

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**

The Veritek logo features the word "VERITEK" in a blue, serif, all-caps font. A thin blue horizontal line is positioned below the text, and a thin blue vertical line is positioned to the left of the text, intersecting the horizontal line.

For

POWERCO

Prepared by: Rebecca Elliot

Date audit commenced: 18 August 2017

Date audit report completed: 6 October 2017

Audit report due date: 10-Oct-17

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EXECUTIVE SUMMARY

This Distributor audit was performed at the request of **Powerco Ltd (Powerco)**, 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 Powerco's premises in New Plymouth, on August 22 & 23, 2017.

The audit was conducted in accordance with the Guideline for Distributor Audits version 7.1, which was produced by the Electricity Authority.

This audit found ten non-compliances and makes no recommendations. The non-compliances found are almost the same as those found last year.

Powerco continue to use the meter certification as the record of the initial energisation date. This information should be taken from the energisation paperwork. In other Distributor audits where they carry out energisation I have found instances where the BTS supply is not being recorded on the registry and the permanent supply is the first meter to be recorded on the registry. If this is occurring on the Powerco network this will not be identified.

The historic issues of pending ICPs at ready to be decommissioned and those ICPs not readily locatable continue to be a focus for Powerco. They have reduced the volume of both these groups of ICPs by a 1/3 during the audit period but due to the volume of these ICPs this will take more than a year to resolve.

During the audit period, they have further refined their discrepancy reporting which is evident in the reduction of the overall volume of discrepancies found. This is particularly evident in their management of unmetered load with ballast having been added where the light type has been confirmed.

Powerco recognise that the increasing volume of installation of distributed generation which is not always being notified to them is a growing issue and they are reviewing this process.

Overall Powerco continue to make good progress during the audit period and have demonstrated their commitment to continue to improve. Therefore, whilst the next indicative audit frequency is six months I recommend that their next audit be due in 12 months as the issues with a high score are already being worked on and these need sufficient time to resolve and little will be gained by conducting the audit earlier.

I thank Ana and the team for their input into this audit.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1)	Initial energisation date not taken from the energisation paperwork but uses the meter certification date instead	Weak	Low	3	Investigating
Participants may request distributors to create ICPs	3.2	11.5(3)	1 ICP not created within three days	Strong	Low	1	Identified
Timeliness of Provision of ICP Information to the registry	3.4	7(2) of Schedule 11.1	Registry not updated prior to commencement of trading in some cases.	Moderate	Low	2	Identified
Timeliness of Provision of Initial Energisation Date	3.5	7(2A) of Schedule 11.1	Late population of initial energisation date for some ICPs	Weak	Low	3	Identified
Connection of ICPs	3.6	11.17	Some ICPs electrically connected prior to having a “trader” nominated on the registry	Moderate	Low	2	Investigating
Electrical connection of ICPs	3.7	10.28(7)	Some ICPs electrically connected prior to retailer accepting responsibility and therefore before the request to electrically connect has not been given	Moderate	Low	2	Investigating
Electrical connection	3.8	10.31	Some ICPs electrically	Moderate	Low	2	Investigating

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
of ICP that is not an NSP			connected prior to retailer accepting responsibility and therefore before the request to electrically connect has not been given				
Changes to registry information	4.1	8 Schedule 11.1	Registry event updates backdated greater than three days Change of NSP for 954 ICPs not updated within the required timeframe	Moderate	Low	2	Investigating
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	Some historic incorrect NSPs recorded against a potential 535 ICPs	Strong	Medium	2	Identified
ICP location address	4.4	2 Schedule 11.1	10,710 ICPs with addresses that are either duplicated or not readily locatable	Strong	Medium	2	Identified
Distributors to Provide ICP Information to the Registry	4.6	7(1) Schedule 11.1	Distributed generation connected without being recorded in the registry Initial energisation dates derived from meter certification and not energisation records Some incorrect unmetered load descriptions recorded (maximum of 23)	Weak	Medium	6	Investigating
Future Risk Rating						27	
Indicative Next Audit Frequency						6 months	

RECOMMENDATIONS

Subject	Section	Description	Recommendation
		Nil	

ISSUES

Subject	Section	Description	Issue
		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

