ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT

VERITEK

For

THE LINES COMPANY

NZBN: 9429038879517

Prepared by: Tara Gannon

Date audit commenced: 1 February 2023

Date audit report completed: 16 February 2023

Audit report due date: 16 March 2023

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EXECUTIVE SUMMARY

This distributor audit was performed at the request of **The Lines Company Ltd (TLC)** to encompass the Electricity Industry Participation Code requirement for an audit as required by clause 11.10 of part 11. The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority.

TLC have made improvements during the audit period, including adopting some recommendations made in the last audit and improving data validation. TLC is working to resolve historic issues relating to private unmetered streetlights which are excluded from DUML databases and has created new standard unmetered load to account for this.

The following areas require some improvement to ensure future compliance:

- ensure that event dates are consistently updated to the date that the event attributes apply from when processing updates in Axos,
- ensure that the trader is always advised when one of their ICPs is bridged,
- increase the frequency of registry validation and refine the BI reporting to eliminate invalid mismatches to make the report more user-friendly, and
- review the electrical connection of streetlights to ensure that a trader has accepted responsibility for the additional load.

This audit found 13 areas of non-compliance and makes five recommendations for improvement. The future risk rating is 21 (a reduction from 26), indicating that the next audit be due in six months. Given that all confirmed data accuracy issues were cleared by the time that the audit was complete, all of the non-compliances had a low impact, and several were caused by two correctly backdated new connections for historic unmetered load, I recommend that the next audit is completed in a minimum of 12 months.

The matters raised are set out in the table below.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1)	All of the errors were corrected during the audit. **Initial electrical connection dates** Two ICPs created during the audit period, and three ICPs created and connected prior to the audit period (but after 29 August 2013) had incorrect initial electrical connection dates. Ten network events populating the initial electrical connection date had incorrect event dates applied, out of a population of 32 with potentially incorrect dates. **Distributed generation** Two missing distributed generation updates. Seven updates with incorrect event dates. Three distributed generation updates provided on application form date instead of installation date, and the event date was incorrect. Two distributed generation updates with incorrect generation capacity. One ICP had incorrect distributed generation details. **Unmetered load** Three ICPs had incorrect distributor unmetered load details. **NSP** ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331. **Address** ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*.	Moderate	Low	2	Cleared
Provision of information on	2.4	11.30A	Information on Utilities Disputes was temporarily excluded from addressed	Strong	Low	1	Cleared

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
dispute resolution scheme			letters, but this was resolved prior to the audit.				
Timeliness of Provision of ICP Information to the registry manager	3.4	7(2) of Schedule 11.1	Two late updates to ready status, network, address, and pricing information for historic unmetered load ICPs.	Strong	Low	1	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	Late population of the initial electrical connection dates for 43 ICPs.	Moderate	Low	2	Identified
Connection of ICP that is not an NSP	3.6	11.17	A trader was not recorded on the registry on the initial electrical connection date for new standard unmetered ICPs 1100000269WM70B and 1100000260WM95A.	Strong	Low	1	Identified
Electrical connection of a point of connection	3.16	10.33A	No trader acceptance prior to the electrical connection of new streetlights to the network.	Weak	Low	3	Investigating
Meter bridging	3.18	10.33C	Traders are not consistently notified of bridged meters.	Moderate	Low	2	Identified
Changes to registry information	4.1	8 Schedule 11.1	One late address update. Up to 167 late pricing updates. 23 late updates to decommissioned status. 49 late distributed generation updates. Two late NSP changes. 155 late updates to the direct billed status.	Moderate	Low	2	Identified
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331. The NSP was corrected during the audit.	Strong	Low	1	Cleared
ICP location address	4.4	2 Schedule 11.1	ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*. The addresses have now been corrected. Some other ICPs are likely to have incorrect address regions recorded.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Distributors to Provide ICP Information to the Registry manager	4.6	7(1) Schedule 11.1	All of the errors were corrected during the audit. **Initial electrical connection dates** Two ICPs created during the audit period, and three ICPs created and connected prior to the audit period (but after 29 August 2013) had incorrect initial electrical connection dates. Ten network events populating the initial electrical connection date had incorrect event dates applied, out of a population of 32 with potentially incorrect dates. **Distributed generation** Two missing distributed generation updates. Seven updates with incorrect event dates. Three distributed generation updates provided on application form date instead of installation date, and the event date was incorrect. Two distributed generation updates with incorrect generation capacity. One ICP had incorrect distributed generation details. **Unmetered load** Three ICPs had incorrect distributor unmetered load details. **NSP** ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331. **Address** ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*.	Moderate	Low	2	Cleared
Maintenance of price category codes	4.12	23 of Schedule 11.	15 new unmetered load price categories (UML1-UML15) were not created on the registry two months before their registry start date.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Responsibility for metering information for NSP that is not a POC to the grid	6.8	10.25(1) & 10.26(1)	MEP0112LINENP and MEP0113LINENP temporarily had expired metering certification.	Strong	Low	1	Cleared
Future Risk Rating						21	

Future risk rating	0-1	2-5	6-8	9-20	21-29	30+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Recommendation	Description
Requirement to provide complete and accurate information	2.1	Registry – Axos validation	Refine the BI report to eliminate the invalid mismatches, then use it to validate data in fields held in Axos against the registry at least weekly and investigate and resolve any discrepancies.
Requirement to provide complete and accurate information	2.1	AC020 trader compliance report review	Review and investigate accuracy exceptions on the AC020 trader compliance report at least monthly.
Electrical connection of a point of connection	3.16	Electrical connection of a point of connection	Review the electrical connection of streetlights to ensure that a trader has accepted responsibility for the additional load.
Distributors to Provide ICP Information to the Registry manager	4.6	Check potentially incorrect event dates	Check the list of event updates with potentially incorrect initial electrical connection dates and update Axos and the registry if necessary.
Distributors to Provide ICP Information to the Registry manager	4.6	Distributed generation details for 1100000174WM1FE	Confirm that the distributed generation details are correct for 1100000174WM1FE.

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

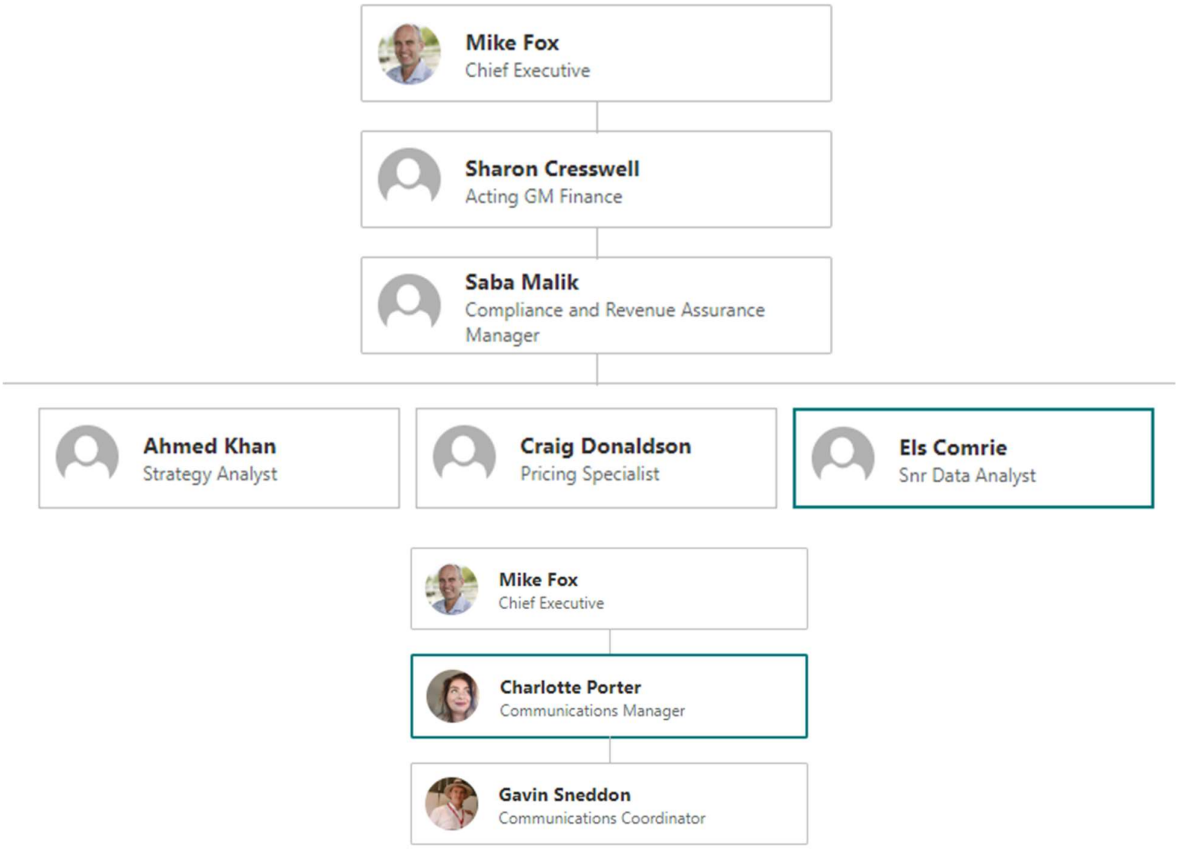
The Authority website was checked to determine whether there are code exemptions in place.

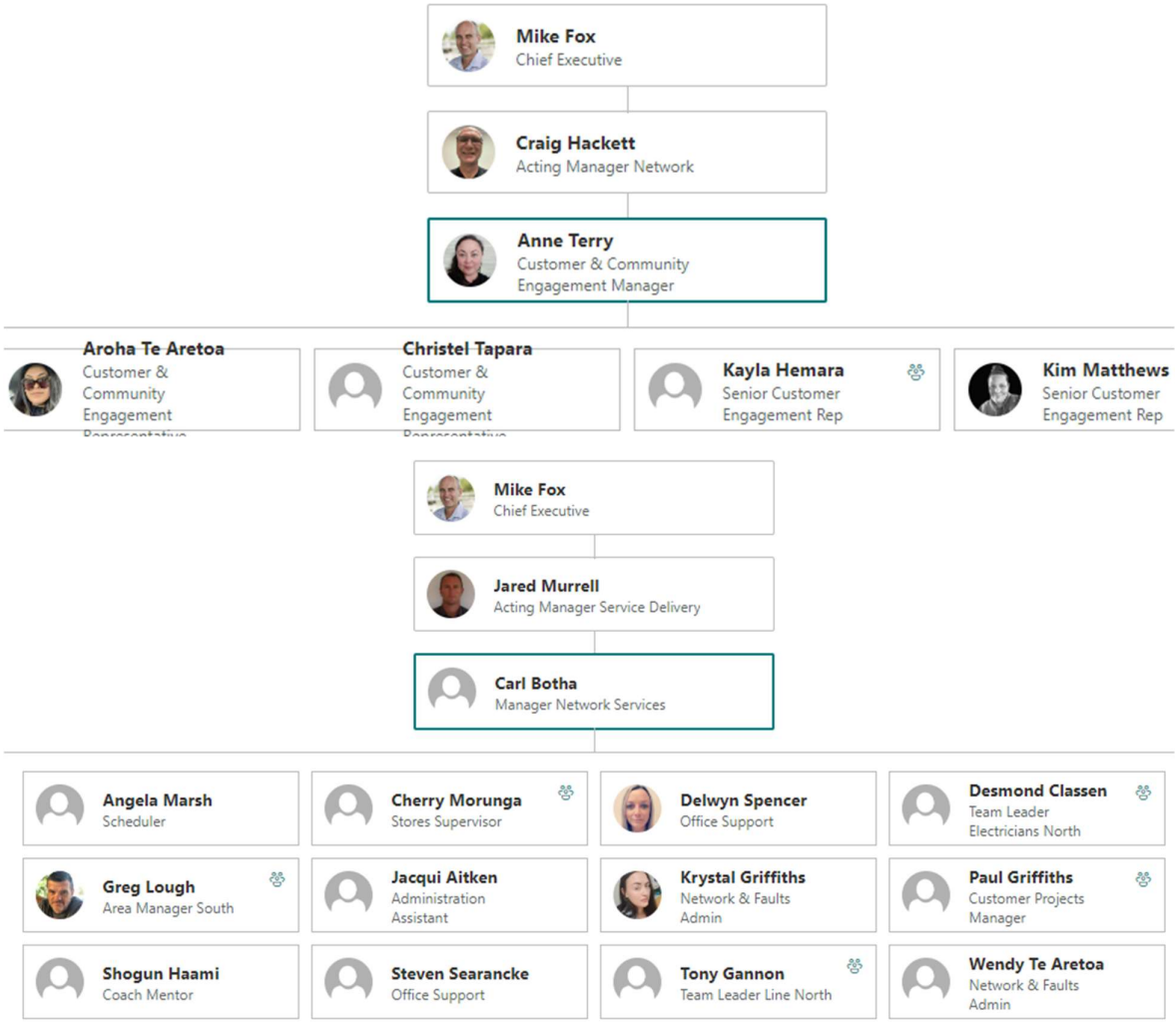
Audit commentary

Review of exemptions on the Authority website confirmed that there are no exemptions in place relevant to the scope of this audit.

1.2. Structure of Organisation

TLC provided an organisational structure. The relevant parts are detailed below:





1.3. Persons involved in this audit

Auditor:

Tara Gannon

Veritek Limited

Electricity Authority Approved Auditor

Personnel assisting in this audit were:

Name	Title	Organisation
Anne Terry	Customer & Community Engagement Manager	The Lines Company
Charlotte Porter	Communications Manager	The Lines Company
Craig Donaldson	Pricing Specialist	The Lines Company

Name	Title	Organisation
Els Comrie	Senior Data Analyst	The Lines Company
Saba Malik	Compliance and Revenue Assurance Manager	The Lines Company
Janna Gray	Office Administrator	The Lines Company
Jacqueline Aitken	Team Leader Admin & Faults	The Lines Company
Crystal Griffiths	Network and Faults Administrator	The Lines Company

1.4. Use of contractors (Clause 11.2A)

Code reference

Clause 11.2A

Code related audit information

A participant who uses a contractor

- *remains responsible for the contractor's fulfilment 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

TLC does not normally subcontract any activities within the scope of this audit. Independent contractors are used if the workload in the field requires this.

