

**ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTOR AUDIT REPORT**



For

**WELLINGTON ELECTRICITY LINES LIMITED**

Prepared by: Tara Gannon, Veritek Limited

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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 annual audit, in accordance with clause 11.10 of part 11. The audit was carried out at the premises of Wellington Electricity's premises in Petone, on 25 October 2017.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.1, which was produced by the Electricity Authority.

The audit found ten non-compliances and makes four recommendations.

Wellington Electricity is aware that some historic data needs to be cleansed. In general, I found that there were good controls to ensure new data is entered correctly, and most of the data issues were created prior to the implementation of GTV in 2016. Wellington Electricity is currently scoping and beginning projects to resolve these historic issues with addresses, shared and standard unmetered load, and NSP assignment.

There have been some delays in correcting issues identified during the last audit; this is partially attributed to staffing changes.

Initial energisation date accuracy continues to be an issue. Due to the nature of Wellington Electricity's connection process, an ICP could be connected by the connection agent, the MEP, the trader, or an electrician. Wellington Electricity is not always promptly informed of the date of connection, and I found some gaps and incorrect data on the registry.

The next audit frequency table indicates that the next audit be due in six months. Taking into consideration that

- it is expected that changes to resolve most of the issues will be completed by the end of the first quarter of 2018
- most of the data accuracy issues found related to records created prior to the audit period; and
- nine of the ten non-compliances have an audit risk rating of three or lower

I recommend that the next audit be due in 12 months, to allow sufficient time for Wellington Electricity to complete data cleansing, implement their improved processes, and demonstrate compliance.

The matters raised are shown in the tables below.

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Registry validation	2.1	11.2(1)	Complete validation of registry information does not occur.	Moderate	Low	2	Identified
Correction of errors	2.2	11.2(2)	Correction of data does not consistently occur as soon as practicable.	Weak	Low	3	Identified
Provision of Information to the Registry	3.4	7(2) of Schedule 11.1	Registry not updated prior to commencement of trading.	Moderate	Low	2	Identified
Provision of initial energisation dates	3.5	7(2A) of Schedule 11.1	Non-population and late population of the initial energisation date.	Weak	Medium	6	Identified
Connection of ICPs	3.6	11.17	Five ICPs were energised before proposed trader information was provided to the registry, and 18 ICPs were energised before the trader could accept responsibility for the ICP on the registry.	Moderate	Low	2	Identified
New status	3.12	13 Schedule 11.1	ICP 0001436704UNB04 is incorrectly recorded with new status, it should be decommissioned.	Strong	Low	1	Cleared  The registry has been corrected.
Changes to registry information	4.1	8 Schedule 11.1	Some price, network, status, and address changes were backdated more than three business days.	Moderate	Low	2	Identified
NSP assignment	4.2	7(1),(4) and (5) Schedule 11.1	Some existing ICPs have an incorrect NSP recorded.	Strong	Low	1	Identified

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
ICP address	4.4	2 Schedule 11.1	There are 2257 active ICPs with duplicate addresses, and 229 active ICPs without a physical address unit number, street number or property name to allow them to be readily located.	Moderate	Low	2	Identified
Provision of information	4.6	7(1) Schedule 11.1	Some unmetered load and energisation information provided to the registry is incorrect.	Weak	Low	3	Investigating
Future Risk Rating						24	

## RECOMMENDATIONS

Subject	Section	Recommendation	Description
Clause 11.2(1) Validation of registry information	2.1	<p>I recommend adding the following checks to the registry validation:</p> <ul style="list-style-type: none"> <li>ICPs at “new” or “ready” with an initial energisation date populated more than 10 business days ago</li> <li>ICPs that have been made active for the first time more than eight business days ago but no initial energisation date is populated.</li> <li>a comparison between unmetered load trader and distributor fields</li> <li>a comparison between the distributor maintained fields on the registry and GTV.</li> </ul>	Identified

Subject	Section	Recommendation	Description
Clause 11.4 Embedded networks	3.1	Advise Smartco that NSP TOR0011 is connected to CPK0331, so that their records and the NSP table can be updated.	Identified
Clause 7(1) Schedule 11.1 Distributed generation without injection/export metering	4.6	Follow up ICPs with active distributed generation where injection/export metering is not recorded on the registry with the retailer.	Identified
Clause 11.14(2) and (4) Shared unmetered load	7.1	Liaise with Porirua, Hutt City and Wellington Councils to identify shared unmetered load and create relevant ICPs. Notify traders of created shared load in accordance with clause 11.14 of part 11.	Investigating

## ISSUES

Subject	Section	Recommendation	Description
		Nil	

## 1. ADMINISTRATIVE

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

#### Code reference

Section 11 of Electricity Industry Act 2010.

