

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT



For

WELLINGTON ELECTRICITY LINES LIMITED
NZBN: 9429035790433

Prepared by: Bernie Cross

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Audit report due date: 28 February 2023

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EXECUTIVE SUMMARY

This distributor audit was performed at the request of **Wellington Electricity Lines Ltd (Wellington Electricity)**, to encompass the Electricity Industry Participation Code requirement for an audit in accordance with 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. The audit was conducted 19th January 2023.

Wellington Electricity has made steady progress in improving their level of compliance across most processes with the exception of the potential shared unmetered load. The Gentrack changes which were expected to be completed by early 2022 are taking longer than expected. There are 407 “private” lights that have been removed from the various council streetlight databases which could be required to become standard or shared unmetered load and could be resulting in a potential under submission of up to 138,000 kWh per annum. Investigation will determine if these are connections are:

- connected to Wellington Electricity’s network and standard or shared unmetered load is to be added to an existing ICP or a new ICP be created or
- are part of a customer network and are not connected to the Wellington Electricity network. The Code is not clear how these are to be managed and I have raised this as an issue in **Section 3.1**, or
- are lights that were originally requested to be connected as part of the council load, but the council has since decided not to maintain these and has subsequently removed them from their databases. This situation is becoming more common around the country and will require Wellington Electricity to work with the relevant trader and their customer to determine how these are to be resolved.

Wellington Electricity intends to commence the investigation of the “private” lights in parallel with the Gentrack changes already underway so that any shared unmetered load needing to be created will have been identified ready for when Gentrack is able to manage this. The details of these lights have been included as an appendix to this report.

Historic data accuracy issues continue to be a focus, and the volumes of these have continued to decrease during the audit period.

The audit found 13 non-compliances and makes 11 recommendations. This is an increase of four non-compliances from the nine found in the last audit. Three of these relate to five ICPs that were electrically connected prior to an ICP being created and one relates to an historical connection that is downstream of another that was identified during audit. These are exceptions and not indicative of wider process issues. Additionally some of the non-compliances relate to late updates to data corrections. This will always create non-compliance for not being able to meet the timeliness requirements but more importantly ensures that where possible Wellington Electricity is providing complete and accurate information.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of 20. This indicates an audit frequency of 12 months. I have considered this in conjunction with Wellington Electricity’s responses including a timetable to investigate and resolve the known private unmetered streetlights and agree with this recommendation.

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) and 10.6(1)	<p>A small number of discrepancies and some corrections from the last audit still to be corrected.</p> <p>Unmetered load associated with up to 407 private lights not recorded on the registry via either standard or shared unmetered load ICPs resulting in a potential under submission of up to 138,000 kWh per annum.</p> <p>Some distributed generation event dates not reflective of connection date.</p> <p>Eight ICPs with the incorrect NSP recorded.</p> <p>One LE ICP was assigned the non-dedicated flag incorrectly.</p> <p>Five ICPs with the incorrect unmetered load details recorded.</p>	Strong	Low	1	Identified
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	<p>Correction of some data not carried out as soon as practicable due to temporary work backlogs.</p> <p>Unmetered load associated with up to 407 private lights not recorded on the registry via either standard or shared unmetered load ICPs resulting in a potential under submission of up to 138,000 kWh per annum.</p>	Moderate	Low	2	Identified
Distributors must create ICPs	3.1	11.4	Unmetered load associated with up to 407 private lights not recorded on the registry via either standard or shared unmetered load ICPs resulting in a potential under submission of up to 138,000 kWh per annum.	Moderate	Low	2	Identified
Participants may request distributors to create ICPs	3.2	11.5(3)	Two ICPs not created within three business days and notification not provided to the participant.	Strong	Low	1	Identified
Timeliness of Provision of ICP Information to the registry manager	3.4	7(2) of Schedule 11.1	Five ICPs not created or made "ready" on the registry prior to these connections being electrically connected.	Moderate	Low	2	Identified
Timeliness of Provision of Initial Electrical	3.5	7(2A) of Schedule 11.1	Some late initial electrical connection date updates.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Connection Date							
Connection of ICP that is not an NSP	3.6	11.17	Traders were not identified or confirmed as taking responsibility for five ICPs prior to these connections being electrically connected.	Moderate	Low	2	Identified
Connection of ICP that is not an NSP	3.7	10.31	Traders were not identified or requested liveness for five ICPs prior to these connections being electrically connected.	Moderate	Low	2	Identified
Changes to registry information	4.1	8 Schedule 11.1	1,196 late pricing updates. 17 late status updates. 7 late network updates. 239 late distributed generation updates. 18 late NSP changes.	Moderate	Low	2	Identified
Notice of NSP for each ICP	4.2	7(1), (4) and (5) Schedule 11.1	Eight ICPs with the incorrect NSP recorded.	Strong	Low	1	Identified
ICP location address	4.4	2 Schedule 11.1	66 active ICPs without a readily locatable address.	Strong	Low	1	Identified
Electrically disconnecting an ICP	4.5	3 Schedule 11.1	ICP 1001158552CK7FD was created and connected downstream of another ICP resulting in the possibility of it being disconnected where the upstream ICP is disconnected.	Strong	Low	1	Identified
Distributors to Provide ICP Information to the Registry manager	4.6	7(1) Schedule 11.1	One LE ICP (0000167678CK980) with the NSP dedication initially set to No. One ICP (0000043289TRC57) with distributed generation present and the incorrect installation type of "L". Some incorrect initial electrical connection dates recorded (17 from the current audit period and the remaining all relate to prior to the requirement coming into effect). Some distributed generation event dates not reflective of connection date. Five ICPs identified from the previous audit with the incorrect unmetered load details recorded. Five ICPs with the incorrect unmetered load details recorded. 72 unmetered pay phones with incorrect hours of operation recorded	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			with an annual load impact of 4,925 kWh of under submission. Unmetered load associated with up to 407 private lights not recorded on the registry via either standard or shared unmetered load ICPs resulting in a potential under submission of up to 138,000 kWh per annum.				
Future Risk Rating						20	

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
Distributors must create ICPs	3.1	Connection of new unmetered streetlights	Wellington Electricity to review this process with the relevant traders and councils to ensure that streetlights are reconciled from the date of electrical connection.
Timeliness of Provision of ICP Information to the registry manager	3.4	Co-ordination between projects team and connections team	Review the internal communication of unmetered new connections managed by the project team and the connection team.
Timeliness of Provision of Initial Electrical Connection Date	3.5	Timeliness of provision of initial electrical connection date	Require authorised agents to provide livening paperwork to Wellington Electricity, or where the connection is downstream of Wellington Electricity's network contact the trader to ensure the livening paperwork is provided.
Monitoring of "new" & "ready" statuses	3.14	Include ICPs with registry status 1,12 to the monitoring of "new" and "ready" status process.	Wellington Electricity incorporates a process to actively monitoring of registry status 1,12 "new connection in progress" into their regular monitoring and escalation process to traders where these have not been made active within 12/24 months.
Electrical connection of a point of connection	3.16	Review new connection and electrical connection process for streetlights	Wellington Electricity reviews the new connection and electrical connection process for streetlights to ensure that the new unmetered streetlight load listed in each application is accounted for from the electrical connection date.
Changes to registry information	4.1	Review process used to determine DG connection dates.	Wellington Electricity reviews the process to determine the distributed generation effective dates using record of inspection (ROI) dates and ensure these are consistently provided by solar installers and inspectors.

Subject	Section	Recommendation	Description
Electrically disconnecting an ICP	4.5	Review the new connection and electrical connection process around creation of tenancies within commercial buildings	Wellington Electricity to review its new connection/ICP creation process to ensure similar scenarios of commercial buildings converted into multiple tenancies is captured as part of the application process.
			Wellington Electricity reviews its liveness agent checklist and processes to ensure new connection cannot be liveness where they are aware of upstream metering being present and this metering point/ICP is not being decommissioned as part of the downstream connection activity
Distributors to Provide ICP Information to the Registry manager	4.6	Invalid initial electrical connection dates	Wellington Electricity to remove the invalid initial electrical connection dates for ICPs connected prior to 29 August 2013 but have an initial electrical connection date post this date.
		Develop process to verify and validate unmetered load operational hours and connected load values	Work with the traders to determine the correct values for the ICPs with discrepancies.
			Publish annual operational hours for streetlight circuit as part of pricing disclosure to ensure trader can correctly apply the operational hours for unmetered load.

ISSUES

Subject	Section	Issue	Description
Distributors must create ICPs	3.1	Regarding clause 15.2 and 15.37B(b)	Lights that are electrically connected on a customer network are not captured within the current code wording as these are not connections to Wellington Electricity's network and are downstream.

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

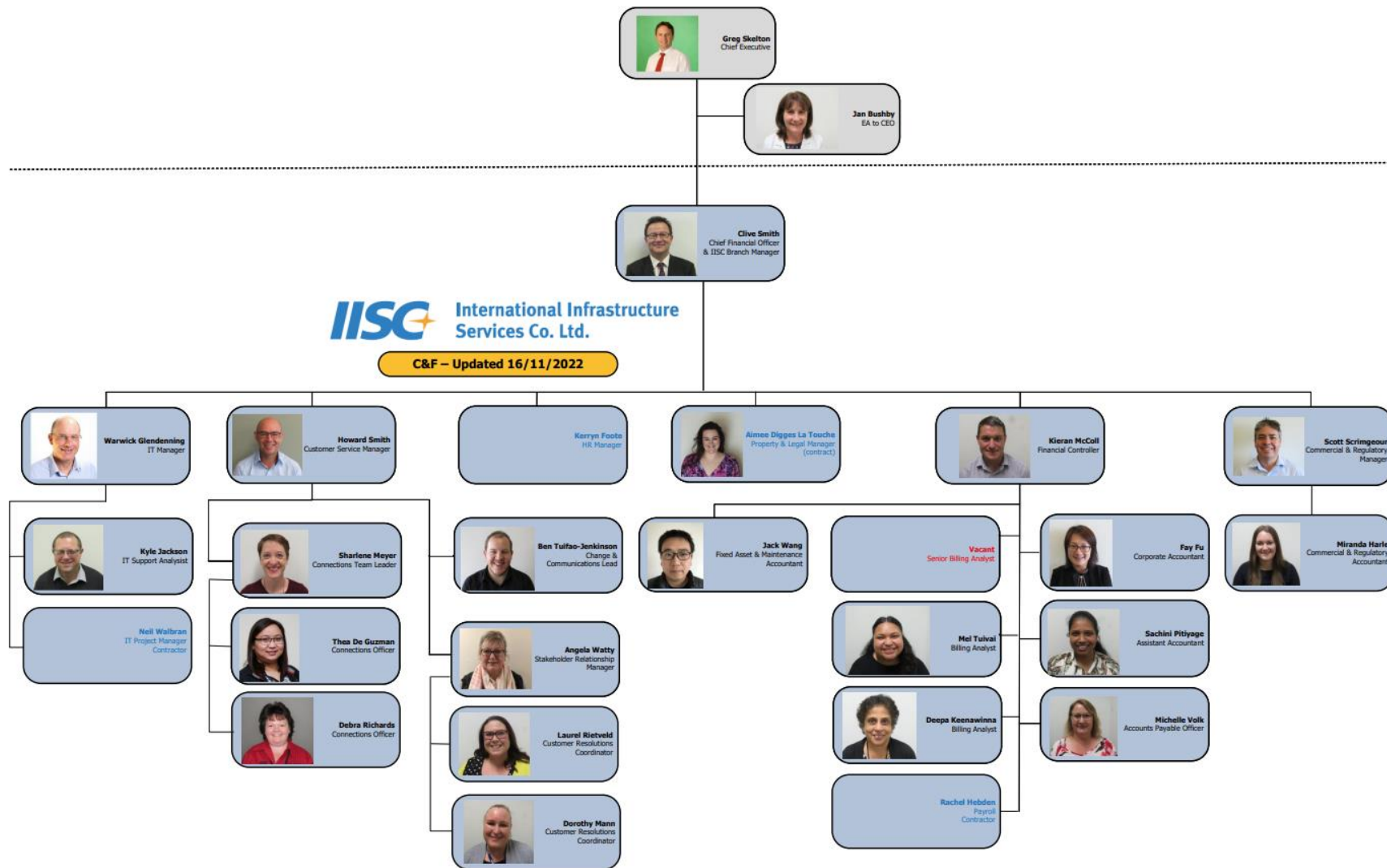
The Authority website was checked to determine whether there are code exemptions in place.

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

Wellington Electricity provided a copy of their organisational structure as of 16 November 2022:



1.3. Persons involved in this audit

Auditors:

Name	Title	Company
Bernie Cross	Lead Auditor	Veritek Limited
Rebecca Elliot	Supporting Auditor	Veritek Limited

Personnel assisting in this audit were:

Name	Title
Howie Smith	Customer Service Manager
Thea De Guzman	Connections Officer
Sharlene Mayer	Connections Team Leader
Debra Richards	Connections Officer

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

The use of contractors was discussed with Wellington Electricity.

Audit commentary

Wellington Electricity uses two authorised livening agents to perform electrical connection activities of their Network:

- Northpower, and
- Mark Telfer Electrical (MFE).

All other activities are completed directly by Wellington Electricity.

Wellington Electricity understands that they are responsible for code compliance.

1.5. Supplier list

Wellington Electricity has provided the list in **section 1.4** of sub-contractors authorised to perform electrical connection activities on their network.

1.6. Hardware and Software

The main systems used by Wellington Electricity to meet its code obligations are:

- **SAP**, which is used to manage workflows,
- **GTV (v5)**, which is used to create ICPs and interface with the registry, and
- **Hikoweb (GIS)**, which is used to identify the correct NSP and address information.