Audit commentary

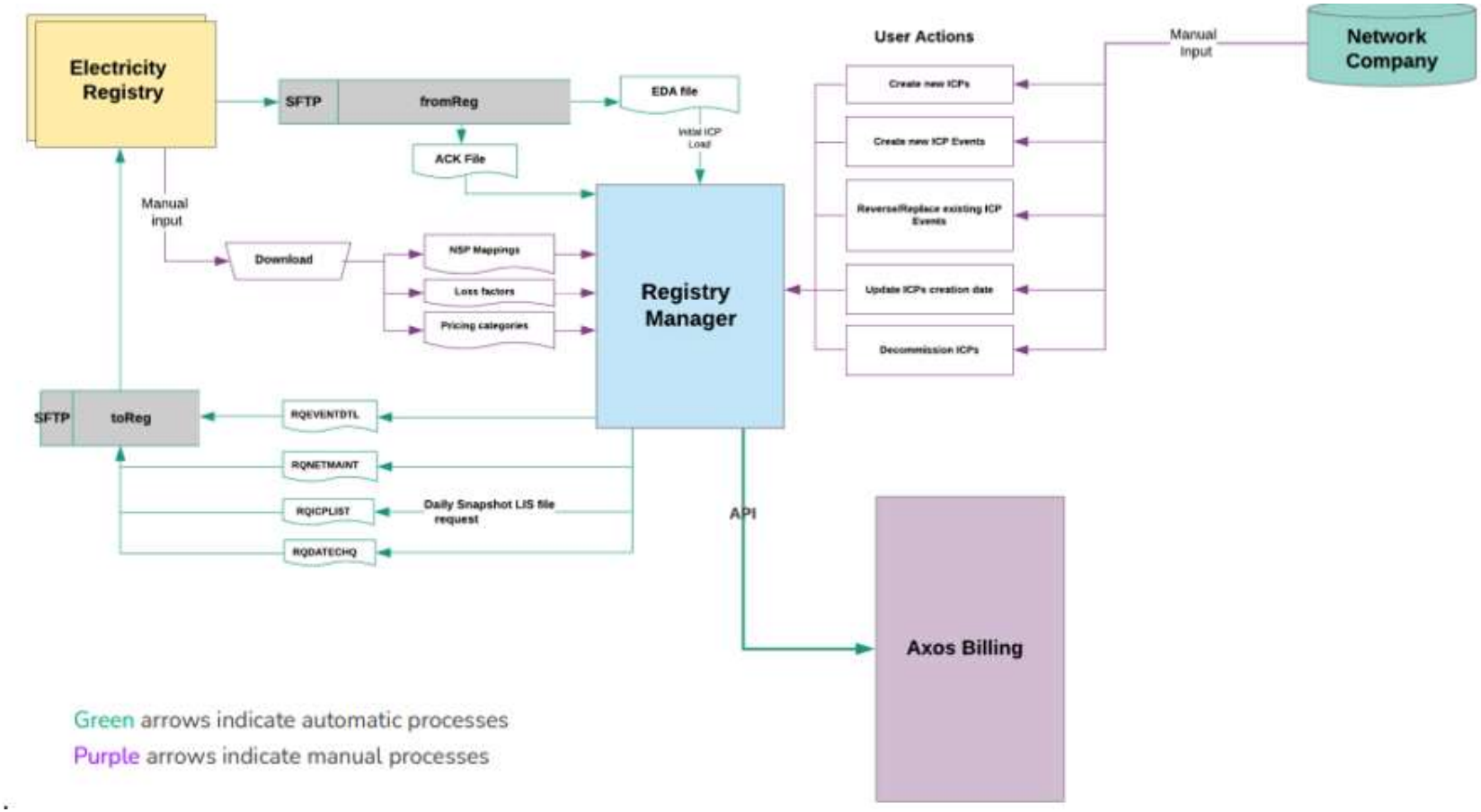
Wayne Pooley and Hakaraia Electrical are engaged by TLC for electrical inspection when required due to workloads. They are qualified electricians and electrical inspectors.

1.5. Supplier list

TLC occasionally subcontracts dependent on workload requirements as detailed above.

1.6. Hardware and Software

TLC provided the diagram below showing the integration of the Axos Registry Manager system with other systems and processes:



Axos backups are created each morning and retained for 30 days.

Access to TLC's systems is restricted through individual logins and passwords. An audit trail of user actions is kept within Axos.

Basix is TLC's asset management system. NSP information held in Basix is manually updated in Axos.

1.7. Breaches or Breach Allegations

There have been no alleged breaches during the audit period.

1.8. ICP and NSP Data

The table below lists the relevant NSPs, and their associated balancing areas. There have been no changes made during the audit period. Active ICP numbers are as of 21 November 2022.

Dist	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
LINE	ATI0111	ATIAMURI	HTI0331	LINE	NORTHLINEG	I	1/05/08	-
LINE	HTI0331	HANGATIKI			NORTHLINEG	G	1/02/12	11,615
LINE	HTI1101	HANGATIKI			NORTHLINEG	G	25/2/19	-
LINE	MEP0112	MOKAI	HTI0331	LINE	NORTHLINEG	I	16/02/12	-
LINE	MEP0113	MOKAI	HTI0331	LINE	NORTHLINEG	I	16/02/12	-
LINE	NPK0331	NATIONAL PARK			CENTRALLINEG	G	1/07/11	832
LINE	OKN0111	OHAKUNE			OKN0111LINEG	G	1/05/08	2,123
LINE	ONG0331	ONGARUE			CENTRALLINEG	G	1/05/08	4,487
LINE	TKU0331	TOKAANU			CENTRALLINEG	G	1/05/08	4,955
LINE	TLC0111	TANGIWAI OHAKUNE INTERCONNECT	OKN0111	LINE	OKN0111LINEG	I	01/07/19	-
LINE	WKM0331	WHAKAMARU	HTI0331	LINE	NORTHLINEG	I	1/05/08	-

A summary of TLC's ICPs by status is shown in the table below:

Status	2022	2021	2020	2019	2018	2017	2016
Distributor (888)	-	-	-	-	-	-	-
New (999)	-	2	1	3	1	-	-
Ready (000)	28	32	21	13	26	8	9
Active (2,0)	24,012	23,885	23,649	23,593	23,596	23,501	23,311

Status	2022	2021	2020	2019	2018	2017	2016
Inactive - new connection in progress (1,12)	71	54	45	44	37	34	28
Inactive – vacant (1,4)	289	268	308	298	295	435	752
Inactive - reconciled elsewhere (1,5)	-	-	-	-	-	1	-
Inactive – AMI remote disconnection (1,7)	56	28	4	3	-	1	-
Inactive – disconnected due to meter disconnected (1,8)	35	28	38	41	64	50	38
Inactive – at pole fuse (1,9)	2	1	4	2	2	1	1
Inactive – disconnected at meter box switch (1,10)	1	-	-	-	1	-	-
Inactive - at meter box switch (1,11)	1	1	2	3	5	9	57
Inactive – ready for decommissioning (1,6)	15	12	8	5	42	76	52
Decommissioned (3)	3,741	3,682	3,546	3,465	3,175	2,832	2,502

1.9. Authorisation Received

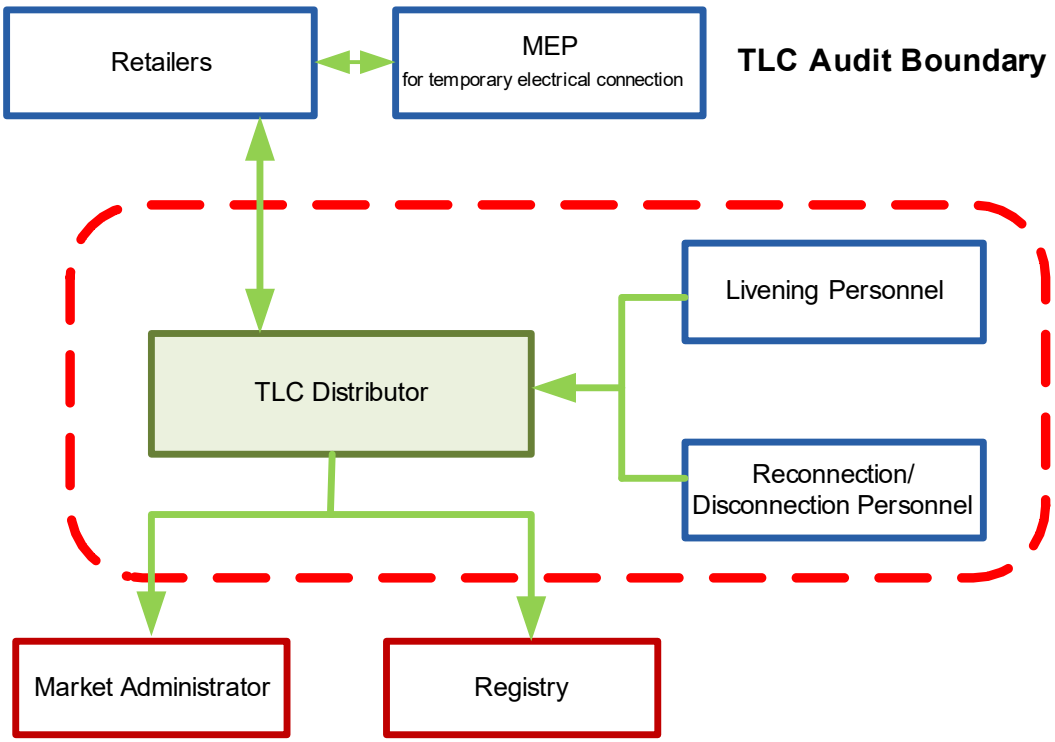
TLC provided a letter of authorisation to Veritek.

1.10. Scope of Audit

This distributor audit was performed at the request of TLC to encompass the Electricity Industry Participation Code requirement for an audit as required by clause 11.10 of part 11. The audit was carried out remotely using Microsoft Teams on 1 February 2023. The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority. All activities covered by this audit are conducted at TLC's office in Te Kuiti.

The audit analysis was based on registry list, event detail and audit compliance reports for 1 January 2022 to 21 October 2022, and registry list snapshot and meter installation details reports for 21 October 2022.

The scope of the audit is shown in the diagram below, with the TLC audit boundary shown for clarity.



1.11. Summary of previous audit

I reviewed the previous audit conducted in March 2022 by Steve Woods and Rebecca Elliot. The current status of the non-compliances and recommendations for each report is listed below.

Table of Non-compliances

Subject	Section	Clause	Non-compliance	Status
Audit Submission	1.12	16A.13(1)	Late submission of audit report.	Cleared.
Requirement to provide complete and accurate information	2.1	11.2(1)	Data validation reporting not in place since Axos was deployed in October 2021 to compare registry vs. Axos data which could result in data mismatches not being identified. One instance was identified of this. Nine ICPs incorrectly recorded against NSP WKM0331. Five ICPs had incorrect initial electrical connection dates, which were corrected during the audit. ICP 0003271548WM74C has no initial electrical connection date recorded. Five of seven ICPs sampled had the incorrect distributed generation kW value. Backdated	Still existing because some incorrect event dates were identified. Improved validation processes have been implemented, but refinement of the Power BI report and increased validation frequency is recommended. All data exceptions identified during the previous audit have been corrected.

Subject	Section	Clause	Non-compliance	Status
			corrections to the capacities were processed during the audit. Three of seven ICPs sampled had the incorrect date of distributed generation installation recorded. Two ICPs with a generation value but no fuel type and an installation type of L. ICP 0001113502WM7A6 incorrectly recorded with unmetered load. Three ICPs with the incorrect wattage value recorded in the unmetered load details. Five of ten ICPs sampled decommissioned for the incorrect event date.	
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Data validation reporting not in place since Axos was deployed in October 2021 to compare registry vs. Axos data which has resulted in data mismatches not being identified. One instance was identified of this.	Cleared, data validation processes have improved during the audit.
Provision of ICP Information to the registry manager	3.3	11.7	One electrically connected ICP with no initial electrical connection date populated.	Cleared.
Timeliness of Provision of ICP Information to the registry manager	3.4	7(2) of Schedule 11.1	Six ICPs not created prior to electricity being traded.	Still existing.
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	Late population of the initial electrical connection dates for 28 ICPs.	Still existing.
Management of "new" status	3.13	13 of Schedule 11.1	ICP 1100000009WM2FC incorrectly recorded at the "new" status.	Cleared.
Electrical connection of a point of connection	3.16	10.33A	No trader acceptance prior to the electrical connection of new streetlights to the network.	Still existing.
Meter bridging	3.18	10.33C	Traders not notified of bridged meters.	Still existing.
Changes to registry information	4.1	8 Schedule 11.1	Ten late address updates. 521 late pricing events. 69 late updates to decommissioned status. 13 late distributed generation updates. Eight late network updates to other network fields, excluding initial updates to initial electrical connection dates and the addition of distributed generation.	Still existing.

Subject	Section	Clause	Non-compliance	Status
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	Nine ICPs incorrectly recorded against NSP WKM0331.	Cleared for the previous audit non-compliance. New non-compliance for one ICP which has been corrected.
ICP location address	4.4	2 Schedule 11.1	Two ICPs with addresses not readily locatable. One ICP with the incorrect town recorded, which was corrected during the audit.	Cleared for the previous audit non-compliance. New non-compliance for three ICPs with incorrect regions.
Distributors to Provide ICP Information to the Registry manager	4.6	7(1) Schedule 11.1	Five ICPs had incorrect initial electrical connection dates, which were corrected during the audit. ICP 0003271548WM74C has no initial electrical connection date recorded. Five of seven ICPs sampled had the incorrect distributed generation kW value. Backdated corrections to the capacities were processed during the audit. Three of seven ICPs sampled had the incorrect date of distributed generation installation recorded. Two ICPs with a generation value but no fuel type and an installation type of L. ICP 0001113502WM7A6 incorrectly recorded with unmetered load. Three ICPs with the incorrect wattage value recorded in the unmetered load details.	Cleared for the previous audit non-compliance. Some new non-compliances for distributed generation, initial electrical connection date, NSP and address information.
Management of "decommissioned" status	4.11	20 of Schedule 11.1	Five of ten ICPs sampled decommissioned for the incorrect event date.	Cleared.
Maintenance of price category codes	4.12	23 of Schedule 11.	Price category code CAPDED not notified two months before coming into effect.	Still existing.
Responsibility for metering information for NSP that is not a POC to the grid	6.8	10.25(1) & 10.26(1)	WKM0331 meter was uncertified from 23 September 2021 to 19 October 2021. The meter certification expiry date was not updated within 20 business days of the meter certification.	Still existing.

Table of Recommendations

Subject	Section	Recommendation	Status
Requirement to provide complete and accurate information	2.1	Validate data in fields held in Axos against the registry at least weekly and investigate and resolve any discrepancies.	Partially adopted, a further recommendation is raised.
Electrical connection of a point of connection	3.16	Review the electrical connection of streetlights to ensure that a trader has accepted responsibility for the additional load.	Repeated.
ICP location address	4.4	Periodically check for ICPs with Lot numbers recorded.	Adopted. Now checked monthly using the registry CD (current details) report.
Distributors to Provide ICP Information to the Registry man	4.6	At least monthly, compare ICPs which have an EG1 or PV1 profile on the registry list to the list of ICPs which distributed generation applications have been received for. It may also be helpful to cross check to the MEP's meter channel records to determine whether injection registers are installed, and the high risk database may also contain information on generation installation (https://www.energysafety.govt.nz/energysafety/app/highrisk-db/home). Monitor EIEP1 files to identify ICPs with generation recorded where TLC has none. Follow up with the trader and/or customer to determine whether generation is installed.	Adopted.

