher half-hour metering installation that is certified after 29 August 2013, the MEP must ensure that the installation has active and reactive measuring and recording capability.

Consumption only installations that is a category 3 metering installation or above must measure and separately record:

- a) import active energy,
- b) import reactive energy,
- c) export reactive energy.

Consumption only installations that are a category 2 metering installation must measure and separately record import active energy.

All other installations must measure and separately record:

- a) import active energy,
- b) export active energy,
- c) import reactive energy,
- d) export reactive energy.

All grid connected POCs with metering installations which are certified after 29 August 2013 should measure and separately record:

- a) import active energy,
- b) export active energy,
- c) import reactive energy,
- d) export reactive energy.

Audit observation

FCLM

All relevant metering is compliant with this clause.

<u>TRUM</u>

All relevant metering is compliant with this clause.

<u>LMGL</u>

All relevant metering is compliant with this clause.

Audit commentary

<u>FCLM</u>

All relevant metering is compliant with this clause.

<u>TRUM</u>

All relevant metering is compliant with this clause.

<u>LMGL</u>

All relevant metering is compliant with this clause.

Audit outcome

Compliant

7.4. Local Service Metering (Clause 10.37(2)(b))

Code reference

Clause 10.37(2)(b)

Code related audit information

The accuracy of each local service metering installation in grid substations must be within the tolerances set out in Table 1 of Schedule 10.1.

Audit observation

This clause relates to Transpower as an MEP.

Audit commentary

This clause relates to Transpower as an MEP.

Audit outcome

Not applicable

7.5. Measuring Transformer Burden (Clause 30(1) and 31(2) of Schedule 10.7)

Code reference

Clause 30(1) and 31(2) of Schedule 10.7

Code related audit information

The MEP must not permit a measuring transformer to be connected to equipment used for a purpose other than metering, unless it is not practical for the equipment to have a separate measuring transformer.

The MEP must ensure that a change to, or addition of, a measuring transformer burden or a compensation factor related to a measuring transformer is carried out only by:

- a) the ATH who most recently certified the metering installation,
- *b)* for a POC to the grid, by a suitably qualified person approved by both the MEP and the ATH who most recently certified the metering installation.

Audit observation

FCLM

I asked FCLM if there were any examples of burden changes, or the addition of non-metering equipment being connected to metering CTs.

<u>TRUM</u>

I asked TRUM if there were any examples of burden changes, or the addition of non-metering equipment being connected to metering CTs.

<u>LMGL</u>

I asked LMGL if there were any examples of burden changes, or the addition of non-metering equipment being connected to metering CTs.

Audit commentary

FCLM

There are no examples of burden changes having occurred.

<u>TRUM</u>

There are no examples of burden changes having occurred.

<u>LMGL</u>

There are no examples of burden changes having occurred.

Audit outcome

Compliant

7.6. Certification as a Lower Category (Clauses 6(1)(b) and (d), and 6(2)(b) of Schedule 10.7)

Code reference

Clauses 6(1)(b) and (d), and 6(2)(b) of Schedule 10.7

Code related audit information

A category 2 or higher metering installation may be certified by an ATH at a lower category than would be indicated solely on the primary rating of the current if the MEP, based on historical metering data, reasonably believes that:
- the maximum current will at all times during the intended certification period be lower than the current setting of the protection device for the category for which the metering installation is certified, or is required to be certified by the Code; or
- the metering installation will use less than 0.5 GWh in any 12-month period.

If a metering installation is categorised under clause 6(1)(b), the ATH may, if it considers appropriate, and, at the MEP's request, determine the metering installation's category according to the metering installation's expected maximum current.

If a meter is certified in this manner:

- the MEP must, each month, obtain a report from the participant interrogating the metering
 installation, which details the maximum current from raw meter data from the metering
 installation by either calculation from the kVA by trading period, if available, or from a maximum
 current indicator if fitted in the metering installation conveyed through the point of connection
 for the prior month; and
- if the MEP does not receive a report, or the report demonstrates that the maximum current conveyed through the POC was higher than permitted for the metering installation category it is certified for, then the certification for the metering installation is automatically cancelled.

Audit observation

<u>FCLM</u>

I checked all ICPs for examples of where the CT ratio was above the threshold to confirm that protection was appropriate or that monitoring was in place.

TRUM

I checked all ICPs for examples of where the CT ratio was above the threshold to confirm that protection was appropriate or that monitoring was in place.

<u>LMGL</u>

I checked all ICPs for examples of where the CT ratio was above the threshold to confirm that protection was appropriate or that monitoring was in place.

Audit commentary

<u>FCLM</u>

41 category 2 metering installations have CT ratios above 500/5. I confirmed that 26 of these had appropriate protection in place to limit the maximum current to less than 500A.

FCLM has expanded its monthly monitoring process to include monitoring of all ICPs. The monitoring now identifies any ICPs that have exceeded the category limit that they are certified under. ICPs that exceed the threshold are followed up by the technical team and will include any that are certified at a lower category. There were no examples of metering installations certified at a lower category exceeding the category limits.

I checked six examples of certification at a lower category conducted during the audit period where the ATH had certified metering installations that were nominally category 3 at category 2. Four of the six certification reports did not include details of current limiting devices or advice for the MEP to monitor load. Three of these were confirmed to have had current limiting devices identified in previous certifications. I have recorded compliance in this section as all metering installations are monitored and the requirements for certification under this clause are met. Non-compliance is recorded in **section 5.1** for the failure of the ATH to record the lower category certification information in the certification reports.

TRUM

Four category 2 metering installations have CT ratios above 500/5. The certification records for all four installations were checked in previous audits, and it was confirmed that appropriate protection is in place to limit the maximum current to less than 500A.

<u>LMGL</u>

There are no LMGL metering installations certified as a lower category.

Audit outcome

Compliant

7.7. Insufficient Load for Certification Tests (Clauses 14(3) and (4) of Schedule 10.7)

Code reference

Clauses 14(3) and (4) of Schedule 10.7

Code related audit information

If there is insufficient electricity conveyed through a POC to allow the ATH to complete a prevailing load test for a metering installation that is being certified as a half hour meter and the ATH certifies the metering installation the MEP must:

- obtain and monitor raw meter data from the metering installation at least once each calendar month to determine if load during the month is sufficient for a prevailing load test to be completed:
- if there is sufficient load, arrange for an ATH to complete the tests (within 20 business days).

Audit observation

<u>FCLM</u>

I checked if there were any examples of Insufficient load certifications.

TRUM

I checked if there were any examples of Insufficient load certifications.

<u>LMGL</u>

I checked if there were any examples of Insufficient load certifications.

Audit commentary

<u>FCLM</u>

There was one example of insufficient load certification conducted during the audit period at ICP 0000172643CKF6D. The certification report included a statement from the ATH advising the MEP of the requirement to monitor monthly and advise when load is available. The ATH returned and completed testing within a week when sufficient load became available. There was no need for monitoring to be conducted.

TRUM

TRUM does not allow certification in accordance with this clause. Load banks are required to be used to increase the load to conduct testing. My checks of recent certifications did not identify any installations certified with insufficient load.

<u>LMGL</u>

LMGL does not allow certification in accordance with this clause. Load banks are required to be used to increase the load to conduct testing. My checks of recent certifications did not identify any installations certified with insufficient load.

Audit outcome

Compliant

7.8. Insufficient Load for Certification – Cancellation of Certification (Clause 14(6) of Schedule 10.7)

Code reference

Clause 14(6) of Schedule 10.7

Code related audit information

If the tests conducted under clause 14(4) of Schedule 10.7 demonstrate that the metering installation is not within the relevant maximum permitted error:

- the metering installation certification is automatically revoked:
- the certifying ATH must advise the MEP of the cancellation within one business day:
- the MEP must follow the procedure for handling faulty metering installations (clause 10.43 10.48).

Audit observation

<u>FCLM</u>

I checked if there were any examples of Insufficient load certifications.

<u>TRUM</u>

I checked if there were any examples of Insufficient load certifications.

<u>LMGL</u>

I checked if there were any examples of Insufficient load certifications.

Audit commentary

<u>FCLM</u>

There was one example of insufficient load certification conducted during the audit period at ICP 0000172643CKF6D. The certification report included a statement from the ATH advising the MEP of the requirement to monitor monthly and advise when load is available. The ATH returned and completed testing within a week when sufficient load became available. The testing confirmed the metering installation error was within the required limits.