#### Code related audit information

Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

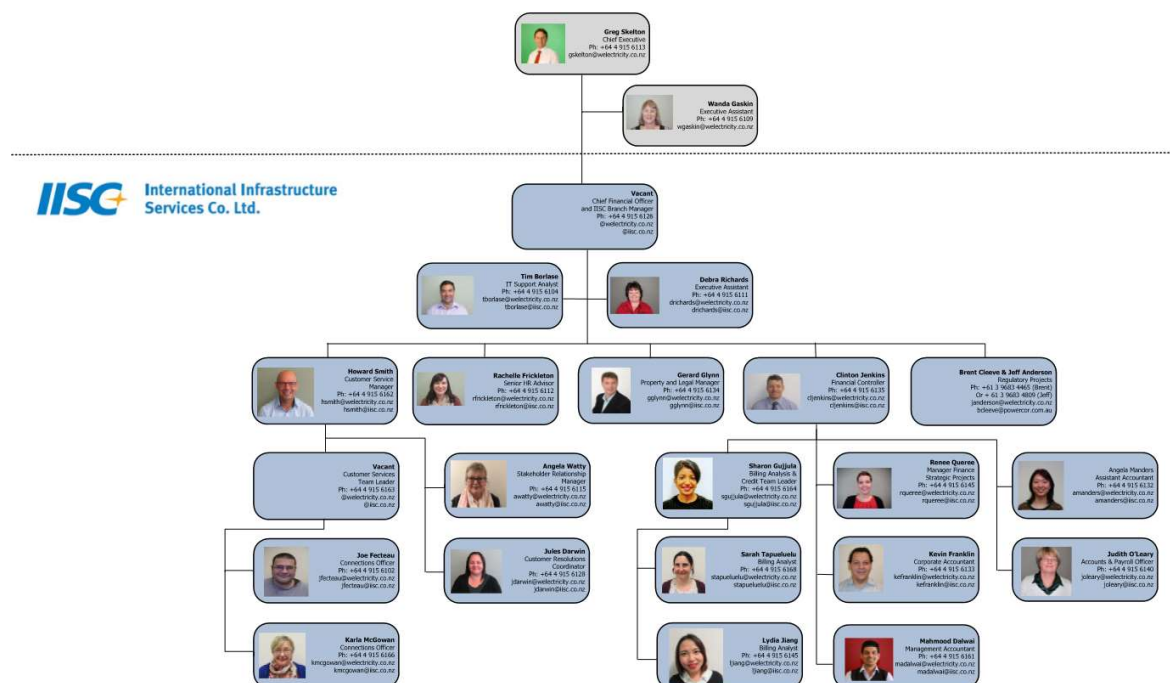
#### Audit observation

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

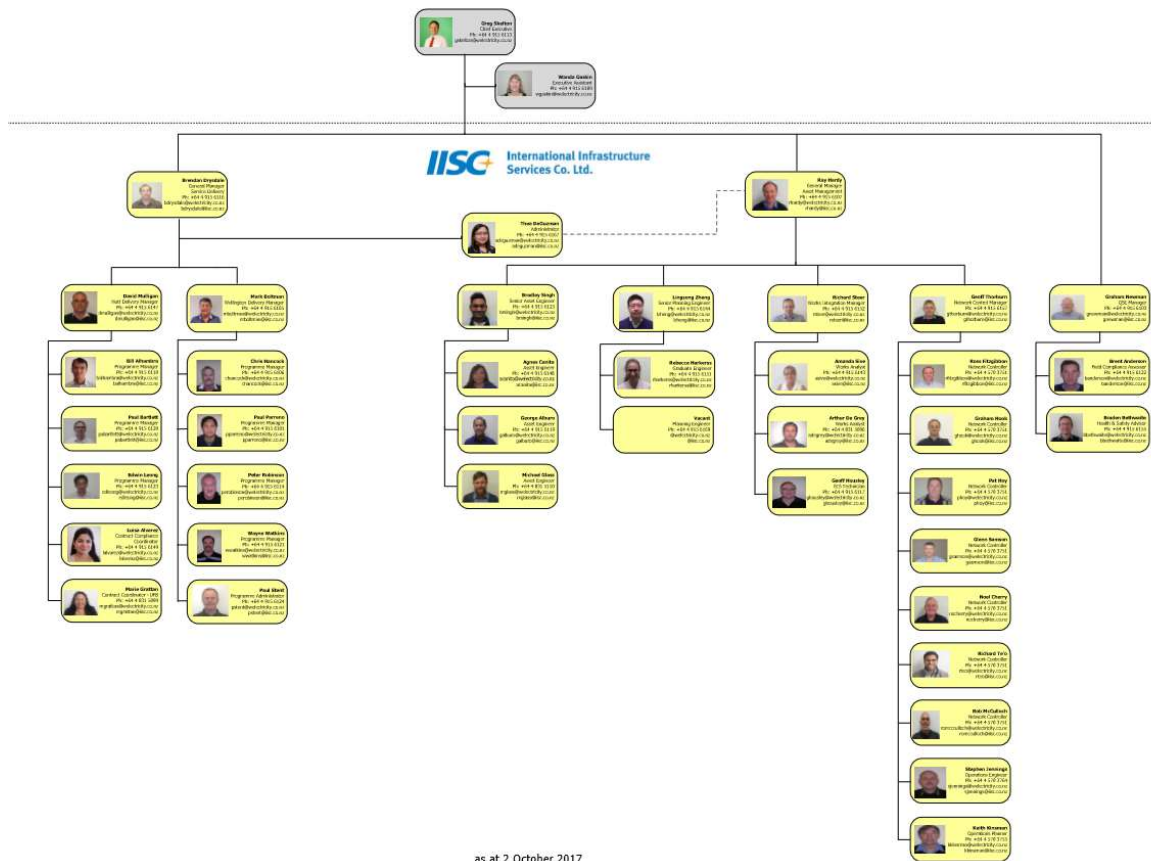
#### Audit commentary

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

### 1.2. Structure of Organisation







as at 2 October 2017

### 1.3. Persons involved in this audit

Auditor:

**Tara Gannon**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Wellington Electricity personnel assisting in this audit were:

Name	Title
Kerry Check	Connections Team Leader
Howie Smith	Customer Service Manager
Karla McGowan	Connections Team Member
Bradley Singh	Senior Asset Engineer

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

##### Audit observation

Wellington Electricity engages Northpower to conduct field services on their network. 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 engages Northpower to conduct all field services on their network.

#### 1.6. Hardware and Software

GTV and SAP are the main systems used by Wellington Electricity. Wellington Electricity continues to use SIAS as the GIS platform. Wellington Electricity is investigating an upgrade to SIAS.

GTV is used to create ICPs and interface with the registry. SAP is used as a workflow tool, and SIAS is used to identify the correct NSP and address information.

The systems are backed up in accordance with standard industry protocols.

#### 1.7. Breaches or Breach Allegations

The Electricity Authority confirmed that there have been no alleged breaches for Wellington Electricity between 01/09/2016 and 26/10/2017.

#### 1.8. ICP and NSP Data

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

The table below lists the relevant NSPs and their associated balancing area, and the number of active ICPs connected.

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
CKHK	CPK0111	Central Park			WELLTONUNETG	G	1/02/09	7014
CKHK	CPK0331	Central Park			WELLTONUNETG	G	1/02/09	40358
CKHK	GFD0331	Gracefield			WELLTONUNETG	G	1/02/09	15985

CKHK	HAY0111	Haywards			WELLTONUNETG	G	1/02/09	6742
CKHK	HAY0331	Haywards			WELLTONUNETG	G	1/02/09	5176
CKHK	KWA0111	Kaiwharawhara			WELLTONUNETG	G	1/02/09	5696
CKHK	MLG0111	Melling			WELLTONUNETG	G	1/02/09	7052
CKHK	MLG0331	Melling			WELLTONUNETG	G	1/02/09	15302
CKHK	PNI0331	Pauatahanui			WELLTONUNETG	G	1/02/09	6650
CKHK	TKR0331	Takapu Road			WELLTONUNETG	G	1/02/09	31969
CKHK	UHT0331	Upper Hutt			WELLTONUNETG	G	1/02/09	10811
CKHK	WIL0331	Wilton			WELLTONUNETG	G	1/01/14	13941

Wellington Electricity does not own any embedded networks, however there are 79 embedded networks connected to the Wellington Electricity network. 15 new embedded networks have been created during the audit period, and no embedded networks have been end dated. The new embedded networks are detailed in the table below and are discussed in the relevant sections of this report.

Network	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	End date
CMCB	CAM0011	151 - 159 WILLIS ST WELLINGTON	CPK0331	CKHK	CAM0011CMCBE	EN	1/10/16	
CMCB	CGM0011	89-91 COURTENAY PLACE WLG	CPK0111	CKHK	CGM0011CMCBE	EN	1/03/17	
CMCB	COC0011	147 TORY STREET WELLINGTON	CPK0331	CKHK	COC0011CMCBE	EN	1/03/17	
CMCB	COM0011	133 TORY STREET WELLINGTON	CPK0331	CKHK	COM0011CMCBE	EN	1/11/16	
CMCB	COM0012	133 TORY ST WELLINGTON	CPK0331	CKHK	COM0012CMCBE	EN	1/03/17	
EDCL	EHS0011	41 HOPPER STREET WELLINGTON	CPK0331	CKHK	EHS0011EDCLE	EN	1/12/16	
ADMT	ELE0011	ELEVATE APARTMENTS TARANAKI ST	CPK0111	CKHK	ELE0011ADMTE	EN	1/07/17	

Network	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	End date
SMRT	FTS0011	141 MANNERS ST WELLINGTON	CPK0111	CKHK	FTS0011SMRTE	EN	1/10/16	
TENC	TCP0011	370 ORIENTAL PARADE WELLINGTON	CPK0331	CKHK	TCP0011TENCE	EN	1/10/17	
SMRT	TCQ0011	20 CUSTOMHOUSE QUAY WELLINGTON	WIL0331	CKHK	TCQ0011SMRTE	EN	24/07/17	
TOLQ	TLQ0011	318 LAMBTON QUAY WELLINGTON	WIL0331	CKHK	TLQ0011TOLQE	EN	1/03/17	
TENC	TMC0011	2 CONNOLLY ST LOWER HUTT	MLG0111	CKHK	TMC0011TENCE	EN	22/08/17	
TENC	TTA0011	19 COLLEGE STREET WELLINGTON	CPK0331	CKHK	TTA0011TENCE	EN	1/07/17	
TENC	TWL0011	84 WILLIS ST WELLINGTON	WIL0331	CKHK	TWL0011TENCE	EN	1/02/17	
CMCB	WHT0011	25 VIVIAN STREET WELLINGTON	CPK0331	CKHK	WHT0011CMCBE	EN	1/10/16	

Wellington Electricity's ICPs are summarised by status below:

Status	Number of ICPs (2017)	Number of ICPs (2016)	Number of ICPs (2015)
Distributor	85	79	64
New	85	52	91
Ready	46	44	19
Active (2,0)	166,696	166,263	165,729
Inactive - new connection in progress (1,12)	56	68	40
Inactive - vacant (1,4)	2,568	2,682	2,987
Inactive - AML remote disconnection (1,7)	486	354	3

Inactive - de-energised due to meter disconnected (1,8)	8	3	1
Inactive - at pole fuse(1,9)	13	4	3
Inactive - de-energised at meter box switch (1,10)	2	0	4
Inactive - at meter box switch (1,11)	4	0	0
Inactive - ready for decommissioning (1,6)	378	425	312
Decommissioned (3)	6,123	5,477	2,861

#### 1.9. Authorisation Received

An authorisation letter 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 annual audit, in accordance with clause 11.10 of part 11.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.1, which was produced by the Electricity Authority.

The table below shows the tasks under clause 11.10(4) of Part 11, which Wellington Electricity is responsible for. There are no other 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 below is shown in the diagram below:

#### 1.11. Summary of previous audit

Wellington Electricity provided a copy of their previous audit, conducted in November 2016 by Rebecca Elliot of Veritek Limited. The audit found 13 non-compliances and made six recommendations. The matters raised are detailed in the table below:

**Table of non compliance**

Subject	Section	Clause	Non-compliance	Status
Provide Complete and Accurate Information	1.8	11.2 of Part 11	The provision of inaccurate data and lack of complete validation with the Registry.	Still existing, but improvements have been made. Refer to <b>section 2.1</b> .
Distributors must Create ICPs	2.1	11.4 of Part 11	LE ICP not created for an embedded network on NSP CPK0111.	Cleared. Refer to <b>section 3.1</b> .
Retailers ICPs Requests	2.2	11.5(3) of Part 11	ICP creation process not within 3 business days.	Cleared. Refer to <b>section 3.2</b> .
Provision of Information to the Registry	2.3	11.7 of part 11 & 7(2) of schedule 11.1	Registry not updated prior to commencement of trading.	Still existing. Refer to <b>section 3.4</b> .