2. OPERATIONAL INFRASTRUCTURE

2.1. Requirement to provide complete and accurate information (Clause 11.2(1) and 10.6(1))

Code reference

Clause 11.2(1) and 10.6(1)

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Parts 10 or 11 is:

a) complete and accurate
b) not misleading or deceptive
c) not likely to mislead or deceive.

Audit observation

I walked through the process to ensure that registry information is complete, accurate and not misleading or deceptive, including viewing reports used to resolve discrepancies. The registry list and audit compliance reports were examined to determine compliance.

Audit commentary

Registry synchronisation

ICP status, address, network, and pricing information is maintained in Axos. Each event type has an event date field, which defaults to today's date and can be modified.

Axos validates the data to ensure that the data meets the registry's requirements for registry fields; and drop-down boxes are used to restrict values where practical. There are some system controls over data consistency, for example:

- generation capacity and fuel type can only be populated if the installation type is B or G,
- initial electrical connection dates cannot be future dated, and
- if GPS northing or easting is populated, the other must also be populated.

A synchronisation is completed each day to capture registry data updates within the last seven days unless it is manually triggered as an operator makes a change.

Axos retrieves registry acknowledgement files every five minutes. The files are reviewed in the registry manager to identify successful and failed updates. Failed updates appear as synchronisation status alerts on the landing page in Axos and are investigated.

If an event needs to be changed, it can be deleted before the record is synchronised with the registry, otherwise Axos allows event reversals and replacements to be sent. Events can only be reversed if they are the latest event for that event type, and if an older event needs to be reversed all later events must be reversed or the update will need to be manually processed on the registry.

Registry events processed by other parties are updated in Axos daily. A synchronisation is completed each morning at 4am to capture registry data updates within the last seven days. Axos does not use notification files.

Registry and data validation

The registry synchronisation ensures that the current values recorded in Axos match the registry. Unsuccessful updates are identified and resolved through the synchronisation process.

There are controls in place to ensure that if a change is deleted or modified in Axos prior to synchronisation the correct values will be updated on the registry, and the systems will be consistent.

The previous audit recommended validating data in fields held in Axos against the registry at least weekly and investigating and resolving any discrepancies. Power BI reporting had been developed to compare current and historic records in Axos and the registry. TLC has found that large numbers of invalid mismatches are being reported because of the way Axos presents reversed and replaced data, and the reporting is being refined to resolve this.

The Power BI reports were reviewed in August, October and November 2022 but very few genuine exceptions were identified, and the report has not been reviewed since. TLC intends to complete regular validation once the report is corrected to eliminate the invalid mismatches.

The AC020 reports are being reviewed periodically as workloads allow and I saw evidence of reviews in September and October 2022.

TLC also runs registry CD (current details) reports monthly and completes thorough analysis as workloads allow, including a review of incomplete and duplicate addresses in July and August 2022, follow up of ICPs which have been initially electrically connected but not made active by the retailer in August 2022, discrepancies between distributor and trader unmetered load details in September 2022.

TLC intends to run these checks more frequently as workloads settle and new staff are trained.

Recommendation	Description	Audited party comment	Remedial action
Registry – Axos validation	Refine the BI report to eliminate the invalid mismatches, then use it to validate data in fields held in Axos against the registry at least weekly and investigate and resolve any discrepancies.	There are IT issues with systems connecting to produce this report. Our external IT providers are working on the connectivity to provide this validation tool.	Investigating
AC020 trader compliance report review	Review and investigate accuracy exceptions on the AC020 trader compliance report at least monthly.	TLC will implement this recommendation.	Identified

Data accuracy issues

Some incorrect data was identified during the audit and was corrected as soon as practicable after discovery. Some of these issues could have been discovered and resolved sooner, had the validations recommended above been in place.

Registry field(s)	Inaccurate data which was found during the audit and has been corrected	Report section(s)
Initial electrical connection dates	Two ICPs created during the audit period, and three ICPs created and connected prior to the audit period (but after 29 August 2013) had incorrect initial electrical connection dates. Ten network events populating the initial electrical connection date had incorrect event dates applied, out of a population of 32 with potentially incorrect dates.	4.6
Distributed generation	Two missing distributed generation updates. Seven updates with incorrect event dates.	4.6

Registry field(s)	Inaccurate data which was found during the audit and has been corrected	Report section(s)
	Three distributed generation updates provided on application form date instead of installation date, and the event date was incorrect. Two distributed generation updates with incorrect generation capacity. One ICP had incorrect distributed generation details.	
Unmetered load	Three ICPs had incorrect distributor unmetered load details.	4.6
NSP	ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331.	4.2, 4.6
Address	ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*.	4.4, 4.6

There have been some intermittent issues with incorrect event dates being applied, mainly where the user has missed updating the event date (which defaults to today's date in Axos) or created a distributed generation update from an incorrect date. Event dates were discussed during the audit and TLC has a clear understanding of how event dates should be determined for distributed generation, which should improve future compliance.

Previous audit data accuracy exceptions

I rechecked data accuracy issues from the previous audit which had not been resolved by the time the audit report was finalised. All exceptions were resolved except four ICPs with incorrect decommissioning event dates, where correction has been prevented by MEP events on or after the decommissioning date.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 11.2(1)	All of the errors were corrected during the audit. **Initial electrical connection dates** • Two ICPs created during the audit period, and three ICPs created and connected prior to the audit period (but after 29 August 2013) had incorrect initial electrical connection dates. • Ten network events populating the initial electrical connection date had incorrect event dates applied, out of a population of 32 with potentially incorrect dates. **Distributed generation** • Two missing distributed generation updates. • Seven updates with incorrect event dates. • Three distributed generation updates provided on application form date instead of installation date, and the event date was incorrect. • Two distributed generation updates with incorrect generation capacity. • One ICP had incorrect distributed generation details. **Unmetered load**

From: 01-Jan-22 To: 21-Oct-22	• Three ICPs had incorrect distributor unmetered load details. **NSP** • ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331. **Address** • ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating
Low	I have rated the controls as moderate. More regular validation of data will increase the controls to strong. The audit risk rating is assessed as low as the volume of errors is small in relation to the number of ICPs managed.

Actions taken to resolve the issue	Completion date	Remedial action status
Corrected errors during the audit period. The Region will take a while to correct all	31/08/2023	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Regions: use Axos address default. Have initiated training and refresher training for all staff working in Axos.	Ongoing	

2.2. Requirement to correct errors (Clause 11.2(2) and 10.6(2))

Code reference

Clause 11.2(2) and 10.6(2)

Code related audit information

If the participant becomes aware that in providing information under this Part, the participant has not complied with that obligation, the participant must, as soon as practicable, provide such further information as is necessary to ensure that the participant does comply.

Audit observation

TLC's data management processes were examined.

Audit commentary

TLC have processes in place to identify and resolve registry discrepancies, which have improved since the previous audit. Inaccurate data identified during this audit was resolved as soon as practicable.

Data accuracy could be improved by increasing the frequency of validation processes and refining the Power BI reports as recommended in **section 2.1**.

Audit outcome

Compliant

2.3. Removal or breakage of seals (Clause 48(1A) and 48(1B) of Schedule 10.7)

Code reference

Clause 48(1A) and 48(1B) of Schedule 10.7

Code related audit information

If the distributor provides a load control signal to a load control switch in the metering installation, the distributor can remove or break a seal without authorisation from the MEP to bridge or unbridge the load control device or load control switch – as long as the load control switch does not control a time block meter channel.

If the distributor removes or breaks a seal in this way, it must:

- *ensure personal are qualified to remove the seal and perform the permitted work and they replace the seal in accordance with the Code,*
- *replace the seal with its own seal,*
- *have a process for tracing the new seal to the personnel,*
- *notify the metering equipment provider and trader.*

Audit observation

Processes for removal or breakage of seals were reviewed.

Audit commentary

Only qualified personnel complete work on meters including removal or breakage of seals. All qualified personnel have their own seals to use which are able to be traced to the person.

TLC will only undertake this work on Influx meters, and they advise Influx in every instance. Otherwise, a request to complete the required work is sent to the retailer.

Audit outcome

Compliant

2.4. Provision of information on dispute resolution scheme (Clause 11.30A)

Code reference

Clause 11.30A

Code related audit information

A distributor must provide clear and prominent information about Utilities Disputes:

- *on their website*
- *when responding to queries from consumers*
- *in directed outbound communications to consumers about electricity services and bills.*

If there are a series of related communications between the distributor and consumer, the distributor needs to provide this information in at least one communication in that series.

Audit observation

The process to ensure that information on Utilities Disputes is provided to customers was discussed. TLC's website, email footers, and Utilities Disputes Messaging documentation was reviewed.

Audit commentary

Information on Utilities Disputes is currently provided:

- as part of the customer services script when responding to inbound calls, and in person enquiries at TLC's office,
- as part of the email signature for emails,
- on TLC's website, and
- on outbound letters regarding service and service changes, including planned outages, and maintenance.

Information on Utilities Disputes was temporarily excluded from addressed letters, but this was resolved prior to the audit by updating the letterhead template used for all letters.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.4 With: Clause 11.30A From: 01-Jan-22 To: 31-Jan-23	Information on Utilities Disputes was temporarily excluded from addressed letters, but this was resolved prior to the audit. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are strong because information on Utilities Disputes is now included on all addressed correspondence. The audit risk rating is assessed to be low because information on Utilities Disputes was provided through other channels.

Actions taken to resolve the issue	Completion date	Remedial action status
Added UD information to all outgoing communication	Completed	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Check new templates and include training	Ongoing	

3. CREATION OF ICPS

3.1. Distributors must create ICPs (Clause 11.4)

Code reference

Clause 11.4

Code related audit information

The distributor must create an ICP identifier in accordance with Clause 1 of Schedule 11.1 for each ICP on the distributor's network. This includes an ICP identifier for the point of connection at which an embedded network connects to the distributor's network.

Audit observation

The new connection process was examined in detail and is described in **section 3.2** below.

240 ICPs were created during the period from 1 January 2022 to 21 October 2022. I checked a sample of ten ICPs from the point of application through to when the ICP was created to confirm the process and controls.

Audit commentary

ICPs are created in Axos, and the user populates the address, and network event information at the same time. There are controls over fields to ensure that they are consistent and meet the registry requirements. Once the required fields are populated the user selects the "up sync" button to send the events to the registry, which creates the ICP with the "new" status.

Once the event acknowledgements have been received by Axos and a distributor pricing event has been created and synchronised with the registry, the status is updated to the "ready" status automatically. ICPs are normally updated to "ready" status on the day that they are created.

TLC creates ICPs as required by clause 1 of schedule 11.1, and the sample checked confirmed that they were created compliantly.

There are no ICPs with shared unmetered load on TLC's network. Three private lights which were found not to be recorded against Ruapehu District Council DUML ICPs have had standard unmetered load created, as discussed in **section 4.6**.

The distributor is responsible for creating the ICP for the point of connection for an embedded network to its parent network. There have been no new embedded networks created during the audit period.

Audit outcome

Compliant

3.2. Participants may request distributors to create ICPs (Clause 11.5(3))

Code reference

Clause 11.5(3)

Code related audit information

The distributor, within three business days of receiving a request for the creation of an ICP identifier for an ICP, must either create a new ICP identifier or advise the participant of the reasons it is unable to comply with the request.

Audit observation

The new connection process was examined in detail. I checked a sample of ten of the 240 ICPs created during the period from 1 January 2022 to 21 October 2022 to determine whether the ICPs had been created within three business days of a request by a trader. The sample included different traders.

Audit commentary

New connection data is entered into Axos and transferred to the registry. Copies of all documents are scanned and filed on TLC's network.

- An application for new load (AFL) is provided to TLC by the customer, the customer's agent, or the trader.
- The AFL is approved or declined by a TLC engineer, and the requestor is notified.
- A request for approval is sent to the proposed trader indicated by the requestor, including confirmation of the pricing category to be applied.
- The ICP is created in Axos and the data is synchronised with the registry as discussed in **section 3.1**.
- Once the proposed trader has confirmed acceptance and requested livening, TLC schedules the connection to be completed.

The process ensures that ICPs are created on time but will not be made "ready" without the trader's approval.

A very small number of new connection requests are made by retailers, and most applications are made by the customer or their electrician. If an ICP cannot be created on request because not all the requested information is provided, the trader and/or customer will be advised via email of the reasons for the delay. No recent examples of this were available.

I checked a sample of ten new ICPs and found none were requested by the trader.

Audit outcome

Compliant

3.3. Provision of ICP Information to the registry manager (Clause 11.7)

Code reference

Clause 11.7

Code related audit information

The distributor must provide information about ICPs on its network in accordance with Schedule 11.1.

Audit observation

Data populated on the registry was checked for all ICPs created during the audit period, to confirm that required fields were populated on time.

Audit commentary

Processes to send, receive, and validate registry information are discussed in detail in **section 2.1.**

ICPs are created in Axos, and the user populates the address, and network event information at the same time. There are controls over fields to ensure that they are consistent and meet the registry requirements. Once the required fields are populated the user selects the "up sync" button to send the events to the registry, which creates the ICP with the "new" status.

Once the event acknowledgements have been received by Axos and a distributor pricing event has been created and synchronised with the registry, the status is updated to the "ready" status automatically.

When creating an ICP, the operator:

- checks the address in Axos, on the registry and in the Basix GIS system before creating the ICP, to ensure that there are no existing ICPs with the same address (Axos will flag to an operator if there is another ICP with the same address, but it must be exactly the same to flag correctly),
- selects the transformer and NSP manually in Axos, these details are determined from engineering team data entered into Basix, and
- selects the loss factor is determined based on geography.

The Senior Data Analyst provides the price plan and checks if there are any address issues (such as lot numbers), and that the transformer, NSP and loss factor are correctly entered.

ICP information provided to the registry was correct for the sample of ICPs checked against application and connection details. The required fields were populated on the registry for all new connections.

Audit outcome

Compliant

3.4. Timeliness of Provision of ICP Information to the registry manager (Clause 7(2) of Schedule 11.1)

Code reference

Clause 7(2) of Schedule 11.1

Code related audit information

The distributor must provide information specified in Clauses 7(1)(a) to 7(1)(o) of Schedule 11.1 as soon as practicable and prior to electricity being traded at the ICP.

Audit observation

The AC020 report was examined to determine the timeliness of the provision of initial electrical connection dates for new connections. All late updates were checked.

Audit commentary

I checked whether the information required under Clause 7(2) of Schedule 11.1 was populated prior to initial electrical connection for new ICPs using the AC020 report, registry list and event detail report.