<u>TRUM</u>

TRUM has not conducted monitoring of insufficient load certifications.

<u>LMGL</u>

LMGL has not conducted monitoring of insufficient load certifications.

Audit outcome

Compliant

7.9. Alternative Certification Requirements (Clauses 32(2), (3) and (4) of Schedule 10.7)

Code reference

Clauses 32(2), (3) and (4) of Schedule 10.7

Code related audit information

If an ATH cannot comply with the requirements to certify a metering installation due to measuring transformer access issues, and therefore certifies the metering installation in accordance with clause 32(1) of schedule 10.7, the MEP must:

- advise the market administrator, by no later than ten business days after the date of certification of the metering installation, of the details in clause 32(2)(a) of schedule 10.7,
- respond, within five business days, to any requests from the market administrator for additional information,
- ensure that all of the details are recorded in the metering installation certification report,
- take all steps to ensure that the metering installation is certified before the certification expiry date.

If the market administrator determines the ATH could have obtained access the metering installation is deemed to be defective, and the MEP must follow the process of handling faults metering installations in clauses 10.43 to 10.48.

Audit observation

<u>FCLM</u>

I checked the registry records and NSP table to confirm whether alternative certification had been applied.

<u>TRUM</u>

I checked the registry records to confirm whether alternative certification had been applied.

<u>LMGL</u>

I checked the registry records to confirm whether alternative certification had been applied.

Audit commentary

<u>FCLM</u>

Alternative certification was applied to three metering installations at the HVN0331NELSNP NSP due to access issues during the audit period. The certification records contained appropriate details and notification was sent to the Authority using the prescribed form. I have recorded non-compliance as the notification to the Authority was not provided within ten business days due to delays in receiving the certification records from the ATH. Details of these are listed in the following table:

NSP	Installation	АТН	Certification date	Notification date	Business days
HVN0331NELSNP	CB2362	ACCL	3 July 2023	17 August 2023	32
HVN0331NELSNP	CB2232	ACCL	3 July 2023	17 August 2023	32
HVN0331NELSNP	CB2452	ACCL	3 July 2023	17 August 2023	32

<u>TRUM</u>

Alternative certification has not been applied to any metering installations during the audit period.

<u>LMGL</u>

Alternative certification has not been applied to any metering installations during the audit period.

Audit outcome

Non-compliant

Non-compliance	Dese	cription				
Audit Ref: 7.9 With: Clauses 32(2). (3)	Notification of alternative certification not provided to the Authority within ten business days for three metering installations.					
and (4) of Schedule 10.7	Potential impact: Low	Potential impact: Low				
	Actual impact: Low					
	Audit history: None					
From: 18-Jul-23	Controls: Strong					
To: 17-Aug-23	Breach risk rating: 1					
Audit risk rating	Rationale for audit risk rating					
Low	I have recorded the controls as strong in this area because Influx provides the information as soon as it is available.					
	There is no impact on participants and settlement, therefore the audit risk rating is low.					
Actions taken to resolve the issue		Completion date	Remedial action status			
Organised regular meetings with ATH		01/11/2023	Identified			
Preventative actions taken to ensure no further issues will occur		Completion date				
Regular meetings scheduled with ATH who had a resource problem.		Ongoing				

7.10. Timekeeping Requirements (Clause 23 of Schedule 10.7)

Code reference

Clause 23 of Schedule 10.7

Code related audit information

If a time keeping device that is not remotely monitored and corrected controls the switching of a meter register in a metering installation, the MEP must ensure that the time keeping device:

- a) has a time keeping error of not greater than an average of 2 seconds per day over a period of 12 months,
- b) is monitored and corrected at least once every 12 months.

Audit observation

<u>FCLM</u>

I asked FCLM whether there were any metering installations with time switches switching meter registers or any AMI metering installations with time dependant register content codes where the AMI flag had been changed to "N" for more than 12 months.

<u>TRUM</u>

I asked TRUM whether there were any metering installations with time switches switching meter registers.

<u>LMGL</u>

I asked LMGL whether there were any metering installations with time switches switching meter registers.

Audit commentary

<u>FCLM</u>

FCLM has some Landis + Gyr meters with internal time clocks. The number of these meters has reduced to six and the register content code has been changed to UN for the meter registers therefore they are no longer dependant on time. FCLM has prioritised the work to replace these meters.

FCLM has AMI meters with configurations using multiple registers that are remotely monitored to meet the requirements of clause 8(4) of schedule 10.6. In cases where AMI meters fail to communicate the MEP switches the AMI flag in the registry to "N" to avoid cancellation of certification. When the meter is not communicating its time is no longer monitored and it becomes subject to the requirements of this clause if there are registers switched by the time of meter. Since the last audit FCLM has put in place a process to identify these meters when they have not communicated for 300 or more days. FCLM changes the registry "control device certification" flag is to "N" for any meters identified. This action indicates to the retailer that the metering installation no longer meets the requirements of clause 33 of schedule 10.7 and requires them to switch to a profile which does not require a certified control device and is not dependant on the time-controlled register for submission. Whilst this is a pragmatic solution which reduces any impact from time errors it does not remove the need to meet the requirements of clause 23 of schedule 10.7. Non-compliance is recorded for the 83 meters identified on the latest report which have not communicated for over 365 days.

I recommend that FCLM investigates gaining an exemption from the requirements of clause 23 of schedule 10.7 for non-communicating AMI meters that become subject to this clause.

Recommendation	Description	Audited party comment	Remedial action
Regarding Clause 23 of Schedule 10.7	Investigate gaining an exemption from the requirements of clause 23 of schedule 10.7 for non- communicating AMI meters that become subject to this clause when the time dependent registers are no longer used for submission.	Further investigation of processes available in progress.	Investigating

<u>TRUM</u>

TRUM confirmed there are no metering installations with time switches switching meter registers.

LMGL

LMGL confirmed there are no metering installations with time switches switching meter registers.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 7.10	83 meters with time dependent registers were not monitored every 12 months.			
With: Clause 23 of	Potential impact: Low			
Schedule 10.7	Actual impact: Low			
	Audit history: Multiple times			
From: 01-Jan-23	Controls: Strong			
To: 05-Mar-24	Breach risk rating: 1			
Audit risk rating	Rationale for audit risk rating			
Low	I have recorded the controls as strong as FCLM has implemented a process to identify meters affected and ensure the time dependent registers are not used for submission. The impact on settlement and participants could be minor: therefore, the audit			
	risk rating is low.			
Actions ta	iken to resolve the issue	Completion date	Remedial action status	
Reporting in place to identify meters. Registry updated to ensure no reconciliation issues.		01/01/2024	Identified	
Preventative actions taken to ensure no further issues will occur		Completion date		
Influx will be looking at further options on completion of modem upgrade project that will cover all scenarios.		Ongoing		

7.11. Control Device Bridged Out (Clause 35 of Schedule 10.7)

Code reference

Clause 35 of Schedule 10.7

Code related audit information

The participant must, within ten business days of bridging out a control device or becoming aware of a control device being bridged out, notify the following parties:

- the relevant reconciliation participant,
- the relevant metering equipment provider.

If the control device is used for reconciliation, the metering installation is considered defective in accordance with 10.43.

Audit observation

FCLM

I checked the process for the management of bridged control devices, and I checked whether any notifications were required to other parties.

<u>TRUM</u>

I checked the process for the management of bridged control devices, and I checked whether any notifications were required to other parties.

<u>LMGL</u>

I checked the process for the management of bridged control devices, and I checked whether any notifications were required to other parties.

Audit commentary

FCLM

FCLM has a process for dealing with control devices which have been bridged out, which is that they are immediately resolved. I checked one example where FCLM had been notified by the retailer of a bridged control device. FCLM replaced the faulty control device within one business day of being notified. There was no requirement for notifications to other parties.

<u>TRUM</u>

TRUM has a process for dealing with control devices which have been bridged out, which is that they are immediately resolved. I checked one example where TRUM had been notified by the retailer of a bridged control device. TRUM replaced the faulty control device within two business days of being notified. There was no requirement for notifications to other parties.

<u>LMGL</u>

LMGL has a process for dealing with control devices which have been bridged out, which is that they are immediately resolved. There were no recent examples to review.