Subject	Section	Clause	Non-compliance	Status
Connection of ICPs	2.4	11.17(2) of part 11	Some ICPs energised before trader information was populated in the registry.	Still existing. Refer to <b>section 3.6</b> .
Monitoring of “New” or “Ready” status	2.8	15 of schedule 11.1	No routine management of ICPs at “New” or “Ready”.	Cleared. Refer to <b>section 3.13</b> .
Changes to Registry Information	3.1	8 of schedule 11.1	Some price, network and address changes backdated more than 3 business days.	Still existing. Refer to <b>section 4.1</b> .
Notice of NSP for Each ICP	3.2	7(1)(b) of schedule 11.1	Some incorrect NSPs for existing ICPs.	Still existing. Refer to <b>section 4.2</b> .
ICP Location Address	3.6	2 & 7(1)(a) of schedule 11.1	2,037 ICPs with duplicate addresses and 229 ICPs that are not readily locatable.	Still existing. Refer to <b>section 4.4</b> .
Management of “Distributor” status	3.8	12 & 16 of schedule 11.1	LE ICPs not decommissioned when embedded network is decommissioned.	Cleared. The LE ICP for the embedded network has now been decommissioned. Refer to <b>section 4.10</b> .
			LE ICP not created when the embedded network was created.	Still existing. The missing LE ICP has not been created. Refer to <b>sections 2.2 and 3.1</b> .
Date of ICP Initial Energisation Date	3.10	7(1)(p) & (2A) of Schedule 11.1	Non-population, incorrect and/or late population of the initial energisation date.	Still existing. Refer to <b>section 3.5</b> .
Updating of Price Category Codes	3.11	23 of schedule 11.1	13 new price category codes not notified two months before coming into effect.	Cleared. Refer to <b>section 4.12</b> .
Details of Unmetered Load Notified	6.1	7(1)(m) of schedule 11.1	UML load details missing from 3 newly connected ICPs energised during the audit period.	Still existing. Refer to <b>section 4.6</b> .

**Table of recommendations**

Subject	Section	Clause	Recommendation for improvement	Status
Monitoring of “New” or “Ready” Status	2.8	15 of schedule 11.1	Put a process in place for monitoring of ICPs at “New” and “Ready”.	Cleared. Refer to <b>section 3.13</b> .
Provide ICP Information to the Registry	3.5	7 of schedule 11.1	Put in place registry validation reporting.	Partially cleared. Refer to <b>section 2.1</b> .
		7(1)(o) of schedule 11.1	Require applicants to provide metering certification records once installed to confirm suitable metering is in place. In addition to this that the run the PR255 report from the registry is run regularly to identify any ICPs which Wellington Electricity has no distributed generation recorded but the meter indicates an injection channel is present.	Partially cleared, a further recommendation is made.  Refer to <b>section 4.6</b> .
Management of “Decommissioned” status	3.9	12 & 20 of schedule 11.1	Seek service requests for all those ICPs at this status that do not have them.	Partially cleared, this process is underway.  Refer to <b>section 4.11</b> .
Details of Unmetered Load Notified	6.1	7(1)(m) of schedule 11.1	Adopt the recommended unmetered load details format.	Cleared. Refer to <b>section 4.6</b> .
Changes to Shared Unmetered Load	6.2	11.14 of part 11	Liaise with Porirua, Hutt City and Wellington Councils to identify shared unmetered load and create relevant ICPs. Notify traders of created shared load in accordance with clause 11.14 of part 11.	Still existing. Refer to <b>section 7.1</b> .



## 2. OPERATIONAL INFRASTRUCTURE

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

#### Code reference

Clause 11.2(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 Part 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 file was examined to confirm compliance.

#### Audit commentary

When a registry field is updated in GTV, an automatic update to the registry is created.

The 2016 audit found that Wellington Electricity did not have procedures in place to validate registry information. This issue has been partially cleared. At the beginning of each month data in GTV and the registry is matched at ICP level. The match focusses on status mismatch, and progress is reported to the Customer Service Manager. Wellington Electricity intends to expand the registry match to include other fields as information is cleansed. There are several data cleansing projects being scoped or underway, as discussed in **section 2.2**.

I have repeated the validation checks recommended in 2016 (which have not yet been implemented) to maintain visibility.

Recommendation	Description	Audited party comment	Remedial action
Clause 11.2(1) Validation of registry information	<p>I recommend adding the following checks to the registry validation:</p> <ul style="list-style-type: none"><li>• ICPs at “new” or “ready” with an initial energisation date populated more than 10 business days ago</li><li>• ICPs that have been made active for the first time more than eight business days ago but no initial energisation date is populated</li><li>• a comparison between unmetered load trader and distributor fields</li><li>• a comparison between the distributor maintained fields on the registry and GTV.</li></ul>	<p>Data matching is currently performed by We*.</p> <p>This process will be enhanced by including additional fields to meet the auditor’s recommendation.</p>	Identified

Wellington Electricity identifies non-status information which has not been updated in the registry through:

- Monthly review of registry error files; and
- Daily review and correction of which have not been sent from GTV to the registry. This can occur where the date of the record in GTV is prior to the connection date due to a data entry error. I saw evidence of this process in action.

Non-compliance is recorded below, because the registry validation processes do not include all distributor fields. The monthly review of registry error files is too infrequent to allow errors to be identified and resolved promptly, this is discussed further in **section 4.1** and non-compliance is recorded in **section 3.4**.

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 11.2(1)  From: entire audit period	Complete validation of registry information does not occur. Potential impact: Low Actual impact: Low Audit history: Three times previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate and the audit risk rating is low. The automated registry update process and daily detection of any records not sent to the registry help to ensure that GTV will be consistent with the registry, although full validation processes are not in place.		
Actions taken to resolve the issue		Completion date	Remedial action status
Data matching is currently performed by We*. This process will be enhanced by including additional fields to meet the auditor's recommendation.		31/12/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Actively reviewing these lists and correcting any exceptions		15/1/2018	

#### Audit outcome

Non-compliant

#### 2.2. Requirement to correct errors (Clause 11.2(2))

##### Code reference

Clause 11.2(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 was examined to confirm compliance.

### Audit commentary

Wellington Electricity have processes in place to identify and resolve registry discrepancies as described in **section 2.1**. I saw evidence of incorrect information being corrected during the audit.

In some cases, Wellington Electricity is aware of errors in their data, but corrections have not been processed as soon as practicable, usually because investigation and extra resources are required. Wellington Electricity has been aware of the following data corrections required since prior to the 2016 audit:

- **Unmetered load:** Wellington Electricity intends to compare the trader and distributor unmetered load details on the registry to identify discrepancies, then will determine the correct unmetered load and update the registry.
- **Shared unmetered load:** Wellington Electricity has been working with the city councils to identify shared unmetered load. The council databases have been loaded into a single source, and being cross checked to identify private streetlights. Wellington Electricity is investigating the best way to verify and update unmetered load details, in some cases site investigation is required.
- **Incomplete, inaccurate, and duplicate ICP addresses:** Wellington Electricity intends to use GIS and GTV information to check and correct addresses, with site visits carried out where required. The project is in the scoping phase.
- **NSP assignment:** Wellington Electricity intends to check for consistency between address and NSP data, and correct the NSP where necessary. A data set has been obtained and the data cleansing project is in the scoping phase.
- **Initial energisation date and status corrections:** Six ICPs are awaiting corrections to status and/or initial energisation dates as discussed in **section 3.5** and **4.6**.
- **GTV data migration correction:** ICP 0001436704UNB04 is incorrectly recorded with new status, it should be decommissioned. The error occurred because of a discrepancy between Gentrack and the registry at the time of the migration to GTV. GTV was updated with registry status information on migration from Gentrack.

Non-compliance	Description
Audit Ref: 2.2 With Clause 11.2(2)  From: entire audit period	Correction of data does not consistently occur as soon as practicable.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Weak  Breach risk rating: 3

Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>The controls are rated as weak, some data issues have been outstanding for over a year. In most cases some progress has been made.</p> <p>The risk is rated as low, typically small numbers of ICPs are affected, and/or the data has a low impact.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Exception lists produced by the data reconciliation process will be actioned on a monthly basis.</p> <p>Priority completion timeframes will be assigned for specific work types to ensure compliance with regulated timeframes.</p>		31/12/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Actively reviewing these lists and correcting exceptions		15/1/2018	