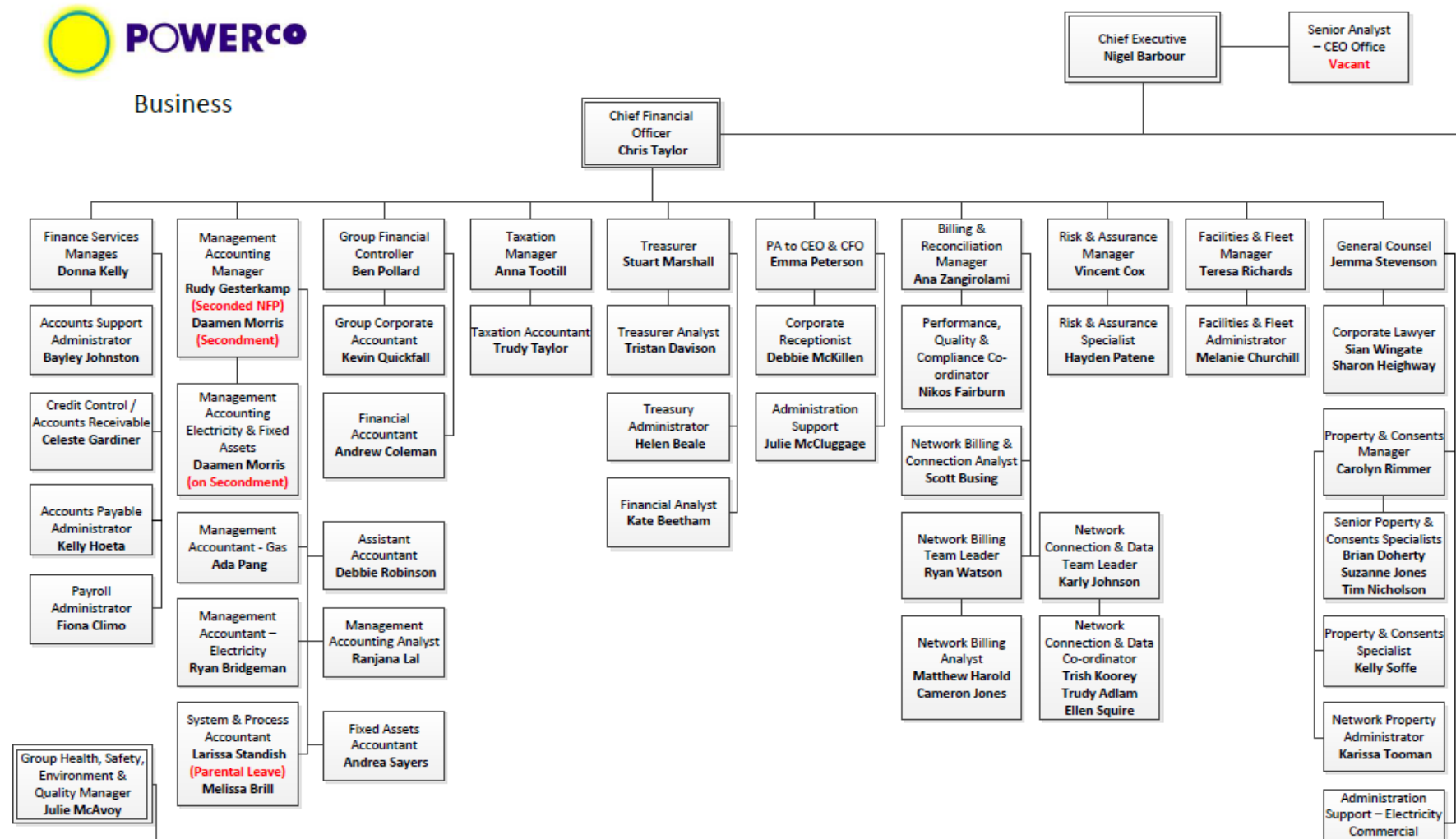
Powerco has no exemptions in place that are relevant to the scope of this audit.

Audit commentary

N/A

1.2. Structure of Organisation

Powerco provided a copy of their organizational structure. I relevant section is detailed below:



1.3. Persons involved in this audit

Auditor:

Rebecca Elliot

Veritek Limited

Electricity Authority Approved Auditor

Powerco personnel assisting in this audit were:

Name	Title
Ana Zangirolami	Billing and Reconciliation Manager
Nikos Fairburn	Performance, Quality and Compliance Coordinator
Karly Johnson	Network Connections and Data Team Leader
Janice Goding	Customer Works Coordinator

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

Powerco provided the list below of sub-contractors authorised to perform energisation activities on their networks

Audit commentary

Taranaki

- A J Greaves Electrical Limited 06 278 2020
- Electrix 06 353 3555
- Obertech Limited 06 278 4514
- Downer Taranaki/Manawatu 0800 33 99 77
- NPE-Tech Ltd Taranaki 06 758 7755

Whanganui

- Electrix 06 353 3555
- Alf Downs Ltd 06 327 0017
- Downer Whanganui 0800 33 99 77
- Scanpower Limited 06 323 2018
- C&J Contracting (2011) Ltd 06 856 5744

Manawatu

- Electrix 06 353 3555
- Alf Downs Limited 06 327 0017
- Scanpower Limited 06 323 2018
- Downer Taranki/Manawatu 0800 33 99 77
- NPE-Ltd Taranki 06 758 7755
- C&J Contracting (2011) Ltd 06 856 5744
- Max Tarr Ltd 0800 363 888
- Couchmans Electrical 06 354 1142

Wairarapa

- Power Related Services 06 377 0126
- Poltech Power Works Ltd 06 306 6150
- Downer Masterton 0800 33 99 77
- Scanpower PoLimited 06 323 2018
- C&J Contracting Ltd (2011) Ltd

Tauranga

- Northpower Papamoa 07 542 9310
- Downer Tauranga 0800 33 99 77
- NPE-Tech Ltd Tauranga 07 578 1424 or 027 438 4374
- Electrical Inspection Limited 027 246 7732
- Horizon Services Limited 07 307 2500
- Switch Electrical 07 571 3429
- Accord Electrical Inspections 0274 748 191
- Kaimai Electrical Inspections Limited