The Hikoweb, Gentrack, and SAP databases and servers are all backed up to CommVault disk media, which are then transferred to tape and stored off site. DR testing has occurred across all three systems in the last six months.

Access to the systems is restricted through the use of logins and passwords.

1.7. Breaches or Breach Allegations

The Electricity Authority confirmed that there have been no alleged breaches for Wellington Electricity.

1.8. ICP and NSP Data

Wellington Electricity owns and operates the electricity network in the Wellington region.

Wellington Electricity NSPs

The table below lists the relevant NSPs and their associated balancing area, and the number of active ICPs connected. No Wellington Electricity NSPs have been created, decommissioned, or transferred since the 2020 audit.

Dist	NSP POC	Description	Parent POC	Parent Ntwk	Balancing Area	Network type	Start date	No of ICPs
CKHK	CPK0111	Central Park			WELLTONUNETG	G	1/02/09	7,162
CKHK	CPK0331	Central Park			WELLTONUNETG	G	1/02/09	42,303
CKHK	GFD0331	Gracefield			WELLTONUNETG	G	1/02/09	19,298
CKHK	HAY0111	Haywards			WELLTONUNETG	G	1/02/09	6,920
CKHK	HAY0331	Haywards			WELLTONUNETG	G	1/02/09	5,996
CKHK	KWA0111	Kaiwharawhara			WELLTONUNETG	G	1/02/09	5,620
CKHK	MLG0111	Melling			WELLTONUNETG	G	1/02/09	8,072
CKHK	MLG0331	Melling			WELLTONUNETG	G	1/02/09	12,465
CKHK	PNI0331	Pauatahanui			WELLTONUNETG	G	1/02/09	7,137
CKHK	TKR0331	Takapu Road			WELLTONUNETG	G	1/02/09	34,300
CKHK	UHT0331	Upper Hutt			WELLTONUNETG	G	1/02/09	11,179

CKHK	WIL0331	Wilton			WELLTONUNETG	G	1/01/14	12,767
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Networks embedded under Wellington Electricity NSPs

Wellington Electricity does not own any embedded networks. There are 104 embedded networks connected to the Wellington Electricity network.

Five new embedded networks were created after October 2021. The new embedded networks are detailed in the table below and are discussed in the relevant sections of this report.

Dist	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	End date
PPNZ	PSB0012	40 Bowen Street Wellington	WIL0331	CKHK	PSB0012PPNZE	E	1/10/2022	
TENC	TPD0011	97 Taranaki St Wellington	CPK0331	CKHK	TPD0011TENCE	E	24/01/2022	
TENC	TRV0011	130 Richmond Street Petone	GFD0331	CKHK	TRV0011TENCE	E	19/04/2022	
TENC	TVL0011	Victoria Lane Apartments	CPK0111	CKHK	TVL0011TENCE	E	23/01/2023	
TENC	TWR0011	Willowbank Rise	TKR0331	CKHK	TWR0011TENCE	E	10/10/2022	

ICP status

Wellington Electricity's ICPs are summarised by status below:

Status	Number of ICPs (2022)	Number of ICPs (2021)	Number of ICPs (2020)	Number of ICPs (2019)	Number of ICPs (2018)	Number of ICPs (2017)
New (999)	-	-	-	-	2	85
Ready (000)	70	187	132	142	86	46
Active (2,0)	173,503	171,735	170,428	168,737	167,633	166,696
Distributor (888)	118	111	108	101	96	85
Inactive - new connection in progress (1,12)	437	312	317	177	155	56
Inactive - vacant (1,4)	2,648	2,569	2,539	2,564	2,694	2,568
Inactive - AMI remote disconnection (1,7)	1,093	886	808	813	781	486
Inactive - de-energised due to meter disconnected (1,8)	29	19	20	15	10	8
Inactive - at pole fuse (1,9)	52	36	32	30	30	13
Inactive - de-energised at meter box switch (1,10)	8	9	10	8	11	2
Inactive - at meter box switch (1,11)	8	4	8	5	4	4
Inactive - ready for decommissioning (1,6)	16	22	16	10	174	378
Inactive – reconciled elsewhere (1,5)	1	2	1	-	-	-
Decommissioned (3)	9,874	9,203	8,471	7,757	6,926	6,123

1.9. Authorisation Received

An email of authorisation was provided.

1.10. Scope of Audit

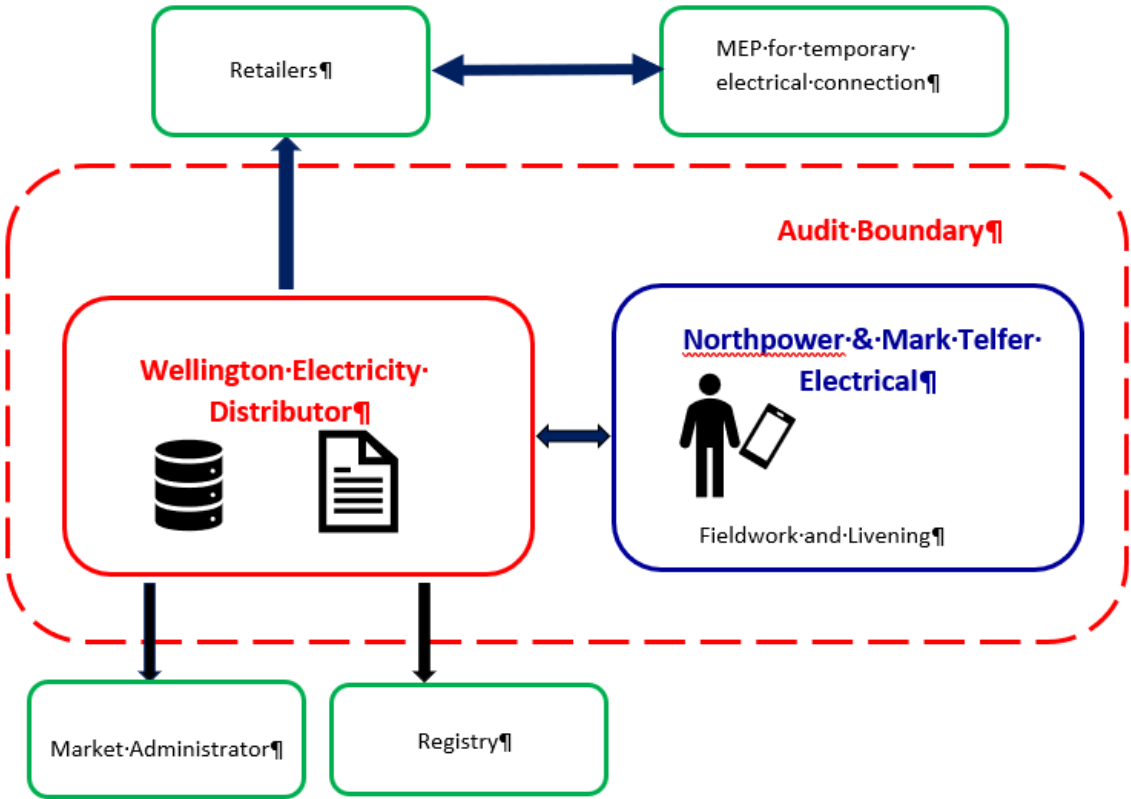
This distributor audit was performed at the request of Wellington Electricity, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority. The audit was conducted on 19th January 2022.

The table below shows the tasks under clause 11.10(4) of Part 11, which Wellington Electricity is responsible for. There are no agents who assist with these tasks:

Functions Requiring Audit Under Clause 11.10(4) of Part 11	Contractors Involved in Performance of Tasks
The creation of ICP identifiers for ICPs.	Nil
The provision of ICP information to the registry and the maintenance of that information.	
The creation and maintenance of loss factors.	

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



1.11. Summary of previous audit

I reviewed a copy of the previous audit report, completed in January 2022 by Brett Piskulic of Veritek Limited. The audit found nine non-compliances and made one recommendation. The current status of these non-compliance in relation to the clauses are detailed in the table below:

Table of Non-compliance

Subject	Section	Clause	Non-Compliance	Status
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A small number of discrepancies and some corrections from the last audit still to be corrected. Shared unmetered load has not been created to account for the shared unmetered load on the network. One ICP with a mis-mapped NSP.	Still existing
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Correction of some data not carried out as soon as practicable	Still existing
Distributors must create ICPs	3.1	11.4	Shared unmetered load ICPs not created to account for shared unmetered streetlights connected on the network.	Still existing
Participants may request distributors to create ICPs	3.2	11.5(3)	Two ICPs not created within three business days and notification not provided to the participant.	Still existing
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	112 late initial electrical connection updates	Still existing
Changes to registry information	4.1	8 Schedule 11.1	2,641 late pricing updates. 129 late status updates. 3 late network updates. 95 late distributed generation updates.	Still existing
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	13 ICPs with the incorrect NSP recorded	Still existing
ICP location address	4.4	2 Schedule 11.1	20 active ICPs without a readily locatable address.	Still existing
Distributors to Provide ICP Information to the Registry manager	4.6	7(1) Schedule 11.1	1 LE ICP with the NSP dedication set to No. 1 ICP with the NSP dedication set to Yes. 2 ICPs with distributed generation present and the incorrect installation type of "L". 8 incorrect initial electrical connection dates recorded. 7 ICPs with the incorrect unmetered load details recorded. Shared metered load present but not recorded on the registry.	Still existing

Table of Recommendations:

Subject	Section	Recommendation	Status
Timeliness of Provision of Initial Electrical Connection Date	3.5	Require authorised agents to provide livening paperwork to Wellington Electricity, or where the connection is downstream of Wellington Electricity's network contact the trader to ensure the livening paperwork is provided.	Still existing

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 as of 9 November 2022 and the registry audit compliance report covering the period from 1 November 2021 to 9 November 2022 were examined to confirm compliance.

Audit commentary

The registry processes were checked and found largely to be the same.

Registry synchronisation

Registry updates are processed automatically by GTV each night. If GTV does not have valid values recorded in all the fields required for the registry update, the registry update will not be processed for the affected ICP, and the ICP will be listed on the “held” report.

Each business day staff work through the exceptions on the “held” report and update the missing information so that the registry update can be processed at the next opportunity. I reviewed recent “held” reports and found it was rare for updates to be held.

A daily GTV “health check” is conducted, including review of registry acknowledgements, and error reports.

Mismatches between GTV and the registry are identified and resolved through the data validation processes described below.

Registry and data validation

Each business day, a registry list is compared to GTV using Microsoft Access. The list of checks is comprehensive. Wellington Electricity also downloads the audit compliance report daily to identify discrepancies.

There were a small number of data discrepancies found in this audit and some corrections have not been completed from the last audit. The areas to be addressed are detailed below.

A recommendation is recorded in **section 3.1** for Wellington Electricity to develop a manual process to create standard or shared unmetered load for private streetlights and inform affected retailers in advance of completing the system development in Gentrack.

NSP Dedication

The NSP dedication flag was checked.

All LE ICPs were checked, and I confirmed that all with the exception of one had a dedicated NSP flag. ICP 0000167678CK980 was initially created as non-dedicated and this has now been corrected to dedicated.

This is detailed in **section 4.6**.

NSP assignment

Wellington Electricity have improved their process for identifying mis-mapped ICPs with the addition of the AC020 report. A “streets with multiple NSP” spreadsheet was provided which confirmed that 51 of the 59 identified were assigned to the correct NSP. Of the remaining eight, five have been corrected as part of the audit and three are undergoing further investigation before a change is made.

This is detailed in **section 4.2**.

Distributed Generation

Wellington Electricity relies on trader and MEP information to determine an effective date to apply the distributed generation attributes on the registry rather than require the provision of ROI details from the solar installers / inspectors to ensure the correct effective dates are applied. A recommendation is recorded in **section 4.1** that Wellington Electricity review their process to align with the requirements around new connection electrical connection dates.

The audit compliance report identified two ICPs where the profile used by the trader indicates that distributed generation is present, but Wellington Electricity has none recorded. These were examined and found:

- ICP 0000043289TRC57 is a long-standing issue where no application for installation of distributed generation has been received; Wellington Electricity has followed up with the trader, initially Genesis and subsequently Powershop, the retailer has now provided some DG details for this ICP after contacting the customer and the registry has now been updated to reflect the correct generation details, and
- For ICP 0000166086CKDAA, an application for installation of distributed generation has been received but there was an error with the address and ICP in the application form; the trader has been requested to confirm the details and this was again followed up in November 2022.

This is detailed in **section 4.6**.

Unmetered load

Seven ICPs were identified in last audit has having incorrectly information recorded in the Unmetered load details - Distributor field. These were reviewed to confirm if the corrections had been applied. Two of the seven have been updated and five are still awaiting correction.

992 active ICPs have a value recorded in the distributor unmetered load details field. I compared the figures for the 871 ICPs where the format of the distributor information enabled recalculation, and a trader unmetered load value was populated. For 794 ICPs Wellington Electricity’s value matched the trader’s value within ± 1 kWh. I found some small differences were caused by GTV’s rounding of wattage to kW with two decimal places. 77 ICPs were identified with differences over ± 1 kWh and nine were examined during the audit and found:

- five were incorrect and Wellington Electricity will amend the registry to reflect the correct details,
- two ICPs where the trader calculation of daily kWh is incorrect,
- two ICPs where the details match the new connection application but do not match the trader records; Wellington Electricity is clarifying the unmetered load present with the trader.

This is detailed in **section 4.6**.