Two ICPs were created after the initial electrical connection date, and all distributor information was populated late. Both were standard unmetered load ICPs created to capture the load for private unmetered streetlights which were excluded from the Ruapehu District Council's DUML database. ICP 1100000269WM70B was created for two private lights at the Top 10 Holiday Park in Ohakune and 1100000260WM95A was created for one private light at National Park School, Carrol St, National Park. The event date was agreed with the trader.

ICP information provided to the registry was correct for the sample of ICPs checked against application and connection details. The required fields were populated on the registry for all new connections.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.4 With: Clause 7(2) of Schedule 11.1 From: 17-Aug-22 To: 14-Sep-22	Two late updates to ready status, network, address, and pricing information for historic unmetered load ICPs. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong. The updates occurred late because TLC correctly backdated the ICP creation once the historic unmetered load was discovered. The audit risk rating is assessed to be low based on the number of ICPs and load.

Actions taken to resolve the issue	Completion date	Remedial action status
After investigation, created backdated ICPs.	Completed.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Continuing review and validation of ICPs.	Completed.	

3.5. Timeliness of Provision of Initial Electrical Connection Date (Clause 7(2A) of Schedule 11.1)

Code reference

Clause 7(2A) of Schedule 11.1

Code related audit information

The distributor must provide the information specified in subclause (1)(p) to the registry manager no later than 10 business days after the date on which the ICP is initially electrically connected.

Audit observation

The AC020 report was examined to determine the timeliness of the provision of initial electrical connection dates for new connections. A sample of 15 late updates were checked to determine why they were late.

Audit commentary

Initial electrical connection date process

TLC's network services team complete initial electrical connection and provide paperwork confirming the date. In many cases one person completes the network connection and metering installation at the same time. If different people are involved in the connection, the visit is coordinated so that the meter installation and connection occur on the same day. If it is not possible for the meter installation and connection to be completed on the same day, the network services team ensures that the ICP is not connected, and electricity is not flowing into the installation until after the meter is installed.

Initial electrical connection dates are entered into Axos, and data is automatically transferred from Axos to the registry as described in **section 2.1**. Initial electrical connection dates are validated against trader active status dates and meter certification dates using the AC020 report, and a recommendation to increase the frequency of this validation is made in **section 2.1**.

Event dates should reflect the date from which the attribute values for the event apply. In Axos the event date defaults to the current date and can be manually edited by the user if a different event date should be applied. I checked the 211 active network events which first populated the initial electrical connection date. 85% had an event date which matched the initial electrical connection date. The other 32 ICPs had event dates between one and 12 days after the initial electrical connection date and within one day of the update date. I checked a sample of ten updates and found that the initial electrical connection date had not been manually adjusted when entering the update, and TLC corrected the incorrect event dates during the audit. The temporarily incorrect event dates are recorded as non-compliance in **sections 2.1** and **4.6**.

Late initial electrical connection date updates

The AC020 report recorded 45 ICPs where the initial electrical connection date was provided more than ten business days after initial electrical connection. 24 were populated within 30 business days of initial electrical connection, 37 were within 100 business days of initial electrical connection, and the latest update was 1,205 business days after initial electrical connection. I checked the five latest updates (which were 209 to 1205 business days after initial electrical connection), and the ten latest updates for ICPs created during the audit period:

- five were corrections to initial electrical connection dates, after TLC received information confirming the correct date,
- five were caused by delays in processing connection paperwork due to workloads,.
- two related to new standard unmetered ICPs 1100000269WM70B and 1100000260WM95A which were created to account for private unmetered streetlights not recorded in the Ruapehu District Council DUML database; the initial electrical connection dates were correctly backdated as agreed with the trader,
- two were corrections to other network fields and were incorrectly identified as initial electrical connection updates on the AC020 report because they replaced a record which populated the initial electrical connection date, and
- one was for a recently discovered unmetered telecommunications cabinet, and the initial electrical connection dates was correctly backdated as agreed with the trader.

All of the late updates contained the correct initial electrical connection date and event date. The accuracy of the dates is discussed in **section 4.6**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1 From: 10-Jan-22 To: 20-Oct-22	Late population of the initial electrical connection dates for 43 ICPs. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	I have rated the controls as moderate because most initial electrical connection updates were completed on time. The audit risk rating is low this has no direct impact on reconciliation.		
Actions taken to resolve the issue		**Completion date**	**Remedial action status**
Senior team members have been provided with additional training. The next round of training will be broader with improved processes to ensure paperwork is returned for the administrative functions to occur on time.		Commenced.	Identified
Preventative actions taken to ensure no further issues will occur		**Completion date**	
Training and improved processes.		Ongoing with monitoring.	

3.6. Connection of ICP that is not an NSP (Clause 11.17)

Code reference

Clause 11.17

Code related audit information

A distributor must, when connecting an ICP that is not an NSP, follow the connection process set out in Clause 10.31.

The distributor must not connect an ICP (except for an ICP across which unmetered load is shared) unless a trader is recorded in the registry as accepting responsibility for the ICP.

In respect of ICPs across which unmetered load is shared, the distributor must not connect an ICP unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load, and all traders that are responsible for an ICP on the shared unmetered load have been advised.

Audit observation

The new connection process was examined in **sections 3.1** and **3.2**. The registry list and event detail reports were reviewed to determine compliance.

No shared unmetered load is recorded on TLC's network.

Audit commentary

ICPs will not be electrically connected without the agreement from the trader. Trader acceptance is confirmed during the application process. Review of the registry list confirmed that:

- a trader is recorded for all ICPs with "active" or "inactive" status,
- a proposed trader is recorded for all ICPs with "ready" status, and
- shared unmetered load is not recorded for ICPs on TLC's network.

As discussed in **section 3.4**, all ICPs created during the audit period had a proposed trader recorded on the registry prior to the initial electrical connection date, apart from new standard unmetered ICPs 1100000269WM70B and 1100000260WM95A where the proposed trader was recorded on the registry late but the initial electrical connection date was agreed with the trader.

I checked a sample of 15 new connections and confirmed that responsibility was accepted prior to initial electrical connection, except for the historic unmetered load ICPs.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.6 With: 11.17 From: 17-Aug-22 To: 14-Sep-22	A trader was not recorded on the registry on the initial electrical connection date for new standard unmetered ICPs 1100000269WM70B and 1100000260WM95A. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong. The updates occurred late because TLC correctly backdated the ICP creation once the historic unmetered load was discovered. The audit risk rating is assessed to be low based on the number of ICPs and load.

Actions taken to resolve the issue	Completion date	Remedial action status
Improve processes and communications with this retailer.	31/03/2023	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Discuss processes and communication with Retailers, and develop generic email response to retailers regarding retailer acceptance before energisation.	30/04/2023	

3.7. Connection of ICP that is not an NSP (Clause 10.31)

Code reference

Clause 10.31

Code related audit information

A distributor must not connect an ICP that is not an NSP unless requested to do so by the trader trading at the ICP, or if there is only shared unmetered load at the ICP and each trader has been advised.

Audit observation

The new connection process was examined in **sections 3.1** and **3.2**. The registry list and event detail reports were reviewed to determine compliance.

No shared unmetered load is recorded on TLC's network.

Audit commentary

ICPs will not be electrically connected without the agreement from the trader, who in turn has an agreement with an MEP for the ICP. Trader acceptance is confirmed during the application process.

As discussed in **section 3.4**, all ICPs created during the audit period had a proposed trader recorded on the registry prior to the initial electrical connection date, apart from new standard unmetered ICPs 1100000269WM70B and 1100000260WM95A where the proposed trader was recorded on the registry late, but the initial electrical connection date was agreed with the trader.

Audit outcome

Compliant

3.8. Temporary electrical connection of ICP that is not an NSP (Clause 10.31A)

Code reference

Clause 10.31A

Code related audit information

A distributor may only temporarily electrically connect an ICP that is not an NSP if requested by an MEP for a purpose set out in clause 10.31A(2), and the MEP:

- *has been authorised to make the request by the trader responsible for the ICP; and*
- *the MEP has an arrangement with that trader to provide metering services.*

If the ICP is only shared unmetered load, the distributor must advise the traders of the intention to temporarily connect the ICP unless:

advising all traders would impose a material cost on the distributor, and in the distributor's reasonable opinion, the advice would not result in any material benefit to any of the traders.

Audit observation

The new connection process was examined in **section 3.2**.

Audit commentary

An ICP will not be electrically connected without the agreement from the trader, who in turn has agreement with an MEP for the ICP.

TLC's network services team complete initial electrical connection and provide paperwork confirming the date. In many cases one person completes the network connection and metering installation at the same time. If different people are involved in the connection, the visit is coordinated so that the meter installation and connection occur on the same day. If it is not possible for the meter installation and connection to be completed on the same day, the network services team ensures that the ICP is not connected, and electricity is not flowing into the installation until after the meter is installed.

Any ICPs that are temporarily electrically connected follow the same process as all other new connections.

Six ICPs which were initially electrically connected during the audit period had meter certification dates prior to the initial electrical connection date. One of the ICPs was temporarily connected, and the initial electrical connection date was updated to reflect the correct date during the audit. The trader has accepted responsibility and there was an agreement with the MEP in place prior electrical connection. The period where the initial electrical connection date was incorrect is recorded as non-compliance in **sections 2.1** and **4.6**.

Audit outcome

Compliant

3.9. Connection of NSP that is not point of connection to grid (Clause 10.30)

Code reference

Clause 10.30

Code related audit information

A distributor must not connect an NSP on its network that is not a point of connection to the grid unless requested to do so by the reconciliation participant responsible for ensuring there is a metering installation for the point of connection.

The distributor must, within five business days of connecting the NSP that is not a point of connection to the grid, advise the reconciliation manager of the following in the prescribed form:

- *the NSP that has been connected,*
- *the date of the connection*
- *the participant identifier of the MEP for each metering installation for the NSP*
- *the certification expiry date of each metering installation for the NSP.*

Audit observation

The NSP table and notifications to the reconciliation manager were reviewed.

Audit commentary

No new NSPs were created by TLC during the audit period.

Audit outcome

Compliant

3.10. Temporary electrical connection of NSP that is not point of connection to grid (Clause 10.30(A))

Code reference

Clause 10.30(A)

Code related audit information

A distributor may only temporarily electrically connect an NSP that is not a point of connection to the grid if requested by an MEP for a purpose set out in clause 10.30A(3), and the MEP:

- *has been authorised to make the request by the reconciliation participant responsible for the NSP; and*
- *the MEP has an arrangement with that reconciliation participant to provide metering services.*

Audit observation

The NSP table was reviewed.

Audit commentary

No new NSPs were created by TLC during the audit period.

Audit outcome

Compliant

3.11. Definition of ICP identifier (Clause 1(1) Schedule 11.1)

Code reference

Clause 1(1) Schedule 11.1

Code related audit information

Each ICP created by the distributor in accordance with Clause 11.4 must have a unique identifier, called the "ICP identifier", determined in accordance with the following format:

yyyyyyyyyyxxccc where:

- *yyyyyyyyyy is a numerical sequence provided by the distributor,*
- *xx is a code that ensures the ICP is unique (assigned by the Authority to the issuing distributor)*
- *ccc is a checksum generated according to the algorithm provided by the Authority.*

Audit observation

The new connection process was examined, and a sample of 15 ICPs were checked.

Audit commentary

ICP numbers are created in the correct format by AXOS.

Audit outcome

Compliant

3.12. Loss category (Clause 6 Schedule 11.1)

Code reference

Clause 6 Schedule 11.1

Code related audit information

Each ICP must have a single loss category that is referenced to identify the associated loss factors.

Audit observation

The process of allocation of the loss category was examined. The registry list was examined to confirm all active ICPs have a single loss category code.

Audit commentary

The loss category is assigned to the ICP based on the transformer, which is mapped to the NSP. For large ICPs the asset management group will advise the correct loss factor to be applied.

Each active and inactive ICP only has a single loss category, which clearly identifies the relevant loss factor. I checked loss factor assignments against the NSP for all active ICPs and confirmed they were correct.

Audit outcome

Compliant

3.13. Management of "new" status (Clause 13 Schedule 11.1)

Code reference

Clause 13 Schedule 11.1

Code related audit information

The ICP status of "New" must be managed by the distributor to indicate:

- *the associated electrical installations are in the construction phase (Clause 13(a) of Schedule 11.1)*
- *the ICP is not ready for activation (Clause 13(b) of Schedule 11.1).*

Audit observation

The ICP creation process was reviewed. The registry list, event detail report and AC020 reports were examined to determine compliance.

Audit commentary

ICPs are created at "new" status and automatically moved to "ready" status as soon as a proposed trader and price category is supplied to the registry as described in **section 3.1**. ICPs will only remain at "new" status if a network extension is needed.

Status updates to "new" are created by the registry once the information required to achieve the status has been populated. ICPs can be reversed from "ready" to "new" status by removing the distributor pricing information in Axos and the update being synchronised with the registry. The "new" and "ready" status information is imported back into Axos through the registry synchronisation process.

No ICPs are currently at "new" status. The monitoring of ICPs at the "new" and "ready" statuses is discussed in **section 3.14**.

Audit outcome

Compliant

3.14. Monitoring of "new" & "ready" statuses (Clause 15 Schedule 11.1)

Code reference

Clause 15 Schedule 11.1

Code related audit information

If an ICP has had the status of "New" or has had the status of "Ready" for 24 months or more:

- *the distributor must ask the trader who intends to trade at the ICP whether the ICP should continue to have that status (Clause 15(2)(a) of Schedule 11.1)*
- *the distributor must decommission the ICP if the trader advises that the ICP should not continue to have that status (Clause 15(2)(b) of Schedule 11.1).*

Audit observation

The process to monitor ICPs at "new" and "ready" status was reviewed. The registry list and AC020 report were examined to determine compliance.

Audit commentary

A CD (current details) report from the registry is run at least once a month, and this identifies all ICPs at the "new" or "ready" status. These are passed to the network services team, who follow up any ICPs close to 24 months at the status with the trader. Filters in Axos are also used to identify ICPs at "new" and "ready" status.

No ICPs have been at the "new" or "ready" status for more than 24 months.

Audit outcome

Compliant

3.15. Embedded generation loss category (Clause 7(6) Schedule 11.1)

Code reference

Clause 7(6) Schedule 11.1

Code related audit information

If the ICP connects the distributor's network to an embedded generating station that has a capacity of 10 MW or more (clause 7(1)(f) of Schedule 11.1):

- *The loss category code must be unique; and*
- *The distributor must provide the following to the reconciliation manager:*
  - *the unique loss category code assigned to the ICP,*
  - *the ICP identifier of the ICP*
  - *the NSP identifier of the NSP to which the ICP is connected,*
  - *the plant name of the embedded generating station.*

Audit observation

The EMI wholesale data set and registry list were reviewed to identify any generation stations with capacity of 10 MW or more and determine compliance.