Waikato and Coromandel

- Northpower Hamilton 07 846 9760
- Northpower Hamilton 07 888 4326
- Downer Thames 0800 33 99 77
- NPE-Tech Ltd Tauranga 07 578 1424 Metering Solutions 07 884 4222
- Ross Walker 07 866 5681
- McKay Ltd 07 850 4264
- Kaimai Electrical Inspections Limited 07 549 2988

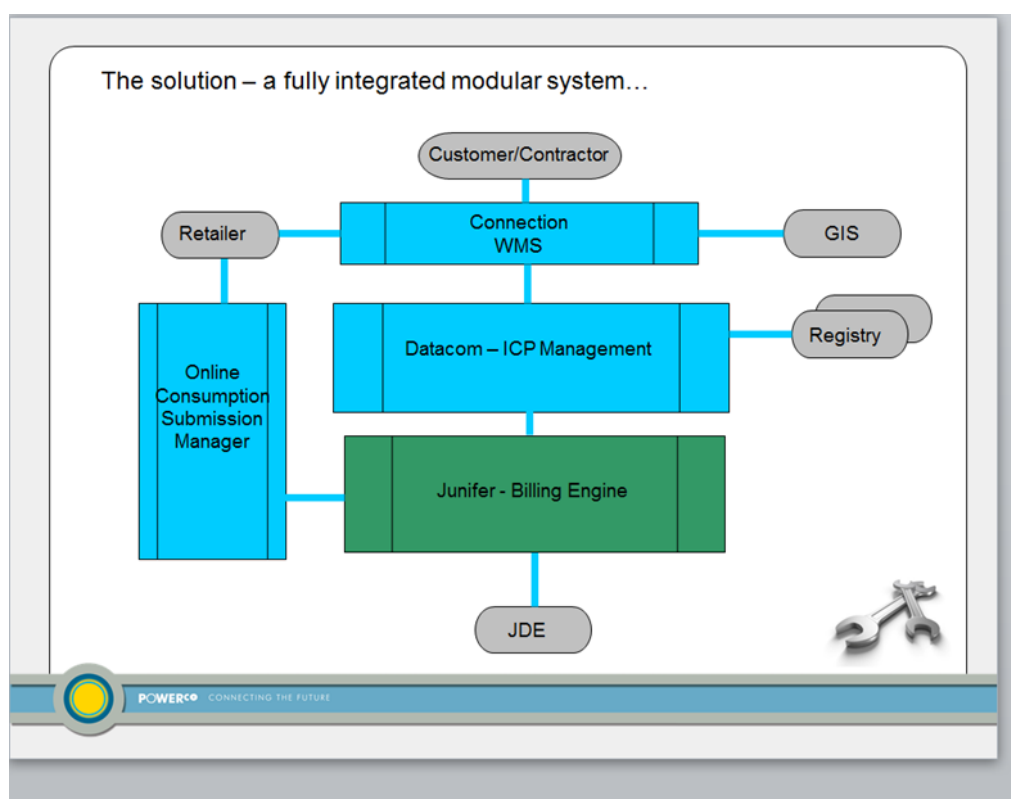
1.5. Supplier list

Powerco has provided the list in **section 1.4** of sub-contractors authorised to perform livening activities on their network.

1.6. Hardware and Software

Powerco provided the following information in relation to hardware and software:

Powerco's system remains unchanged since the last audit. It consists of an online submission portal that Contractors access directly called Customer Initiated Works (CIW) system and a customer workflow management system (CWMS). This is set out in the diagram below:



Back-ups are carried out on a daily, weekly and monthly basis for all systems.

1.7. Breaches or Breach Allegations

Powerco has not had any breach allegations recorded by the Electricity Authority during the audit period.

1.8. ICP and NSP Data

Powerco owns and manages electricity networks in the following regions: Coromandel, Western Bay of Plenty, Hauraki Plains, North East Waikato, South Waikato, Taranaki, Wanganui, Rangitikei, Manawatu and Wairarapa.

The table below lists the relevant NSPs and their associated balancing areas:

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
POCO	BPE0331	BUNNYTHORPE			BA4WESTPOCOG	G	1/05/2008	43,181
POCO	BRK0331	BRUNSWICK			BA3WESTPOCOG	G	1/08/2016	12,126
POCO	CST0331	CARRINGTON ST			BA1WESTPOCOG	G	1/05/2008	18,310
POCO	GYT0331	GREYTOWN			BA6WESTPOCOG	G	1/05/2008	6,881
POCO	HIN0331	HINUERA			BA5EASTPOCOG	G	1/05/2008	11,002
POCO	HUI0331	HUIRANGI			BA1WESTPOCOG	G	1/12/2008	10,095
POCO	HWA0331	HAWERA			BA2WESTPOCOG	G	1/05/2008	9,189
POCO	KIN0112	KINLEITH			KIN0112POCOG	G	20/05/2013	1
POCO	KIN0331	KINLEITH			BA2EASTPOCOG	G	1/05/2008	6,613
POCO	KMO0331	Kaitemako			BA1EASTPOCOG	G	1/04/2009	8,382
POCO	KPU0661	KOPU			BA3EASTPOCOG	G	1/05/2008	24,438
POCO	LTN0331	LINTON			BA4WESTPOCOG	G	1/05/2008	16,465
POCO	MGM0331	MANGAMAIRE			BA5WESTPOCOG	G	1/05/2008	4,262
POCO	MST0331	MASTERTON			BA6WESTPOCOG	G	1/05/2008	17,610
POCO	MTM0331	MT. MAUNGANUI			BA1EASTPOCOG	G	1/05/2008	24,259
POCO	MTN0331	MARTON			BA3WESTPOCOG	G	1/05/2008	6,092
POCO	MTR0331	MATAROA			BA3WESTPOCOG	G	1/05/2008	2,781
POCO	NPL0331	New Plymouth			BA1WESTPOCOG	G	1/07/2010	8,928
POCO	OKN0111	OHAKUNE			BA3WESTPOCOG	G	1/05/2008	1,192
POCO	OPK0331	OPUNAKE			BA2WESTPOCOG	G	1/05/2008	3,037
POCO	PAO1101	PIAKO 110KV			BA5EASTPOCOG	G	24/07/2012	7,517
POCO	SFD0331	STRATFORD			BA1WESTPOCOG	G	1/01/2015	8,282
POCO	TGA0111	TAURANGA			BA1EASTPOCOG	G	1/05/2008	12,210
POCO	TGA0331	TAURANGA			BA1EASTPOCOG	G	1/05/2008	29,465
POCO	TMI0331	TE MATAI			BA1EASTPOCOG	G	1/05/2008	8,454