Unmetered load records for private streetlights

In the last two audits it was recorded that private lights, excluded from DUML databases, had been identified from the Hutt, Porirua and Wellington City Councils DUML audits and the details for these lights have been provided to Wellington Electricity with the first lights being provided in 2017. Where private lights are excluded from distributed unmetered load databases they should be metered through an existing installation, or shared or standard unmetered load should be created to ensure that the load is captured and reported for reconciliation by traders.

The definition of shared unmetered load, is “unmetered load at a single point of connection that is distributed across more than one ICP”. A point of connection is defined as “a point at which electricity may flow into or out of a network”. In some cases, it is unlikely there will be a single point of connection to Wellington Electricity’s network for private lights and creation of standard unmetered load will be necessary.

Wellington Electricity has yet to investigate the “private” lighting to confirm which are:

- connected to Wellington Electricity’s network and standard or shared unmetered load is to be added to an existing ICP or a new ICP be created,
- part of a customer network and are not connected to the Wellington Electricity network. The Code is not clear how these are to be managed and I have raised this as an issue in **Section 3.1**, and
- lights that were originally requested to be connected as part of the council load, but the council has since decided not to maintain these and has subsequently removed them from their databases. This situation is becoming more common around the country.

They intend to commence investigation to resolve this issue in parallel with the Gentrack changes already underway that are required to enabling the management and billing of shared unmetered load within its systems.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 2.1 With: Clause 11.2(1) and 10.6(1)</p> <p>From: 01-Nov-21 To: 09-Nov-22</p>	<p>A small number of discrepancies and some corrections from the last audit still to be corrected.</p> <p>Unmetered load associated with up to 407 private lights not recorded on the registry via either standard or shared unmetered load ICPs resulting in a potential under submission of up to 138,000 kWh per annum.</p> <p>Some distributed generation event dates not reflective of connection date.</p> <p>Eight ICPs with the incorrect NSP recorded.</p> <p>One LE ICP was assigned the non-dedicated flag incorrectly.</p> <p>Five ICPs with the incorrect unmetered load details recorded.</p> <p>Potential impact: High Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>

Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are rated as strong overall as they will mitigate risk to an acceptable level. Further recommendations have been made in the audit to further strengthen controls.</p> <p>The impact is assessed to be low overall. The responsibility for the kWh volume associated with the “private” lights is yet to be determined hence I have excluded this from my assessment.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Unmetered Load for 407 private lights: Develop project plan to resolve known unmetered load.</p> <ul style="list-style-type: none"> - Develop process and documentation. - Assign/recruit resource - Test & deployment of Gentrack SUML functionality - Reconcile new connection requests received from Traders/Council and ensure this reconciles with Council database. - Investigate options to identify unknown UML. <p>Distributed Generation (DG) Event Dates: No action required.</p> <p>Eight ICPs with incorrect NSP recorded: 5 ICPs already corrected. 3 ICP’s to be corrected.</p> <p>One LE ICP assigned non-dedicated flag: ICP already corrected.</p> <p>Five ICPS with incorrect unmetered load details: 5 ICP’s to be corrected in registry</p>		<p>Apr 2023</p> <p>May 2023</p> <p>May 2023</p> <p>Sept 2023</p> <p>Sept 2023</p> <p>June 2023</p> <p>July 2023</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Shared Unmetered Load: Write decisions paper for management – review connections policies on whether to allow future instances of Shared Unmetered Load on network.</p> <p>Shared Unmetered Load: Additional verification to be added to streetlights new connection process to ensure accurate information received from Trader & Councils</p> <p>Shared Unmetered Load: Add a monthly reconciliation of DUML database against new connection requests to ensure Councils are claiming all lights they have requested.</p> <p>DG Connection Date: Review DG process to capture installation dates from verifiable sources.</p> <p>ICP with incorrect NSP: No further action required as this has already been added to regular checks.</p> <p>LE ICP assigned with non-dedicated flag: No action required.</p> <p>ICPs with incorrect unmetered load details recorded: No action required</p>		<p>May 2023</p> <p>Aug 2023</p> <p>Sept 2023</p> <p>Sept 2023</p>	

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

Wellington Electricity's data management processes were examined. The registry list as of 9 November 2022 and the registry audit compliance report covering the period from 1 November 2021 to 9 November 2022 were examined to confirm compliance.

Audit commentary

I saw evidence of incorrect information being identified and corrected during the audit, through the registry update and discrepancy processes discussed in **section 2.1**. Overall, Wellington Electricity have made good progress and continue to improve data accuracy. Not all corrections have been processed during the audit period as soon as practicable due to temporary work backlogs.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With Clause 11.2(2) From: 01-Nov-21 To: 09-Nov-22	Correction of some data not carried out as soon as practicable due to temporary work backlogs. Unmetered load associated with up to 407 private lights not recorded on the registry via either standard or shared unmetered load ICPs resulting in a potential under submission of up to 138,000 kWh per annum. Potential impact: High Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate overall, but the non-compliance remains as shared unmetered load has not been resolved for a number of years. The impact is assessed to be low overall. The responsibility for the kWh volume associated with the “private” lights is yet to be determined hence I have excluded this from my assessment.		
Actions taken to resolve the issue		Completion date	Remedial action status
Unmetered Load for 407 private lights: Develop project plan to resolve known unmetered load. <ul style="list-style-type: none"> - Develop process and documentation. - Assign/recruit resource - Test & deployment of Gentrack SUML functionality - Reconcile historic new connection requests received from Traders/Council and ensure this reconciles with Council database. Investigate options to identify unknown UML		Apr 2023 May 2023 May 2023 Sept 2023 Sept 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Shared Unmetered Load: Write decisions paper for management – review connections policies on whether to allow future instances of Shared Unmetered Load on network		May 2023	
Shared Unmetered Load: Additional verification to be added to streetlights new connection process to ensure accurate information received from Trader & Councils		Aug 2023	
Shared Unmetered Load: Add a monthly reconciliation of DUML database against new connection requests to ensure Councils are claiming all lights they have requested.		Sept 2023	

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 un-bridge 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 personnel 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

The management of removal and breakage of seals was discussed.

Audit commentary

Wellington Electricity, as a distributor, does not complete any work requiring a change of seal. Bridging of control devices is not conducted.

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. Wellington Electricity's website, email footers, and Utilities Disputes Messaging process were reviewed.

Audit commentary

Information on Utilities Disputes is prominently and cleared displayed on:

- on invoices and outbound communications relating to electricity services and bills,
- in written acknowledgements for and responses to complaints,
- in written responses to customer enquiries,
- on all outbound email footers, and
- on their website on each page.

Training has been provided to call centre staff and a pre-recorded message is played to consumers advising about Utilities Disputes.

Audit outcome

Compliant

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

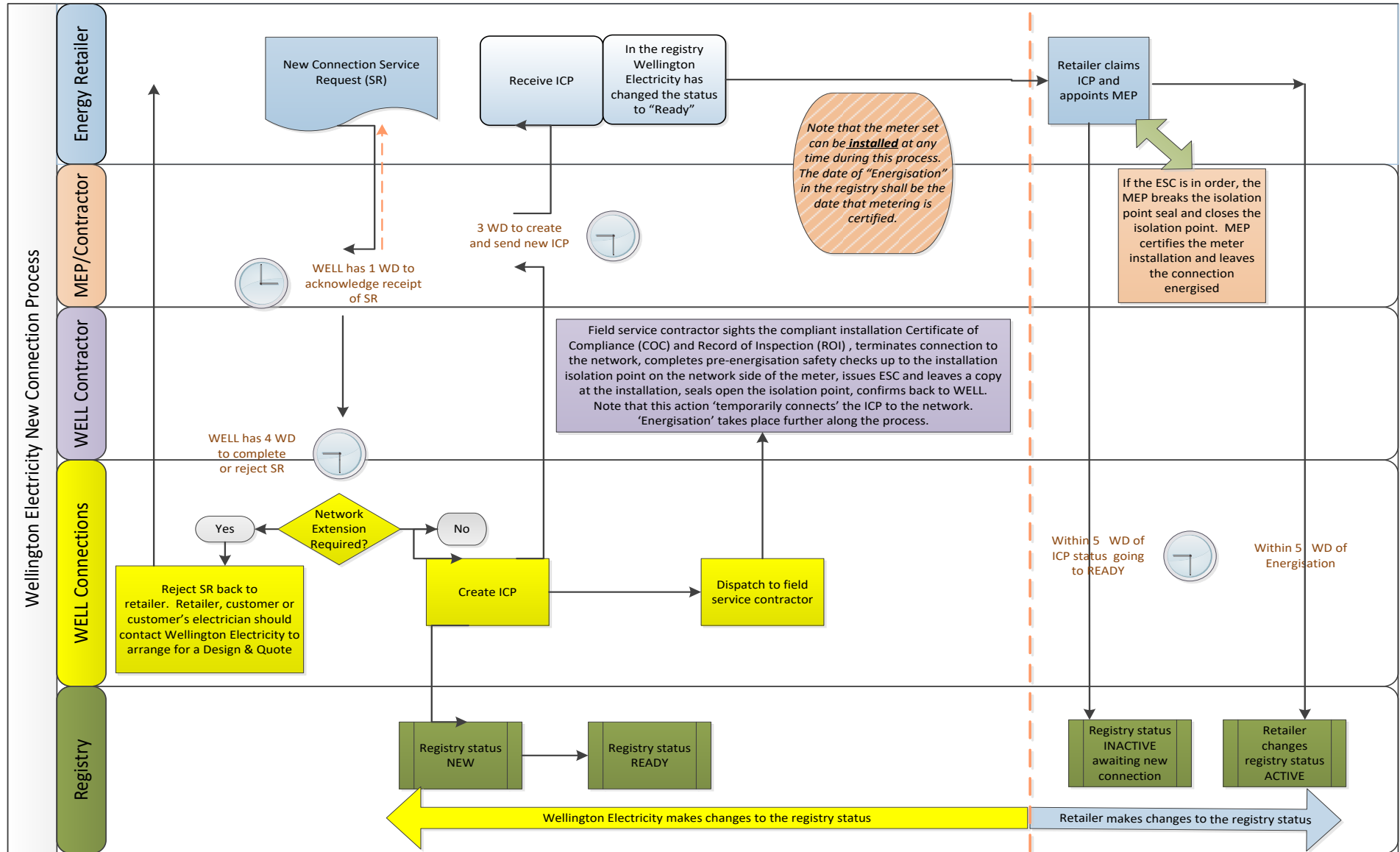
The new connection process was examined in detail and is described in **section 3.2**. 30 new connection applications of the 2,043 created were sampled using diverse characteristic methodology from the point of application through to when the ICP was created. This included five ICPs with distributed generation associated and four unmetered load ICPs.

I also checked the five new embedded networks, to determine whether an LE ICP had been created.

The creation of shared unmetered load was examined.

Audit commentary

Wellington Electricity creates ICPs as required by clause 1 of schedule 11.1. The new connection process is set out below, and remains unchanged since the 2016 audit:



The new connection process applies a check on proposed unmetered load connections to ensure the load does not exceed the 3,000/6,000 kWh thresholds that requires the supply to be metered.

The new connection process does not currently describe the process to connection of distributed unmetered load. In the case of distributed unmetered load, the process is as follows:

- the developer responsible for the subdivision makes a request to connect the new DUML lights via the standard new connection process listing the street names if available and advises Wellington Electricity that these lights are additions to existing ICPs,
- Wellington Electricity seeks retailer acceptance of this new connection with the expectation that the retailer has validated with the respective council that the list of street names provided is complete or that all of these streets will ultimately be vested with the council as public roads,
- once the retailer confirms acceptance, the streetlight circuit is connected, and
- the council takes responsibility for the lights associated with the streets that are formally vested with the council (which, in most cases, is later than the electrical connection dates for these additional lights) and the DUML databases are then updated.

Wellington Electricity’s new connection process requires a new connection application for new streetlight connections. Once the trader has accepted responsibility for this load the responsibility to ensure these items of load are recorded in a streetlight database passes to the trader.

During the audit period a number of private roads associated with new subdivisions have had streetlights electrically connected however subsequently the respective council has not taken responsibility for these lights as these roads have remained private. Wellington Electricity has relied on the application made by the trader on behalf of the council that these lights were going to be included. This has resulted in unmetered load being connected to the Wellington Electricity network without being reconciled. I recommend that a process Wellington Electricity liaise with the relevant traders to ensure that all new streetlight connections are confirmed as included in a streetlight database.

If it is a developer that is requesting streetlight connections for a new subdivision prior to the council vesting the assets, then this will require an ICP to be created to account for the unmetered load until such time as the council vests the asset. I recommend that this process is reviewed in partnership with the relevant traders and councils.

Recommendation	Description	Audited party comment	Remedial action
Connection of new unmetered streetlights	Wellington Electricity to review this process with the relevant traders and councils ensures that streetlights are reconciled from the date of electrical connection.	Additional verification to be added to streetlights new connection process to ensure accurate information received from Trader & Councils Add a monthly reconciliation of DUML database against new connection requests	Identified

In the last two audits it was recorded that private lights, excluded from DUML databases, had been identified from the Hutt, Porirua and Wellington City Councils DUML audits and the details for these lights have been provided to Wellington Electricity with the first lights being provided in 2017. Where private lights are excluded from distributed unmetered load databases they should be metered through an existing installation, or shared or standard unmetered load should be created to ensure that the load is captured and reported for reconciliation by traders.