Audit commentary

TLC has no embedded generation greater than 10 MW, and no ICPs require a unique loss category.

Audit outcome

Compliant

3.16. Electrical connection of a point of connection (Clause 10.33A)

Code reference

Clause 10.33A(4)

Code related audit information

No participant may electrically connect a point of connection or authorise the electrical connection of a point of connection, other than a reconciliation participant.

Audit observation

Sub-clause (4) states that no participant may electrically connect a point of connection without the permission of the Reconciliation Participant. The electrical connection of streetlight circuits which are a point of connection was examined.

Audit commentary

All metered new connections go through the new connection process described in **section 3.2.** It is expected any new streetlights managed through the new connection process even if being added to an existing DUML streetlight ICP. I reviewed the processes to obtain trader acceptance for new streetlights.

New standard unmetered load and additions to existing standard unmetered load

Standard unmetered load is created through the new connection process, and changes are managed through the load alteration process. Both processes require trader acceptance to be provided before the connection can progress.

I checked three new connections for standard unmetered load. One was a historic unmetered telecommunications ICP, and two were historic private lights identified during the previous audit. All

three ICPs were created prior to the audit period and the trader had accepted responsibility for the connection and agreed the connection date with TLC.

Additions to existing DUML load

Distributed unmetered load follows a separate process and is reliant on the database owner ensuring that any new lights are recorded in the DUML database, and that the trader is advised. The previous audit recommended that the process to add new load to existing DUML ICPs was reviewed to ensure that trader acceptance is obtained by TLC prior to initial electrical connection, and is repeated this audit.

I checked one new subdivision (Harper St, Otorohanga) which is to be added to an existing DUML ICP and confirmed that the customer had signed a contract accepting responsibility for costs associated with the streetlights. Trader acceptance was not requested by TLC as is usual for additions to DUML ICPs.

Recommendation	Description	Audited party comment	Remedial action
Electrical connection of a point of connection	Review the electrical connection of streetlights to ensure that a trader has accepted responsibility for the additional load.	Review the internal process of DUML and ensure accurate information sharing.	Investigating

Shared unmetered load

There is no shared unmetered load on TLC's network.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.16 With: Clause 10.33A From: 01-Sep-20 To: 01-Feb-22	No trader acceptance prior to the electrical connection of new streetlights to the network. Potential impact: Low Actual impact: Low Audit history: Once Controls: Weak Breach risk rating: 3
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as weak as the process does not have sufficient controls to ensure that trader acceptance is obtained prior to initial electrical connection of new load to existing DUML ICPs. The audit risk rating is assessed to be low as the volume of new streetlights on the TLC network is expected to be small.

Actions taken to resolve the issue	Completion date	Remedial action status
Review and update of Streetlight information and processes.	Discussion has started and ongoing.	Investigating

Preventative actions taken to ensure no further issues will occur	Completion date	
Better processes and education about Streetlight connections.	Discussion has started and ongoing.	

3.17. Electrical disconnection of a point of connection (Clause 10.30C and 10.31C)

Code reference

Clause 10.30C and 10.31C

Code related audit information

A distributor can only disconnect, or electrically disconnect an ICP on its network:

- *if empowered to do so by legislation (including the Code)*
- *under its contract with the trader for that ICP or NSP*
- *under its contract with the consumer for that ICP*

Audit observation

The disconnection process was examined.

Audit commentary

TLC will only undertake an electrical disconnection when a request is received from a trader or for safety. In both instances TLC will liaise with the relevant trader.

Audit outcome

Compliant

3.18. Meter bridging (Clause 10.33C)

Code reference

Clause 10.33C

Code related audit information

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

The distributor 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 distributor bridges a meter, the distributor must notify the responsible trader within 1 business day and include the date of bridging in its advice.

Audit observation

Processes for meter bridging were reviewed.

Audit commentary

Bridging will only occur in accordance with clause 10.33C, and a service request to unbridge the meter is sent to Influx the following day.

Retailers are not consistently advised if a meter has been bridged. If a meter is bridged due to a faulty meter which requires further investigation, the retailer will be advised. If the meter is bridged due to a no hot water fault and is successfully unbridged the next day, TLC will not advise the retailer.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.18 With: Clause 10.33C From: 01-Sep-20 To: 01-Feb-23	Traders are not consistently notified of bridged meters. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because TLC notifies the retailer in some instances, but not where the meter is successfully unbridged the day after bridging occurred. The audit risk rating is assessed to be low because: • the number of bridged meters is low, and • the impact on reconciliation is expected to be low, because the bridging events which are not notified normally have a one-day duration.

Actions taken to resolve the issue	Completion date	Remedial action status
Process changed midway 2022, and a reminder provided to sent fault staff about this obligation.	02/03/2023	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Add to the training schedule, and frequent review.	Ongoing	

4. MAINTENANCE OF REGISTRY INFORMATION

4.1. Changes to registry information (Clause 8 Schedule 11.1)

Code reference

Clause 8 Schedule 11.1

Code related audit information

If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the registry manager of that change.

Notification must be given by the distributor within three business days after the change takes effect, unless the change is to the NSP identifier of the NSP to which the ICP is usually connected (other than a change that is the result of the commissioning or decommissioning of an NSP).

In those cases, notification must be given no later than eight business days after the change takes effect.

If the change to the NSP identifier is for more than 10 business days, the notification must be provided no later than the 13th business day and be backdated to the date the change took effect.

In the case of decommissioning an ICP, notification must be given by the later of three business days after the registry manager has advised the distributor that the ICP is ready to be decommissioned, or three business days after the distributor has decommissioned the ICP.

Audit observation

The management of registry updates and NSP changes was reviewed. The AC020 report was reviewed to determine compliance. A diverse sample of ten or all backdated events by event type were reviewed to determine the reasons for the late updates.

Audit commentary

Registry update process

The user selects the event type which requires update in Axos, and the screen is automatically populated with the existing values for each field in Axos and today's event date. The user modifies the event and event date information as required. Future event dates are not allowed, and drop-down lists and field validations are set to help to ensure only valid values are entered. Once saved, the changes are synchronised to the registry during the next scheduled synchronisation which occurs nightly. Synchronisation can be triggered manually where an immediate change is required.

Axos retrieves registry acknowledgement files every five minutes. The files are reviewed in the registry manager to identify successful and failed updates. Failed updates appear as synchronisation status alerts on the landing page in Axos and are investigated.

If an event needs to be changed, it can be deleted before the record is synchronised with the registry, otherwise Axos allows event reversals and replacements to be sent. Events can only be reversed if they are the latest event for that event type, and if an older event needs to be reversed all later events must be reversed or the update will need to be manually processed on the registry.

Registry events processed by other parties are updated in Axos daily. A synchronisation is completed each morning at 4am to capture registry data updates within the last seven days. Axos does not use notification files.

Late registry updates

When information recorded in the registry changes, the distributor should ensure that the registry is updated within three business days. This section assesses compliance for updates to existing information,

and initial population of data for new ICPs is assessed in **sections 3.4** and **3.5**. The tables below show late registry updates for changes to existing information.

Address events

Update type	Year	Total late	Percentage on time	Average business days
Address	2020	97	88.21%	N/A
	2021	10	99.13%	5.04
	2022	1	99.92%	0.76

One address was updated 220 business days after the event date and corrected the address region.

Pricing events

Update type	Year	Total late	Percentage on time	Average business days
Price codes	2020	0	100%	N/A
	2021	521	N/A	N/A
	2022	175	N/A	N/A

The AC020 report recorded 175 pricing updates made more than three business days after the event date. 52 were within ten business days of the event date, 133 were within 20 business days of the event date and 169 were within 100 business days of the event date. The latest update was 214 business days after the event date.

I checked the ten latest pricing events and found eight were caused by backdated pricing changes at the trader's request or corrections to pricing with the trader's agreement which were made on time once agreement was reached, and two were delays in processing pricing changes. In all cases the correct event date and attributes were applied.

Status events

Update type	Year	Total late	Percentage on time	Average business days
Status	2020	44	44.63%	18.43
	2021	2	66.67%	9.50
	2022	23	41.03%	20.03

The management of decommissioned ICPs and accuracy of ICP dates is discussed in **section 4.11**. 23 ICPs had their status updated to decommissioned more than three business days after the event date, and more than three business days after the trader's update to "ready for decommissioning" status. I checked a typical sample of ten of these and found that these were due to late paperwork from the field or a resource constraint resulting in updates to the registry being late.

The ICPs were decommissioned with the correct status reason code and event date.

Network events

Update type	Year	Total late	Percentage on time	Average business days
Network - excluding new connections & distributed generation	2020	8	N/A	N/A
	2021	8	N/A	N/A
	2022	155	N/A	N/A

All of the late network updates were removals of the direct billed status processed between 27 April 2022 and 5 May 2022. 114 of the late updates were 15-17 business days after the event date, and one late update was 144 business days after the event date. No TLC ICPs should have direct billed status, and the late updates were corrections following the previous audit.

Update type	Year	Total late	Percentage on time	Average business days
Network - Distributed Generation	2020	15	11.76%	123.35
	2021	2	33.33%	215
	2022	49	3.92%	112.92

The AC020 report recorded 49 network updates of distributed generation details made more than three business days after the event date. Ten were within ten business days of the event date, 20 were within 25 business days of the event date. The latest update was 1,323 business days after the event date.

All of the late updates which were more than 25 business days after the event date were made prior to 6 May 2022. I checked the ten lates updates and found they were delayed by late confirmation of distributed generation details. The accuracy of the distributed generation details is discussed in **section 4.6**.

Update type	Year	Total late	Percentage on time	Average business days
Network - NSP Changes	2020	2	N/A	N/A
	2021	0	100%	N/A
	2022	2	N/A	N/A

The process is discussed in **section 4.2**, and both late updates were corrections following the last audit.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.1 With: Clause 8 of Schedule 11.1 From: 01-Jan-22 To: 21-Oct-22	One late address update. Up to 167 late pricing updates. 23 late updates to decommissioned status. 49 late distributed generation updates. Two late NSP changes. 155 late updates to the direct billed status. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as moderate with room for improvement. The audit risk rating is assessed as low as the impact on reconciliation is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
TLC has been reviewing and updating this information since our move to retailer billing. The transition is largely complete.	31/05/2023	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Document the processes: completion 30/06/2023 plus the transition is largely complete.	Ongoing.	

4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)

Code reference

Clauses 7(1), 7(4) and 7(5) Schedule 11.1

Code related audit information

Under Clause 7(1)(b) of Schedule 11.1, the distributor must provide to the registry manager the NSP identifier of the NSP to which the ICP is usually connected.

If the distributor cannot identify the NSP that an ICP is connected to, the distributor must nominate the NSP that the distributor thinks is most likely to be connected to the ICP, taking into account the flow of electricity within its network, and the ICP is deemed to be connected to the nominated NSP.

Audit observation

The process to determine the correct NSP was examined. The registry list and AC020 report were examined to determine compliance.

Audit commentary

For new connections, transformer numbers were provided by the asset management group to the connections team. In Axos the transformer field is not linked to the NSP field, and these must be selected separately by the user.

NSP changes are recorded in Basix. There is no direct update between Basix and the registry, so NSP changes must be updated in Axos and then transferred to the registry. NSP changes are provided via the transformer update file which is sent to the Senior Data Analyst on a monthly basis. All changes are then updated in Axos within two business days of receipt of the monthly file. As this is a monthly process any NSP changes are unlikely to be updated within the required timeframe. However, NSP changes are rare and no late NSP changes other than corrections were identified as detailed in **section 4.1**.

The AC020 report identified two ICPs on State Highway 41 (0003301532WME55 and 0008809295WM05A), which had a different NSP to other ICPs on their street where there were less than three ICPs which had a different NSP to the other ICPs. Both were confirmed to have their NSP, and address, correctly recorded.

Comparison of NSP and address data identified four towns which had ICPs connected to more than one NSP, shown in the table below:

Address town	HTI0331	NPK0331	OKN0111	ONG0331	TKU0331	Grand Total
Kuratau Manawatu		2			61	63
Kuratau Waikato				1	56	57
Otangiwai Manawatu	2			1		3
Owhango Manawatu		1		67		68
Waimiha Manawatu	6			10		16
Waimiha Waikato	2			1		3

All were reviewed and the following exceptions were identified:

- ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331; the NSP was corrected during the audit, and the temporarily incorrect NSP is recorded as non-compliance below, and
- ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu;* the addresses have now been corrected, and the temporarily incorrect addresses are recorded as non-compliance in **section 4.4**.

The previous audit issue where some ICPs were incorrectly recorded with WKM0331 as their NSP has been resolved.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.2 With: Clause 7(1),(4) and (5) Schedule 11.1 From: 15-Oct-20 To: 30-Oct-21	ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331. The NSP was corrected during the audit. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as strong. Processes are in place to ensure accurate NSP information and exceptions are identified and resolved through the AC020 review. The audit risk rating is low because the NSPs were both in the same balancing area.

Actions taken to resolve the issue	Completion date	Remedial action status
Corrected the transformer supplying 0001308490WME19.	Complete.	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Review of addresses commenced on 23/02/2023 to ensure accuracy.	December 2023.	

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

The distributor must advise a customer (or any person authorised by the customer) or embedded generator of the customer or embedded generator's ICP identifier within 3 business days after receiving a request for that information.

Audit observation

TLC has moved line charge billing to be via the trader and only bills its major customers directly therefore customer enquiries have decreased significantly.

Audit commentary

TLC does receive requests for ICP identifiers from customers, and the information is provided once TLC has verified that the requestor is the customer or authorised to request the information by the customer.

Audit outcome

Compliant

4.4. ICP location address (Clause 2 Schedule 11.1)

Code reference

Clause 2 Schedule 11.1

Code related audit information

Each ICP identifier must have a location address that allows the ICP to be readily located.

Audit observation

The process to ensure ICP addresses are unique and readily locatable was examined. The registry list and AC020 report were examined to determine compliance.

Audit commentary

Axos uses a combination of NZ Post and Statistics NZ information in its address search function. The user begins typing an address, and Axos looks up to the linked information so that the user can select the valid address. If the address cannot be found the details are manually populated.

Axos system controls prevent duplicate addresses from being entered, an error message is produced if a user attempts to create an ICP with an address that matches an existing ICP.

As part of the Senior Data Analyst's process to check the price plan she checks if there are any address issues (such as lot numbers) and searches LINZ to determine whether further address information is available. The registry CD (current details) reports are also run monthly and filtered to check for and update lot numbers if street numbers are available on LINZ or ARC maps.

Review of the AC020 report did not identify any duplicate addresses. Three ICPs were recorded on the AC020 as not having a street number or property name, but all had a lot number recorded in the unit number field making them unique and able to be located. I confirmed that street numbers are not yet available for these ICPs.