#### Audit outcome

Non-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.*

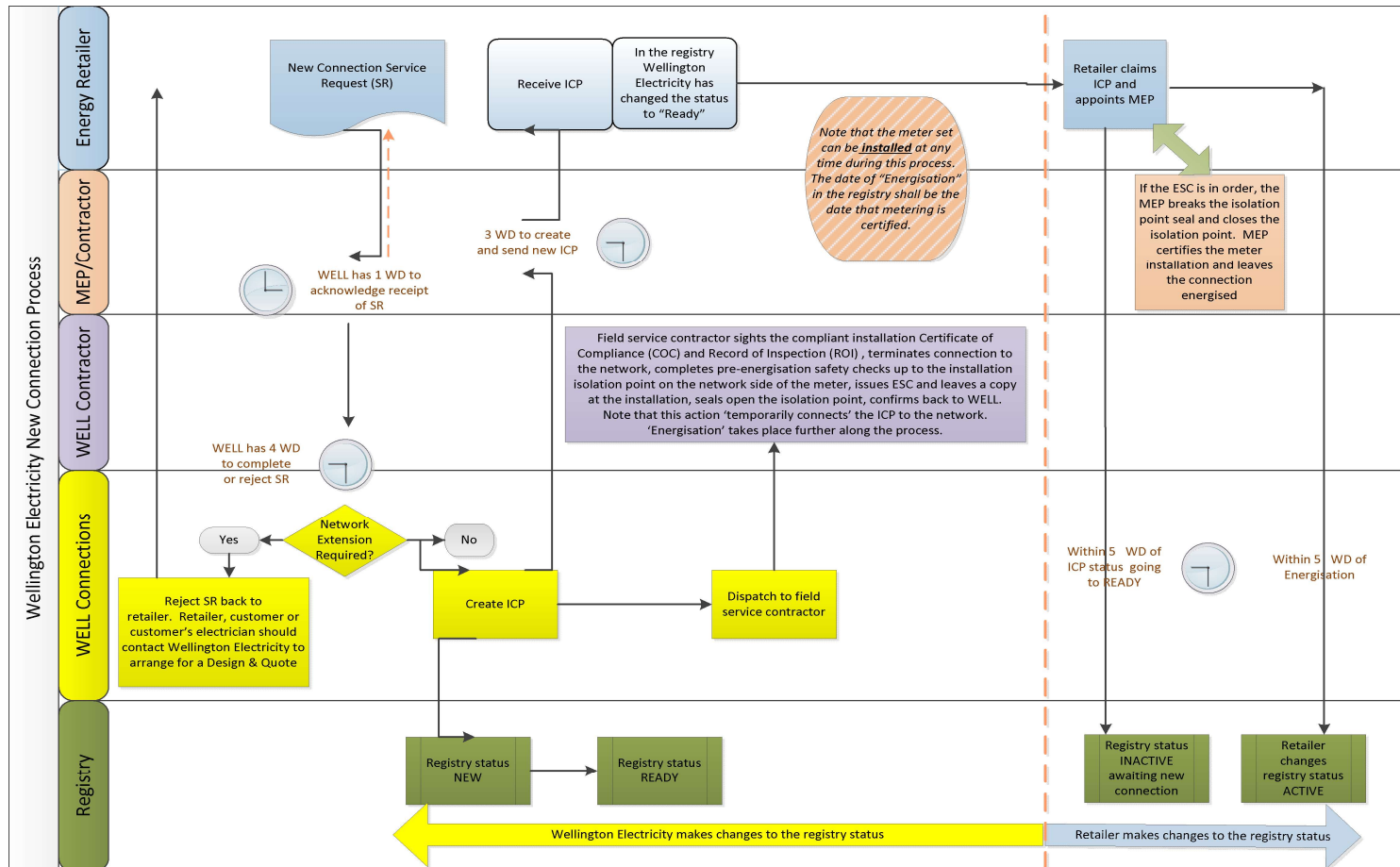
##### Audit observation

The new connection process was examined in detail and is described in Section **3.2**. A sample of 10 new connection applications of the 1123 created since October 2016 were checked from the point of application through to when the ICP was created.

I also checked all new embedded networks created during the audit period, to determine whether an LE ICP has been created.

##### 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 2016 audit recorded that CPK0111 had a missing LE ICP. This issue has been cleared, I have confirmed that there is at least one LE ICP per NSP. The discrepancy arose because the NSP table recorded TOR0011 against parent POC CPK0111, but the corresponding LE ICP (1001155481CK55B) was recorded against CPK0331 on the registry. Wellington Electricity have checked and confirmed that the parent POC for this network is CPK0331. A recommendation to advise the distributor for TOR0011 of the correct parent POC is recorded below.

Recommendation	Description	Audited party comment	Remedial action
Clause 11.4 Embedded networks	Advise Smartco that NSP TOR0011 is connected to CPK0331, so that their records and the NSP table can be updated.	Have taken the Auditor recommendation as an action point .	Identified

#### Audit outcome

Compliant

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

#### Code reference

Clause 11.5(3)

#### Code related audit information

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

#### Audit observation

I checked a diverse sample of 10 new connections of the 1123 created since October 2016 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 retailer of the reasons it is unable to comply with the request.

The ICP creation process is as follows

- ICP requests are made directly into a portal to the SAP system by retailers or their agents. The portal contains mandatory fields, including the retailer and required date.
- Once the ICP request has been made an automatic email is sent to the WE\_Connections email inbox. Staff monitor this inbox to manage the next step in the process.
- The data entered into SAP is validated, then re-entered into GTV. The request is rejected if any data is incorrect or missing and an email is sent back to the retailer in these instances.
- GTV automatically generates an ICP identifier once the relevant new connection information is loaded.
- The Retailer and Northpower (new connections energisation contractor) are then both notified of the details of the newly created ICP.

A sample of 10 new ICPs were checked, all were created on the day of the request.

The 2016 audit found that Wellington Electricity's new connection process documents allowed five business days to create an ICP. This issue has now been cleared. I reviewed the "Working Instructions New Connection for Residential Supply" and "Working Instructions New Connection for Commercial or

Builders Temporary Supply” and found both showed that an ICP must be created within three business days of receiving a request.

**Audit outcome**

Compliant

**3.3. Provision of ICP Information to the registry (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**

A sample of 10 connections of the 1123 created since October 2016 were checked from the point of application through to when the ICP was created, to confirm the process and controls worked in practice.

**Audit commentary**

Review of the sample of new connections confirmed that the ICP information provided to the registry by Wellington Electricity was correct.

**Audit outcome**

Compliant

**3.4. Timeliness of Provision of ICP Information to the registry (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**

An event detail report was 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.

985 new connections were completed and made active between June 2016 and July 2017. I reviewed these completed new connections on the event detail report to identify ICPs where information was provided late:

- 18 ICPs (1.8%) were updated to ready between one and 41 days after the connection date.
- Of these 18 ICPs, five (0.5%) also had the trader populated between one and two days after the connection date.

All late updates were checked:



- Three late updates were backdated new connections for unmetered load.
- One was delayed due to late receipt of paperwork.
- One was backdated due to human error.
- One related to a delay in re-processing a file after a failed registry update; registry errors are not processed daily as discussed in **section 2.1**.
- I could not confirm the reason for the delay for the other 12 late updates.

All ICPs had pricing information updated within 10 business days of the energisation date.

The late update of the registry for new connections is recorded as non-compliance.

Non-compliance	Description		
Audit Ref: 3.4 With: Clause 7(2) of Schedule 11.1  From: entire audit period	Registry not updated prior to commencement of trading. Potential impact: Low Actual impact: Low Audit history: Three times previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as moderate because they are sufficient to prevent late updates most of the time. The audit risk rating is low because a very small number of late updates occurred.		
Actions taken to resolve the issue		Completion date	Remedial action status
A weekly exception report is being developed in GTV that will identify any ICP's assigned as New or that does not have a Trader.		30/04/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We* will then update any new ICP's from New to Ready and add Trader details where required.		1/5/2018	

#### Audit outcome

Non-compliant

### 3.5. Timeliness of Provision of Initial Energisation 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 sub-clause (1)(p) to the registry no later than 10 business days after the date on which the ICP is initially energised.*

### Audit observation

The event detail report for July 2016 to June 2017 and the registry list were examined to determine the timeliness and accuracy of initial energisation dates.

A sample of 20 late updates and 20 ICPs where initial energisation dates were not populated were checked, to determine the reasons for the delay.

### Audit commentary

Due to the nature of Wellington Electricity's process, it can be difficult to confirm the initial energisation date. Northpower acting as Wellington Electricity's connection agent, installs and tests the connection either before or after metering is installed. If Northpower's service restoration information contains metering details, the service restoration date is populated as the initial energisation date. In all other cases, Wellington Electricity relies on the MEP or retailer to inform them when the ICP is electrically connected, either by updating the registry or providing information directly to Wellington Electricity. The accuracy of initial energisation dates is discussed further in **section 4.6**.

985 new connections were completed and made active during the period reviewed.

- I found 424 of these ICPs did not have an initial energisation date populated. This is an increase from the 149 found last year, and the 58 ICPs found in 2015. A sample of 20 of these ICPs were checked and found to be cases where Northpower had checked the connection prior to metering being installed, and another party had connected the ICP. Wellington Electricity have requested a GTV report which lists ICPs which have transferred from ready to active status. Once available, this report will identify recently connected ICPs, so that their details (including initial energisation dates) can be checked and populated.
- Of the 561 ICPs which had an initial energisation date populated, 68 (12%) were updated within ten business days of energisation. A sample of 20 late updates were checked and all found to relate to a project to cleanse missing initial energisation dates.

Review of the registry list found two ICPs at new status, and three at ready status with initial energisation dates populated. These were checked, along with two other ICPs where this issue was present in the 2016 audit. Four of the ICPs have been corrected, and three still require correction.

ICP	Status	2016 Comments	2017 Comments
1001156831CK905	New	Populated incorrectly - to be investigated	<b>Cleared.</b> This ICP was set up in error, and has now been decommissioned effective 10/06/2015.
1001157127CKA8E	New	Populated in error when service request was closed	<b>Still existing.</b> This ICP was set up in error and is to be decommissioned.
1001147673CK46F	Ready	Has been at "ready" >24mths- being investigated	<b>Still existing.</b> This ICP has been at ready status since 19/11/2009 but has not been claimed by the retailer. Wellington Electricity will follow up again with the proposed trader.