The definition of shared unmetered load, is “unmetered load at a single point of connection that is distributed across more than one ICP”. A point of connection is defined as “a point at which electricity may flow into or out of a network”. In some cases, it is unlikely there will be a single point of connection to Wellington Electricity’s network for private lights and creation of standard unmetered load will be necessary.

Wellington Electricity has yet to investigate the “private” lighting to confirm which are:

- connected to Wellington Electricity’s network and standard or shared unmetered load is to be added to an existing ICP or a new ICP be created,
- part of a customer network and are not connected to the Wellington Electricity network. The Code is not clear how these are to be managed and I have raised this as an issue in below, and
- lights that were originally requested to be connected as part of the council load, but the council has since decided not to maintain these and has subsequently removed them from their databases. This situation is becoming more common around the country.

Issue	Description	Remedial action
Regarding clause 15.2 and 15.37B(b)	Lights that are electrically connected on a customer network are not captured within the current code wording as these are not connections to Wellington Electricity’s network and are downstream.	Guidance from the Electricity Authority is required.

They intend to commence investigation to resolve this issue in parallel with the Gentrack changes already underway that are required to enabling the management and billing of shared unmetered load within its systems.

This is recorded as non-compliance below and in **sections 2.1, 2.2 and 4.6**.

A review of the sample of 30 new connections found ICPs were created as required by this clause.

LE ICPs were created for the five new embedded networks. All were mapped to the correct NSP.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.1 With: Clause 11.4 From: 01-Nov-21 To: 09-Nov-22	Unmetered load associated with up to 407 private lights not recorded on the registry via either standard or shared unmetered load ICPs resulting in a potential under submission of up to 138,000 kWh per annum. Potential impact: High Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating

<p>Low</p>	<p>I rate the controls as moderate as while Wellington Electricity have a robust ICP creation process the lack of process to create shared unmetered load ICPs reduces the effectiveness of these controls.</p> <p>The impact is assessed to be low overall. The responsibility for the kWh volume associated with the “private” lights is yet to be determined hence I have excluded this from my assessment.</p>		
<p>Actions taken to resolve the issue</p>		<p>Completion date</p>	<p>Remedial action status</p>
<p>Unmetered Load for 407 private lights: Develop project plan to resolve known unmetered load.</p> <ul style="list-style-type: none"> - Develop process and documentation. - Assign/recruit resource - Test & deployment of Gentrack SUML functionality - Reconcile historic new connection requests received from Traders/Council and ensure this reconciles with Council database. <p>Investigate options to identify unknown UML</p>		<p>Apr 2023</p> <p>May 2023</p> <p>Sept 2023</p> <p>Sept 2023</p>	<p>Identified</p>
<p>Preventative actions taken to ensure no further issues will occur</p>		<p>Completion date</p>	
<p>Shared Unmetered Load: Write decisions paper for management – review connections policies on whether to allow future instances of Shared Unmetered Load on network.</p>		<p>May 2023</p>	
<p>Shared Unmetered Load: Additional verification to be added to streetlights new connection process to ensure accurate information received from Trader & Councils</p>		<p>Aug 2023</p>	
<p>Shared Unmetered Load: Add a monthly reconciliation of DUML database against new connection requests to ensure Councils are claiming all lights they have requested.</p>		<p>Sept 2023</p>	

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 process to request and create ICPs was reviewed, and a diverse sample of 30 ICPs were checked to determine whether the ICP had been created within three business days of a request by a trader.

Audit commentary

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

The ICP creation process is unchanged from the previous audit, and is as follows:

- ICP requests are made directly into a portal to SAP by traders or their agents and must include the information required to create the ICP and progress the connection; if data provided via the portal is incomplete (such as missing address details) the trader is advised of what is required to complete the application and a note is added to the record in SAP,
- once the ICP request is saved, an automatic email is sent to the WE_Connections email inbox and the trader; staff monitor this inbox to manage the next step in the process,
- the data entered into SAP is validated, including manual checks for incomplete information and duplicate addresses; any applications with incomplete or duplicate information are held, and a request for further information is sent to the trader,
- the transformer, which corresponds to the NSP, is added manually after checking SIAS (GIS) to confirm the transformer the ICP will be connected to; a weekly report of new or changed NSPs is obtained from SIAS and matched to Northpower's records to confirm that the correct transformers are recorded for new ICPs,
- GTV automatically generates an ICP identifier once all of the relevant new connection information is loaded,
- the ICP information is uploaded to the registry overnight, if GTV does not have valid values recorded in all the fields required for the registry update, the registry update will not be processed and the ICP will be listed on the "held" report; each business day staff work through the exceptions on the "held" report and update the missing information so that the registry update can be processed at the next opportunity, and
- The trader and the living agent are then both notified of the details of the newly created ICP.

A sample of 30 new connections were checked, including four ICPs with unmetered load and five with distributed generation recorded. 20 of the 30 were created within three business days of the trader providing all the information required for the new connection application. There were ten ICPs that were not created within three business days:

- eight ICPs (0000168487CK52E, 0000167941CKF26, 0000167943CKFA3, 0000167942CK3E6, 0000168108CKABF, 0000168858CKBB and 0000168179CK3A7) were created between four and twelve business days after the application was received as the new connection application provided by the retailer had an invalid capacity value requested. Wellington Electricity requested that the retailer provide updated information to enable the application to be completed, therefore compliance is confirmed, and
- two ICPs (0000168213CKDC5 & 0000168214CK00F) were created after six business days due to a temporary workload backlog and there was no correspondence with the retailer advising of the delay.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.2 With: Clause 11.5(3) From: 01-Nov-21 To: 09-Nov-22	Two ICPs not created within three business days and notification not provided to the participant. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as strong; these two notifications appear to be one-off issues relating to a temporary increase of applications received by Wellington Electricity.</p> <p>The impact on settlement and participants is minor; therefore, the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
No action required			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Our daily checks process tracks all requests, providing a daily update of the number of days each request is at, and highlighting any that are overdue.			

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

The process to request and create ICPs was reviewed. The list file was examined for all ICPs created during the audit period.

Audit commentary

Wellington Electricity has a fully automated registry update process to ensure all information listed in this clause is provided to the registry. Information was provided as required by this clause for all ICPs created during the audit period. Since the last audit Wellington Electricity has added a process where the AC020 report is used to identify missing data.

Timeliness of provision of information is discussed in **sections 3.4** and **3.5** below.

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 new connection process was examined. The registry list and the audit compliance report for the period from 1 November 2021 to 9 November 2022 were examined to determine the timeliness of the provision of ICP information for new connections.

Audit commentary

The distributor must provide to the registry the information listed in clause 7(1) of schedule 11.1 as soon as practicable, and before electricity is traded at the ICP. Wellington Electricity continues to create all ICPs at “ready”, unless they know a network extension is needed.

The Gentrack system performs updates to the registry on a nightly basis. The audit compliance report confirmed that the registry was updated prior to electrical connection for all ICPs connected during the audit period except for five ICPs that were created after the load was connected to Wellington Electricity’s network. These ICPs were reviewed and the reasons for the late creation of the ICPs on the registry were:

- four ICPs (detailed in the table below) related to CCTV cameras installed along the new Transmission Gully state highway extension were connected as part of the project to install various unmetered safety items such as lighting and communications but no ICP was created to account for these loads as the contractor had believed these CCTV cameras would be included in the DUML database for Waka Kotahi however this was incorrect (the trader for both the DUML streetlights and the unmetered CCTV connections is the same participant). While the projects team at Wellington Electricity worked closely with the contractor for Transmission Gully, the new connections team were not included in the coordination of these connections to ensure ICPs were requested and created where these were required. I recommend that the internal process be reviewed.

ICP	Input date	Event date
0000168094CKF42	24/03/22	22/11/21
0000167649CK23D	20/01/22	07/11/21
0000167647CK1A6	20/01/22	22/09/21
0000167646CKDE3	20/01/22	22/09/21

Recommendation	Description	Audited party comment	Remedial action
Co-ordination between projects team and connections team	Review the internal communication of unmetered new connections managed by the project team and the connection team.	Project teams to revise project documentation to include Connections Team notification. Workshop with project teams to increase knowledge of Connections process & obligations	Identified

- ICP 0000168440CKFOB was made ready with an input date of 9 May 2022 and an event date of 24 September 2019; the delay in the creation of this ICP was due to this tenants load being initially thought to be part of a recently created embedded network however on site investigation confirmed this load did not flow through the gateway meter and a new ICP was required with a electrical connection date to align with connection date of the embedded network creation. Wellington Electricity is reliant on the embedded network to provide the correct details, and this caused the delay in getting this ICP created.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.4 With: Clause 7(2) of Schedule 11.1 From: 01-Nov-21 To: 09-Nov-22	Five ICPs not created or made “ready” on the registry prior to these connections being electrically connected. 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 rated as moderate as connections are able to be electrically connected as part of a project without Wellington Electricity or the trader being aware prior. While the projects team at Wellington Electricity worked closely with the contractor for Transmission Gully, the new connections team were not included in the coordination of these connections to ensure ICPs were requested and created where these were required. I recommend above that this process is reviewed. The impact is assessed to be low as this affected only five new connections were affected and all but one was corrected within the 14 month revision period therefore the impact on reconciliation is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Trader advised and ICPs created as soon as issue was identified. No further action required.			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Project teams to revise project documentation to include Connections Team notification.		July 2023	
Workshop with project teams to increase knowledge of Connections process		July 2023	

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 process for populating initial electrical connection dates was examined.

The registry list and the audit compliance report for the period from 1 November 2021 to 9 November 2022 were examined to determine the timeliness of the provision of the initial electrical connection date.

All five late updates were checked to determine why they were delayed.

Audit commentary

Wellington Electricity does not normally carry out electrical connection on their network. The two approved livening agents (Northpower and Mark Telfer Electrical) complete the connection.

As reported in the last audit, Wellington Electricity wait for the MEP to load the metering to the registry and then use this as the initial electrical connection date as they do not receive any paperwork back from the livening agents. The meter is not always certified at the same time as electrical connection so the initial electrical connection date may not always be accurate. The accuracy of these dates is discussed in **section 4.6**.

I repeat the recommendation from the previous audits that Wellington Electricity require anyone working on their network who is electrically connecting an ICP to provide them with this information. This will provide Wellington Electricity an independent source of information.

Recommendation	Description	Audited party comment	Remedial action
Timeliness of provision of initial electrical connection date.	Require authorised agents to provide livening paperwork to Wellington Electricity or where the connection is downstream of Wellington Electricity’s network contact the trader to ensure the livening paperwork is provided.	Change new connection process to require MEPs to provide livening information.	Identified

There were 2,549 initial electrical connection date updates in the event detail report. The audit compliance report identified 1,241 (48.7%) late updates. This is a significant increase from the 3.67% found in the last audit. I examined these and found that 1,178 events (95%) were backdated more than 50 days. I sampled some of those backdated more than 50 days and found that none were valid and the audit compliance report is over reporting these.

Therefore, I believe the actual number of late updates to be similar to that found in the last audit. A sample of ten updates from less than 50 days prior were checked found that:

- six were due to the reliance on the MEP to populate the metering information and this has caused the late population of the initial electrical connection date,
- two were corrections to the initial electrical connection date,
- one was due to Wellington Electricity requiring clarification of the unmetered load characteristics for the ICP from the trader, and
- one was initially advised that electrical connection did not occur on the meter install date however subsequent site visit confirmed the site was connected and a review of the ROI confirmed the ICP was electrically connected on the same day as the meter install.

Late updates are recorded in a breach spreadsheet, which records the details of the update and the reason it was late. This enables Wellington Electricity to identify any trends (such as late updates to “active” status for a particular trader leading to late initial electrical connection date population) and take corrective action as necessary.

The late population of the initial electrical connection date is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1 From: 01-Nov-21 To: 09-Nov-22	Some late initial electrical connection date updates. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are assessed to be strong as there are robust controls in place to ensure that the initial electrical connection dates are update on time. The audit risk rating is low as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Resolve historical data errors - Incorrect IEDs		June 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Change new connection process to require MEPS to provide livening information		Aug 2023	

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. The registry list and the audit compliance report for the period from 1 November 2021 to 9 November 2022 were examined.

Audit commentary

As discussed in **section 3.2**, Wellington Electricity has a step in the new connections process to ensure a trader accepts responsibility and is recorded in the registry. There are no ICPs without a proposed trader recorded in the registry at “ready” status.

The audit compliance report confirmed that five ICPs were electrically connected prior to being made “ready” on the registry and these are described further in **section 3.4**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 11.17 From: 01-Nov-21 To: 09-Nov-22	Traders were not identified or confirmed as taking responsibility for five ICPs prior to these connections being electrically connected. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate overall due to the lack of progress in developing a process to managed shared unmetered load. The impact is assessed to be low as this affected only five new connections were affected and all but one was corrected within the 14 month revision period therefore the impact on reconciliation is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Trader advised and ICPs created as soon as issue was identified. No further action required			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Project teams to revise project documentation to include Connections Team notification.		Jul 2023	
Workshop with project teams to increase knowledge of Connections process		Jul 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. The registry list and the audit compliance report for the period from 1 November 2021 to 9 November 2022 were examined.

Audit commentary

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

As discussed in **section 3.4**, five ICPs were connected prior to ICPs being requested and traders requesting electrical connection. Four of these ICPs were unmetered and one was metered and part of a new embedded network where the connection point was initially thought to be within the embedded network, but subsequent investigation confirmed this connection was on the Wellington Electricity network.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.7 With: Clause 10.31 From: 01-Nov-21 To: 09-Nov-22	Traders were not identified or requested electrical connection for five ICPs prior to these connections being electrically connected. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate overall due to the lack of progress in developing a process to managed shared unmetered load. The impact is assessed to be low as this affected only five new connections were affected and all but one was corrected within the 14 month revision period therefore the impact on reconciliation is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Trader advised and ICPs created as soon as issue was identified. No further action required			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Project teams to revise project documentation to include Connections Team notification.		July 2023	
Workshop with project teams to increase knowledge of Connections process		July 2023	

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 **sections 3.1** and **3.2**.