Traditionally TLC has supplied two regions – Manawatu for the southern areas and Waikato for the northern areas. When an address is entered in Axos, it automatically assigns a region using its combination of NZ Post and Statistics NZ information. TLC have found that sometimes the region assigned by Axos is different to the expected value, including some that have been assigned to Whanganui or Taranaki. A project is underway to validate and correct the address regions, by extracting all addresses and using filters to identify instances where the region is not consistent with the expected value for the suburb and town. 29 towns have ICP addresses with two or more different regions and the connected ICPs are in the process of being checked and updated if necessary:

Town	Manawatu	Taranaki	Waikato	Wanganui
Turangi	147		183	1
Ahititi		1	2	
Awakino		1	24	
Benneydale	1		19	
Erua	1		1	
Kuratau	63		57	
Maniaiti / Benneydale	1		2	

Town	Manawatu	Taranaki	Waikato	Wanganui
Mohakatino		1	4	
Mokau		1	33	
Motuoapa	43		64	
National Park	50		7	
Ohakune	340		31	
Omori	1		21	
ONGARUE	21		1	
Otorohanga	1		313	
Otukou	1		8	
OWHANGO	68		3	
Rangataua	43		4	
Raurimu	19		2	
Taringamotu	12		1	
Taumarunui	333		179	
Taupo	1		8	
Tauranga Taupo	1		16	
Te Kuiti	1		431	
Tokaanu	5		5	
Tongariro Forest Park	11		3	
Tongariro National Park	41		1	
Waihaha	9		3	
Waimiha	16		3	

As discussed in **section 4.2**, ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*. The addresses have now been corrected, and the temporarily incorrect addresses are recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.4 With: Clause 2 Schedule 11.1 From: 21-Oct-22 To: 02-Feb-22	ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*. The addresses have now been corrected. Some other ICPs are likely to have incorrect address regions recorded. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as strong overall as they prevent duplicate and incomplete addresses. Some address regions may be incorrectly recorded. The audit risk rating is low. All ICPs are expected to be located in Wanganui or Manawatu, and TLC uses the suburb and town fields where information is available which will help reduce the risk that other parties may not identify the correct ICP for the address.

Actions taken to resolve the issue	Completion date	Remedial action status
Review of addresses commenced on 23/02/2023 to ensure accuracy.	December 2023.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Allow Axos to define address.	Completed.	

4.5. Electrically disconnecting an ICP (Clause 3 Schedule 11.1)

Code reference

Clause 3 Schedule 11.1

Code related audit information

Each ICP created after 7 October 2002 must be able to be electrically disconnected without electrically disconnecting another ICP, except for ICPs that are the point of connection between a network and an embedded network, or ICPs that represent the consumption calculated by the difference between the total consumption for the embedded network and all other ICPs on the embedded network.

Audit observation

This was examined as part of the new connection process and proof of process was checked as part of the sample of new connections examined.

Audit commentary

TLC's new connections process contains a step that ensures that any ICP can be disconnected without disconnecting any other ICP, and electricians working on the network are advised of this requirement.

Shared service mains are allowed as long as dedicated isolation points are provided, and they were connected prior to 2002. TLC owns some shared service mains, and TLC endeavours to work with affected customers to replace these as they are discovered.

Audit outcome

Compliant

4.6. Distributors to Provide ICP Information to the Registry manager (Clause 7(1) Schedule 11.1)

Code reference

Clause 7(1) Schedule 11.1

Code related audit information

For each ICP on the distributor's network, the distributor must provide the following information to the registry manager:

- *the location address of the ICP identifier (Clause 7(1)(a) of Schedule 11.1)*
- *the NSP identifier of the NSP to which the ICP is usually connected (Clause 7(1)(b) of Schedule 11.1)*
- *the installation type code assigned to the ICP (Clause 7(1)(c) of Schedule 11.1)*
- *the reconciliation type code assigned to the ICP (Clause 7(1)(d) of Schedule 11.1)*
- *the loss category code and loss factors for each loss category code assigned to the ICP (Clause 7(1)(e) of Schedule 11.1)*
- *if the ICP connects the distributor's network to an embedded generating station that has a capacity of 10MW or more (Clause 7(1)(f) of Schedule 11.1):*
  - *a) the unique loss category code assigned to the ICP*
  - *b) the ICP identifier of the ICP*
  - *c) the NSP identifier of the NSP to which the ICP is connected*
  - *d) the plant name of the embedded generating station*
- *the price category code assigned to the ICP, which may be a placeholder price category code only if the distributor is unable to assign the actual price category code because the capacity or volume information required to assign the actual price category code cannot be determined before electricity is traded at the ICP (Clause 7(1)(g) of Schedule 11.1)*
- *if the price category code requires a value for the capacity of the ICP, the chargeable capacity of the ICP as follows (Clause 7(1)(h) of Schedule 11.1):*
  - *a) a placeholder chargeable capacity if the distributor is unable to determine the actual chargeable capacity,*
  - *b) a blank chargeable capacity if the capacity value can be determined for a billing period from metering information collected for that billing period,*
  - *c) if there is more than one capacity value at the ICP, and at least one, but not all, of those capacity values can be determined for a billing period from the metering information collected for that billing period-*

    (i) no capacity value recorded in the registry field for the chargeable capacity; and

    (ii) either the term "POA" or all other capacity values, recorded in the registry field in which the distributor installation details are also recorded
  - *d) if there is more than one capacity value at the ICP, and none of those capacity values can be determined for a billing period from the metering information collected for that billing period-*

(i) the annual capacity value recorded in the registry field for the chargeable capacity; and

(ii) either the term "POA" or all other capacity values, recorded in the registry field in which the distributor installation details are also recorded

e) the actual chargeable capacity of the ICP in any other case

- *the distributor installation details for the ICP determined by the price category code assigned to the ICP (if any), which may be placeholder distributor installation details only if the distributor is unable to assign the actual distributor installation details because the capacity or volume information required to assign the actual distributor installation details cannot be determined before electricity is traded at the ICP (Clause 7(1)(i) of Schedule 11.1)*
- *the participant identifier of the first trader who has entered into an arrangement to sell or purchase electricity at the ICP (only if the information is provided by the first trader) (Clause 7(1)(j) of Schedule 11.1)*
- *the status of the ICP (Clause 7(1)(k) of Schedule 11.1)*
- *designation of the ICP as "Dedicated" if the ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)*
- *if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)*
- *if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)*
- *if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):*

  a) the nameplate capacity of the generator; and

  b) the fuel type,
- *the initial electrical connection date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

Audit observation

The management of registry information was reviewed. The registry list and AC020 report were examined to determine compliance. A typical sample of data discrepancies were checked. Registry data validation processes are discussed in **section 2.1**.

Audit commentary

Review of the registry list and AC020 audit compliance report identified some data discrepancies. Non-compliance is recorded where data remained incorrect at the time of the on-site audit or was not identified and corrected through TLC's processes. Compliance is confirmed unless discussed below.

Initial Electrical Connection Date

The process to populate initial electrical connection dates is described in **section 3.5**.

The audit compliance report was reviewed to determine compliance.

- 17 ICPs connected during the audit period had discrepancies between the initial electrical connection date, trader's earliest active date and MEP's meter certification date. TLC's initial electrical connection date was correct for 15 ICPs, and incorrect for two ICPs. The incorrect initial electrical connection dates were corrected during the audit.
- 16 ICPs had initial electrical connection dates populated but had not been moved to "active" status. Ten were timing differences and moved to "active" status after the report was run, and TLC's initial electrical connection date was correct for the other six ICPs.
- 176 ICPs created and connected prior to the audit period (but after 29 August 2013) had discrepancies between the initial electrical connection date and the trader's earliest active

status date. I checked a sample of 54 ICPs and found TLC's initial electrical connection date was correct for 51 ICPs, and incorrect for three ICPs. The incorrect initial electrical connection dates were corrected during the audit.

Event dates should reflect the date from which the attribute values for the event apply. In Axos the event date defaults to the current date and can be manually edited by the user if a different event date should be applied. I checked the 211 active network events which first populated the initial electrical connection date. 85% had an event date which matched the initial electrical connection date. The other 32 ICPs had event dates between one and 12 days after the initial electrical connection date and within one day of the update date. I checked a sample of ten updates and found that the initial electrical connection date had not been manually adjusted when entering the update, and TLC corrected the incorrect event dates during the audit. The temporarily incorrect event dates are recorded as non-compliance below.

I recommend that the other 21 updates with potentially incorrect event dates are checked and updated if necessary:

ICP	Event audit number	Event Date	Update Date	Initial electrical connection date
1100000074WM8FA	NET-10129100	8/03/2022	9/03/2022 3:01	4/03/2022
1100000075WM4BF	NET-10129099	8/03/2022	9/03/2022 3:01	4/03/2022
1100000059WMAF4	NET-10097487	24/01/2022	24/01/2022 9:58	20/01/2022
1100000093WMF8A	NET-10120573	4/03/2022	4/03/2022 18:44	1/03/2022
1100000080WM9E7	NET-10119895	3/03/2022	3/03/2022 9:46	28/02/2022
1100000243WM8CF	NET-10344418	21/07/2022	22/07/2022 2:01	19/07/2022
1100000101WM9EC	NET-10134736	16/03/2022	17/03/2022 3:00	14/03/2022
1100000109WMBF8	NET-10134419	16/03/2022	16/03/2022 14:42	14/03/2022
1100000138WM045	NET-10355145	3/08/2022	4/08/2022 2:01	2/08/2022
1100000233WMD92	NET-10355143	3/08/2022	4/08/2022 2:01	2/08/2022
1100000172WM071	NET-10354424	2/08/2022	2/08/2022 17:21	1/08/2022
1100000173WMC34	NET-10339058	12/07/2022	13/07/2022 2:00	11/07/2022
1100000238WM346	NET-10336666	8/07/2022	9/07/2022 2:01	7/07/2022
1100000239WMF03	NET-10336667	8/07/2022	9/07/2022 2:01	7/07/2022
1100000240WM40F	NET-10336668	8/07/2022	9/07/2022 2:01	7/07/2022
1100000133WME91	NET-10335980	7/07/2022	8/07/2022 2:01	6/07/2022
1100000207WMB60	NET-10307102	22/06/2022	23/06/2022 2:00	21/06/2022
1100000196WMBC1	NET-10286535	9/06/2022	10/06/2022 2:01	8/06/2022

ICP	Event audit number	Event Date	Update Date	Initial electrical connection date
1100000139WMC00	NET-10209496	4/05/2022	5/05/2022 3:00	3/05/2022
1100000124WM9F6	NET-10142844	31/03/2022	1/04/2022 3:01	30/03/2022
1100000085WM4A8	NET-10130281	10/03/2022	11/03/2022 3:00	9/03/2022

Recommendation	Description	Audited party comment	Remedial action
Check potentially incorrect event dates	Check the list of event updates with potentially incorrect initial electrical connection dates and update Axos and the registry if necessary.	Corrected in January 2023, provide further training and monitor going forward.	Identified

I rechecked ICP 0001113635WME97 which was recorded as having an incorrect initial electrical connection date during the previous audit and found it had been corrected.

Distributed Generation

I walked through the process for distributed generation.

1. TLC requires an application before any distributed generation is connected to their network.
2. The application is input into BC (Business Central) and assigned a job number. All associated paperwork is attached in BC.
3. The application information is sent to the Engineer for approval, and the network services team is advised of the outcome.
4. The network services team advises the customer whether the application is approved or declined, and a capital contribution invoice is issued.
5. Once job completion information is received, TLC updates Axos with the new installation type, generation capacity and fuel type which is then synchronised with the registry. Each Friday the status of all distributed generation jobs in BC are reviewed, and any late certificates of compliance (COC) or records of inspection (ROI) are followed up. TLC normally inspects installations of distributed generation so usually produces the ROI.
6. TLC arranges for import/export metering to be installed by Influx.

There has been some confusion about which event date to apply when adding distributed generation details. Event dates should always reflect the date from which the attribute values for the event apply. For distributed generation this is the date that generation was present and operating from, usually the COC date. During the audit I found that in some cases, application dates and I flow meter installation dates had been applied as the event date.

TLC validates distributed generation using the AC020 report, which is also compared to EIEP information provided by the traders. The AC020 reports are being reviewed periodically as workloads allow and I saw evidence of reviews in September and October 2022.

<u>Generation information completeness and accuracy</u>

157 active ICPs have a non-zero generation capacity recorded on the registry list. All have installation type B or G and a fuel type recorded.

The AC020 report recorded ten ICPs where the trader's profile indicated generation was present but no distributed generation details were recorded by TLC. These were examined and found:

- eight were confirmed not to have generation installed, although they had I flow metering, and
- two had generation installed and were updated to reflect the correct generation details during the audit.

I checked a sample of 15 late updates for accuracy and found the following exceptions:

- seven updates had incorrect event dates, which were corrected during the audit,
- three updates populated the distributed generation details on application, instead of on installation; the affected records were reversed during the audit, and distributed generation will be added once it is installed, and
- two updates had incorrect generation capacity recorded, with application details rather than actual installed capacity applied; the affected records were corrected during the audit.

I checked the accuracy of fuel types by comparing them to the trader's profile. In all cases, TLC's fuel type was confirmed to be consistent with the trader's profile where it indicated the fuel type.

18 ICPs with generation recorded by TLC did not have a generation compatible profile recorded by the trader. These were checked to confirm if distributed generation is still present and found:

- 16 ICPs had correct distributed generation details recorded,
- one ICP had incorrect distributed generation details and was corrected during the audit, and
- paperwork could not be located for 1100000174WM1FE, and I recommend that the distributed generation details are confirmed.

Recommendation	Description	Audited party comment	Remedial action
Distributed generation details for 1100000174WM1FE	Confirm that the distributed generation details are correct for 1100000174WM1FE.	Have been unsuccessful in contacting the customer, will continue to follow up.	Identified

Unmetered Load

Part 11 states the distributors must provide unmetered load type and capacity of the unmetered load to the registry "if known". If distributor unmetered load is populated, it is required to be accurate. Unmetered load data is entered into Axos and transferred to the registry. No unmetered new connections were created during the audit period.

The accuracy of unmetered load information was assessed.

- All active ICPs with distributor unmetered load recorded also have the trader unmetered load flag set to yes.
- 46 active ICPs had trader unmetered load recorded without distributor unmetered load. All were created in 2006 or earlier, and TLC had not populated unmetered load details for these ICPs because they were not aware of the unmetered load and were therefore not required to update their distributor unmetered load details.
- For the 59 ICPs where distributor unmetered load was in a format which enabled recalculation, I compared the figures to the trader unmetered load. In all but three cases the calculation matched the trader's unmetered load figure within ±0.01 kWh. TLC's unmetered load details were incorrect and were updated during the audit.