Audit outcome

Compliant

7.12. Control Device Reliability Requirements (Clause 34(5) of Schedule 10.7)

Code reference

Clause 34(5) of Schedule 10.7

Code related audit information

If the MEP is advised by an ATH that the likelihood of a control device not receiving signals would affect the accuracy or completeness of the information for the purposes of Part 15, the MEP must, within three business days inform the following parties of the ATH's determination (including all relevant details):

- a) the reconciliation participant for the POC for the metering installation,
- b) the control signal provider.

Audit observation

<u>FCLM</u>

I checked the steps FCLM had taken to identify regions with signal propagation issues.

<u>TRUM</u>

I checked the steps TRUM had taken to identify regions with signal propagation issues.

<u>LMGL</u>

I checked the steps LMGL had taken to identify regions with signal propagation issues.

Audit commentary

<u>FCLM</u>

FCLM has not been advised of any areas signal propagation issues by the ATHs.

<u>TRUM</u>

TRUM has not been advised of any areas signal propagation issues by the ATHs.

<u>LMGL</u>

LMGL has not been advised of any areas signal propagation issues by the ATHs.

Audit outcome

Compliant

7.13. Statistical Sampling (Clauses 16(1) and (5) of Schedule 10.7)

Code reference

Clauses 16(1) and (5) of Schedule 10.7

Code related audit information

The MEP may arrange for an ATH to recertify a group of category 1 metering installations for which the MEP is responsible using a statistical sampling process.

The MEP must update the registry in accordance with Part 11 on the advice of an ATH as to whether the group meets the recertification requirements.

Audit observation

<u>FCLM</u>

I checked whether statistical sampling had occurred during the audit period.

<u>TRUM</u>

I checked whether statistical sampling had occurred during the audit period.

<u>LMGL</u>

I checked whether statistical sampling had occurred during the audit period.

Audit commentary

<u>FCLM</u>

No recertification by statistical sampling was completed during the audit period.

At the time of the audit Influx was working on a project with the Influx ATH to recertify a total of approximately 40,000 ICPs across all three MEP codes, the project is expected to be completed in April 2024 and will be examined in the next ATH and MEP audits.

An issue was raised for consideration by the Authority in the last audit regarding the maximum period of recertification for Class 1 meters being limited by Table 5 of AS/NZS 1284 to five years. Clause 16 of schedule 10.7 was changed on 1 March 2024 to allow Class 1 meters to be recertified for a maximum of seven years.

<u>TRUM</u>

TRUM has not conducted statistical sampling during the audit period.

<u>LMGL</u>

LMGL has not conducted statistical sampling during the audit period.

Audit outcome

Compliant

7.14. Compensation Factors (Clause 24(3) of Schedule 10.7)

Code reference

Clause 24(3) of Schedule 10.7

Code related audit information

If an external compensation factor must be applied to a metering installation that is an NSP, the MEP must advise the reconciliation participant responsible for the metering installation of the compensation factor within ten days of certification of the installation.

In all other cases the MEP must update the compensation factor recorded in the registry in accordance with Part 11.

Audit observation

<u>FCLM</u>

I checked the certification records for 65 metering installations to confirm that compensation factors were correctly recorded on the registry. I checked the audit compliance report for invalid compensation factors.

<u>TRUM</u>

I checked the certification records for 20 metering installations to confirm that compensation factors were correctly recorded on the registry. I checked the audit compliance report for invalid compensation factors.

<u>LMGL</u>

I checked the certification records for 20 metering installations to confirm that compensation factors were correctly recorded on the registry. I checked the audit compliance report for invalid compensation factors.

Audit commentary

<u>FCLM</u>

Compensation factors were updated accurately on the registry for 64 of the 65 ICPs checked. One category 1 metering installation was recertified, and the registry was updated with an incorrect compensation factor of three:

ICP	Category	Certification date	Compensation factor recorded on certification report	Compensation factor recorded on registry	Comment
0000313556WA0BD	1	11 August 2023	1	3	The registry was corrected on 14 February 2024

Prior to recertification the metering installation had a single-phase meter recording a three-phase load and had a compensation factor of three. At the time of recertification, the wiring was reconfigured, and a three-phase meter was installed but the compensation factor was not updated from three to one when the registry was updated by FCLM. Non-compliance is recorded for the incorrect recording of the compensation factor on the registry.

<u>TRUM</u>

Compensation factors have been updated accurately on the registry. I confirmed this by checking the records for 20 ICPs. No incorrect compensation factors were identified by the audit compliance report.

<u>LMGL</u>

Compensation factors have been updated accurately on the registry. I confirmed this by checking the records for 20 ICPs. No incorrect compensation factors were identified by the audit compliance report.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 7.14 With: Clause 24(3) of Schedule 10.7	Compensation factor incorrectly recorded on the registry for one FCLM category 1 metering installation. Potential impact: Medium Actual impact: Low Audit history: None			
From: 11-Aug-23	Controls: Moderate			
To: 14-Feb-24	Breach risk rating: 2			
Audit risk rating	Rationale for audit risk rating			
Low	I have recorded the controls as moderate as the process for identifying incorrect compensation factors did not identify the discrepancy. The impact on settlement and participants could be minor as only one category 1 metering installation was impacted: therefore, the audit risk rating is low.			
Actions ta	Actions taken to resolve the issue Completion Remedial action date			
Error updated		14/02/2024	Cleared	
Preventative actions t	Preventative actions taken to ensure no further issues will Completion date			
Error Updated	14/02/204			

7.15. Metering Installations Incorporating a Meter (Clause 26(1) of Schedule 10.7)

Code reference

Clause 26(1) of Schedule 10.7

Code related audit information

The MEP must ensure that each meter in a metering installation it is responsible for is certified.

Audit observation

FCLM

I checked the certification records for 65 metering installations to confirm compliance.

TRUM

I checked the certification records for 20 metering installations to confirm compliance.

<u>LMGL</u>

I checked the certification records for 20 metering installations to confirm compliance.

Audit commentary

FCLM

Meters were certified for all 65 installations.

<u>TRUM</u>

Meters were certified for all 20 installations.

<u>LMGL</u>

Meters were certified for all 20 installations.

Audit outcome

Compliant

7.16. Metering Installations Incorporating a Measuring Transformer (Clause 28(1) of Schedule 10.7)

Code reference

Clause 28(1) of Schedule 10.7

Code related audit information

The MEP must ensure that each measuring transformer in a metering installation it is responsible for is certified.

Audit observation

<u>FCLM</u>

I checked the certification records for nine category 2 and above metering installations certified using the selected component and fully calibrated methods to confirm compliance.

<u>TRUM</u>

I checked the certification records for the one category 5 metering installation certified during the audit period to confirm compliance.

<u>LMGL</u>

No certification of measuring transformers or metering installations containing measuring transformers were certified during the audit period.

Audit commentary

FCLM

Measuring transformers were certified for all nine category 2 and above metering installations certified using the selected component and fully calibrated methods.

TRUM

Measuring transformers were certified for the category 5 metering installation certified during the audit period.

<u>LMGL</u>

No certification of measuring transformers or metering installations containing measuring transformers were certified during the audit period.

Audit outcome

Compliant

7.17. Metering Installations Incorporating a Data Storage Device (Clause 36(1) of Schedule 10.7)

Code reference

Clause 36(1) of Schedule 10.7

Code related audit information

The MEP must ensure that each data storage device in a metering installation it is responsible for is certified.

Audit observation

<u>FCLM</u>

I checked the certification records for 65 metering installations to confirm compliance.

<u>TRUM</u>

I checked the certification records for one category 5 metering installation to confirm compliance.

<u>LMGL</u>

LMGL did not certify any metering installations containing data storage devices during the audit period.

Audit commentary

FCLM

The 65 certification records that I checked confirmed that the data storage devices are being correctly certified.

<u>TRUM</u>

The data storage device was correctly certified for the one category 5 metering installation certified during the audit period.

<u>LMGL</u>

LMGL did not certify any metering installations containing data storage devices during the audit period.