POCO	WGN0331	WANGANUI			BA3WESTPOCOG	G	1/08/2016	9,828
POCO	WHU0331	WAIHOU			BA5EASTPOCOG	G	1/05/2008	5,089
POCO	WKO0331	WAIKINO			BA4EASTPOCOG	G	1/05/2008	16,081
POCO	WVY0111	WAVERLEY			BA3WESTPOCOG	G	1/05/2008	1,332

There are six embedded networks connected to the Powerco network. The details for these are shown in the table below:

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date
AMPC	BSC0011	BAYFAIR SHOPPING CENTRE	MTM0331	POCO	BSC0011AMPCE	E	1/11/2013
CBRE	CFM0011	FMG House	LTN0331	POCO	CFM0011CBREE	E	1/09/2010
KIPT	KPP0011	KIWI PLAZA	BPE0331	POCO	KPP0011KIPTTE	E	1/05/2008
SMRT	TFQ0011	100 TAUPU QUAY WANGANUI	WGN0331	POCO	TFQ0011SMRTE	E	1/07/2017
TENC	TCT0011	TAURANGA CROSSING TAURIKURA DR	TGA0111	POCO	TCT0011TENCE	E	20/07/2016
TUIH	GRE0111	TUIHANA	MTM0331	POCO	PAPAMOATUIHE	E	1/12/2008

Embedded network TFQ0011 has been created during the audit period. This is discussed in **sections 31 and 4.10**.

Powerco provided a list file of all ICPs as at July 2017. A summary of this data by “ICP status” is as follows.

Status	Number of ICPs 2017	Number of ICPs 2016	Number of ICPs 2015
Distributor (888)	64	65	66
New (999)	95	87	92
Ready (000)	170	109	87
Active (2,0)	324,102	319,558	316,342
Inactive- new connection in progress (1,12)	389	316	246
Inactive – vacant (1,4)	7,454	7,755	8,073
Inactive – AMI remote disconnection (1,7)	752	2	2
Inactive – at pole fuse (1,8)	47	11	6
Inactive – de-energised due to meter disconnected (1,9)	39	14	6
Inactive – de-energised at meter box switch (1,10)	8	0	1
Inactive- at meter box switch (1,11)	9	0	2
Inactive – ready for decommissioning (1,6)	3,211	4,724	5,129
Decommissioned (3)	23,107	20,482	19,084

1.9. Authorisation Received

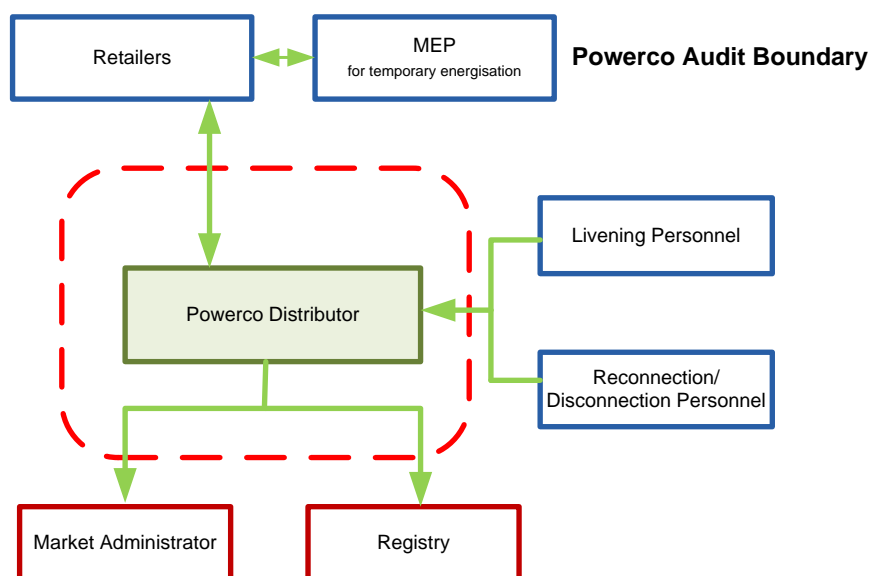
Powerco provided a letter of authorisation to Veritek, permitting the collection of data from other parties for matters directly related to the audit.