DUML and shared unmetered load

The most recent DUML audits for streetlight databases on TLC's network were reviewed to determine whether there were any issues relating to distributor unmetered load records:

Database	Comment
Waitomo District Council	The December 2021 audit identified ten private lights which were excluded from submission information. • Waitomo District Council has accepted responsibility for one light on Rauparaha St. • The light at Waitomo Village Road has been confirmed to be removed. • ICP 0001113548WM792 has been created to account for the eight unmetered streetlights at Kaka St. As recorded in the previous audit the ICP was made active from 18 May 2021, but should have been backdated 14 months to enable the trader to submit the missing submission for the available revision period. The late start date is not recorded as non-compliance again, as it was recorded in the previous audit.
DOC Whakapapa Village lights	The November 2020 audit did not identify any missing shared unmetered load.
Ruapehu District Council	The December 2021 audit identified 21 private lights which were excluded from submission information: • 16 unmetered lights near Chateau Tongariro are now being reconciled in Department of Conservation lights Whakapapa DOC database (ICP 0088055801WMB6F). • The two unmetered private lights that are located TLC's depot have had ICPs created for them and are being traded. • Two unmetered lights at the Top 10 Holiday Park in Ohakune which were excluded from submission information are now recorded as standard unmetered load under ICP 1100000269WM70B. • One light at National Park School, Carrol St, National Park which was excluded from submission information is now recorded as standard unmetered load under ICP 1100000260WM95A.
Taupo District Council	The April 2022 audit did not identify any missing shared unmetered load.
Otorohanga District Council	The May 2022 audit recorded three private lights. All had the correct ICP number assigned and were submitted as part of the DUML load.

NSP accuracy

ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331. The NSP was corrected during the audit, and the temporarily incorrect NSP is recorded as non-compliance below.

Address accuracy

ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*. The addresses have now been corrected, and the temporarily incorrect addresses are recorded as non-compliance in **section 4.4**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.6 With: 7(1) of Schedule 11.1 From: 01-Jan-22 To: 21-Oct-22	All of the errors were corrected during the audit. **Initial electrical connection dates** • Two ICPs created during the audit period, and three ICPs created and connected prior to the audit period (but after 29 August 2013) had incorrect initial electrical connection dates. • Ten network events populating the initial electrical connection date had incorrect event dates applied, out of a population of 32 with potentially incorrect dates. **Distributed generation** • Two missing distributed generation updates. • Seven updates with incorrect event dates. • Three distributed generation updates provided on application form date instead of installation date, and the event date was incorrect. • Two distributed generation updates with incorrect generation capacity. • One ICP had incorrect distributed generation details. **Unmetered load** • Three ICPs had incorrect distributor unmetered load details. **NSP** • ICP 0001308490WME19 Owhango Manawatu, was recorded against NPK0331 but should have been recorded against ONG0331. **Address** • ICPs 0001113482WMBE8, 0005720822WMFBB and 0005720842WM04B were recorded with Waimiha *Waikato* as the town and region but should have been recorded as Waimiha *Manawatu*. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	I have rated the controls as moderate as they will mitigate risk most of the time but there is room for improvement. TLC intends to ensure that the registry is consistently updated with the distributed generation installation date where it is installed, which is expected to improve accuracy. The audit risk rating is assessed as low, as all the affected data has been corrected.

Actions taken to resolve the issue	Completion date	Remedial action status
All errors corrected.	Completed.	Cleared

Preventative actions taken to ensure no further issues will occur	Completion date	
Training and regular exception reporting.	Ongoing.	

4.7. Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1)

Code reference

Clause 7(3) Schedule 11.1

Code related audit information

The distributor must provide the following information to the registry manager no later than 10 business days after the trading of electricity at the ICP commences:

- *the actual price category code assigned to the ICP (Clause 7(3)(a) of Schedule 11.1)*
- *the actual chargeable capacity of the ICP determined by the price category code assigned to the ICP (if any) (Clause 7(3)(b) of Schedule 11.1)*
- *the actual distributor installation details of the ICP determined by the price category code assigned to the ICP (if any) (Clause 7(3)(c) of Schedule 11.1).*

Audit observation

The management of registry information was reviewed. The registry list and AC020 report were reviewed to determine compliance.

Audit commentary

All new ICPs created during the audit period had pricing information loaded prior to initial electrical connection.

Audit outcome

Compliant

4.8. GPS coordinates (Clause 7(8) and (9) Schedule 11.1)

Code reference

Clause 7(8) and (9) Schedule 11.1

Code related audit information

If a distributor populates the GPS coordinates (optional), it must meet the NZTM2000 standard in a format specified by the Authority.

Audit observation

The registry list was reviewed to determine compliance. ICPs with GPS coordinates were checked to determine whether they were accurate and in the correct format.

Audit commentary

GPS coordinates are optional, but if populated the registry requires New Zealand Transverse Mercator 2000 (NZTM2000 easting, northing) coordinates.

GPS coordinates were recorded for 169 active and inactive ICPs on the registry list. I plotted all ICPs and confirmed that the coordinates were in NZTM2000 format and consistent with the other address information.

Audit outcome

Compliant

4.9. Management of "ready" status (Clause 14 Schedule 11.1)

Code reference

Clause 14 Schedule 11.1

Code related audit information

The ICP status of "Ready" must be managed by the distributor and indicates that:

- *the associated electrical installations are ready for connecting to the electricity supply (Clause 14(1)(a) of Schedule 11.1); or*
- *the ICP is ready for activation by a trader (Clause 14(1)(b) of Schedule 11.1)*

Before an ICP is given the "Ready" status in accordance with Clause 14(1) of Schedule 11.1, the distributor must:

- *identify the trader that has taken responsibility for the ICP (Clause 14(2)(a) of Schedule 11.1)*
- *ensure the ICP has a single price category (Clause 14(2)(b) of Schedule 11.1).*

Audit observation

The management of ICPs in relation to the use of the "ready" status was examined. The registry list and AC020 report were examined to determine compliance.

Audit commentary

TLC's new connections process includes step to confirm trader acceptance before livening is scheduled. Each ICP has a single price category.

All 32 ICPs at "ready" status had a single price category assigned and proposed trader identified. The timeliness of updates to "ready" is discussed in **section 3.4**, and monitoring of ICPs at "ready" status is discussed in **section 3.14**.

Audit outcome

Compliant

4.10. Management of "distributor" status (Clause 16 Schedule 11.1)

Code reference

Clause 16 Schedule 11.1

Code related audit information

The ICP status of "distributor" must be managed by the distributor and indicates that the ICP record represents a shared unmetered load installation or the point of connection between an embedded network and its parent network.

Audit observation

Processes to manage the "distributor" status were reviewed. The registry list and AC020 report were examined to determine compliance.

Audit commentary

Analysis of the registry list confirmed that no ICPs are at "distributor" status. There are no embedded networks or shared unmetered load connections on TLC's network.

Unmetered private streetlights which are excluded from DUML databases are discussed in **section 7.1**.

Audit outcome

Compliant

4.11. Management of "decommissioned" status (Clause 20 Schedule 11.1)

Code reference

Clause 20 Schedule 11.1

Code related audit information

The ICP status of "decommissioned" must be managed by the distributor and indicates that the ICP is permanently removed from future switching and reconciliation processes (Clause 20(1) of Schedule 11.1).

Decommissioning only occurs when:

- *electrical installations associated with the ICP are physically removed (Clause 20(2)(a) of Schedule 11.1); or*
- *there is a change in the allocation of electrical loads between ICPs with the effect of making the ICP obsolete (Clause 20(2)(b) of Schedule 11.1); or*
- *in the case of a distributor-only ICP for an embedded network, the embedded network no longer exists (Clause 20(2)(c) of Schedule 11.1).*

Audit observation

The registry list and AC020 report were reviewed to identify ICPs at the "decommissioned" or "ready for decommissioning" status.

A sample of ten "decommissioned" ICPs was examined. I also examined all ICPs at "ready for decommissioning" status.

Audit commentary

TLC's ICP decommissioning processes requires a request to be made either directly to approved contractors, or to TLC via either the database or asset teams. If via approved contractors, the contractor must provide notification to TLC. TLC then confirms the ICP ownership and gains permission from the customer prior to decommissioning. TLC's policy is to change the status upon receipt of the appropriate paperwork, including confirmation that metering has been removed.

Where an ICP is to be decommissioned because it is dismantled (3,2 status) or amalgamated (3,3 status) the trader must move the ICP to "inactive - ready for decommissioning" (1,6 status), and then TLC updates Axos with the correct status, status reason and event date which is synchronised to the registry using the process described in **section 2.1**.

Where an ICP is to be decommissioned because it was set up in error, the ICP will be reversed from "ready" to "new" status by removing the distributor pricing information in Axos (which is then synchronised to the registry), or the trader will move the ICP to "inactive - ready for decommissioning" (1,6 status). Axos can then be updated with the correct status and status reason and synchronised with the registry.

TLC uses filters in Axos to identify all ICPs at "ready for decommissioning" status, and monitor whether applications for decommissioning is received.

TLC has completed a "questionable ICP project" which identified ICPs which may have been decommissioned without their knowledge or may need to be decommissioned. As part of this process the customer and trader would be contacted to confirm the correct status for the ICP and approve decommissioning if the ICP was no longer required. In situations where approval could not be obtained by the customer, a "force decommission" process was followed and TLC management would approve the decommissioning after a site visit was conducted.

I checked a sample of ten decommissioned ICPs for accuracy and found they were processed correctly.

Examination of the list file found 15 ICPs are at "ready for decommissioning" status. Eight ICPs were decommissioned after the report was run and before the audit.

Number of ICPs 2022	Number of ICPs 2021	Number of ICPs 2020	Number of ICPs 2019	Number of ICPs 2018	Number of ICPs 2017	Number of ICPs 2016
15	12	8	5	42	76	52

I checked all the seven ICPs still at "ready for decommissioning" status and found approval for decommissioning has not been provided. ICPs are not able to be decommissioned without customer approval now that the "force decommission" process is no longer used.

Audit outcome

Compliant

4.12. Maintenance of price category codes (Clause 23 Schedule 11.1)

Code reference

Clause 23 Schedule 11.1

Code related audit information

The distributor must keep up to date the table in the registry of the price category codes that may be assigned to ICPs on each distributor's network by entering in the table any new price category codes.

Each entry must specify the date on which each price category code takes effect, which must not be earlier than two months after the date the code is entered in the table.

A price category code takes effect on the specified date.

Audit observation

The price category code table on the registry was examined.

Audit commentary

Price categories are updated on the registry via the Axos registry manager.

15 new unmetered load price categories (UML1-UML15) were created on the registry on 1 February 2022 with a start date of 1 March 2022. Traders were advised of the new price codes by letter on 2 February 2022 with a start date of 1 April 2022.

None of the new pricing codes were applied to active ICPs until at least 1 April 2022, which is two months after the creation date.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.12 With: 23 of Schedule 11.1 From: 01-Feb-22 To: 01-Mar-22	15 new unmetered load price categories (UML1-UML15) were not created on the registry two months before their registry start date. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are moderate. The pricing categories were not created on the registry at least two months before the listed start date (1 March 2022), but the registry start date was one month before the start date notified by letter and the earliest date the codes were applied (1 April 2022). The audit risk rating is low because the pricing categories were not applied to active ICPs until at least two months after being created on the registry. 113 active ICPs have UML pricing categories applied.

Actions taken to resolve the issue	Completion date	Remedial action status
This was a one-off event with the transition of our pricing.	Completed.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Awareness of notification period.	Ongoing.	

5. CREATION AND MAINTENANCE OF LOSS FACTORS

5.1. Updating table of loss category codes (Clause 21 Schedule 11.1)

Code reference

Clause 21 Schedule 11.1

Code related audit information

The distributor must keep the registry up to date with the loss category codes that may be assigned to ICPs on the distributor's network.

The distributor must specify the date on which each loss category code takes effect.

A loss category code takes effect on the specified date.

Audit observation

The loss category code table on the registry was examined.

Audit commentary

TLC has not created any new loss factors during the audit period.

Audit outcome

Compliant

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

Each loss category code must have a maximum of 2 loss factors per calendar month. Each loss factor must cover a range of trading periods within that month so that all trading periods have a single applicable loss factor.

If the distributor wishes to replace an existing loss factor on the table in the registry, the distributor must enter the replaced loss factor on the table in the registry.

Audit observation

The loss category code table on the registry was examined.

Audit commentary

TLC has not changed any loss factors during the audit period.

Audit outcome

Compliant

6. CREATION AND MAINTENANCE OF NSPS (INCLUDING DECOMMISSIONING OF NSPS AND TRANSFER OF ICPS)

6.1. Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1)

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

If the distributor is creating or decommissioning an NSP that is an interconnection point between 2 local networks, the distributor must give written notice to the reconciliation manager of the creation or decommissioning.

If the embedded network owner is creating or decommissioning an NSP that is an interconnection point between 2 embedded networks, the embedded network owner must give written notice to the reconciliation manager of the creation or decommissioning.

If the distributor is creating or decommissioning an NSP that is a point of connection between an embedded network and another network, the distributor must give written notice to the reconciliation manager of the creation or decommissioning.

The notice provided to the reconciliation manager must be provided no later than 30 days prior to the intended date or creation or decommissioning.

If the intended date of creation or decommissioning changes the distributor must provide an updated notice as soon as possible.

If the distributor wishes to change the record in the registry of an ICP that is not recorded as being usually connected to an NSP in the distributor's network, so that the ICP is recorded as being usually connected to an NSP in the distributor's network, the distributor must:

- *give written notice to the reconciliation manager,*
- *give written notice to the Authority,*
- *give written notice to each affected reconciliation participant,*
- *comply with Schedule 11.2.*

Audit observation

The NSP table was examined.

Audit commentary

TLC did not create or decommission any NSPs during the audit period.

Audit outcome

Compliant

6.2. Provision of NSP information (Clause 26(1) and (2) Schedule 11.1)

Code reference

Clause 26(1) and (2) Schedule 11.1

Code related audit information

If the distributor wishes to create an NSP or transfer an ICP as described above, the distributor must request that the reconciliation manager create a unique NSP identifier for the relevant NSP.

The request must be made at least 10 business days before the NSP is electrically connected, in respect of an NSP that is an interconnection point between 2 local networks. In all other cases, the request must be made at least one month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table was examined.

Audit commentary

No new NSPs were created by TLC during the audit period.

Audit outcome

Compliant

6.3. Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1)

Code reference

Clause 24(1) and Clause 26(3) Schedule 11.1

Code related audit information

If a participant has notified the creation of an NSP on the distributor's network, the distributor must give written notice to the reconciliation manager of the following:

- *if the NSP is to be located in a new balancing area, all relevant details necessary for the new balancing area to be created and notification that the NSP to be created is to be assigned to the new balancing area,*
- *in all other cases, notification of the balancing area in which the NSP is located.*

Audit observation

The NSP table was reviewed.

Audit commentary

No balancing area changes occurred during the audit period.