ICP	Status	2016 Comments	2017 Comments
1001157563CK520	Ready	Populated incorrectly	<b>Still existing.</b> The initial energisation date was populated in error and is to be removed.
1001157945CK5F6	Ready	UML – unclear if this load is already recorded against an existing DUML ICP - to be investigated	<b>Cleared.</b> Made active by the retailer effective 09/12/2015.
1001158480CK33E	Ready	Under investigation - confusion between this ICP and another	<b>Cleared.</b> Made active by the retailer effective 03/05/2016.
1001158935CK9CB	Ready	Keying error- should be 19/8/2016. Retailer still to take this ICP to active	<b>Cleared.</b> Made active by the retailer effective 03/10/2016.

The non-population, incorrect and/or late population of the initial energisation date is recorded as non-compliance. The late processing of corrections is recorded as non-compliance in **section 2.2**.

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1  From: entire audit period	Non-population and late population of the initial energisation date.  Potential impact: High  Actual impact: Medium  Audit history: Multiple times  Controls: Weak  Breach risk rating: 6		
Audit risk rating	Rationale for audit risk rating		
Medium	Controls are rated as weak, as they are unlikely to ensure that initial energisation dates are accurate and populated on time.  The potential impact is high, because Wellington Electricity is not always aware of when ICPs on its network are energised. Traders relying on the initial energisation date to determine when the ICP becomes active may make inaccurate reconciliation submissions.		
Actions taken to resolve the issue		Completion date	Remedial action status
Weekly extraction of data from registry and matching with GTV to identify status changes.  Manual update of GTV, which will update the registry overnight.		28/02/2018	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Actively reviewing these lists and correcting exceptions	14/3/2018	

#### Audit outcome

Non-compliant

### 3.6. Connection of ICPs (Clause 11.17)

#### Code reference

*Clause 11.17*

#### Code related audit information

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

*The distributor must not electrically 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 electrically connect an ICP unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load.*

#### Audit observation

The new connection process was examined in **section 3.1**.

The event detail file and registry list were examined to determine compliance.

#### Audit commentary

The new connections process has a “trader responsibility” step. This requirement is met because all ICP requests are made by the trader and it is reasonable to assume that if a trader requests an ICP they are accepting responsibility for it.

Review of the registry list confirmed that a trader is currently recorded for all active and inactive ICPs. 18 ICPs were made ready on the registry after the energisation date, and five ICPs had a proposed trader recorded on the registry after the energisation date. This is recorded as non-compliance below, and discussed in **section 3.4**.

Review of the registry list confirmed that shared unmetered load is not recorded for ICPs on Wellington Electricity’s network. Some shared unmetered has been identified but is not recorded on the registry. This is discussed further in **section 7.1**.

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 11.17  From: entire audit period	Five ICPs were energised before proposed trader information was provided to the registry, and 18 ICPs were energised before the trader could accept responsibility for the ICP on the registry.  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 are sufficient to mitigate the risk of an ICP being energised before a trader is proposed on the registry, but there is room for improvement.  The risk rating is rated as low because a relatively small number of ICPs are affected.		
Actions taken to resolve the issue		Completion date	Remedial action status
Document a procedure to ensure that consistent and accurate processes are followed for this process.		31/12/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Actively reviewing to ensure compliance.		15/1/2018	

#### Audit outcome

Non-compliant

### 3.7. Electrical connection of ICPs (Clause 10.28(7))

#### Code reference

Clause 10.28(7)

#### Code related audit information

*A network owner must not electrically connect a new point of connection that is to be quantified by metering unless requested to do so by the:*

- *MEP (for a temporary energisation); or*
- *reconciliation participant responsible for ensuring there is a metering installation.*

#### Audit observation

The NSP table was reviewed to identify all new NSP connections during the audit period, and determine whether there were metering installations in place before connection.

#### Audit commentary

No new NSPs were created by Wellington Electricity during the audit period.

#### Audit outcome

Compliant

### 3.8. Electrical connection of ICP that is not an NSP (Clause 10.31)

#### Code reference

Clause 10.31

#### Code related audit information

*A distributor must not electrically connect an ICP that is not also an NSP unless:*

- *the trader trading at the ICP has requested the electrical connection; or*
- *the MEP who has an arrangement with the trader trading at the ICP has requested temporary energisation of the ICP.*

#### Audit observation

The new connection process was examined in **section 3.1**.

The event detail file and registry list were examined to determine compliance.

#### 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.

Review of the registry list confirmed that 18 ICPs were made ready on the registry after the energisation date, and five ICPs had a proposed trader recorded on the registry after the energisation date. This is recorded as non-compliance in **section 3.4** and **3.6**. In all cases, Wellington Electricity had received a request for the connection from a trader, and met the requirements of this clause.

#### Audit outcome

Compliant

### 3.9. Electrical connection of NSP that is not a point of connection to the grid (Clause 10.30(2))

#### Code reference

Clause 10.30(2)

#### Code related audit information

*A distributor must, within five business days of electrically connecting an NSP that is not also a point of connection to the grid, notify the reconciliation manager of the following in the prescribed form:*

- *the NSP electrically connected*
- *the date of the electrical connection*
- *the participant identifier of each MEP*
- *the certification expiry date for each metering installation.*

#### 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. 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:*

*xxxxxxxxxxccc where:*

- *xxxxxxxxxx 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 market administrator.*

#### **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

### **3.11. 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 list file was examined to confirm all active ICPs have a single loss category code.

#### **Audit commentary**

Each active ICP has a single loss category, which clearly identifies the relevant loss factor.

Wellington Electricity supplies one embedded generation station (1001154460CK204) with a capacity of 10 MW or more. This ICP has an individual loss category code (MILL01).

#### **Audit outcome**

Compliant

### 3.12. 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 event detail file and registry list were examined to determine compliance.

#### Audit commentary

Wellington Electricity continues to create all ICPs at ready, unless they know a network extension needed.

The registry list shows 46 ICPs at new status. Of those, only ICP 0000156352CK3CD22 was created at new status in the past year. ICP 0000156352CK3CD22 was created effective 04/05/2017 with new status, and updated to ready and subsequently active effective from 07/08/2017.

Monitoring of ICPs with new and ready status is discussed in **section 3.13**.

The 2016 audit found that when Wellington Electricity migrated from Gentrack to GTV, and there were status discrepancies between Gentrack and the registry, the registry information was loaded into GTV. This resulted in incorrect statuses for ICPs 0001436704UNB04 and 1001151068CKB31, which were decommissioned in the old Gentrack but recorded with new status in both the registry and GTV. These ICPs were re-checked: 1001151068CKB31 has been updated to decommissioned, but 0001436704UNB04 still has new status recorded. This is recorded as non-compliance below, and as a late correction in **section 2.2**.

Non-compliance	Description
Audit Ref: 3.12 With: Clause 13 Schedule 11.1  From: entire audit period	ICP 0001436704UNB04 is incorrectly recorded with new status, it should be decommissioned.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 1
Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as strong under normal circumstances; the new status is rarely applied and there are controls to ensure it is applied correctly for new ICPs. The issue occurred due to a data migration issue when changing from Gentrack to GTV, and has not been updated.  The audit risk rating is low, because only one ICP is affected.



Actions taken to resolve the issue	Completion date	Remedial action status
Already actioned	10/11/2017	Cleared
Preventative actions taken to ensure no further issues will occur	Completion date	
Already actioned	23/11/2017	

#### Audit outcome

Non-compliant

### 3.13. 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 calendar 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 ICP creation process was reviewed.

The event detail file and registry list were examined to determine compliance.

#### Audit commentary

The 2016 audit found that new and ready ICPs were not routinely monitored. This issue has been cleared, ICPs at new or ready status are monitored monthly by Wellington Electricity. Wellington Electricity check any ICPs with new or ready status for over two years with the trader to determine whether they are still required, and decommission them if necessary. This is completed as part of the monthly reconciliation to the registry discussed in **section 2.1**.

The registry list shows 85 ICPs at ready status and 46 ICPs at new status. 10 ICPs have been at ready status for over two years, and 22 ICPs have been at new status for over two years. All 10 ICPs at ready and an extreme case sample of ten oldest ICPs at new status dated from 2003 to 2015 were examined. In all cases the retailer had been emailed on 11/10/2017 and asked to claim the ICPs, so that they could be decommissioned on the registry.

#### Audit outcome

Compliant

### 3.14. 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 event detail file and registry list were reviewed to confirm 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 10 MW or more. This ICP has an individual loss category code (MILL01) and was connected on 01/04/2014.

#### Audit outcome

Not applicable

## 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 provide notice to the registry 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 14 days, the time within which notification must be effected in accordance with Clause 8(3) of Schedule 11.1 begins on the 15th day after the change.*

#### Audit observation

The management of registry updates was reviewed.

The event detail file and registry list were reviewed to determine compliance. A diverse sample of 40 backdated events were reviewed to determine the reasons for the late updates, including the ten latest address, network, pricing, and status events.

#### Audit commentary

When information that is held by the registry changes, the distributor responsible for that ICP must provide notice to the registry of that change within three business days of that change taking effect. The event detail reports were examined to identify backdated event updates.

As discussed in **sections 2.1** and **2.2**, there are sometimes delays in identifying incorrect data and processing corrections, which can lead to some backdated events.