1.10. Scope of Audit

This Distributor audit was performed at the request of **Powerco Ltd (Powerco)**, 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 Powerco’s premises in New Plymouth, on August 22 & 23, 2017.

The audit was conducted in accordance with the Guideline for Distributor Audits version 7.1, which was produced by the Electricity Authority.

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



1.11. Summary of previous audit

Powerco provided a copy of the previous audit report, conducted in August 2016 by Rebecca Elliot of Veritek Limited. The findings are detailed in the table below:

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Status
Provide Complete and Accurate Information	1.7	11.2 of part 11	Incomplete load details recorded for shared unmetered load.	Still existing
Provision of ICP Info	2.3	11.7 of part 11 & 7(2) of schedule 11.1	Registry not updated prior to commencement of trading in some cases.	Still existing
Connection of ICPs	2.4	11.17(2) of part 11	Retailer not recorded as accepting responsibility prior to energisation.	Still existing
Monitoring of "New" & "Ready"	2.8	15 of schedule 11.1	5 ICPs at "new" status missed from the monitoring process.	Cleared
Changes to Registry	3.1	8, 14 & 20 of schedule 11.1	Some price, network and address changes backdated more than 3 business days.	Still existing
NSP for Each ICP	3.2	7(4),(5) & 8(3) of schedule 11.1	25 ICPs mapped to the incorrect NSP	Cleared
Location Address	3.5	2 & 7(1)(a) of schedule 11.1	18,322 addresses that are not readily locatable.	Still existing

Subject	Section	Clause	Non-compliance	Status
Initial Energisation Date Population	3.7	7(1)(p) & (2A) of schedule 11.1	Incorrect initial energisation date populated. 1,417 active ICPs with no initial energisation date populated.	Still existing Cleared
Changes to Shared Unmetered Load	6.3	11.14(2),(4) & (5) of part 11 & 7(1)(m)&(n) of schedule 11.1	Ballast wattage not included in the shared unmetered load.	Cleared

Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Remedial Action
Provision of Information to the Registry	3.4	7(1)(o) of schedule 11.1	Use the PR255 report from the registry to identify any HHR reconciled ICPs with Distributed Generation recorded but not known to Powerco.	Cleared
Initial Energisation Date Population	3.7	7(1)(p) & (2A) of schedule 11.1	Require the PAC to provide Powerco with the initial energisation date as part of the closing on the CWN process.	Still existing
Details of Unmetered Load	6.1	7(1)(m) of schedule 11.1	Update TCC DUML ICPs to note these are master ICPs for this council.	Cleared
			Potential NZTA DUML load not being submitted for in all instances for Matamata Piako and Palmerston North. Recommend that Powerco liaise with Genesis (NZTA Retailer), Contact (PNCC retailer) and Mercury (Matamata Piako) to confirm these loads are being reconciled.	Still existing
			Powerco to liaise with Contact (PNCC retailer) to confirm if PNCC load is being reconciled to the correct NSPs.	With retailer to investigate

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

Powerco's data management processes were examined. The list file as at 31 July, 2017, was examined to confirm compliance.

Audit commentary

Powerco have robust processes as described in **Section 2.2** to manage registry discrepancies.

Powerco's use of the meter certification as the record of the initial energisation date is not necessarily accurate. This information should be taken from the energisation paperwork. In other Distributor audits where they carry out energisation I have found instances where the BTS supply is not being recorded on the registry and the permanent supply is the first meter to be recorded on the registry. If this is occurring on the Powerco network this will not be identified. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 2.1</p> <p>With: 11.2(1)</p> <p>From: 01-Jul-16</p> <p>To: 30-Jun-17</p>	<p>Initial energisation date not taken from the energisation paperwork but use the meter certification instead.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>I have rated the controls as weak as Powerco rely on the MEP and have no visibility of the actual energisation date of ICPs</p> <p>I have rated the audit risk rating as low as the initial energisation date has no direct impact on settlement</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Powerco believes the meter certification date is generally the most reliable source for this information, as the same contractor is often installing the meters is electrically connecting the ICP.			Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>We will investigate the development of new monitoring tools to sanity check the IED, and where discrepancies arise, we can investigate the accuracy of this date.</p> <ol style="list-style-type: none"> 1. Creating separate "ICP jobs" linked to the "Network Construction job" in CIWE for a given connection for larger works. This means the ICP WCN is not dependant on the full completion of the Network Construction job. 2. Review and follow up with contractors from the monthly WCN reports, where there are timeframes in excess of 3 working days. 3. Contractor education about Initial Energisation Date vs Works Completed Dates <p>Powerco to reassess what is the appropriate source of the Initial Energisation</p>		<p>March 2018</p> <p>Implemented Mid 2017</p> <p>March 2018</p> <p>March 2018</p>	

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

Powerco's data management processes were examined. The list file as at 31 July, 2017, was examined to confirm compliance.

Audit commentary

Powerco have daily error reports that are reviewed and any errors corrected. In addition to this they undertake a monthly validation of their database against the registry. This is checked for data mismatches with the registry and the relationship between data e.g. does the price and loss codes align. Any errors are corrected as soon as possible.