Audit outcome

Compliant

7.18. Notification of ATH Approval (Clause 7 (3) Schedule 10.3)

Code reference

Clause 7 (3) Schedule 10.3

Code related audit information

If the MEP is notified by the Authority that an ATH's approval has expired, been cancelled or been revised, the MEP must treat all metering installations certified by the ATH during the period where the ATH was not approved to perform the activities as being defective and follow the procedures set out in 10.43 to 10.48.

Audit observation

<u>FCLM</u>

I checked the ATH register to confirm compliance.

<u>TRUM</u>

I checked the ATH register to confirm compliance.

LMGL

I checked the ATH register to confirm compliance.

Audit commentary

<u>FCLM</u>

All relevant ATHs have appropriate approval.

<u>TRUM</u>

All relevant ATHs have appropriate approval.

LMGL

All relevant ATHs have appropriate approval.

Audit outcome

Compliant

7.19. Interim Certification (Clause 18 of Schedule 10.7)

Code reference

Clause 18 of Schedule 10.7

Code related audit information

The MEP must ensure that each interim certified metering installation on 28 August 2013 is certified by no later than 1 April 2015.

Audit observation

Influx's recertification program is discussed in section 7.1.

FCLM

I checked the audit compliance report to identify any ICPs with expired interim certification recorded.

<u>TRUM</u>

I checked the audit compliance report to identify any ICPs with expired interim certification recorded.

<u>LMGL</u>

I checked the audit compliance report to identify any ICPs with expired interim certification recorded.

Audit commentary

FCLM

There are 190 previously interim certified metering installations with expired certification.

<u>TRUM</u>

There is one previously interim certified metering installation with expired certification.

<u>LMGL</u>

As recorded in **section 7.1** there are 15,960 installations with invalid statistical sampling certification. Most of these installations had interim certification, which is effectively still in place.

Audit outcome

Non-compliant

Non-compliance	Description				
Audit Ref: 7.19	190 FCLM ICPs with expired interim certification.				
With: Clause 18 of	One TRUM ICP with expired interim certification.				
Schedule 10.7	15,960 LMGL ICPs where most have expired interim certification.				
	Potential impact: High				
	Actual impact: Medium				
	Audit history: Multiple times				
From: 01-Apr-15	Controls: Strong				
To: 23-Dec-23	Breach risk rating: 3				
Audit risk rating	Rationale for audit risk rating				
High	I have recorded the controls as strong in this area as Influx has demonstrated that it is making good progress on its plans to recertify the remaining uncertified metering installations.				
	The impact on settlement is recorded as high because of the increased likelihood of failure or inaccuracy for metering installations with expired certification, therefore the audit risk rating is high.				
Actions ta	aken to resolve the issue	Completion date	Remedial action status		
Double up on 7.1		Ongoing	Disputed		
Interim Certification no longer exists and these ICPs are already covered in non-compliance of clause 7.1					
Preventative actions taken to ensure no further issues will occur		Completion date			
Clause 7.19 id no longer r longer exists.	elevant as Interim certification no	Ongoing			

8. INSPECTION OF METERING INSTALLATIONS

8.1. Category 1 Inspections (Clause 45 of Schedule 10.7)

Code reference

Clause 45 of Schedule 10.7

Code related audit information

The MEP must ensure that category 1 metering installations (other than interim certified metering installations):

- have been inspected by an ATH within 126 months from the date of the metering installation's most recent certification or
- for each 12-month period, commencing 1 January and ending 31 December, ensure an ATH has completed inspections of a sample of the category 1 metering installations selected under clause 45(2) of schedule 10.7.

Before a sample inspection process can be carried out, the MEP must submit a documented process for selecting the sample to the Electricity Authority, at least 2 months prior to first date on which the inspections are to be carried out, for approval (and promptly provide any other information the Authority may request).

The MEP must not inspect a sample unless the Authority has approved the documented process.

The MEP must, for each inspection conducted under clause 45(1)(b), keep records detailing:

- any defects identified that have affected the accuracy or integrity of the raw meter data recorded by the metering installation,
- any discrepancies identified under clause 44(5)(b)
- relevant characteristics, sufficient to enable reporting of correlations or relationships between inaccuracy and characteristics,
- the procedure used, and the lists generated, to select the sample under clause 45(2).

The MEP must, if it believes a metering installation that has been inspected is or could be inaccurate, defective or not fit for purpose:

- comply with clause 10.43,
- arrange for an ATH to recertify the metering installation if the metering is found to be inaccurate under Table 1 of schedule 10.1, or defective or not fit for purpose.

The MEP must by 1 April in each year, provide the Authority with a report that states whether the MEP has, for the previous 1 January to 31 December period, arranged for an ATH to inspect each category 1 metering installation for which it is responsible under clause 45(1)(a) or 45(1)(b).

This report must include the matters specified in clauses 45(8)(a) and (b).

If the MEP is advised by the Authority that the tests do not meet the requirements under clause 45(9) of Schedule 10.7, the MEP must select the additional sample under that clause, carry out the required inspections, and report to the Authority, within 40 business days of being advised by the Authority.

Audit observation

<u>FCLM</u>

FCLM does not intend to commence category 1 inspections through sampling. They intend to re-certify installations rather than conduct inspections.

<u>TRUM</u>

I checked whether TRUM had conducted sample inspections for category 1 metering installations.

<u>LMGL</u>

I checked whether LMGL had conducted sample inspections for category 1 metering installations.

Audit commentary

<u>FCLM</u>

FCLM does not intend to commence category 1 inspections through sampling. They intend to re-certify installations within 120 months rather than do inspections.

<u>TRUM</u>

TRUM had completed category 1 inspections of a total of 316 TRUM and LMGL metering installations through statistical sampling. I checked the inspection process and the associated reporting, which confirms compliance with the Code.

<u>LMGL</u>

LMGL had completed category 1 inspections of a total of 316 TRUM and LMGL metering installations through statistical sampling. I checked the inspection process and the associated reporting, which confirms compliance with the Code.

Audit outcome

Compliant

8.2. Category 2 to 5 Inspections (Clause 46(1) of Schedule 10.7)

Code reference

Clause 46(1) of Schedule 10.7

Code related audit information

The MEP must ensure that each category 2 or higher metering installation is inspected by an ATH at least once within the applicable period. The applicable period begins from the date of the metering installation's most recent certification and extends to:

- 126 months for category 2,
- 63 months for category 3,
- 33 months for category 4 ,
- 19 months for category 5.

Audit observation

<u>FCLM</u>

I checked the registry information to confirm which ICPs were due for inspection, and I then checked the inspection records for all relevant ICPs.

<u>TRUM</u>

I checked the registry information to confirm which ICPs were due for inspection, and I then checked the inspection records for all relevant ICPs.

<u>LMGL</u>

I checked the registry information to confirm which ICPs were due for inspection, and I then checked the inspection records for all relevant ICPs.

Audit commentary

FCLM

I checked the registry information to identify category 2 and above ICPs where inspections were due. There were nine category 3, three category 4 and one category 5 metering installations due to be inspected during the audit period. Inspections were conducted for all but two category 3 metering installations. The inspection jobs were issued to the ATH but were not completed due to lack of staff resources. Non-compliance is recorded in this section as the inspections were not completed within the required timeframe, non-compliance is also recorded in **section 6.4** as certification was not cancelled within ten business days of the latest inspection date.

ICP	Category	Certification date Latest inspection date	
0000103297TRA98	3	15 August 2018	15 November 2023
0000189556TRF55	3	4 April 2018	4 July 2023

<u>TRUM</u>

I checked the registry records to identify category 2 and above ICPs where inspections were due. There were one category 3 and two category 5 metering installations due to be inspected during the audit period. Inspections were conducted for all three metering installations; compliance is recorded for TRUM.

<u>LMGL</u>

I checked the registry records to identify category 2 and above ICPs where inspections were due. There was one category 3 metering installations due to be inspected during the audit period. The inspection was conducted as required for this metering installation; compliance is recorded for LMGL.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 8.2 With: Clause 46(1) of Schedule 10.7	Inspections not conducted within the required timeframe for two category 3 FCLM metering installations.			
	Potential impact: Medium			
	Actual impact: Low			
	Audit history: Multiple times			
From: 04-Jul-23	Controls: Strong			
To: 05-Mar-24	Breach risk rating: 1			
Audit risk rating	Rationale fo	r audit risk rating		
Low	The controls are recorded as strong because Influx has a robust process for monitoring inspection periods for metering installations and the majority of inspections are completed as required.			
	The impact on settlement and participants could be minor; therefore, the audit risk rating is low.			
Actions ta	ken to resolve the issue	Remedial action status		

Sites were recertified	08/03/2024	Cleared
Preventative actions taken to ensure no further issues will occur	Completion date	
Regular meetings with ATH who had a resource issue.	Ongoing	

8.3. Inspection Reports (Clause 44(5) of Schedule 10.7)

Code reference

Clause 44(5) of Schedule 10.7

Code related audit information

The MEP must, within 20 business days of receiving an inspection report from an ATH:

- undertake a comparison of the information received with its own records,
- investigate and correct any discrepancies,
- update the metering records in the registry.