#### Address events

3799 address updates were identified. 249 of these (6.6%) were updated more than three business days after the event. 22 were updated more than 30 business days after the event. The ten latest updates were reviewed, all were backdated address corrections.

#### Network events

4982 network events not relating to population of initial energisation dates for new connections completed during the audit period were identified. The timeliness of initial energisation updates is discussed in **section 3.5**.

2284 of these (45.8%) were updated more than three business days after the event. 770 were updated more than 30 business days after the event. The ten latest updates were reviewed, all were data corrections. Nine related to cleansing around the time of the upgrade to GTV, the other was the addition of an initial energisation date.

#### Pricing events

16518 pricing updates were identified. 8075 of these (48.9%) were updated more than three business days after the event. 375 were updated more than 30 business days after the event. The ten latest updates were reviewed. Nine related to pricing corrections, and I was unable to confirm the reason for the other late pricing update.

## Status events

2528 status updates were identified. 896 of these (35.4%) were updated more than three business days after the event. 463 were updated more than 30 business days after the event. The ten latest updates were all changed to decommissioned status, following implementation of Wellington Electricity's improved process to follow up ICPs with ready for decommissioning status with the retailer.

The backdating of events to the registry is recorded as non-compliance. Most of the backdated requests relate to data corrections, which makes Wellington Electricity non-compliant with this clause, but compliant with the requirement to provide complete and accurate information (Clause 11.2 of part 11).

Non-compliance	Description		
Audit Ref: 4.1 With: Clause 8 Schedule 11.1  From: entire audit period	Some price, network, status, and address changes were backdated more than three business days.  Potential impact: Low  Actual impact: Low  Audit history: Multiple times  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as weak as they are not sufficient to ensure that the registry is updated on time most of the time for network, pricing and status events.  The risk rating is low, because most of the delayed updates were processed within 30 days. Based on the sample checked, the later updates appear to be mostly data corrections.		
Actions taken to resolve the issue		Completion date	Remedial action status
Update the existing procedure to check for any requests which would breach the compliance and communicate these as rejected orders to the Trader.		31/12/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Activity reviewing these lists and correcting		15/1/2018	

## Audit outcome

Non-compliant

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

##### Code reference

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

##### Code related audit information

*The distributor must notify the registry of the NSP identifier of the NSP to which the ICP is usually connected under Clause 7(1)(b) of Schedule 11.1.*

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

##### Audit observation

The process to determine the correct NSP was examined. The registry list was reviewed to determine compliance.

##### Audit commentary

The NSP for each ICP is notified to the registry as part of the new connection process. The application form includes the address which is used to locate the nearest transformer in SIAS (GIS). The process remains unchanged from the last audit. For all new connections the Network Project team is consulted to confirm the correct transformer has been selected. The transformer number is then entered into Gentrack, which contains a link to the correct NSP. Network Control notify the customer services team of any transformer changes so that the NSP can be updated where necessary.

Wellington Electricity is aware that some ICPs have an incorrect NSP recorded. They intend to check for consistency between address and NSP data, and correct the NSP where necessary. A data set has been obtained and the data cleansing project is in the scoping phase.

The list file was analysed and identified 510 streets where active ICPs were connected to different NSPs. ICPs. A sample of 10 streets with ICPs connected to different NSPs were checked. I confirmed that for six of the 10 streets, some ICPs appear to have an incorrect NSP assigned. This is recorded as non-compliance below. All except one of the ICPs affected were created prior to Wellington Electricity's ownership of the network.

Non-compliance	Description
Audit Ref: 4.2 With: Clauses 7(1),(4) and (5) Schedule 11.1  From: entire audit period	Some existing ICPs have an incorrect NSP recorded.  Potential impact: Medium  Actual impact: Low  Audit history: Three times previously  Controls: Strong  Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>Controls are rated as strong, as they are sufficient to ensure that ICPs created by Wellington Electricity will have the correct NSP assigned most of the time. The incorrect NSPs appear to be largely historic, and Wellington Electricity intends to cleanse this data.</p> <p>The impact is low. For reconciliation purposes all Wellington Electricity's NSPs are in the WELLTONUNETG balancing area. It is possible affected ICPs may not be correctly identified where there are outages or maintenance work is carried out, so the potential impact is rated as medium.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
As identified by the auditor these are historical. These have been identified and will be corrected.		31/03/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
These have been identified and will be corrected.		31/3/2018	

#### Audit outcome

Non-compliant

#### 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 three 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 can be provided immediately on request once the address has been confirmed.

##### 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 correct and unique addresses was examined. The registry list was reviewed to determine compliance.

### Audit commentary

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

Wellington Electricity relies on information provided by the customer and city council address information. GTV presents a warning message if an entered address is an exact match for an existing address. In these cases, staff normally contact the customer to confirm address details. It is possible to override the warning message and continue with the duplicate address.

Review of the registry list identified 2256 active ICPs with duplicate addresses, and 229 ICPs without a physical address unit number, street number or property name to allow them to be readily located. This is an increase from 2037 ICPs with duplicate addresses found in the last audit; the ICPs that are not readily locatable remain the same. This is recorded as non-compliance below.

2248 of the 2257 duplicate addresses were created prior to GTV's implementation. 10 ICPs with duplicate addresses were checked, including all duplicates created after the GTV implementation.

- The eight duplicates created in GTV related to unmetered load.
- One ICP created in 2010 had an address correction made in Gentrack by a programmer. The correction was not sent to the registry.
- One ICP was migrated from Gentrack to GTV with a duplicate address.

223 of the 229 ICPs with incomplete addresses were created prior to Wellington Electricity's ownership of the network. I reviewed the six ICPs created with incomplete addresses.

- Four addresses were created in 2009 or 2010 and were migrated to Wellington Electricity's systems with incomplete addresses.
- 0000155459CK0FB is a pavilion, further information on address is available and will be added on the registry.
- 0000155212CKA8C has lot number 977, this will be added to the address on the registry.

Wellington Electricity intends to use GIS and GTV information to check and correct addresses, with site visits carried out where required. The project is in the scoping phase.

Non-compliance	Description
Audit Ref: 4.4 With: Clause 2 Schedule 11.1  From: entire audit period	There are 2257 active ICPs with duplicate addresses, and 229 active ICPs without a physical address unit number, street number or property name to allow them to be readily located.  Potential impact: Low  Actual impact: Low  Audit history: Multiple times  Controls: Moderate  Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>Controls are rated as moderate, as they are sufficient to ensure that new ICPs created by Wellington Electricity will not have incomplete or duplicate addresses most of the time, but there is some room for improvement.</p> <p>The impact is low because in most cases address information is correct. The incomplete and duplicate addresses appear to be largely historic, and Wellington Electricity intends to cleanse this data.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Data will be extracted from both the registry and GTV to identify those ICPs which need to be resolved.</p> <p>Due to the large volume of data, we will target the first 200 ICP's to be updated by 31/01/2018 with the balance to follow in the coming months.</p>		31/06/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A manual check and system exception highlighting occurs to identify potential duplicate records. We will then reject the application and request clarifying details from the Trader.</p> <p>Missing data from New ICP applications causes these to be rejected by us.</p> <p>Both scenarios are included within our procedural instructions.</p>		Process already used.	

#### Audit outcome

Non-compliant

#### 4.5. ICP de-energisation (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 de-energised without de-energisation of 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 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.

##### Audit commentary



Each new ICP created after 7 October 2002 must be able to be de-energised without de-energisation of any other 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 SIAS (GIS) to confirm the network configuration meets the requirements of this clause.

#### **Audit outcome**

Compliant

### **4.6. Distributors to Provide ICP Information to the Registry (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:*

- *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 from metering information*
  - c) *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*
  - c) *the initial energisation date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

#### **Audit observation**

The management of registry information was reviewed, including review of the "Working Instructions Add Distributed Generation to an ICP in Gentrack", "Technical Requirements for Connection of Distributed Generation (DG)", "Application Form for Connection of Distributed Generation (<=10kW)" and "Notification of Connection – Distributed Generation (<=10kW)".

The registry list was reviewed to determine compliance. A sample of 38 differences between initial energisation dates and meter certification or retailer active dates were reviewed.

#### **Audit commentary**

Wellington Electricity data is contained in GTV, which automatically populates the registry daily.

The 2016 audit recommended implementation of registry validation processes. Validation of status information is now occurring, but other registry fields are still not being validated. This is recorded as non-compliance in **section 2.1**.

#### **Price and loss categories**

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

#### **Generation**

Distributors are required to record generation and fuel type. Analysis of the registry list confirmed there are 460 ICPs with generation capacity greater than 0. This is an increase from 338 ICPs in 2016, and 124 in 2015. All ICPs with generation capacity have a fuel type recorded.

The 2016 audit made two recommendations in relation to distributed generation:

- The PR255 registry report should be used to identify ICPs where metering with injection has been added and Wellington Electricity has no generation recorded. This recommendation has been implemented. Every two months, Wellington Electricity matches ICPs with generation metering to their master list of generating ICPs. If any ICPs have generation metering installed, but are not on the master list, Wellington Electricity follows up with the retailer.
- Applicants should be required to provide confirmation that suitable certified metering is installed, when they install generation. Wellington Electricity's "Working Instructions Add Distributed Generation to an ICP in Gentrack" confirms that notification that import/injection metering is installed should be provided by the retailer. Wellington Electricity also relies on the

MEP information on the registry to confirm whether compliant metering is installed. As part of the two monthly check, ICPs that are on the master list but do not have generation metering installed are identified. No action is taken for these ICPs, I recommend that they should be followed up with the retailer to determine whether injection/export metering is required.