Audit outcome

Compliant

3. CREATION OF ICPS

3.1. Distributors must create ICPs (Clause 11.4)

Code reference

Clause 11.4

Code related audit information

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

Audit observation

The new connection process was examined in detail and is described in **section 3.2** below. Ten new connection applications of the 5,543 ICPs created were checked from the point of application through to when the ICP was created. The creation of LE ICPs for the connection of embedded networks to Powerco's network was also examined.

Audit commentary

Powerco creates ICPs as required by clause 1 of schedule 11.1. The sample checked confirmed that they were created compliantly.

The distributor is responsible for creating the ICP for the point of connection for an embedded network to its parent network. One new embedded networks were created during the audit period. TFO0011 embedded network started on 1/7/17. The LE ICP 1000568298PC5B0 was created on 19/6/17 at "new" and then updated to status "Distributor" (888) in alignment with the network start date of 1/7/17.

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

Audit observation

The new connection process was examined in detail. Five new connection applications of the 5,543 ICPs created during the audit period were checked from the point of application through to when the ICP was created. These were selected using the typical characteristic methodology to confirm the process and controls worked in practice. The event detail report for the six months of January -July 2017 was examined for backdated ready statuses. A sample of ten of these were checked to confirm if these were backdated created ICPs. These were selected using the typical characteristic methodology.

Audit commentary

ICP requests are received directly from customers or their agents. ICPs are created at “Ready” once the retailer has confirmed acceptance, unless network build is required. In these cases, the ICP will be created at “New” and moved to “Ready” once the field work is confirmed to be complete. ICP applications can be made “on line” via the “Customer Initiated Works System” (CIW). This allows retailers or their agents to track the progress of ICPs in situations where engineering work is required.

The sample of ICP requests checked and found that all ICPs were created within three days of the retailer’s acceptance of the ICP except for ICP 1000561272PC13B which was delayed due to an incorrect flag being set in the Powero system. This was due to human error and was the only example found of this happening and not a systemic issue.

None of the backdated “ready” status ICPs related to the ICP not being created within three business days of the Retailers request.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 With: 11.5(3) From: 30-Sep-16 To: 01-Aug-17	1 ICP not created within three days Potential impact: None Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Powerco’s system has robust controls in place. The one late ICP creation was an exception hence controls are rated as strong. The audit risk rating is low as only one ICP was affected.		
Actions taken to resolve the issue		Completion date	Remedial action status
Daily report has been created to reduce the risk of the ICP request being delayed, where incorrect/missing flags in Customer Initiated Works system are the cause.		25/08/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As above, a daily report has been created that reduces the likelihood of human error creating delays in ICP creation.		25/08/2017	

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

The new connection process for populating all required registry fields was examined. The list file was examined for all ICPs created during the audit period.

Audit commentary

The process for updating the registry is automated for all fields. Validation occurs within the database to ensure mandatory fields are populated. All had the correct information populated as required by this clause.

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

The new connection process was examined. The event detail report for the period from January through to June 2017 was examined. 4,327 ICPs were made “Ready” during that period. 4,135 (96%) were updated on the registry within three business days. This is an improvement from the 92% recorded in the 2016 audit report. 170 ICPs were updated to the “Ready” status after three business days. A sample of ten of these that had not been updated to the status “Ready” for 30 days or more were checked using the extreme case methodology.

Audit commentary

The registry is updated daily and a check is undertaken to confirm that the file has been processed.

The sample checked found that nine ICPs were created at the “New” status. ICPs are at this status if the trader has not accepted the ICP or there is network extension work required. Where a network extension is required, Powerco are reliant on the contractor advising when this work is complete and the retailer accepting the nomination before they will update the ICP status to “Ready” on the registry therefore if the trader delays this process then the registry update will be delayed. All were updated after electricity had commenced being traded. The sample checked found that these were delayed due to:

- The late advice from the field contractor that the network work had been completed for four ICPs
- Incorrect dates advised from the field for three ICPs so these were corrections to the “ready” date

- Late acceptance of the ICP by the nominated trader for two ICPs
- The ICP being “decommissioned -set up in error” and is therefore compliant

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.4 With: 7(2) of Schedule 11.1 From: 01-Jan-17 To: 30-Jun-17	Registry not updated prior to commencement of trading in some cases. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Delays from external parties are causing delays therefore I have rated the controls as moderate. The overall level of compliance is high hence the number of ICPs affected will have a minor impact on settlement hence the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Powerco has notified participants & stakeholders of the importance of accepting responsibility for the ICP (Retailer Acceptance process) and not electrically connect an ICP prior to ICP being “Ready”.			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Powerco has a monthly report that monitors the performance of Powerco Approved Contractors, this includes monitoring timeframes for job completion. - Review and follow up with contractors from the monthly reports, where there are timeframes in excess of 3 working days. - Educate contractors about Initial Works Completed Date- - Work closely with all stakeholders to ensure there is a clear understanding of all involved to provide information in a timely manner.		March 2018 March 2018	

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 subclause (1)(p) to the registry no later than 10 business days after the date on which the ICP is initially energised.

Audit observation

The process for populating of the initial energisation date was examined. The event detail report for the period from January through to June 2017 was examined. A sample of ten ICPs updated later than ten business days were examined using the extreme case methodology.