Audit observation

FCLM

I checked the inspection process and the results to confirm compliance.

<u>TRUM</u>

I checked the inspection process and the results to confirm compliance.

<u>LMGL</u>

I checked the inspection process and the results to confirm compliance.

Audit commentary

<u>FCLM</u>

FCLM reviews and updates records as required following inspections.

<u>TRUM</u>

TRUM reviews and updates records as required following inspections.

<u>LMGL</u>

LMGL reviews and updates records as required following inspections.

Audit outcome

Compliant

8.4. Broken or removed seals (Clause 48(4) and (5) of Schedule 10.7)

Code reference

Clause 48(4) and (5) of Schedule 10.7

Code related audit information

If the MEP is advised of a broken or removed seal it must use reasonable endeavours to determine

- a) who removed or broke the seal,
- b) the reason for the removal or breakage.

and arrange for an ATH to carry out an inspection of the removal or breakage and determine any work required to remedy the removal or breakage.

The MEP must make the above arrangements within

- a) 3 business days, if the metering installation is category 3 or higher,
- b) 10 business days if the metering installation is category 2,
- c) 20 business days if the metering installation is category 1.

If the MEP is advised under 48(1B)(c) or (48(1F)(d) the MEP must update the relevant meter register content code for the relevant meter channel.

Audit observation

<u>FCLM</u>

I checked for examples of notification of missing seals.

<u>TRUM</u>

I checked three examples of notification of missing seals, which were all a result of inspection processes or notification by field technicians.

<u>LMGL</u>

I checked five examples of notification of missing seals, which were all a result of inspection processes or notification by field technicians.

Audit commentary

<u>FCLM</u>

The FCLM process requires that all unsealed meters are tested by the ATH and recertified if required. There were no examples of broken or removed seals available from the audit period to examine.

<u>TRUM</u>

During the inspections of 500 TRUM and LMGL category 1 metering installations 69 examples of missing component seals were found. In all cases re-sealing occurred after a check of the integrity of the installation.

<u>LMGL</u>

During the inspections of 500 TRUM and LMGL category 1 metering installations 69 examples of missing component seals were found. In all cases re-sealing occurred after a check of the integrity of the installation.

Audit outcome

Compliant

9. PROCESS FOR HANDLING FAULTY METERING INSTALLATIONS

9.1. Investigation of Faulty Metering Installations (Clause 10.43(4) and (5))

Code reference

Clause 10.43(4) and (5)

Code related audit information

If the MEP is advised or becomes aware that a metering installation may be inaccurate, defective, or not fit for purpose, it must investigate and report on the situation to all affected participants as soon as reasonably practicable after becoming aware of the information, but no later than:

- a) 20 business days for category 1,
- b) 10 business days for category 2 and
- c) 5 business days for category 3 or higher.

Audit observation

<u>FCLM</u>

I checked the process for the management of faulty metering installations. There were two examples where category 1 meters had been bridged to examine.

TRUM

I checked the process for the management of faulty metering installations. There were no examples to examine.

<u>LMGL</u>

I checked the process for the management of faulty metering installations. There were no examples to examine.

Audit commentary

FCLM

The process for the management of faulty metering is compliant and includes notification to affected parties. The two examples checked were bridged by the retailer to restore supply to customers. The ATH removed the bridge, replaced the meters and recertified the metering installations, one was completed on the day of notification and the second was completed after six business days.

TRUM

The process for the management of faulty metering is compliant. The same process is used as for all three Influx MEP codes, which confirms compliance. There were no examples to examine.

<u>LMGL</u>

The process for the management of faulty metering is compliant. The same process is used as for all three Influx MEP codes, which confirms compliance. There were no examples to examine.

Audit outcome

Compliant

9.2. Testing of Faulty Metering Installations (Clause 10.44)

Code reference

Clause 10.44

Code related audit information

If a report prepared under clause 10.43(4)(c) demonstrates that a metering installation is inaccurate, defective, or not fit for purpose, the MEP must arrange for an ATH to test the metering installation and provide a 'statement of situation'.

If the MEP is advised by a participant under clause 10.44(2)(a) that the participant disagrees with the report that demonstrates that the metering installation is accurate, not defective and fit for purpose, the MEP must arrange for an ATH to:

- a) test the metering installation,
- b) provide the MEP with a statement of situation within five business days of:
- c) becoming aware that the metering installation may be inaccurate, defective or not fit for purpose; or
- d) reaching an agreement with the participant.

The MEP is responsible for ensuring the ATH carries out testing as soon as practicable and provides a statement of situation.

Audit observation

FCLM

I checked the process for the management of faulty metering installations. There were two examples where category 1 meters had been bridged to examine.

<u>TRUM</u>

I checked the process for the management of faulty metering installations. There were no examples to examine.

<u>LMGL</u>

I checked the process for the management of faulty metering installations. There were no examples to examine.

Audit commentary

<u>FCLM</u>

The process for the management of faulty metering is compliant and includes notification to affected parties. The two examples checked were bridged by the retailer to restore supply to customers. The ATH removed the bridge, replaced the meters and recertified the metering installations, one was completed on the day of notification and the second was completed after six business days. The forms completed in the field by the ATHs contain sufficient information to report to relevant parties and meet the requirement for the provision of a statement of situation.

<u>TRUM</u>

The process for the management of faulty metering is compliant. The same process is used as for all three Influx MEP codes, which confirms compliance. There were no examples to examine.

<u>LMGL</u>

The process for the management of faulty metering is compliant. The same process is used as for all three Influx MEP codes, which confirms compliance. There were no examples to examine.

Audit outcome

Compliant

9.3. Statement of Situation (Clause10.46(2))

Code reference

Clause10.46(2)

Code related audit information

Within three business days of receiving the statement from the ATH, the MEP must provide copies of the statement to:

- the relevant affected participants,
- the Authority (for all category 3 and above metering installations and any category 1 and category 2 metering installations) on request.

Audit observation

I checked the process for the management of faulty metering installations. There were two examples where category 1 meters had been bridged to examine.

TRUM

I checked the process for the management of faulty metering. There were no examples to examine.

<u>LMGL</u>

I checked the process for the management of faulty metering. There were no examples to examine.

Audit commentary

FCLM

The forms completed in the field by the ATHs contain sufficient information to report to relevant parties and meet the requirement for the provision of a statement of situation for both examples.

<u>TRUM</u>

The process for the management of faulty metering is compliant. The same process is used as for all three Influx MEP codes, which confirms compliance. There were no examples to examine.

<u>LMGL</u>

The process for the management of faulty metering is compliant. The same process is used as for all three Influx MEP codes, which confirms compliance. There were no examples to examine.

Audit outcome

Compliant

9.4. Timeframe to correct defects and inaccuracies (Clause 10.46A)

Code reference

Clause 10.46A

Code related audit information

When the metering equipment provider is advised under 10.43 or becomes aware a metering installation it is responsible for is inaccurate, defective or not fit for purpose the metering equipment provider must undertake remedial actions to address the issue.

The metering equipment provider must use its best endeavours to complete the remedial action within ten business days of the date it is required to provide a report to participants under 10.43(4)(c).

Audit observation

<u>FCLM</u>

I checked the process for the management of faulty metering installations. There were two examples where category 1 meters had been bridged to examine.

<u>TRUM</u>

I checked the process for the management of faulty metering installations. There were no examples to examine.

<u>LMGL</u>

I checked the process for the management of faulty metering installations. There were no examples to examine.