Recommendation	Description	Audited party comment	Remedial action
Clause 7(1) Schedule 11.1  Distributed generation without injection/export metering	Follow up ICPs with active distributed generation where injection/export metering is not recorded on the registry with the retailer.	Have taken the Auditor recommendation as an action point.	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 retailer and populates the distributor unmetered load details. There were 12 new ICPs energised with unmetered load, (as indicated by the Retailer's UML field on the list file) created during the audit period. All have the distributor's unmetered field populated in the recommended format.

Review of the registry list identified 75 active ICPs with unmetered load recorded by the trader and no unmetered load recorded by Wellington Electricity. These are all historic exceptions which existed prior to the audit period, and are recorded as non-compliance below. Wellington Electricity intends to compare the trader and distributor unmetered load details on the registry to identify discrepancies, then will determine the correct unmetered load and update the registry.

The 2016 audit found that the format for populating the unmetered load details did not enable the Retailer to calculate the load easily. This recommendation has been cleared, and Wellington Electricity has adopted the Electricity Authority's recommended format where unmetered load details are populated.

### Initial Energisation Dates

The event detail report and the registry list were examined to determine the accuracy of initial energisation dates.

985 new connections were completed and made active during the period reviewed. 561 of these had an initial energisation date populated. Non-compliance is recorded in **section 3.4** for missing and late initial energisation dates.

As discussed in **section 3.5**, the nature of Wellington Electricity's connection process can make it difficult to determine the correct initial energisation date. Where the initial energisation date was populated:

- 543 (97%) match the retailer's earliest active date, 18 did not match.
- 516 (92%) match the meter certification date, 20 did not match.

The differences were checked where possible. In three cases the initial energisation date was confirmed to be correct, and in one case it was incorrect. For the other 17 cases, it was difficult to confirm the correct date as Wellington Electricity did not have its own connection date information available.

Initial energisation date discrepancies identified in the 2016 audit were followed up, and found not to have been corrected. This is recorded as non-compliance in **section 2.2** and below.

ICP	IED	Active Date	Meter Cert Date	2016 findings	2017 findings
1001158146CK05B	9/02/2016	1/03/2016	2/03/2016	Known bug was populating the IED when ICP was created.	<b>Still incorrect.</b> IED remains 09/02/2016
1001158691CKFD1	4/07/2016	6/07/2016	No metering loaded	This is a duplicate ICP that is to be decommissioned. The metering is loaded against the correct ICP. WE are working with the retailer to resolve.	<b>Still incorrect.</b> ICP remains active, IED is still 04/07/2016.
1001159046CK8FF	29/8/2016	24/08/2016	No metering loaded	This was the connection date advised by the Wellington Electricity field contractor. It was confirmed during the site audit that the Retailer has the correct connection date.	<b>Still incorrect.</b> IED remains 29/08/2016, ICP is now dismantled effective from 30/08/2017.

Non-compliance	Description
<p>Audit Ref: 4.6 With: Clause 7(1) Schedule 11.1</p> <p>From: entire audit period</p>	<p>Some unmetered load and energisation information provided to the registry is incorrect.</p> <p>Potential impact: High</p> <p>Actual impact: Low</p> <p>Audit history: Twice previously</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	<p>Controls are rated as weak, because controls are insufficient to ensure that initial energisation dates are populated correctly and unmetered load is recorded.</p> <p>The potential impact is high, because Wellington Electricity is not always aware of when ICPs on its network are connected. Traders relying on the initial energisation date to determine when the ICP becomes active may make inaccurate reconciliation submissions.</p>

Actions taken to resolve the issue	Completion date	Remedial action status
Liaison with district councils to be conducted to investigate options to address historical issues.	31/3/2018	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
Investigation to commence to identify options for how to address any new applications for the connection of private lights.	1/6/2018	

#### Audit outcome

Non-compliant

#### 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 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 event detail report and registry list were reviewed to determine compliance.

#### Audit commentary

985 new connections were completed and made active during the period reviewed. I reviewed these completed new connections on the event detail report, and found all had a pricing category entered within 10 days of being energised.

#### Audit outcome

Compliant

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

##### Code reference

*Clause 7(8) and (9) Schedule 11.1*

#### Code related audit information

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

#### Audit observation

The registry list was reviewed to determine compliance.

#### Audit commentary

GPS coordinates are not populated; compliance was not assessed.

#### Audit outcome

Not applicable

### 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 event detail report and registry list were reviewed to identify ICPs at ready status. A diverse sample of ten ICPs at ready status were checked.

#### Audit commentary

Wellington Electricity continues to create all ICPs at ready, unless they know a network extension needed.

The registry list showed 46 ICPs currently at ready status. 18 ICPs (1.8%) were updated to ready between one and 41 days after the connection date, this is recorded as non-compliance in **section 3.4**.

#### 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 event detail report and registry list were reviewed to identify ICPs at distributor status. A diverse sample of ten ICPs at ready status were checked.

### Audit commentary

The registry list showed 85 ICPs currently at distributor status.

The ICP status of “distributor” is managed by the distributor and denotes that the ICP record 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. Some shared unmetered has been identified but is not recorded on the registry. This is discussed further in **section 7.1**.

As noted in **section 1.8**, there are currently 79 embedded networks connected to the Wellington Electricity network. The list file and NSP mapping table were compared. The table below sets out the differences by NSP:

NSP	LE ICPs	NSP Table	Difference
CPK0111	6	7	1
CPK0331	29	28	-1
GFD0331	1	1	0
KWA0111	11	10	-1
MLG0111	1	1	0
MLG0331	4	1	-3
TKR0331	2	2	0
WIL0331	31	29	-2
Total	85	79	-6

The 2016 audit recorded that CPK0111 had a missing LE ICP. This issue has been cleared, I have confirmed that there is at least one LE ICP per NSP. The discrepancy arose because the NSP table recorded TOR0011 against parent POC CPK0111, but the corresponding LE ICP (1001155481CK55B) was recorded against CPK0331. Wellington Electricity have confirmed that the parent POC for this network is CPK0331. A recommendation to advise the distributor for TOR0011 of the correct parent POC is made in **section 3.1**.

15 new embedded networks have been created and I confirmed that all have had one or more LE ICPs created. No embedded networks have been end dated during the audit period. One LE ICP that

required decommissioning (1001138287UNED7 connected to CPK0111) was identified during the 2016 audit, and has now been decommissioned.

#### 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 event detail report and registry list were reviewed to identify ICPs at decommissioned status. A diverse sample of 10 ICPs ready for decommissioning, and 10 decommissioned ICPs with meters were checked.

##### Audit commentary

The decommissioning process starts with a service request for decommissioning from a retailer. 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.

The 2016 audit recommended that Wellington Electricity contact the retailers that have not issued a service request but had changed the ICP status to “ready for decommissioning”, so that the statuses can be corrected. I saw evidence of this process in action. Analysis of Wellington Electricity’s list file shows that there are 378 ICPs that are at “ready for decommissioning” status, this is a decrease from last year. The table below indicates the volume by retailer:

Row Labels	ICPs at ready for decommissioning status
CTCT	175
GENE	31
MEEN	5
MERI	9
PSNZ	15



Row Labels	ICPs at ready for decommissioning status
PUNZ	1
SIMP	2
SWCH	112
TODD	1
TRUS	27
Total	378

I checked a diverse sample of ten ICPs that were ready for decommissioning, to determine their status.

- In four cases, a request for decommissioning had been received from the retailer, or Wellington Electricity had received confirmation that the ICP was to be decommissioned. Two have since been decommissioned on the registry.
- Wellington Electricity intends to follow up the other six ICPs with the responsible retailer according to their normal process.

A sample of ten 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.

Late updates to decommissioned status are recorded as non-compliance in **section 4.1**.

#### 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

No new pricing codes have been entered since 1 April 2016; compliance was not assessed.

##### Audit outcome

Not applicable

## 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 have been created during the audit period; compliance was not assessed.

#### Audit outcome

Not applicable

### 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 on 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 changed during the audit period; compliance was not assessed.

#### Audit outcome

Not applicable

## 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 notify 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 notify 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 notify 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 (a "transfer"), the distributor must:*

- *notify the reconciliation manager*
- *notify the market administrator*
- *notify each affected reconciliation participant*
- *comply with Schedule 11.2.*

#### Audit observation

The NSP table was reviewed.

#### Audit commentary

No NSPs have been created or decommissioned during the audit period; compliance was not assessed.

#### Audit outcome

Not applicable

### 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 calendar month before the NSP is electrically connected or the ICP is transferred.*

#### Audit observation

The NSP table was reviewed.

#### Audit commentary

No NSPs have been created or decommissioned during the audit period; compliance was not assessed. There were no NSP changes lasting for more than 10 business days.

#### 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 notify the reconciliation manager of the following:*

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

#### Audit observation

The NSP table was reviewed.