Audit commentary

Powerco's new connection process remains unchanged from the previous audit. They do not physically carry out energisation on their network. This is carried out for retailers by Powerco approved contractors. The CWMS system uses the MEP's meter certification date to populate the initial energisation date. This makes them wholly reliant on the MEP to populate this information to the registry.

Up until December 2016 Powerco's system would update an initial energisation date for any meter certification populated regardless of whether this was a new connection or a recertification. Due to this issue, the EDA has recorded 7,468 ICPs with an initial energisation date populated during this period. I have matched these to newly connected ICPs and identified 3,901 of these updates relate to genuine initial energisation date updates. Of these 3,529 (90%) were populated within ten business days. The sample updated late checked found all but one was updated late. ICP 1000562957PC0CF was a change of NSP and not an initial energisation date update.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.5</p> <p>With: 7(2A) of Schedule 11.1</p> <p>From: 01-Jan-17</p> <p>To: 31-Jul-17</p>	<p>Late population of initial energisation date for some ICPs</p> <p>Potential impact: None</p> <p>Actual impact: None</p> <p>Audit history: None</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Powerco rely on the MEP to populate the meter certification date means controls are weak for this process.</p> <p>This has no direct impact on submission hence the audit risk rating is low</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Daily reporting to ensure IED has been populated in the registry. Additional manual checks of registry are made.		Completed	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>1. Analysis of actual IED in the field, using contractors who do both metering installation and network connection, to determine the accuracy of the various dates for each part of the connection process</p> <p>2. Creating separate "ICP jobs" linked to the "Network Construction job" in CIWE for a given connection for larger works. This means the ICP WCN is not dependant on the full completion of the Network Construction job. This change has already started to be implemented.</p> <p>3. Review and follow up with contractors from the monthly WCN reports, where there are timeframes in excess of 3 working days.</p>		<p>March 2018</p> <p>Implemented Mid 2017</p> <p>March 2018</p>	

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. The event detail report for the period from January through to June 2017 was examined. The list file was examined to confirm that all ICPs at the status of “ready” have a trader nominated.

Audit commentary

The new connections process has a “trader responsibility” step. This process is fully automated in the Customer Initiated Works system so a new connection can only proceed if a retailer accepts responsibility. All ICPs at the “Ready” status in the list file have a nominated trader recorded.

Powerco does not energise ICPs. All energisation activities are performed at the request of traders by contractors authorised by both parties. As discussed in **section 3.4**, 170 ICPs were not updated to the “Ready” status within three business days. The sample checked found that nine of the ten checked were electrically connected before a trader was recorded in the registry.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: 11.17 From: 01-Jan-17 To: 30-Jun-17	Some ICPs electrically connected prior to having a “trader” nominated on the registry Potential impact: None Actual impact: None Audit history: Multiple Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Delays from external parties are causing delays therefore I have rated the controls as moderate. The overall level of compliance is high hence the number of ICPs affected will have a minor impact on settlement hence the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Affected ICP resolved prior to audit.		Completed	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Investigate the creation of a “Retailer Acceptance” report to help inform stakeholders of their requirements to accept ICPs before electrically connecting them.		December 2017	

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 new connection process was examined. A registry list was received to identify any new connections of ICPs that are also NSPs.

Audit commentary

The new connections process is designed to include a “retailer responsibility” step. As identified in **Section 3.2**, some ICPs were updated to active after “electrical connection” had occurred and therefore before a trader was recorded in the registry as accepting responsibility and giving authorisation for electrical connection. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.7 With: 10.28(7) From: 01-Jan-17 To: 30-Jun-17	Some ICPs electrically connected prior to retailer accepting responsibility and therefore before the request to electrically connect has not been given. Potential impact: None Actual impact: None Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Delays from external parties are causing Powerco to update the registry late, therefore I have rated the controls as moderate. The overall level of compliance is high hence the number of ICPs affected will have a minor impact on settlement hence the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Communicate with other stakeholders of the importance of the “Retailer Acceptance” step in the new connections process. Investigate the creation of a “Retailer Acceptance” report to help inform stakeholders of their requirements to accept ICPs before electrically connecting them.		December 2017	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Investigate the creation of a “Retailer Acceptance” report to help inform stakeholders of their requirements to accept ICPs before electrically connecting them.		December 2017	

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 relation to ICPs that are not also NSPs to Powerco’s network. All ICPs created during the audit period were checked for a proposed trader on the list file as at August 1st, 2017.

Audit commentary

The new connections process is designed to include a “retailer responsibility” step. As identified in **Section 3.2**, some ICPs were updated to active after “electrical connection” had occurred and therefore before a trader was recorded in the registry as accepting responsibility and giving authorisation for electrical connection. This is recorded as non-compliance.

The list file confirmed that all ICPs at the “Ready” status had a trader nominated.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.8 With: 10.31 From: 01-Jan-17 To: 30-Jun-17	Some ICPs electrically connected prior to retailer accepting responsibility and therefore before the request to electrically connect has not been given. Potential impact: None Actual impact: None Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Delays from external parties are causing delays therefore I have rated the controls as moderate. The overall level of compliance is high hence the number of ICPs affected will have a minor impact on settlement hence the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Communicate with other stakeholders of the importance of the “Retailer Acceptance” step in the new connections process. Investigate the creation of a “Retailer Acceptance” report to help inform stakeholders of their requirements to accept ICPs before electrically connecting them.		December 2017	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Work with stakeholders to highlight areas that can be improved and the importance of having approval to electrically connect before livening. Investigate the creation of a “Retailer Acceptance” report to help inform stakeholders of their requirements to accept ICPs before electrically connecting them.		December 2017	

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 5 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 examined and found no new NSPs have been created by Powerco and are not expected to be in the near future.