Audit commentary

<u>FCLM</u>

The required timeframe for an MEP to complete remedial action is within ten business days of the date it is required to provide a report to participants under 10.43(4)(c). Clause 10.43(5) specifies the time period for providing the report as 20 business days after becoming aware of the event or circumstance for a category 1 metering installation. Therefore, to achieve compliance with these clauses the remedial work must be completed within 30 business days of the MEP receiving notification of bridging of meters. I have recorded compliance as both examples of faulty meters were remedied within 30 days.

<u>TRUM</u>

The process for the management of faulty metering is compliant. The same process is used as for all three Influx MEP codes, which confirms compliance. There were no examples to examine.

<u>LMGL</u>

The process for the management of faulty metering is compliant. The same process is used as for all three Influx MEP codes, which confirms compliance. There were no examples to examine.

Audit outcome

Compliant

9.5. Meter bridging (Clause 10.33C)

Code reference

Clause 10.33C

Code related audit information

An MEP may only electrically connect an ICP in a way that bypasses a meter that is in place ("bridging") if the MEP has been authorised by the responsible trader.

The MEP can then only proceed with bridging the meter if, despite best endeavours:

- the MEP is unable to remotely electrically connect the ICP,
- the MEP cannot repair a fault with the meter due to safety concerns,
- the consumer will likely be without electricity for a period which would cause significant disadvantage to the consumer.

If the MEP bridges a meter, the MEP must notify the responsible trader within one business day and include the date of bridging in its advice.

Audit observation

FCLM

I checked for examples of bridged meters.

<u>TRUM</u>

I checked for examples of bridged meters.

<u>LMGL</u>

I checked for examples of bridged meters.

Audit commentary

FCLM

FCLM provided examples of two meters that were bridged by the retailer in order to reconnect during the audit period. FCLM was notified by the traders on the day of bridging in both cases.

Clause 10.33C requires the MEP to reinstate the meter so that all electricity flowing into the ICP flows through a certified metering installation within five business days of receiving the notice.

I have recorded non-compliance as the meter at ICP 1002000622TCE7F was not reinstated so that all electricity flowing into the ICP flows through a certified metering installation within five business days of receiving the notice. The meter was bridged and FCLM notified on 31 July 2023 and reinstated six business days later on 8 August 2023. The second example at ICP 0001022750WM1CC was reinstated on the same day that the meter was bridged, and the MEP notified, 3 October 2023.

<u>TRUM</u>

There were no examples of bridged meters to examine.

<u>LMGL</u>

There were no examples of bridged meters to examine.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 9.5	One FCLM category 1 meter not reinstated after bridging within five business days
With: Clause 10.33C	of notification.
	Potential impact: Low
	Actual impact: Low
	Audit history: None
From: 07-Aug-23	Controls: Strong
To: 08-Aug-23	Breach risk rating: 1
Audit risk rating	Rationale for audit risk rating

Low	The controls are recorded as strong because Influx has robust processes for issuing work orders for reinstatement after bridging.			
	therefore, the audit risk rating is low.		, ,	
Actions ta	ns taken to resolve the issue Completion Remedial action sta date			
The time frame of 5 days is unrealistic with resources in some areas stretched due to covid etc.		Ongoing	Investigating	
Preventative actions taken to ensure no further issues will occur		Completion date		
We make every endeavour to meet the deadline but not always possible when dealing with other participants.		Ongoing		

10. ACCESS TO AND PROVISION OF RAW METER DATA AND METERING INSTALLATIONS

10.1. Access to Raw Meter Data (Clause 1 of Schedule 10.6)

Code reference

Clause 1 of Schedule 10.6

Code related audit information

The MEP must give authorised parties access to raw meter data within ten business days of receiving the authorised party making a request.

The MEP must only give access to raw meter data to a trader or person, if that trader or person has entered into a contract to collect, obtain, and use the raw meter data with the end customer.

The MEP must provide the following when giving a party access to information:

- a) the raw meter data; or
- b) the means (codes, keys etc.) to enable the party to access the raw meter data.

The MEP must, when providing raw meter data or access to an authorised person use appropriate procedures to ensure that:

- the raw meter data is received only by that authorised person or a contractor to the person,
- the security of the raw meter data and the metering installation is maintained,
- access to the raw meter data is limited to only the specific raw meter data under clause 1(7)(c) of schedule 10.6.

Audit observation

FCLM

I checked whether any parties had requested access to raw meter data. I checked the processes for handling and provision of raw meter data.

<u>TRUM</u>

I checked whether any parties had requested access to raw meter data.

<u>LMGL</u>

I checked whether any parties had requested access to raw meter data.

Audit commentary

<u>FCLM</u>

No requests have been received but FCLM advised access could be granted in accordance with this clause if necessary.

<u>TRUM</u>

No requests have been received, but TRUM advised access could be granted in accordance with this clause if necessary.

<u>LMGL</u>

No requests have been received, but LMGL advised access could be granted in accordance with this clause if necessary.

Audit outcome

Compliant

10.2. Restrictions on Use of Raw Meter Data (Clause 2 of Schedule 10.6)

Code reference

Clause 2 of Schedule 10.6

Code related audit information

The MEP must not give an authorised person access to raw meter data if to do so would breach clause 2(1) of Schedule 10.6.

Audit observation

<u>FCLM</u>

I checked whether any parties had requested access to raw meter data.

TRUM

I checked whether any parties had requested access to raw meter data.

<u>LMGL</u>

I checked whether any parties had requested access to raw meter data.

Audit commentary

FCLM

No requests have been received but FCLM advised access could be granted in accordance with this clause if necessary.

<u>TRUM</u>

No requests have been received but TRUM advised access could be granted in accordance with this clause if necessary.

<u>LMGL</u>

No requests have been received but LMGL advised access could be granted in accordance with this clause if necessary.

Audit outcome

Compliant

10.3. Access to Metering Installations (Clause 3(1), (3) and (4) of Schedule 10.6)

Code reference

Clause 3(1), (3) and (4) of Schedule 10.6

Code related audit information

The MEP must within ten business days of receiving a request from one of the following parties, arrange physical access to each component in a metering installation:

- a relevant reconciliation participant with whom it has an arrangement (other than a trader),
- the Authority,
- an ATH,
- an auditor,
- a gaining MEP.

This access must include all necessary means to enable the party to access the metering components.

When providing access, the MEP must ensure that the security of the metering installation is maintained and physical access is limited to only the access required for the purposes of the Code, regulations in connection with the party's administration, audit and testing functions.

Audit observation

<u>FCLM</u>

I checked whether any parties had requested access to metering installations.

<u>TRUM</u>

I checked whether any parties had requested access to metering installations.

<u>LMGL</u>

I checked whether any parties had requested access to metering installations.

Audit commentary

FCLM

No requests have been received, but FCLM advised access could be granted in accordance with this clause if necessary.

TRUM

No requests have been received, but TRUM advised access could be granted in accordance with this clause if necessary.

<u>LMGL</u>

No requests have been received, but LMGL advised access could be granted in accordance with this clause if necessary.

Audit outcome

Compliant

10.4. Urgent Access to Metering Installations (Clause 3(5) of Schedule 10.6)

Code reference

Clause 3(5) of Schedule 10.6

Code related audit information

If the party requires urgent physical access to a metering installation, the MEP must use its best endeavours to arrange physical access.

Audit observation

<u>FCLM</u>

I checked whether any parties had requested access to metering installations.

TRUM

I checked whether any parties had requested access to metering installations.

<u>LMGL</u>

I checked whether any parties had requested access to metering installations.

Audit commentary

FCLM

No requests have been received, but FCLM advised access could be granted in accordance with this clause if necessary.

<u>TRUM</u>

No requests have been received, but TRUM advised access could be granted in accordance with this clause if necessary.

<u>LMGL</u>

No requests have been received, but LMGL advised access could be granted in accordance with this clause if necessary.

Audit outcome

Compliant

10.5. Electronic Interrogation of Metering Installations (Clause 8 of Schedule 10.6)

Code reference

Clause 8 of Schedule 10.6

Code related audit information

When raw meter data can only be obtained from an MEP's back office, the MEP must

- ensure that the interrogation cycle does not exceed the maximum interrogation cycle shown in the registry,
- interrogate the metering installation at least once within each maximum interrogation cycle.

When raw meter data can only be obtained from an MEP's back office, the MEP must ensure that the internal clock is accurate, to within ±5 seconds of:

- New Zealand standard time; or
 - New Zealand daylight time.