The registry list and the audit compliance report for the period from 1 November 2021 to 9 November 2022 were examined.

Audit commentary

Wellington Electricity's processes are robust in relation to this clause as an ICP will not be electrically connected without the agreement from the trader, who in turn has agreement with an MEP for the ICP.

One temporarily electrically connected ICP was identified (ICP 0000167943CKFA3) where the meter was installed, and the MEP temporarily connected the supply to undertake testing and certification on 17 May 2022 however the electrically connected date was 3 June 2022. The trader had claimed the ICP and assigned a status of 1,12.

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 was reviewed.

Audit commentary

No new NSPs were created by Wellington Electricity 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 examined.

Audit commentary

Any NSPs that are temporarily electrically connected follow the same process as those of all other new connections. No temporarily connected NSPs were identified.

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 process for the creation of ICPs was examined.

Audit commentary

ICP numbers are created in GTV. The process for the creation of ICPs was examined, and all ICPs are created in the appropriate format.

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 to assign loss categories was examined. The registry list was examined to confirm all active ICPs have a single loss category code.

Audit commentary

Loss categories are determined from the information provided on application for a new connection. The application information is reviewed using the GIS system to confirm NSP/network connection (HV, TX, LV) details which flows through to determining the correct loss factor from Wellington Electricity's published schedule of loss factors.

The registry list was examined and all ICPs have a single loss category code, except decommissioned ICPs which have a blank loss category. Each loss category code clearly identifies the relevant loss factor.

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 was examined to determine compliance.

Audit commentary

ICPs are created on the registry at "ready" once the retailer has accepted responsibility for the ICP, except for embedded network gateway (LE) ICPs which are created with "distributor" status.

Network extensions are not normally required on Wellington Electricity's network. If an ICP genuinely required "new" status, it would be loaded manually on the registry according to the working instructions document.

Review of the registry list report found no ICPs at "new" status. Monitoring of ICPs with "new" and "ready" status 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 audit compliance report for the period from 1 November 2021 to 9 November 2022 was examined to identify any ICPs that had been at “new” and “ready” for more than 24 months.

Audit commentary

The audit compliance report identified no ICPs that have been at the “new” and “ready” status for more than 24 months.

Wellington Electricity monitors ICPs at the “new” and “ready” status using a daily download of the AC020 report.

The code does not require that Distributor’s monitor the registry status 1,12 “new connection in progress” as this status is the responsibility of the trader as they have already claimed the ICP. However, as these could potentially be electrically connected I recommend below that Wellington Electricity monitor ICPs at this status for more than 24 months.

I checked the registry LIS report of ICPs at status 1,12 - new connection in progress and identified 19 ICPs that have been at this status for more than 24 months. Wellington Electricity has initiated investigations of these ICPs as part of this audit and have identified:

- 0000156281CKB4B relates to an unmetered cell tower where the connection application form 2017 was cancelled; satellite images of this location show two cell towers being present at this address and Wellington Electricity is planning a site visit to confirm if the connection has occurred,
- eight ICPs have now moved to “decommissioned – set up in error” status after these were queried with the traders,
- nine new connection applications were cancelled once the ICPs were created however the traders have not yet arranged for these ICPs to be “decommissioned - set up in error”, and
- the new connection for ICP 0000161434CK7FC was completed in 2019 however the trader has not yet updated the status; Wellington Electricity are following up with the trader.

Recommendation	Description	Audited party comment	Remedial action
Include ICPs with registry status 1,12 to the monitoring of “new” and “ready” status process.	Wellington Electricity incorporates a process to actively monitoring of registry status 1,12 “new connection in progress” into their regular monitoring and escalation process to traders where these have not been made active within 12/24 months.	Incorporate monitoring of registry status 1,12 to daily checks and change processes to escalate new connections older than 12 months with traders.	Identified

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:*
 - o *the unique loss category code assigned to the ICP*
 - o *the ICP identifier of the ICP*
 - o *the NSP identifier of the NSP to which the ICP is connected*
 - o *the plant name of the embedded generating station.*

Audit observation

The EMI wholesale data set as of 27 January 2023 and registry list were reviewed to identify any generation stations with capacity of 10 MW or more; and determine compliance.

Audit commentary

No new embedded generation stations with capacity greater than 10 MW were connected during the audit period.

Wellington Electricity supplies one embedded generation station (1001154460CK204) with a capacity of 60 MW. This ICP has an individual loss category code (MILL01) and was connected on 1 April 2014.

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

Wellington Electricity are aware of their obligation to ensure that the trader has provided approval before streetlights are connected.

Where a new ICP is created, Wellington Electricity’s new connection process described in **sections 3.1** and **3.2** applies.

Where a new ICP is not required, a new connection job must be logged by the trader on behalf of the customer. As part of this process the trader gives their consent for the circuit to be connected. However, while the trader has listed the streets provided by the developer to be electrically connected as part of the subdivision development, there is no check of this street list between the parties involved to ensure that the street list is going to be vested with the council and become a public road where the lights will be added to the DUML database. Where a private road has been included in the streetlight new connection application by a trader in error the result is an unmetered connection without an ICP being created which subsequently requires a standard or shared unmetered load ICP to be created.

Additionally, there is a delay between the electrical connection of these additional lights to when these roads are formally vested with the council and the lights added to the DUML database.

I recommend that Wellington Electricity reviews its process around new connection applications for distributed unmetered load and work with the trader and the applicant to ensure all listed roads will be accounted for in the reconciliation process from the electrical connection date. This could be achieved by either monitoring a DUML database extract provided to Wellington Electricity each month, or investigate whether this load should be assigned to a standard unmetered load ICP on an interim basis until the relevant streets and load is vested to the council and the DUML database is updated.

Recommendation	Description	Audited party comment	Remedial action
Review new connection and electrical connection process for streetlights.	Wellington Electricity reviews the new connection and electrical connection process for new streetlights and works with the trader and the applicant to ensure that the new unmetered streetlight load listed in each application is accounted for from the electrical connection date.	New controls to be added to streetlight connection process to verify responsibility of streetlights prior to livening. Add a monthly reconciliation of DUML database against new connection requests	Identified

Audit outcome

Compliant

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

Wellington Electricity will only undertake an electrical disconnection when a request is received from a trader or for safety. In both instances Wellington Electricity 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

Wellington Electricity do not bridge meters.

Audit outcome

Compliant

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.

In the case of a change to price category codes, where the change is backdated, no later than 3 business days after the distributor and the trader responsible for the ICP agree on the change.

Audit observation

The management of registry updates was reviewed.

The registry list and the audit compliance report for the period from 1 November 2021 to 9 November 2022 were examined. A diverse sample of a minimum of ten (or all if there were less than ten examples) backdated events by event type were reviewed to determine the reasons for the late updates including NSP changes.

Audit commentary

When information recorded in the registry changes, the distributor should ensure that the registry is updated within three business days. The registry update process is described in **section 2.1**.

The table below details the quantity and compliance of registry updates.

Update	Date	Late	% Compliant	Average days
Address	2019	8	99.8%	N/A
	2020	5	99.92%	0.07
	2021	0	100%	N/A
	2022	0	100%	N/A
Price codes	2019	75	98.1%	N/A

Update	Date	Late	% Compliant	Average days
	2020	749	98.09%	1.43
	2021	2,641	98.26%	N/A
	2022	1196	89.79%	N/A
Status	2019	28	95.6%	-
	2020	94	82.95%	2.89
	2021	129	81.98%	N/A
	2022	17	97.34%	1.48
Network (excl. new connection & Distributed Generation)	2020	81	N/A	N/A
	2021	3	N/A	N/A
	2022	7	N/A	N/A
Distributed Generation	2020	174	55.41%	27.63
	2021	95	58.14%	N/A
	2022	239	50.41%	30.22
NSP changes	2020	0	100%	N/A
	2021	0	100%	N/A
	2022	18	85.6%	N/A

Address events

All address updates were provided within three business days.

Pricing events

11,716 pricing updates were identified. 1,196 of these (10.21%) were updated more than three business days after the event. 453 of the late updates were updated on the fourth business day. Wellington Electricity updates price codes after receiving and processing of EIEP8 files from the traders. The majority of updates done on the fourth day relate to EIEP8 files that were received late on the third business day but not processed until the fourth business day.

513 ICPs were updated later than three days after the event prior to 31 December 2021 and 683 ICPs were updated later than three days after the event post 31 December 2021.

The sample of ten ICPs checked included a typical sample of five ICPs and an extreme example of five ICPs. This found for the typical sample that:

- two were processed the day after receipt of the traders EIEP8,
- two were due to late paperwork received for BTS to permanent connections, and
- one (ICP 0000166889CK279) was initially assigned the incorrectly price code as the trader did not identify that the connection was a BTS, and the correction was requested by the trader.

The extreme case sample found:

- ICP (1001156697CK69E) was converted from an embedded network back to a local network in 2018 and Wellington Electricity updated an incorrect loss factor back to this event date; this update of loss code past the 14-month revision window means the reconciled volumes for this ICP are now considered incorrect for some periods from July 2018,
- ICPs 0000155278CK7ED, 0000166848CK9D3 & 0000161332CK971 were late notifications of BTS to permanent connections where the corrections were agreed with the trader, and
- ICP 0000159336CK457 was an initially approved metered new connection, however this ICP was connected as an unmetered bus sign in 2018; the update to the price code was to reflect the network reporting data received by Wellington Electricity.

Network events

There were seven late network events, excluding NSP and DG changes. Six related to a system issue that reversed some registry events relating to direct billed status and the network event updates were data corrections to remedy this error. One update related to an update of a UNM distributor record for a DUML ICP.

Distributed Generation events

The distributed generation process is described in **section 4.6**.

475 distributed generation updates were identified. 239 of these were updated more than three business days after the event.

Wellington Electricity has added additional checks using the AC020 report and consumption data to identify the date that distributed generation has been installed but this continues to be challenging. Wellington Electricity relies on trader and MEP information to determine an effective date to apply the distributed generation attributes on the registry rather than require the provision of ROI details from the solar installers / inspectors to ensure the correct effective dates are applied and I recommend that Wellington Electricity amend their process to align with the requirements around new connection electrical connection dates.

Recommendation	Description	Audited party comment	Remedial action
Review process used to determine DG connection dates.	Wellington Electricity reviews the process to determine the distributed generation effective dates using record of inspection (ROI) dates and ensure these are consistently provided by solar installers and inspectors.	Review Distributed Generation process to capture installation dates from verifiable sources.	Identified

A typical sample of seven ICPs and an extreme case sample of all eight ICPs with updates later than 70 business days were examined. Examination of the typical sample found:

- six were due to reliance on metering updates which were later than three business days, and

- one (0000103244TRB1A) was due to no ICP being provided on the DG application and incomplete address information lead to delays in verifying that the site was now connected.

The extreme case sample found that:

- Five related to updates dated back to 2013 and 2014 to correct the direct billed flag as a result of a system issue that resulted in incorrect back dated registry events.
- Two ICPs were replacement events to update initial electrical connection date values.
- ICP 0000162886CKB27 was back dated to 21 May 2020 to align with the meter configuration however Wellington Electricity did not receive an application until 31 March 2021 and the high risk database indicates the solar installation was inspected on 4 May 2022.

Status events

The decommission process is described in **section 4.11**.

There were 677 status updates to decommissioned identified, of which 659 (97.34%) were updated within three business days. 17 ICPs were updated later than three days after the event. All 17 ICPs were examined and found,

- three were due to late notification by traders,
- three were waiting for registry events to be reversed to allow for the status event to be correctly applied,
- one ICP (0000019134TRF89) was a paperwork decommission as agreed with the trader as the building power supply housing this ICP was decommissioned in 2015, and
- ten were due to late notification from the field.

NSP changes

The audit compliance report recorded 18 late NSP changes. These were examined and found that:

- 14 were replacement of existing events but involved corrections of their initial electrical connection dates or loss codes, and
- four were NSP corrections backdated to initial electrical connection dates.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.1 With: Clause 8 Schedule 11.1 From: 01-Nov-21 To: 09-Nov-22	1,196 late pricing updates. 17 late status updates. 7 late network updates. 239 late distributed generation updates. 18 late NSP changes. 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 as they will mitigate risk most of the time. The audit risk rating is low as the data discrepancies identified have little or no impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Updates were made as soon as correct information received.			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Late Updates: Our daily checks process works to identify required updates, however we are reliant on receiving timely information from other participants. Where we are identifying & correcting historical errors, timeliness non-compliances will be unavoidable</p> <p>Distributed Generation Events: To review DG process to capture installation dates from verifiable sources.</p>		Sept 2023	

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 audit compliance reporting identified 56 active ICPs where 10% or fewer ICPs on a street have a different NSP. All 56 ICPs were examined.

Audit commentary

The NSP for each ICP is notified to the registry as part of the new connection process described in **section 3.2**.

The new connection application requires an address, which is used to locate the nearest transformer in Hikoweb (GIS), which corresponds to the NSP. Network Control notify the connections team of any transformer changes so that the NSP can be updated where necessary.

A weekly report of new or changed NSPs is obtained from Hikoweb and matched to Northpower's records to confirm that the correct transformers are recorded for new ICPs.