Audit outcome

Compliant

6.4. Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)

Code reference

Clause 26(4) Schedule 11.1

Code related audit information

If a participant notifies the creation of an NSP, or the transfer of an ICP to an NSP that is a point of connection between a network and an embedded network owned by the distributor, the distributor must give notice to the reconciliation manager at least one month before the creation or transfer of:

- *the network on which the NSP will be located after the creation or transfer (Clause 26(4)(a))*
- *the ICP identifier for the ICP that connects the network and the embedded network (Clause 26(4)(b))*
- *the date on which the creation or transfer will take effect (Clause 26(4)(c)).*

Audit observation

The NSP table was reviewed.

Audit commentary

TLC has not created any new embedded networks during the audit period.

Audit outcome

Compliant

6.5. Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1)

Code reference

Clause 24(2) and (3) Schedule 11.1

Code related audit information

The distributor must give written notice to the reconciliation manager of any change to balancing areas associated with an NSP supplying the distributor's network. The notification must specify the date and trading period from which the change takes effect and be given no later than three business days after the change takes effect.

Audit observation

The NSP table was reviewed.

Audit commentary

No balancing area changes have occurred during the audit period.

Audit outcome

Compliant

6.6. Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1)

Code reference

Clause 27 Schedule 11.1

Code related audit information

If a transfer of an ICP results in an ICP becoming an NSP at which an embedded network connects to a network, or in an ICP becoming an NSP that is an interconnection point, in respect of the distributor's network, the distributor must give written notice to any trader trading at the ICP of the transfer at least 1 month before the transfer.

Audit observation

The NSP table was reviewed.

Audit commentary

No existing ICPs became NSPs during the audit period.

Audit outcome

Compliant

6.7. Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2)

Code reference

Clause 1 to 4 Schedule 11.2

Code related audit information

If the distributor wishes to transfer an ICP, the distributor must give written notice to the Authority in the prescribed form, no later than 3 business days before the transfer takes effect.

Audit observation

The NSP table was reviewed.

Audit commentary

TLC has not initiated the transfer of any ICPs during the audit period.

Audit outcome

Compliant

6.8. Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1) and 10.25(3))

Code reference

Clause 10.25(1) and 10.25(3)

Code related audit information

A network owner must, for each NSP that is not a point of connection to the grid for which it is responsible, ensure that:

- *there is one or more metering installations (Clause 10.25(1)(a)); and*
- *the electricity is conveyed and quantified in accordance with the Code (Clause 10.25(1)(b))*

For each NSP covered in 10.25(1) the network owner must, no later than 20 business days after a metering installation at the NSP is recertified advise the reconciliation manager of:

- *the reconciliation participant for the NSP*
- *the participant identifier of the metering equipment provider for the metering installation*
- *the certification expiry date of the metering installation*

Audit observation

The Network Supply Points (NSP) table was examined to determine compliance.

Audit commentary

The NSP table was reviewed for NSPs where LINE was the responsible participant:

Distributor	NSP POC	Description	MEP	Certification Expiry (last audit)	Certification Expiry (this audit)
LINE	MEP0112	MOKAI	FCLM	16/02/2022	12/02/2024
LINE	MEP0113	MOKAI	FCLM	16/02/2022	12/02/2024

Distributor	NSP POC	Description	MEP	Certification Expiry (last audit)	Certification Expiry (this audit)
LINE	TLC0111	TANGIWAI OHAKUNE INTERCONNECT	FCLM	18/08/2023	18/08/2023
LINE	WKM0331	WHAKAMARU	FCLM	19/10/2024	19/10/2024

All of the meters have current certification. The Senior Data Analyst identified that the meter certifications for MEP0112LINENP and MEP0113LINENP would expire on 16 February 2022 and emailed the metering team to request recertification, and eventually escalated the request to Influx management when no certification details were received. Re-certification was completed on 2 December 2022 and TLC correctly updated the registry with the new expiry date on the date they received a copy of the certification (5 December 2022).

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.8 With: Clause 10.25(1) & 10.26(1) From: 17-Feb-22 To: 02-Dec-22	MEP0112LINENP and MEP0113LINENP temporarily had expired metering certification. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated strong because TLC identified that recertification was required and escalated their request when certification was received. The certification details were updated on the registry the day the certificate was received. The audit risk rating is assessed as low as the impact on reconciliation is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
Prompt metering certification.	Complete.	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Continue to monitor certification expiry date and request certification before expire date.	Ongoing.	

6.9. Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2))

Code reference

Clause 10.25(2)

Code related audit information

If the network owner proposes the creation of a new NSP which is not a point of connection to the grid it must:

- *assume responsibility for being the metering equipment provider (Clause 10.25(2)(a)(i)); or*
- *contract with a metering equipment provider to be the MEP (Clause 10.25(2)(a)(ii)); and*
- *no later than 20 business days after identifying the MEP advise the reconciliation manager in the prescribed form of:*
  - *a) the reconciliation participant for the NSP (Clause 10.25(2)(b)(i)); and*
  - *b) the MEP for the NSP (Clause 10.25(2)(b)(ii)); and*
  - *c) no later than 20 business days after the data of certification of each metering installation, advise the reconciliation participant for the NSP of the certification expiry date (Clause 10.25(2)(c)).*

Audit observation

The NSP table was reviewed.

Audit commentary

TLC has not created any new NSPs during the audit period.

Audit outcome

Compliant

6.10. Obligations concerning change in network owner (Clause 29 Schedule 11.1)

Code reference

Clause 29 Schedule 11.1

Code related audit information

If a network owner acquires all or part of a network, the network owner must give written notice to:

- *the previous network owner (Clause 29(1)(a) of Schedule 11.1)*
- *the reconciliation manager (Clause 29(1)(b) of Schedule 11.1)*
- *the Authority (Clause 29(1)(c) of Schedule 11.1)*
- *every reconciliation participant who trades at an ICP connected to the acquired network or part of the network acquired (Clause 29(1)(d) of Schedule 11.1).*

At least one month's notification is required before the acquisition (Clause 29(2) of Schedule 11.1).

The notification must specify the ICPs to be amended to reflect the acquisition and the effective date of the acquisition (Clause 29(3) of Schedule 11.1).

Audit observation

The NSP table on the registry was examined.

Audit commentary

TLC have not initiated any changes of network owner.

Audit outcome

Compliant

6.11. Change of MEP for embedded network gate meter (Clause 10.22(1)(b))

Code reference

Clause 10.22(1)(b)

Code related audit information

If the MEP for an ICP which is also an NSP changes the participant responsible for the provision of the metering installation under Clause 10.25, the participant must advise the reconciliation manager and the gaining MEP.

Audit observation

The NSP supply point table was examined.

Audit commentary

No MEP changes occurred during the audit period.

Audit outcome

Compliant

6.12. Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2)

Code reference

Clauses 5 and 8 Schedule 11.2

Code related audit information

The distributor must give the Authority confirmation that it has received written consent to the proposed transfer from:

- *the distributor whose network is associated with the NSP to which the ICP is recorded as being connected immediately before the notification (unless the notification relates to the creation of an embedded network) (Clause 5(a) of Schedule 11.2)*
- *every trader trading at an ICP being supplied from the NSP to which the notification relates (Clause 5(b) of Schedule 11.2).*

The notification must include any information requested by the Authority (Clause 8 of Schedule 11.2).

Audit observation

The NSP table was reviewed.

Audit commentary

TLC has not initiated the transfer of any ICPs during the audit period.

Audit outcome

Compliant

6.13. Transfer of ICPs for embedded network (Clause 6 Schedule 11.2)

Code reference

Clause 6 Schedule 11.2

Code related audit information

If the notification relates to an embedded network, it must relate to every ICP on the embedded network.

Audit observation

The NSP table was reviewed.

Audit commentary

TLC has not initiated the transfer of any ICPs during the audit period.

Audit outcome

Compliant

7. MAINTENANCE OF SHARED UNMETERED LOAD

7.1. Notification of shared unmetered load ICP list (Clause 11.14(2) and (4))

Code reference

Clause 11.14(2) and (4)

Code related audit information

The distributor must give written notice to the registry manager and each trader responsible for the ICPs across which the unmetered load is shared of the ICP identifiers of those ICPs.

A distributor who receives notification from a trader relating to a change under Clause 11.14(3) must give written notice to the registry manager and each trader responsible for any of the ICPs across which the unmetered load is shared of the addition or omission of the ICP.

Audit observation

The registry list for was reviewed to identify all ICPs with shared unmetered load. Findings of streetlight audits on the network were considered.

Audit commentary

TLC has no existing shared unmetered load. The most recent DUML audits for streetlight databases on TLC's network were reviewed to determine whether there were any issues relating to distributor unmetered load records:

Database	Comment
Waitomo District Council	The December 2021 audit identified ten private lights which were excluded from submission information. • Waitomo District Council has accepted responsibility for one light on Rauparaha St. • The light at Waitomo Village Road has been confirmed to be removed. • ICP 0001113548WM792 has been created to account for the eight unmetered streetlights at Kaka St. As recorded in the previous audit the ICP was made active from 18 May 2021, but should have been backdated 14 months to enable the trader to submit the missing submission for the available revision period. The late start date is not recorded as non-compliance again, as it was recorded in the previous audit.
DOC Whakapapa Village lights	The November 2020 audit did not identify any missing shared unmetered load.
Ruapehu District Council	The December 2021 audit identified 21 private lights which were excluded from submission information: • 16 unmetered lights near Chateau Tongariro are now being reconciled in Department of Conservation lights Whakapapa DOC database (ICP 0088055801WMB6F). • The two unmetered private lights that are located TLC's depot have had ICPs created for them and are being traded. • Two unmetered lights at the Top 10 Holiday Park in Ohakune which were excluded from submission information are now recorded as standard unmetered load under ICP 1100000269WM70B.

Database	Comment
	• One light at National Park School, Carrol St, National Park which was excluded from submission information is now recorded as standard unmetered load under ICP 1100000260WM95A.
Taupo District Council	The April 2022 audit did not identify any missing shared unmetered load.
Otorohanga District Council	The May 2022 audit recorded three private lights. All had the correct ICP number assigned and were submitted as part of the DUML load.

Audit outcome

Compliant

7.2. Changes to shared unmetered load (Clause 11.14(5))

Code reference

Clause 11.14(5)

Code related audit information

If the distributor becomes aware of a change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must give written notice to all traders affected by that change or decommissioning as soon as practicable after the change or decommissioning.

Audit observation

The registry list was reviewed to identify all ICPs with shared unmetered load.

Audit commentary

Review of the registry list confirmed that no ICPs have shared unmetered load recorded, and there have been no changes to shared unmetered load information.

Audit outcome

Compliant

8. CALCULATION OF LOSS FACTORS

8.1. Creation of loss factors (Clause 11.2)

Code reference

Clause 11.2

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Part 11 is:

a) complete and accurate
b) not misleading or deceptive
c) not likely to mislead or deceive.

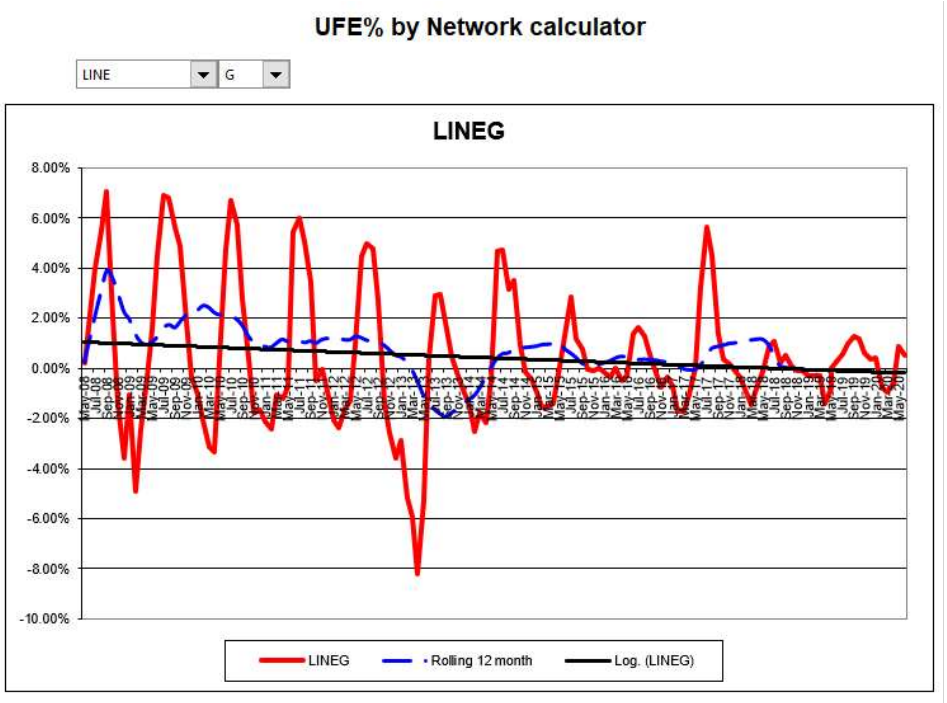
Audit observation

The "Guidelines on the calculation and the use of loss factors for reconciliation purposes" was published on 26 June 2018. I have assessed TLC's process and compliance against the guideline's recommended thresholds.

Audit commentary

Loss factor reviews were historically conducted every ten years, or if a major change to the network occurs which is likely to have a material impact on loss factors. TLC's loss factors were last updated in April 2008. A review of loss factors has not been completed in recent years, in part due to staffing changes. TLC provided their last internal correspondence from October 2022 which was investigating who could complete the review.

I was provided by the Electricity Authority the reconciliation losses by for the Lines Company network. The chart below indicates losses for the network are tracking within the +/- 1% threshold.



Audit outcome

Compliant

CONCLUSION

TLC have made improvements during the audit period, including adopting some recommendations made in the last audit and improving data validation. TLC is working to resolve historic issues relating to private unmetered streetlights which are excluded from DUML databases and has created new standard unmetered load to account for this.

The following areas require some improvement to ensure future compliance:

- ensure that event dates are consistently updated to the date that the event attributes apply from when processing updates in Axos,
- ensure that the trader is always advised when one of their ICPs is bridged,
- increase the frequency of registry validation and refine the BI reporting to eliminate invalid mismatches to make the report more user-friendly, and
- review the electrical connection of streetlights to ensure that a trader has accepted responsibility for the additional load.

This audit found 13 areas of non-compliance and makes five recommendations for improvement. The future risk rating is 21 (a reduction from 26), indicating that the next audit be due in six months. Given that all confirmed data accuracy issues were cleared by the time that the audit was complete, all of the non-compliances had a low impact, and several were caused by two correctly backdated new connections for historic unmetered load, I recommend that the next audit is completed in a minimum of 12 months.

PARTICIPANT RESPONSE

We have been reviewing responsibilities within the business to have clear ownership of the Registry processes. This is combined with ongoing training and a better understanding of Axos billing and Registry Manager.