When raw meter data can only be obtained from an MEP's back office, the MEP must record in the interrogation and processing system logs, the time, the date, and the extent of any change in the internal clock setting in the metering installation.

The MEP must compare the time on the internal clock of the data storage device with the time on the interrogation and processing system clock, calculate and correct (if required by this provision) any time error, and advise the affected reconciliation participant.

When raw meter data can only be obtained from an MEP's back office, the MEP must, when interrogating a metering installation, download the event log, check the event log for evidence of any events that may affect the integrity or operation of the metering installation, such as malfunctioning or tampering.

The MEP must investigate and remediate any events and advise the reconciliation participant.

The MEP must ensure that all raw meter data that can only be obtained from the MEPs back office, that is downloaded as part of an interrogation, and that is used for submitting information for the purpose of Part 15 is archived:

- for no less than 48 months after the interrogation date,
- in a form that cannot be modified without creating an audit trail,
- in a form that is secure and prevents access by any unauthorised person,
- in a form that is accessible to authorised personnel.

Audit observation

<u>FCLM</u>

FCLM collects data themselves for the majority of its AMI meters and EDMI collects data as an agent from some meters where FCLM is the MEP. At the time of the audit there 369 meters being read by EDMI. I reviewed the EDMI MEP agent audit report which was completed in August 2023 to determine compliance for the EDMI processes and the EDMI MEP agent report will be supplied with this audit.

I conducted a walkthrough of the process, and I requested reporting of the following:

- interrogation not conducted within the maximum interrogation cycle,
- event reports sent to retailers,
- clock synchronisation reports, and
- sum-check failures.

I checked the security and storage of data by looking at examples of data more than 48 months old.

<u>TRUM</u>

TRUM does not conduct electronic data collection. At the time of the audit there were 21 HHR meters which have data collected by the reconciliation participants via their agents. TRUM has provided access to the meters and the reconciliation participant is responsible for the data collection from these meters.

<u>LMGL</u>

LMGL does not conduct electronic data collection. At the time of the audit there were 129 HHR meters which have data collected by the reconciliation participants via their agents. LMGL has provided access to the meters and the reconciliation participant is responsible for the data collection from these meters.

Audit commentary

FCLM

Compliance is recorded in the EDMI MEP agent audit report.

FCLM demonstrated the processes for ensuring meters are interrogated within the maximum interrogation cycle. I checked a daily report which identifies category 1 meters that have not communicated for 20 days (maximum interrogation cycle = 90 days) and category 2 meters that have not communicated for seven days (maximum interrogation cycle = 30 days). An automated process updates the registry AMI flag to "N" for these meters. When meters with an AMI flag set to "N" successfully communicate for two consecutive days the AMI flag is then automatically switched back to "Y". This process is applied to meters interrogated by both FCLM and EDMI. My review of the reporting confirmed that all meters with an AMI flag of "Y" were interrogated within the maximum interrogation cycle.

Data is stored indefinitely, and this was confirmed by checking historic data.

Event logs and clock synchronisation processes are discussed in sections 10.7 and 10.8.

<u>TRUM</u>

TRUM does not conduct electronic data collection. At the time of the audit there were 21 HHR meters which have data collected by the reconciliation participants via their agents. TRUM has provided access to the meters and the reconciliation participant is responsible for the data collection from these meters.

<u>LMGL</u>

LMGL does not conduct electronic data collection. At the time of the audit there were 129 HHR meters which have data collected by the reconciliation participants via their agents. LMGL has provided access to the meters and the reconciliation participant is responsible for the data collection from these meters.

Audit outcome

Compliant

10.6. Security of Metering Data (Clause 10.15(2))

Code reference

Clause 10.15(2)

Code related audit information

The MEP must take reasonable security measures to prevent loss or unauthorised access, use, modification or disclosure of the metering data.

Audit observation

FCLM

I checked the security and storage of data by looking at examples of data more than 48 months old.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit commentary

FCLM

Compliance is recorded in the EDMI MEP agent audit report.

All data is secure, and any transmission to reconciliation participants is via SFTP. I confirmed that data is stored indefinitely.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit outcome

Compliant

10.7. Time Errors for Metering Installations (Clause 8(4) of Schedule 10.6)

Code reference

Clause 8(4) of Schedule 10.6

Code related audit information

When raw meter data can only be obtained from the MEPs back office, the MEP must ensure that the data storage device it interrogates does not exceed the maximum time error set out in Table 1 of clause 8(5) of Schedule 10.6.

Audit observation

<u>FCLM</u>

I conducted a walkthrough of the management of time errors, and I checked the relevant reports.

TRUM

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit commentary

FCLM

Compliance is recorded in the EDMI MEP agent audit report. EDMI provides reporting of time errors to FCLM who report these to reconciliation participants.

The MEP must ensure that a data storage device in a metering installation does not exceed the maximum time error set out in Table 1 of clause 8(5) of schedule 10.6. The MEP must compare the time on the internal clock of the data storage device with the time on the interrogation and processing system clock, calculate and correct (if required by this provision) any time error, and advise the affected reconciliation participant. The relevant part of this table is shown below:

Metering installation category	HHR metering installations (seconds)	NHH metering installations (seconds)	
1	±30	±60	
2	±10	±60	

During interrogation, the system time is compared to the data logger time. MultiDrive and Storm automatically adjust any clock errors up to the appropriate pre-set value. Errors over the threshold are investigated and the time is adjusted manually unless fieldwork is required to resolve an issue.

The event information supplied to FCLM by EDMI contains clock adjustment information and this is sent to reconciliation participants as required by this clause.

I checked event reports for a sample of two days for time errors greater than the prescribed limits. The reports contained two examples of time errors. FCLM has found that there has been a reduction in time errors due to an improvement in attainment since the majority of meters have received a communications firmware upgrade and are now interrogated by Storm.

This clause is clear that when errors are outside the threshold, compliance is not achieved. The exact text is as follows:

"A metering equipment provider must ensure that a data storage device in a metering installation for which it is responsible for interrogating does not exceed the maximum time error set out in Table 1 of sub-clause (5)."

EDMI provides data in NZST and FCLM converts to NZDT in the MDX Processing Application. I checked this in the system and confirm it is operating as expected.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 10.7	Clock errors greater than the threshold for two ICPs.			
With: Clause 8(4) of	Potential impact: Low			
Schedule 10.6	Actual impact: None			
	Audit history: Multiple times			
From: 01-Jan-23	Controls: Strong			
To: 05-Mar-24	Breach risk rating: 1			
Audit risk rating	Rationale for audit risk rating			
Low	The controls are recorded as strong because interrogation is attempted daily, and clock errors are addressed during all interrogations. The errors were all small and none were across a trading period, therefore there is no impact on participants or settlement. The audit risk rating is low.			
Actions taken to resolve the issue		Completion date	Remedial action status	
Time adjusted when identified as outside tolerances.		At the time	Identified	
Preventative actions taken to ensure no further issues will occur		Completion date		
Time adjusted when identified as outside tolerances.		At the time		

10.8. Event Logs (Clause 8(7) of Schedule 10.6)

Code reference

Clause 8(7) of Schedule 10.6

Code related audit information

When raw meter data can only be obtained from the MEP's back office, the MEP must, when interrogating a metering installation:

- a) ensure an interrogation log is generated,
- b) review the event log and:
 - i. take appropriate action,
 - *ii.* pass the relevant entries to the reconciliation participant.
- c) ensure the log forms part of an audit trail which includes:
 - *i. the date and,*
 - ii. time of the interrogation,
 - iii. operator (where available),
 - iv. unique ID of the data storage device,
 - v. any clock errors outside specified limits,

vi. method of interrogation,

vii. identifier of the reading device used (if applicable).

Audit observation

FCLM

I conducted a walkthrough of the event management process, and I checked the most recent reports sent to all relevant retailers.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

LMGL

LMGL does not conduct electronic data collection.

Audit commentary

<u>FCLM</u>

Compliance is recorded in the EDMI MEP agent audit report. EDMI provides reporting of events to FCLM who report these to reconciliation participants.