Wellington Electricity uses the AC020 report to assist in identifying mis-mapped. A "streets with multiple NSP" spreadsheet was provided which confirmed that 51 of the 59 identified were assigned to the correct NSP. Of the remaining eight, five have been corrected as part of this audit and three are undergoing further investigation before a change is made.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.2 With: Clauses 7(1), (4) and (5) Schedule 11.1 From: 01-Nov-21 To: 09-Nov-22	Eight ICPs with the incorrect NSP recorded. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong as Wellington Electricity processes demonstrated robust controls. The risk rating is low as Wellington Electricity has one balancing area and therefore an incorrect NSP has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
5 ICPs already corrected, 3 remaining ICPs to be investigated and corrected if needed		June 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
These were historical connections that reflect prior practices. Our current new connection process includes comprehensive checks to identify accurate NSP allocation. In addition we run a regular Streets with Multiple NSP report to flag any ICPs that may need further investigation.			

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

The management of customer queries was examined.

Audit commentary

Wellington Electricity seldom receives direct requests for ICP identifiers. ICP identifiers are provided immediately once the ICP address has been confirmed.

The requestor is advised that future requests should first go to their trader and contact information for the trader is provided.

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 determine addresses are readily locatable was examined. The list file as of 9 November 2022 and the audit compliance report covering the audit period were examined.

Audit commentary

Wellington Electricity relies on information provided on the new connection application and city council address information to determine readily locatable addresses.

Duplicate and unlocatable addresses are identified and corrected daily, as part of the registry validation process discussed in **section 2.1**.

As discussed in **section 3.2**, staff manually check for duplicate addresses when data is received in SAP. When the data is entered into GTV, a warning message appears if an entered address is an exact match for an existing address. It is possible to override the GTV warning message and continue with the duplicate address.

Where an address is not unique, staff contact the trader to request further address information and the application is put on hold.

A review of the registry address information identified 66 active ICPs where the address not readily locatable as either the address still includes lot numbers some years after a subdivision has been completed or the address information is insufficient to locate which ICP it relates to.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: Clauses 2 Schedule 11.1 From: 01-Nov-21 To: 09-Nov-22	66 active ICPs without a readily locatable address. Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong as Wellington Electricity processes demonstrated robust controls. The audit risk is assessed to be low as only a small number of ICPs do not have readily locatable addresses		
Actions taken to resolve the issue		Completion date	Remedial action status

Investigate and resolve historical data errors - Non locatable addresses	Aug 2023	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Additional control to be added to new connection process to use DP number in addition to Lot #	Apr 2023	
Investigate addition of GPS coordinates for rural or difficult to locate addresses	Nov 2023	

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

The management of this process was discussed, and a sample of new connections were examined.

Audit commentary

Each new ICP created after 7 October 2002 must be able to be electrically disconnected without electrically disconnecting another ICP, unless it is an ICP that represents the consumption calculated by difference between the total consumption for the embedded network and all other ICPs on that embedded network.

When new physical points of connection are created during the new connection process, there is a check of Hikoweb (GIS) to confirm the network configuration meets the requirements of this clause. This process is usually sufficient and no new instances where the network configuration did not meet the requirements of this clause were created during this audit period.

One example of an ICP being created downstream of another occurred in 2016 where an owner of a warehouse began work to turn the building into three tenancies. The main distribution board and metering (ICP 1001157629CK617) has remained in place however three sub distribution boards have been installed and one of these sub distribution boards has had an ICP created (ICP 1001158552CK7FD) and livened with a certified meter. The trader of the upstream ICP has the site recorded as vacant however disconnection work cannot be undertaken as it will affect the downstream ICP. Non-compliance is recorded below.

I recommend that Wellington Electricity reviews both its new connection/ICP creation process to ensure similar scenarios are captured as part of the application process. I also recommend that Wellington Electricity reviews its livening agents checks and process to ensure new connection cannot be electrically connected where they are aware of upstream metering being present and this metering point/ICP is not being decommissioned as part of the downstream connection activity.

Recommendation	Description	Audited party comment	Remedial action
Review the new connection and electrical connection process around creation of tenancies within commercial buildings.	Wellington Electricity to review its new connection/ICP creation process to ensure similar scenarios of commercial buildings converted into multiple tenancies is captured as part of the application process.	Change new connection process to require additional information for any commercial building conversion to verify connection configuration Site visit to be completed for all new connections including metering only	Identified
	Wellington Electricity reviews its livening agent checklist and processes to ensure new connection cannot be electrically connected where they are aware of upstream metering being present and this metering point/ICP is not being decommissioned as part of the downstream connection activity.	Change pre-livening checklist for livening agents to ensure no upstream ICP prior to livening	Identified

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.5 With: Clauses 3 Schedule 11.1 From: 16-May-16 To: 09-Nov-22	ICP 1001158552CK7FD was created and connected downstream of another ICP resulting in the possibility of it being disconnected where the upstream ICP is disconnected. 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 as strong as Wellington Electricity processes demonstrated robust controls. The audit risk is assessed to be low as only a one ICP has been identified as being affected.		
Actions taken to resolve the issue		Completion date	Remedial action status
Connection to be remedied in coordination with trader		Aug 2023	Identified

Preventative actions taken to ensure no further issues will occur	Completion date
Change new connection process to require additional information for any commercial building conversion to verify connection configuration.	Sept 2023
Site visit to be completed for all new connections including metering only.	Sept 2023
Change pre-livening checklist for livening agents to ensure no upstream ICP prior to livening.	Oct 2023

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 the audit compliance report for the period from 1 November 2021 to 9 November 2022 were examined to determine compliance.

Audit commentary

Registry updates are processed automatically by GTV each night. Processes for completeness and accuracy of registry updates are discussed in **section 2.1**. All ICP information was checked and confirmed compliant unless discussed below.

Price and loss categories

Analysis of the list file found all active ICPs had a price category and loss category assigned.

A review of the loss category codes to meter category codes was performed. Five ICPs were identified as possibly having an incorrect loss code applied. Wellington Electricity are reviewing these loss codes to ensure they are accurate.

ICP	Loss category Code	Loss code description	Meter installation category code	comment
0000171696TR325	VECG3	TX	Cat 1	Office within building.
0000103675TRCA6	VECG3	TX	Cat 1	Downgraded from 300kva to 69kva and the loss factor not updated. Further investigation required.
0000134190TR11D	VECG4	HV	Cat 2	GTX138 price category LV metering.
0000176529TR92A	VECG1	LV	Cat 4	2000/5 CTs WCC offices.
0000196492TR135	VECG1	LV	Cat 4	Paper capacity downgrade from 1,000 to 276 kVA - 3 meters present.

NSPs

The NSP dedication flag was checked.

All LE ICPs were checked, and I confirmed that all with the exception of one had a dedicated NSP flag. ICP 0000167678CK980 was initially created as non-dedicated and this has now been corrected to dedicated.

There is only one balancing area for the Wellington Electricity network. All active ICP's have the dedicated flag set to "N".

Assignment of NSPs was reviewed in **section 4.2**.

Distributed Generation

Wellington Electricity adds applications for distributed generation to a spreadsheet once they are approved. Weekly, this spreadsheet is compared to the registry to confirm whether EG (or injection flow) metering is installed. Wellington Electricity also reviews the ACO20 report to identify ICPs where the trader has indicated a DG profile, but Wellington Electricity has none recorded. A check against EIEP1/3 reports provided by traders is also used to determine whether the EG registers are recording consumption to confirm if generation is present.

The use of trader and MEP registry data to identify and determine the event date to apply distributed generation attributes to the network event does not always result in the correct event date for when the distributed generation was physically connected to Wellington Electricity's network. A recommendation is recorded in **section 4.1** to review the process for determining the correct event date to use for the population of distributed generation attributes.

Examination of the registry list shows a steady increase in the number of active ICPs with distributed generation year on year:

Year	ICPs with distributed generation
2016	338
2017	460
2018	816
2019	1,102

Year	ICPs with distributed generation
2020	1,487
2021	1,671
2022	2,174

The audit compliance report identified two ICPs where the profile used by the trader indicates that distributed generation is present, but Wellington Electricity has none recorded. These were examined and found:

- ICP 0000043289TRC57 is a long-standing issue where no application for installation of distributed generation has been received; Wellington Electricity has followed up with the trader, initially Genesis and subsequently Powershop, the retailer has now provided some DG details for this ICP after contacting the customer and the registry has now been updated to reflect the correct generation details, and
- For ICP 0000166086CKDAA, an application for installation of distributed generation has been received but there was an error with the address and ICP in the application form; the trader has been requested to confirm the details and this was again followed up in November 2022.

Initial electrical connection dates

The audit compliance reporting identified 30 ICPs with date inconsistencies between the initial electrical connection date, the active date and the meter certification date. A sample of 28 were examined and found:

- 17 ICPs related to a customer network that was disestablished and reverted to a network extension; the original initial electrical connection date applied aligned with the meter certification date which was prior to this customer network being formally converted to a network extension - the initial electrical connection values have now been updated to reflect the date the network extension was created,
- ten ICPs had a date consistent with the traders first active date and the metering was certified either earlier or later, and
- one ICP was a BTS where the meter/distribution board was reused at another ICP and as no meter seals were broken and the initial certification of the meter was recent, the meter was not recertified which has led to the mismatch in dates.

The audit compliance report confirmed that all ICPs had initial electrical connection dates populated since the requirement came into effect. Wellington Electricity continues to use the AC020 report to identify and resolve ICPs with missing initial electrical connection dates.

Examination of the list file found seven ICPs at “inactive - new connection in progress” with an initial electrical connection date populated. All seven of these were checked and found all were correctly populated and the trader has since made all except three of these “active”.

Examination of the list file identified that there were 13,530 ICPs where the initial electrical connection dates appear to be incorrect as the initial active status date is prior to 29 August 2013. There is no requirement to populate the initial active status date for ICPs connected prior to 29 August 2013. As these dates are not correct, I recommend that they are removed from the registry.

Recommendation	Description	Audited party comment	Remedial action
Remove invalid initial electrical connection dates for ICPs connected prior to 29 August 2013.	Wellington Electricity to remove the invalid initial electrical connection dates for ICPs connected prior to 29 August 2013 but have an initial electrical connection date post this date.	To remove invalid IECD values for 13500 ICP's identified	Identified

Unmetered load

Part 11 states the distributors must provide unmetered load type and capacity of the unmetered load to the registry "if known". When new unmetered load is identified, Wellington Electricity confirms the unmetered load with the trader and populates the distributor unmetered load details. All ICPs with an unmetered load electrically connected during the audit period had the unmetered load recorded.

Unmetered load details format

992 active ICPs have a value in the Unmetered load details – Distributor field, an increase from the 835 active ICPs recorded in 2021. GTV stores unmetered load details as an installation fixture. The load is entered into GTV in watts and is automatically converted to kW to two decimal places with "kW" as a suffix. For the more recent unmetered loads the burn hours are included.

Trader unmetered load is recorded without distributor unmetered load

Review of the registry list found 46 active ICPs where the trader had unmetered load recorded, but Wellington Electricity had no unmetered load recorded. The code requires the load to be recorded "if known". Of the 46 ICPs:

- 35 are historic and were connected prior to 2013,
- nine ICPs are metered based on the EIEP1 data Wellington Electricity receives from the trader and the trader information is incorrect,
- one ICP has recently had the unmetered load details confirmed with the trader and is to be updated, and
- one ICP was historic but was followed up in 2019 with no response from the trader and Wellington Electricity is following up again to confirm the unmetered load characteristics.

Distributor unmetered load is recorded incorrectly from the last audit.

Seven ICPs were identified in last audit as having incorrectly information recorded in the Unmetered load details - Distributor field. These were reviewed to confirm if the corrections had been applied. Two of the seven have been updated and five are still awaiting correction.

Distributor unmetered load is recorded without trader unmetered load

Review of the registry list found all active ICPs with distributor unmetered load details recorded also have trader unmetered load details recorded.

Distributor unmetered load details differ from the trader unmetered load details

992 active ICPs have a value recorded in the distributor unmetered load details field. I compared the figures for the 871 ICPs where the format of the distributor information enabled recalculation, and a trader unmetered load value was populated. For 794 ICPs Wellington Electricity's value matched the trader's value within ± 1 kWh. I found some small differences were caused by GTV's rounding of wattage to kW with two decimal places. 77 ICPs were identified with differences over ± 1 kWh and nine were examined during the audit and found:

- five were incorrect and Wellington Electricity will amend the registry to reflect the correct details,
- two ICPs where the trader calculation of daily kWh is incorrect, and
- two ICPs where the details match the new connection application but does not match the trader records; Wellington Electricity is clarifying the unmetered load present with the trader.

Unmetered load with potential incorrect operation hours recorded.

A review of the unmetered load descriptions and calculations of the daily kWh values for some types of unmetered load identified possible discrepancies in the operational hours used to calculate the daily kWh values.

- 72 Payphones recorded with 12 hours of operation where these should be recorded as having 24 hours of operation.
- 224 Adshells located at bus shelters with streetlight hours of operation recorded where others are recorded as having 24 hours of operation.
- Traders are using a mix of 11.5, 11.9 and 12 hours of operation for load associated with the network controlled streetlight circuits.

I recommend that Wellington Electricity work with the traders to determine the correct values for the two ICPs with discrepancies, the 72 payphones and the 224 Adshells (298 ICPs) where the operation hours/load details appear inconsistent with the type of unmetered load present to ensure the appropriate operational hours and load details have been used to calculate the daily kWh values for use in reconciliation.