#### Audit commentary

No balancing area changes have occurred during the audit period; compliance was not assessed.

#### Audit outcome

Not applicable

### 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 notify the reconciliation manager at least one calendar month before the creation or transfer of:*

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

#### Audit observation

The NSP table was reviewed.

#### Audit commentary

Wellington Electricity has not created any new embedded networks during the audit period; compliance was not assessed.

**Audit outcome**

Not applicable

**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 notify 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; compliance was not assessed.

**Audit outcome**

Not applicable

**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 notify any trader trading at the ICP of the transfer at least one calendar month before the transfer.*

**Audit observation**

The NSP table was reviewed.

**Audit commentary**

No existing ICPs became NSPs during the audit period; compliance was not assessed.

**Audit outcome**

Not applicable

**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 notify the market administrator in the prescribed form, no later than three business days before the transfer takes effect.*

#### Audit observation

The NSP table was reviewed.

#### Audit commentary

Wellington Electricity has not initiated the transfer of any ICPs during the audit period; compliance was not assessed.

#### Audit outcome

Not applicable

### 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 notify 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 reviewed.

#### Audit commentary

Wellington Electricity do not have responsibility for any NSPs that are not POCs to the grid; compliance was not assessed.

#### Audit outcome

Not applicable

### 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 do not have responsibility for any NSPs that are not POCs to the grid; compliance was not assessed.

### Audit outcome

Not applicable

## 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 notify:*

- *the previous network owner (Clause 29(1)(a) of Schedule 11.1)*
- *the reconciliation manager (Clause 29(1)(b) of Schedule 11.1)*
- *the market administrator (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 calendar month 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; compliance was not assessed.

### Audit outcome

Not applicable

#### 6.11. Electrically connecting NSP that is not point of connection to grid (Clause 10.30(1))

##### Code reference

*Clause 10.30(1)*

##### Code related audit information

*A distributor must not electrically connect an NSP that is not a point of connection to the grid unless:*

- *a reconciliation participant has requested the electrical connection (Clause 10.30(1)(a)); or*
- *a metering equipment provider (authorised by the trader) has requested the electrical connection for a temporary energisation of the ICP (Clause 10.30(1)(b)).*

##### Audit observation

The NSP supply point table was reviewed.

##### Audit commentary

Wellington Electricity do not have responsibility for any NSPs that are not POCs to the grid; compliance was not assessed.

##### Audit outcome

Not applicable

#### 6.12. 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 notify the reconciliation manager and the gaining MEP.*

##### Audit observation

The NSP supply point table was reviewed.

##### Audit commentary

Wellington Electricity is not responsible for embedded network gate meters; compliance was not assessed.

##### Audit outcome

Not applicable

#### 6.13. 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 market administrator 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**

Wellington electricity has not initiated the transfer of any ICPs during the audit period; compliance was not assessed.

#### **Audit outcome**

Not applicable

### **6.14. 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 during the audit period; compliance was not assessed.

#### **Audit outcome**

Not applicable

## 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 notify the registry 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 notify the registry 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 recorded for any ICPs on Wellington Electricity's network.

The 2016 audit found that Wellington Electricity had not recorded shared unmetered load, because Gentrack did not have shared unmetered load capability. Since GTV was implemented, shared unmetered load can be recorded. Wellington Electricity has been working with the city councils to identify shared unmetered load. The council databases have been loaded into a single source, and are being cross checked to identify private streetlights. Wellington Electricity is investigating the best way to verify and update unmetered load details, in some cases site investigation is required.

I repeat last year's recommendation to maintain visibility of this issue.

Recommendation	Description	Audited party comment	Remedial action
Clause 11.14(2) and (4) Shared unmetered load	Liaise with Porirua, Hutt City and Wellington Councils to identify shared unmetered load and create relevant ICPs. Notify traders of created shared load in accordance with clause 11.14 of part 11.	This is part of the unmetered policy that WE* will adopt for the next auditing year  Have taken the Auditor recommendation as an action point.	Investigating

#### 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 notify all traders affected by that change or decommissioning as soon as practicable after the change or decommissioning.*

#### **Audit observation**

The registry list was reviewed to identify 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. Compliance was not assessed.

#### **Audit outcome**

Not applicable

## 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 calculation of loss factors was reviewed.

#### Audit commentary

Wellington Electricity's loss factor processes follow the "Guidelines on the calculation and the use of loss factors for reconciliation purposes v2.1".

In 2016, the planning team completed a high level loss factor review for zone substations, which confirmed that the loss factors were consistent with the 2015 published loss factors.

By March 2018, Wellington Electricity intends to review loss factors as set out in the Electricity Authority guideline. This process is currently underway.

#### Audit outcome

Compliant

## CONCLUSION

The audit found ten non-compliances and makes four recommendations.

Wellington Electricity is aware that some historic data needs to be cleansed. In general, I found that there were good controls to ensure new data is entered correctly, and most of the data issues were created prior to the implementation of GTV in 2016. Wellington Electricity is currently scoping and beginning projects to resolve these historic issues with addresses, shared and standard unmetered load, and NSP assignment.

There have been some delays in correcting issues identified during the last audit, this is partially attributed to staffing changes.

Initial energisation date accuracy continues to be an issue. Due to the nature of Wellington Electricity's connection process, an ICP could be connected by the connection agent, the MEP, the trader, or an electrician. Wellington Electricity is not always promptly informed of the date of connection, and I found some gaps and incorrect data on the registry.

The next audit frequency table indicates that the next audit be due in six months. Taking into consideration that

- it is expected that changes to resolve most of the issues will be completed by the end of the first quarter of 2018
- most of the data accuracy issues found related to records created prior to the audit period; and
- nine of the ten non-compliances have an audit risk rating of three or lower

I recommend that the next audit be due in 12 months, to allow sufficient time for Wellington Electricity to complete data cleansing, implement their improved processes, and demonstrate compliance.

The matters raised are shown in the tables below.

## NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Registry validation	2.1	11.2(1)	Complete validation of registry information does not occur.	Moderate	Low	2	Identified
Correction of errors	2.2	11.2(2)	Correction of data does not consistently occur as soon as practicable.	Weak	Low	3	Identified
Provision of Information to the Registry	3.4	7(2) of Schedule 11.1	Registry not updated prior to commencement of trading.	Moderate	Low	2	Identified
Provision of initial energisation dates	3.5	7(2A) of Schedule 11.1	Non-population and late population of the initial energisation date.	Weak	Medium	6	Identified

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Connection of ICPs	3.6	11.17	Five ICPs were energised before proposed trader information was provided to the registry, and 18 ICPs were energised before the trader could accept responsibility for the ICP on the registry.	Moderate	Low	2	Identified
New status	3.12	13 Schedule 11.1	ICP 0001436704UNB04 is incorrectly recorded with new status, it should be decommissioned.	Strong	Low	1	Cleared The registry has been corrected.
Changes to registry information	4.1	8 Schedule 11.1	Some price, network, status, and address changes were backdated more than three business days.	Moderate	Low	2	Identified
NSP assignment	4.2	7(1),(4) and (5) Schedule 11.1	Some existing ICPs have an incorrect NSP recorded.	Strong	Low	1	Identified
ICP address	4.4	2 Schedule 11.1	There are 2257 active ICPs with duplicate addresses, and 229 active ICPs without a physical address unit number, street number or property name to allow them to be readily located.	Moderate	Low	2	Identified
Provision of information	4.6	7(1) Schedule 11.1	Some unmetered load and energisation information provided to the registry is incorrect.	Weak	Low	3	Investigating
Future Risk Rating						24	

## RECOMMENDATIONS

Subject	Section	Recommendation	Description
Clause 11.2(1) Validation of registry information	2.1	<p>I recommend adding the following checks to the registry validation:</p> <ul style="list-style-type: none"> <li>• ICPs at “new” or “ready” with an initial energisation date populated more than 10 business days ago</li> <li>• ICPs that have been made active for the first time more than eight business days ago but no initial energisation date is populated.</li> <li>• a comparison between unmetered load trader and distributor fields</li> <li>• a comparison between the distributor maintained fields on the registry and GTV.</li> </ul>	Identified
Clause 11.4 Embedded networks	3.1	Advise Smartco that NSP TOR0011 is connected to CPK0331, so that their records and the NSP table can be updated.	Identified
Clause 7(1) Schedule 11.1 Distributed generation without injection/export metering	4.6	Follow up ICPs with active distributed generation where injection/export metering is not recorded on the registry with the retailer.	Identified
Clause 11.14(2) and (4) Shared unmetered load	7.1	Liaise with Porirua, Hutt City and Wellington Councils to identify shared unmetered load and create relevant ICPs. Notify traders of created shared load in accordance with clause	Investigating

Subject	Section	Recommendation	Description
		11.14 of part 11.	

#### ISSUES

Subject	Section	Recommendation	Description
		Nil	



## PARTICIPANT RESPONSE

The Auditor's points will be carefully reviewed and efforts and additional checks will be implemented to ensure compliance is achieved.

Wellington Electricity is committed to a continual process of improvement, focusing on data quality, process adherence and systems enhancements to deliver a consistently better performance.