The FCLM process includes a step where the event logs are reviewed daily by an automated process from the location where they are stored. The process sends alerts for critical events to Customer Excellence Representatives who review and take actions including creation of field jobs as required or pass the event on to the technical team for further investigation. Event reports are sent to retailers and the files are then moved to an archive location. I checked the reports provided to 17 retailers on 13 February 2024 and confirmed that all events were included.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit outcome

Compliant

10.9. Comparison of HHR Data with Register Data (Clause 8(9) of Schedule 10.6)

Code reference

Clause 8(9) of Schedule 10.6

Code related audit information

When raw meter data can only be obtained from the MEP's back office, the MEP must ensure that each electronic interrogation that retrieves half-hour metering information compares the information against the increment of the metering installations accumulating meter registers for the same period.

Audit observation

<u>FCLM</u>

I conducted a walkthrough of the sum-check process, and I checked the most recent reporting.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit commentary

<u>FCLM</u>

Compliance is recorded in the EDMI MEP agent audit report. EDMI provides reporting of sum-check failures to FCLM and this feeds into the FCLM process described below.

The sum-check process is conducted in Orion and the reporting identifies meters which have failed for three days. A request is sent to the retailer to create a job to replace any meters identified. The register read materiality threshold is set at 1KWh. The report was examined, and it identified 23 meters where the sum-check had failed between January 2023 and January 2024. Analysis of the 23 cases found that work orders had been issued to replace the meters and 19 of the meters had been replaced and the metering installations recertified, but only one was completed within ten business days. There was no process to cancel certification on the registry within ten business days and cancellation only happens at the time of recertification. Non-compliance is recorded in **section 6.4** for the 22 ICPs that had failed sum-check and were not resolved within three business days where the registry was not updated with the cancellation within ten business days. Prior to completion of the audit FCLM advised that an automated step had been added to the process which will cancel certification of the metering installation when a failed sum-check is not remedied within three business days.

Compliance is achieved with this clause because a sum-check is conducted.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

LMGL

LMGL does not conduct electronic data collection.

Audit outcome

Compliant

10.10. Correction of Raw Meter Data (Clause 10.48(2),(3))

Code reference

Clause 10.48(2),(3)

Code related audit information

If the MEP is notified of a question or request for clarification in accordance with clause 10.48(1), the MEP must, within ten business days:

- respond in detail to the questions or requests for clarification,
- advise the reconciliation participant responsible for providing submission information for the POC of the correction factors to apply and period the factors should apply to.

Audit observation

<u>FCLM</u>

FCLM has not received any requests in relation to this clause.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>
LMGL does not conduct electronic data collection.

Audit commentary

FCLM

Compliance is recorded in the EDMI MEP agent audit report.

FCLM has not received any requests in relation to this clause.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit outcome

Compliant

10.11.Raw meter data and compensation factors (Clause 8(10) of Schedule 10.6)

Code reference

Clause 8(10) of Schedule 10.6

Code related audit information

The MEP must not apply the compensation factor recorded in the registry to raw meter data downloaded as part of the interrogation of the metering installation.

Audit observation

FCLM

I checked whether compensation factors were applied to raw meter data.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit commentary

<u>FCLM</u>

The EDMI MEP agent audit report confirmed that EDMI does not apply compensation factors to raw meter data as an agent to FCLM. EDMI applies compensation factors as an agent to the reconciliation participant, which is covered by a separate reconciliation participant agent audit report.

FCLM is not applying compensation factors to raw meter data.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

LMGL

LMGL does not conduct electronic data collection.

Audit outcome

Compliant

10.12. Investigation of AMI interrogation failures (Clause 8(11), 8(12) and 8(13) of Schedule 10.6)

Code reference

Clause 8(11), 8(12) and 8(13) of Schedule 10.6

Code related audit information

If an interrogation does not download all raw meter data, the MEP must investigate the reason why or update the registry to show the meter is no longer AMI.

If the MEP chooses to investigate the reasons for the failure the MEP has no more than 30 days or 25% of the maximum interrogation cycle, from the date of the last successful interrogation (whichever is shorter).

If the MEP does not restore communications within this time or determines they will be unable to meet this timeframe they must update the registry to show the meter is no longer AMI.

Audit observation

<u>FCLM</u>

I requested reporting on interrogation cycles to confirm compliance.

TRUM

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit commentary

<u>FCLM</u>

Compliance is recorded in the EDMI MEP agent audit report. EDMI provides reporting to FCLM which feeds into the FCLM non-communicating meter process.

I checked a report sent by FCLM which detailed the status of non-communicating meters or meters where data is incomplete. The FCLM process is that this report is run daily and identifies category 1 meters that have not communicated for 20 days (maximum interrogation cycle = 90 days) and category 2 meters that have not communicated for seven days (maximum interrogation cycle = 30 days) and the AMI flag is changed to "N". My analysis of the report confirmed that all meters with an AMI flag of "Y" were interrogated within the maximum interrogation cycle.

<u>TRUM</u>

TRUM does not conduct electronic data collection.

<u>LMGL</u>

LMGL does not conduct electronic data collection.

Audit outcome

Compliant

CONCLUSION

The audit found 16 non-compliances and makes one recommendation. The overall number of noncompliances has reduced by two since the last audit and there have been improvements made in a number of areas. Influx has expanded its process for monitoring load at metering installations certified at a lower category or with insufficient load, the monitoring now also identifies any cases where load exceeds the category limits. The number of errors found in certification reports from ATHs has decreased significantly since the last audit due to improvements made in ATH processes. Influx is making good progress on its recertification and maintenance of certification programs which has seen a decrease in the number of ICPs with expired or cancelled metering installation certification. A statistical sampling recertification project is nearing completion which will see the recertification of approximately 40,000 category 1 ICPs.

On 15 June 2023 the Electricity Authority published a memo detailing changes to data collection responsibilities. This memo changes the arrangements originally established in 2013, which stated that all data collection, apart from AMI data collection, was the responsibility of the reconciliation participant. The 2023 memo changes the responsibility for some data collection from the reconciliation participant to the MEP, where the MEP has not provided the capability to collect data to the reconciliation participant. EDMI NZ Limited (EDMI) collects data as an agent from some meters where Influx is the MEP. At the time of the audit there 369 meters being interrogated by EDMI. I reviewed the EDMI MEP agent audit report which was completed in August 2023 to determine compliance and the EDMI agent report will be supplied with this audit.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The future risk rating table provides some guidance on this matter and recommends an audit frequency of six months. After considering the responses from Influx to the areas of non-compliance I recommend an audit frequency of 18 months to reflect the improvements which have been made during the audit period.

PARTICIPANT RESPONSE

Influx Data would like to thank Brett Piskulic from Provera for his input into the review of our MEP compliance audit. Influx Data is committed to both achieving and maintaining compliance of our metering fleet. We have a robust compliance plan that has been submitted to the E.A that identifies all resources required to meet these goals and a project timeframe that is over several years.

A reduction from 39 to 25 reflects our ongoing commitment to compliance.

We would like to raise some concerns to the E.A of issues that are continuing to impede any improvement on Future Risk Rating and Audit Frequency.

Site Certification.

Non-Compliance should not be counted twice on 2 different clauses 7.1 and 7.19 given 7.19 is no longer valid due to interim certification no longer exists.

Registry Events

2.5, 3.2, 4.1, 5.1, 6.1, 6.2, 7.9, 8.2

Most of these points are due to the actions of other participants or the design of the Registry.

This was notified to the E.A in our submission CRP5-16 where both the Distributor and the Trader have had rule changes for when they are late updating the Registry. The MEP seems to have been ignored in rule changes and it is actually a Registry problem that needs to be addressed.

Prevailing Load Test Requirements

Submission submitted to the E.A by ATHs December 2023.

Statistical Sampling Certification Procedure

Change request sent to the E.A September 2023

UTC

We are getting an increasing number of unable to complete certification jobs.

They are for a number of reasons such as Customer refusal, Health and Safety, Unable to locate.

We are collating these reasons and are seeking advice from the E.A on how these should be handled as far as non-compliance is concerned.

Risk rating table.

We think the makeup of the table needs reviewing. Due to its makeup and the reliance on other participants a MEP will always be in the 3 to 6 months audit frequency.

The time frame to complete an audit is around 6 months.

Considering our concerns raised and a reduction from 39 to 25 points we therefore request a timeframe of 24 months for our next audit.

David Barnett

Compliance Manager Influx Service Delivery.