Recommendation	Description	Audited party comment	Remedial action
Develop process to verify and validate unmetered load operational hours and connected load values	Work with the traders to determine the correct values for the ICPs with discrepancies.	Work with traders to resolve Unmetered Load discrepancies	Identified
	Publish annual operational hours for streetlight circuit as part of pricing disclosure to ensure trader can correctly apply the operational hours for unmetered load.	Publish operational hours for streetlight circuits as part of pricing disclosure	Identified

Shared unmetered load

In the last two audits it was recorded that private lights, excluded from DUMML databases, had been identified from the Hutt, Porirua and Wellington City Councils DUMML audits and the details for these lights have been provided to Wellington Electricity with the first lights being provided in 2017. Where private lights are excluded from distributed unmetered load databases they should be metered through an existing installation, or shared or standard unmetered load should be created to ensure that the load is captured and reported for reconciliation by traders.

The definition of shared unmetered load, is “unmetered load at a single point of connection that is distributed across more than one ICP”. A point of connection is defined as “a point at which electricity may flow into or out of a network”. In some cases, it is unlikely there will be a single point of connection to Wellington Electricity’s network for private lights and creation of standard unmetered load will be necessary

Wellington Electricity has not yet undertaken any investigations of these private lighting lists to confirm that these lights are connected to Wellington Electricity’s network and are not part of a customer network. Where it is confirmed that these are connected to the Wellington Electricity Network,

determine if this load needs to be metered through an existing installation, or shared or standard unmetered load should be created.

This situation is becoming more common as Councils are no longer managing private lights, and the Code is not clear on responsibilities for these lights or how to resolve this situation. I have raised this as an issue in **Section 3.1**

Wellington Electricity intends to resolve this issue when changes to Gentrack are completed, enabling the management and billing of shared unmetered load within its systems.

A recommendation is recorded in **section 3.1** to investigate if the process to create standard or shared unmetered load ICPs, where these are required for the identified private lights and inform affected retailers, can be undertaken in advance of completing the system development in Gentrack.

This is recorded as non-compliance below, and in **sections 2.2** and **3.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.6 With: Clause 7(1) Schedule 11.1</p> <p>From: 01-Nov-21 To: 09-Nov-22</p>	<p>One LE ICP (0000167678CK980) with the NSP dedication initially set to No.</p> <p>One ICP (0000043289TRC57) with distributed generation present and the incorrect installation type of “L”.</p> <p>Some incorrect initial electrical connection dates recorded (17 from the current audit period and the remaining all relate to prior to the requirement coming into effect).</p> <p>Some distributed generation event dates not reflective of connection date.</p> <p>Five ICPs identified from the previous with the incorrect unmetered load details recorded.</p> <p>Five ICPs with the incorrect unmetered load details recorded.</p> <p>72 unmetered pay phones with incorrect hours of operation recorded with an annual load impact of 4,925 kWh of under submission.</p> <p>Unmetered load associated with up to 407 private lights not recorded on the registry via either standard or shared unmetered load ICPs resulting in a potential under submission of up to 138,000 kWh per annum.</p> <p>Potential impact: High Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are rated as moderate as while there has been an improvement in registry accuracy with the introduction of additional processes to identify discrepancies, the ongoing delays in populating the shared unmetered load details reduces the level of controls.</p> <p>The impact is assessed to be low overall. The responsibility for the kWh volume associated with the “private” lights is yet to be determined hence I have excluded this from my assessment.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status

<p>One LE ICP assigned non-dedicated flag: ICP already corrected.</p> <p>Distributed Generation with incorrect installation type: ICP has now been confirmed with the trader and corrected.</p> <p>Incorrect IED date: All 17 ICPs already corrected.</p> <p>Distributed Generation Event Dates: No action required.</p> <p>Five ICPS with incorrect unmetered load details: 5 ICP's to be corrected in registry in coordination with trader.</p> <p>Unmetered load with potential incorrect operation hours: Work with traders to determine correct operational hours assigned.</p> <p>Unmetered Load for 407 private lights: Develop project plan to resolve known unmetered load.</p> <ul style="list-style-type: none"> - Develop process and documentation. - Assign/recruit resource - Test & deployment of Gentrack SUML functionality - Reconcile historic new connection requests received from Traders/Council and ensure this reconciles with Council database. <p>Investigate options to identify unknown UML</p>	<p>Jul 2023</p> <p>Jul 2023</p> <p>Apr 2023</p> <p>May 2023</p> <p>May 2023</p> <p>Sept 2023</p> <p>Sept 2023</p>	<p>Identified</p>
<p>Preventative actions taken to ensure no further issues will occur</p>	<p>Completion date</p>	
<p>LE ICP assigned with non-dedicated flag: No action required.</p> <p>Distributed Generation with incorrect installation type: Incorporate use of High Risk Database into DG process to identify installations without approval.</p> <p>Incorrect IED date: No action required.</p> <p>Distributed Generation Connection Date: Review Distributed Generation process to capture installation dates from verifiable sources.</p> <p>ICPs with incorrect unmetered load details recorded: No action required.</p> <p>Unmetered Load Operational Hours: Publish operational hours for streetlight circuits as part of pricing disclosure.</p> <p>Unmetered Load for 407 private lights: Develop project plan to resolve known unmetered load.</p> <ul style="list-style-type: none"> - Develop process and documentation. - Assign/recruit resource - Test & deployment of Gentrack SUML functionality - Reconcile historic new connection requests received from Traders/Council and ensure this reconciles with Council database. - Investigate options to identify unknown UML. 	<p>Nov 2023</p> <p>Sept 2023</p> <p>Mar 2023</p> <p>Apr 2023</p> <p>May 2023</p> <p>May 2023</p> <p>Sept 2023</p> <p>Sept 2023</p>	

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 audit compliance reporting and the registry list were reviewed to determine compliance.

Audit commentary

All new ICPs created during the audit period had pricing information recorded on the registry 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 identify all ICPs with GPS coordinates. Review of the registry list found there are three active ICPs with GPS co-ordinates recorded.

Audit commentary

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

The three active ICPs with GPS co-ordinates recorded are in the correct format.

Wellington Electricity has no plans to include GPS coordinates for new ICPs or to back populate this information on the registry for existing ICPs.

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

Processes to manage the "ready" status were reviewed.

The registry list and the audit compliance report for the period from 1 November 2021 to 9 November 2022 were examined to identify ICPs at "ready" status and check compliance.

Audit commentary

Unless an ICP is an embedded network gateway (LE), GTV requires the ICPs to be moved to "ready" status before they are updated on the registry. Network extensions are rare, but if one is needed, the ICP will be manually created at "new" on the registry according to the working instructions document.

2,764 ICPs electrically connected during the audit period were updated to "ready" by the time they were electrically connected. Five ICPs were connected prior to the ICPs being created and moved to "ready" status as discussed in **section 3.4**.

All 70 ICPs at "ready" status have a proposed trader and a single price category recorded. 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, the NSP table as of 16 January 2022 and event detail report for 1 November 2021 to 9 November 2022 were reviewed to identify ICPs at "distributor" status and check compliance.

Audit commentary

The registry list showed 119 ICPs currently at "distributor" status. "Distributor" status is managed by the distributor and denotes that the ICP represents a shared unmetered load installation, or the point of connection between an embedded network and its parent network. Wellington Electricity does not

record any shared unmetered load, all the ICPs with distributor status relate to LE ICPs for embedded networks. Shared unmetered load is discussed further in **section 2.1**.

As noted in **section 1.8**, there are currently 104 embedded networks connected to the Wellington Electricity network. The list file and NSP mapping table were compared and confirmed that there was at least one LE ICP per embedded network. I confirmed that LE ICPs were created as required for all embedded networks created during the audit period. This is discussed further in **section 3.1**.

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 decommissioning process was discussed.

The registry list, the event detail report and audit compliance report for the period from 1 November 2021 to 9 November 2022 were reviewed to identify ICPs at “decommissioned” or “ready for decommissioning” status and check compliance.

A typical sample of 17 “decommissioned” ICPs and all 16 ICPs at “ready for decommissioning” status were examined to determine compliance.

Audit commentary

The decommissioning process starts with a service request for decommissioning from a trader. Northpower is dispatched to conduct the physical decommissioning and removal of the relevant connection. Once complete, the service request is closed in GTV and the registry is updated.

If an ICP is identified as ready for decommissioning and a request has not been received from the trader, Wellington Electricity asks the trader for confirmation that the ICP is ready for decommissioning and to update the status on the registry.

Decommissioned statuses are included in the daily status match described in **section 2.1**. Where the trader has not already changed the status to “ready for decommissioning”, they are contacted and asked to do so.

Examination of the list file found 16 ICPs pending decommission. 12 of these relate to unmetered loads where Genesis Energy is the retailer. All 12 of these were examined and found that all are long term vacant ICPs (last active in 2002) that have been moved to “ready to decommission” by Genesis. Wellington Electricity are continuing to liaise with Genesis to confirm details before these are

decommissioned. Three of the remaining four ICPs had all been moved to “decommissioned” status at the time of the audit. One ICP (0000172627TRF32) is a transformer connection and requires additional remedial work to be undertaken for the tails to be removed however the part of the building housing the transformer is condemned meaning there is no safe access to complete this work.

A further 17 decommissioned ICPs were reviewed to confirm whether the ICP was inactive and ready for decommissioning prior to being decommissioned. In all cases, the ICPs were genuinely ready for decommissioning at the time they were decommissioned, and the appropriate decommissioned code was applied.

The timeliness of updates to the registry is discussed in **section 4.1** above.

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

Wellington Electricity keeps the price category table up to date and has not created any new price category codes since 1 April 2020.

Audit outcome

Compliant

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

No new loss factors were created 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 two 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

No loss factors were updated during the audit period.

Only one factor is applied per calendar month. The loss factor review process is discussed in **section 8.1**.

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 two 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 two 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.

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

No NSPs have been created or decommissioned 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 two 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 NSPs have been created or decommissioned 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 examined.

Processes to determine balancing areas were discussed.

Audit commentary

No balancing area changes have occurred during the audit period.

As detailed in the last two audits, until 30 April 2008, the network (then owned by UNET) had one balancing area per NSP. On 1 May 2008 UNET moved all the NSPs into a single balancing area WELLTONUNETG.

ICPs should only be in the same balancing area if an NSP within the balancing area could receive supply from at least one other NSP within the balancing area. If alternative supply is not possible between groups of NSPs, then separate balancing areas should be used.

The 2018 audit found it was likely that the Wellington Electricity Network should have more than one balancing area. Wellington Electricity's asset and planning team have reviewed its balancing area groupings. The proposed changes have been shared with the Electricity Authority who have recommended that they consult with traders on the proposed changes and to then liaise with the Electricity Authority again so they can manage the reconciliation process to minimise disruption to the industry. Wellington Electricity has not progressed this consultation with traders at this stage.

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 examined.

Audit commentary

Wellington Electricity does not own any embedded networks and 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 one 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 three business days before the transfer takes effect.

Audit observation

The NSP table was reviewed.

Audit commentary

No ICPs were transferred to Wellington Electricity from an embedded network during the audit period. When such transfers occur, Wellington Electricity provides copies of the application form and DS-010 file to the Authority within the required timeframe.

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 NSP supply point table was examined.

Audit commentary

Wellington Electricity does not have responsibility for any NSP metering.

Audit outcome

Compliant

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 supply point table was reviewed.

Audit commentary

Wellington Electricity did not create 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 supply point table was reviewed.

Audit commentary

Wellington Electricity have not initiated any changes of network owner during the audit period.

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

Wellington Electricity do not own any embedded networks therefore there have been no changes of MEP for embedded gate meters.

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 supply point table was reviewed.

Audit commentary

No ICPs were transferred to Wellington Electricity from an embedded network 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 supply point table was reviewed.

Audit commentary

Wellington Electricity has not initiated the transfer of any ICPs to an embedded network 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

Processes for the management of shared unmetered load were discussed. The registry list was reviewed to identify any ICPs with shared unmetered load connected.

Audit commentary

Review of the registry list confirmed that shared unmetered load is not currently recorded for any ICPs on Wellington Electricity's network. The creation of shared unmetered load ICPs was examined in **section 4.6**.

In the last two audits it was recorded that private lights, excluded from DUMML databases, had been identified from the Hutt, Porirua and Wellington City Councils DUMML audits and the details for these lights have been provided to Wellington Electricity with the first lights being provided in 2017. Where private lights are excluded from distributed unmetered load databases they should be metered through an existing installation, or shared or standard unmetered load should be created to ensure that the load is captured and reported for reconciliation by traders.

The definition of shared unmetered load, is "unmetered load at a single point of connection that is distributed across more than one ICP". A point of connection is defined as "a point at which electricity may flow into or out of a network". In some cases, it is unlikely there will be a single point of connection to Wellington Electricity's network for private lights and creation of standard unmetered load will be necessary.

Wellington Electricity has yet to investigate the "private" lighting to confirm which are:

- connected to Wellington Electricity's network and standard or shared unmetered load is to be added to an existing ICP or a new ICP be created,
- part of a customer network and are not connected to the Wellington Electricity network. The Code is not clear how these are to be managed and I have raised this as an issue in **section 3.1**,
- lights that were originally requested to be connected as part of the council load, but the council has since decided not to maintain these and has subsequently removed them from their databases. This situation is becoming more common around the country.

They intend to commence investigation to resolve this issue in parallel with the Gentrack changes already underway that are required to enabling the management and billing of shared unmetered load within its systems. This is recorded as non-compliance in **sections 2.1, 2.2, 3.1 and 4.6**.

A recommendation is recorded in **section 3.1** to investigate if the process to create standard or shared unmetered load ICPs, where these are required for the identified private lights and inform affected retailers, can be undertaken in advance of completing the system development in Gentrack

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

Processes for the management of shared unmetered load were discussed. The registry list was reviewed to identify any ICPs with shared unmetered load connected.

Audit commentary

Review of the registry list confirmed that shared unmetered load is not recorded for ICPs on Wellington Electricity's network, and there have not been any changes to shared unmetered load.

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 Wellington Electricity’s process and compliance against the guideline’s recommended thresholds.

Audit commentary

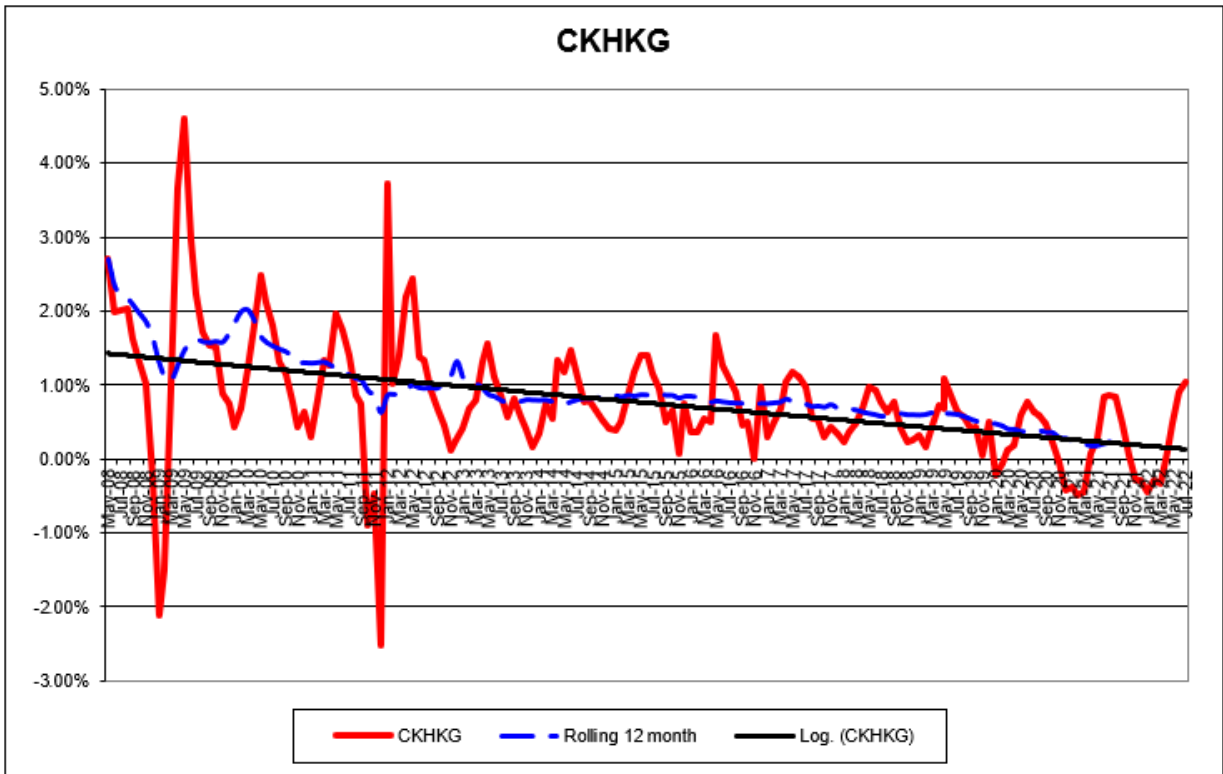
Wellington Electricity reviewed their loss factors in October 2018 in accordance with the Authority’s guideline. The next five yearly review is planned to take place in 2023.

The October 2018 review process included:

- confirming the loss factor requirements, and reviewing existing technical loss factor and loss ratio,
- confirming the loss factor policy was compliant, and the best methodology to complete the loss factor review,
- compiling the data used to support the loss factor calculation, and carrying out the review, and
- post review analysis, to identify any improvements that could be for the next loss factor review.

External consultants were engaged to ensure that Wellington Electricity’s loss factor policies and calculation methodology were consistent with the Authority’s guidelines. No further changes have been made since then.

I was provided by the Electricity Authority the reconciliation losses which indicate losses are tracking within the +/- 1% threshold indicated in the guideline:



Audit outcome

Compliant

CONCLUSION

Wellington Electricity has made steady progress in improving their level of compliance across most processes with the exception of the potential shared unmetered load. The Gentrack changes which were expected to be completed by early 2022 are taking longer than expected. There are 407 “private” lights that have been removed from the various council streetlight databases which could be required to become standard or shared unmetered load and could be resulting in a potential under submission of up to 138,000 kWh per annum. Investigation will determine if these are connections are:

- connected to Wellington Electricity’s network and standard or shared unmetered load is to be added to an existing ICP or a new ICP be created or
- are part of a customer network and are not connected to the Wellington Electricity network. The Code is not clear how these are to be managed and I have raised this as an issue in **Section 3.1**, or
- are lights that were originally requested to be connected as part of the council load, but the council has since decided not to maintain these and has subsequently removed them from their databases. This situation is becoming more common around the country and will require Wellington Electricity to work with the relevant trader and their customer to determine how these are to be resolved.

Wellington Electricity intends to commence the investigation of the “private” lights in parallel with the Gentrack changes already underway so that any shared unmetered load needing to be created will have been identified ready for when Gentrack is able to manage this.

Historic data accuracy issues continue to be a focus, and the volumes of these have continued to decrease during the audit period.

The audit found 13 non-compliances and makes 11 recommendations. This is an increase of four non-compliances from the nine found in the last audit. Three of these relate to five ICPs that were electrically connected prior to an ICP being created and one relates to an historical connection that is downstream of another that was identified during audit. These are exceptions and not indicative of wider process issues. Additionally some of the non-compliances relate to late updates to data corrections. This will always create non-compliance for not being able to meet the timeliness requirements but more importantly ensures that where possible Wellington Electricity is providing complete and accurate information.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of 20. This indicates an audit frequency of 12 months. I have considered this in conjunction with Wellington Electricity’s responses including a timetable to investigate and resolve the known private unmetered streetlights and agree with this recommendation.

PARTICIPANT RESPONSE

APPENDIX ONE: PRIVATE LIGHTS

Road	Council	Sum of watts	Count of lights	CKHK Network	Customer Network	Std UML	Comment
ANZIA WAY	WCC	61	1	Yes			
APPLE TERRACE	PCC	83	1	Yes			
ARTHUR ST-LOOP	WCC	664	8		Possibly	Possibly	
AUSTIN TCE	WCC	83	1	Yes		Yes	Entry to Wellington East Girls College
AWATEA ST	PCC	26	1	Yes			
BANKS BOULEVARD RIGHT OF WAY 2	PCC	0	2	Yes			
BATHAM DR	WCC	83	1	Yes			
BLUFF ROAD	PCC	26	1		Possibly	Yes	Entry to Summerset on the landing
Boulcott Street	HCC	166	2	Yes			
BRACKEN RD	WCC	83	1	Yes		Yes	Entry to Newlands Intermediate
BRASCH WAY	WCC	415	5	Yes			
BRASENOSE PL-#12 ROW	WCC	83	1	Yes			
Britannia Street	HCC	61	1	Yes			
Dahl Drive	UHCC	29	1	Yes			Wallaceville Estate
BUNKER WAY	WCC	332	4	Yes			
CABOT PL	WCC	83	1	Yes			
CAMERON ST	WCC	83	1				
CARIBOU PL	WCC	20	1	Yes			
CASSLEY CRESCENT	PCC	28	1	Yes			
CHANCELLOR WAY	WCC	61	1	Yes			
CHARTWELL DR	WCC	83	1	Yes			
CHRISTESON LANE	WCC	83	1			Possibly	

CLAYTONS AVE	WCC	83	1				Looks like service lane - other light in WCC DB
CLEAT STREET	PCC	26	1	Yes			
CLINTON WAY	WCC	26	1	Yes			
Cooper Street	HCC	23	1	Yes		Yes	St Micheals School entrance
CORNFORD ST	WCC	83	1				
CURNOW WAY	WCC	332	4				
DARGLE WAY	WCC	83	1	Yes			
DARGLE WAY #11 EXTN	WCC	83	1	Yes			
Desert Gold Lane	UHCC	15	1	Yes			
DISCOVERY DRIVE	PCC	36	1	Yes			Mariners Way
DOWNING ST	WCC	166	2	Yes			
Durham Crescent	HCC	61	1	Yes		Yes	Epuni Kindergarten entrance
EBOR ST	WCC	110	2				Unsure why private
EDWARD ST	WCC	332	4		Possibly	Yes	Entrance to Capital Market Foodcourt
ELGIN WAY	WCC	83	1	Yes			
Ships Cove	PCC	166	2	Yes			
EPPING GR	WCC	83	1	Yes			
Epuni Street	HCC	122	2		Yes		Birch Villa
Fitzherbert Road	HCC	278	1	Yes		Yes	Wainui Rugby Club Carpark
FRANKMOORE AVE	WCC	83	1	Yes		Yes	Johnsonville Bowling Club
Frederick Street	HCC	61	1				
GLENBERVIE TCE	WCC	100	5				
GLENGAVEL GROVE	PCC	249	3				
Gloaming Lane	UHCC	15	1				
GYBE PLACE	PCC	166	2				
Hall Crescent	HCC	40	1				
HALYARD PLACE	PCC	83	1				

HERVEY WAY	WCC	166	2				
High Street	HCC	393	5				
HILL ST	WCC	60	2				
HOLLYDALE GR	WCC	249	3				
INNES WAY	WCC	83	1				
JEROME WAY	WCC	166	2				
KABUL ST-#15 EXT	WCC	186	3				
KAIAHO CLOSE	PCC	144	4				
KAIWHARAWHARA RD	WCC	83	1				
KAKE TONU WAY	WCC	83	1				
KARORI SWIMMING POOL	WCC	166	2				
KENEPURU DRIVE	PCC	2487	62				
KILGOUR WAY	WCC	83	1				
KILMISTER AVE	WCC	99	1				
KINAPORI TCE-HMHD	WCC	83	1				
Kindergarten Lane	UHCC	15	1				
LANYON PLACE	PCC	59	2				
Le Mar Lane	UHCC	15	1				
LEONA WAY	WCC	83	1				
LOHIA ST	WCC	83	1				
LUKES LANE	WCC	332	4				
MARSH WAY	WCC	166	2				
MAULDETH TCE	WCC	14	1				
MAWAL HAKONA DRIVE EXT	UHCC	60	4				
MEXTED CRESCENT	PCC	60	1				
MILLER PL	WCC	498	6				
Mills Street	HCC	249	3				
Molesworth Street	HCC	176	6				
Moore Valley Road	HCC	114	1				

MORGAN ST	WCC	83	1				
MT ALBERT RD	WCC	83	1				
MULGRAVE ST	WCC	39	1				
Muritai Road	HCC	27	1				
NADIA GR	WCC	14	1				
NEW HAVEN WAY 1	PCC	591	7				
NEW HAVEN WAY 3	PCC	83	1				
NEWLANDS RD	WCC	460	1				
Nicholls Ave	HCC	61	1				
NOHORUA STREET	PCC	26	1				
OHIRO RD	WCC	83	1				
OMAPERE STREET	PCC	83	1				
OSP 186 MUNGAVIN AVENUE	PCC	83	1				
PADDINGTON GR	WCC	83	1				
PARKVALE RD	WCC	83	1				
PARUMOANA ACCESSWAY	PCC	556	2				
PARUMOANA STREET	PCC	1558	6				
PATERSON ST	WCC	61	1				
Penrose Street	HCC	61	1				
Puketapu Grove	HCC	23	1				
RAIHA STREET	PCC	3101	50				
Rata Street	HCC	272	4				
RAVI ST	WCC	83	1				
ROKEWA WAY	WCC	83	1				
SARAH WAY	WCC	166	2				
SARGESON WAY	WCC	166	2				
SATCHELL WAY	WCC	332	4				
SCHOOL RD	WCC	83	1				
SCORIAN CL	WCC	166	2				

SEASCOPE VIEW PVT	PCC	98	3				
SEMPLE STREET	PCC	2307	12				
SPINNAKER DRIVE	PCC	83	1				
STOCK ST	WCC	27	1				
Swainson Street	HCC	61	1				
TAI PAKU PAKU RD-#30 PATH	WCC	20	1				
TANIA WAY	WCC	83	1				
TE PENE AVENUE	PCC	262	5				
TEME WAY	WCC	83	1				
THATCHER CRES	WCC	83	1				
THE LAYLINE	PCC	59	1				
THE TERRACE	WCC	518	6				
THE TOPDECK	PCC	236	4				
THURLEIGH GR	WCC	14	1				
TITAHU BAY ROAD WEST	PCC	531	9				
TORLESS TCE	WCC	83	1				
TOWER WAY	WCC	83	1				
TREASURE GR	WCC	83	1				
TURNBULL ST	WCC	0	3				
TURVILLE CRES	WCC	83	1				
TUTUIRA PLACE	PCC	3555	14				
Waiwhetu Road	HCC	183	3				
WELLAND PL	WCC	14	1				
WI NEERA DRIVE	PCC	1560	15				
WINNIPEG WAY	WCC	83	1				
Woburn Road	HCC	244	4				
Raumanuka Road	HCC	288	8				Possibly metered on ICP 0000162710CKA40
Grand Total		31,396	407				