Audit commentary

N/A

Audit outcome

Not applicable

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. This was checked as part of the other new connection ICPs checked detailed in this section.

Audit commentary

All ICPs are created in the appropriate format. The sample checked confirmed compliance.

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

Audit commentary

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

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 new connection process was examined. The list and event detail files were examined in relation to the use of the “New” status.

Audit commentary

As discussed in **section 3.2**, ICPs are only be created at the “New” status if there is some network build required to connect them to the network.

There are 95 ICPs at the “New” status in the list file and none have been at this status for more than 24 months.

As discussed in **section 3.4**, the EDA analysis found no ICPs at the “New” status that were backdated created. Those that require network build were created at “new” within three business days.

Audit outcome

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 management of ICPs at the “new” and “ready” statuses was examined. The list file as at 1/08/17 was examined.

Audit commentary

There is a process in place to routinely report on these ICPs and communicate with the relevant traders. There were no ICPs that have been at the “New” status and one at the “Ready” status for more than 24 months. This list is actively managed by Powerco with the Retailers. ICP 1000554403PC829 is an unmetered load with Contact as the nominated trader. The customer has advised the Meridian should be the nominated trader. Powerco are working with Meridian to resolve this.

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

This requirement was discussed and the list file was examined.

Audit commentary

The list file was analysed and all five ICPs with greater than 10MW generation capacity have a unique loss category.

Audit outcome

Compliant

4. MAINTENANCE OF REGISTRY INFORMATION

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

Code reference

Clause 8 Schedule 11.1

Code related audit information

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

Notification must be given by the distributor within 3 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 8 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 process to manage ICP changes were examined. The event detail report for the audit period from January through to June 2017 was examined. I used the extreme case methodology examining a sample of ten late updates or less if there were fewer for any change where the initial analysis could not determine the cause.

NSP changes were examined.

Audit commentary

Updates to ICPs are received from traders daily. Each is assessed and once confirmed they are updated in CWMS which then writes the change to the registry. Powerco's system updates to the registry once daily.

The EDA file was examined with the following findings:

- 1,977 ICPs were decommissioned. 1,466 (74%) of these were updated within three business days. The remaining 511 ICPs (26%) were updated greater than three business days. Powerco continue to work through the historic backlog of ICPs that are at the status "Inactive – Ready for Decommissioning" (1,6). This is discussed further in **section 4.11**.
- 10,166 address events. 10,115 (99.4%) of these were updated within three business days. 51 of these were backdated by more than three business days. The sample checked found eight were due to the ICP being decommissioned. The remaining two related to a backdated new connection and a manual address update in the registry where the event date wasn't updated.
- 4,508 Network Events. This excludes the population of the initial energisation date which is discussed in **section 3.5**. 1,558 (36%) of these were updated within three business days. The remaining 2,950 (64%) were backdated greater than three business days. Analysis of these found:
 - 355 of these were to update the distributed generation details.
 - Three of these were to update the unmetered load details.

- A change of NSP from CST0331 to HUI0331. This is required to be updated within eight days from the 15th day after the change. Some ICPs were omitted due to an incomplete list of transformers in the internal notification process therefore the ICPs affected were not updated until 16 days after the change. This affected 954 ICPs.
 - Three were NSP changes that were completed in the required timeframe. These are compliant.
 - A sample was checked for the backdating of the remaining 1,635 ICPs and I found these all related to Powerco's system automatically updating the registry with an initial energisation date once the MEP loads this to the registry. In these cases, the MEP had backdated their update. Powerco's system was changed in December 2016 to stop this occurring for any existing ICPs and no evidence of this occurring was found post December 2016.
- 33,233 price code changes were made. 30,418 (92%) of these were updated within three business days. 690 (8%) of those were backdated by more than three business days. Powerco's approach remains unchanged. They don't generally backdate but will at the request of retailers' in the following instances:
 - Price code correction.
 - As obliged by some of the existing use of system agreements that allow for pricing to be backdated up to 14 months.
 - For residential customers, these are generally handled in a bulk update, typically monthly which may result in some backdated price code changes.

I note that Powerco will always backdate to the actual date of a change to comply with Section 11.2 of Part 11 "to provide complete and accurate information" but in these instances, this makes them technically non-compliant with this clause.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.1 With: 8 Schedule 11.1 From: 01-Jan-17 To: 30-Jun-17	Registry event updates backdated greater than three days 954 ICPs change of NSP not updated within the required timeframe Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	I have rated the controls as moderate as the controls in place will mitigate the risk most of the time. There is a potential minor impact on settlement, hence the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
<p>Network Connections and Data team to continue to work improving the timeliness of updates to registry. Powerco is obliged to provide complete and accurate information to registry and in some instances by doing so cannot comply with the timeframes prescribed in the code.</p> <p>The process for NSP Balance Changes has updated. Within this new process information is now being distributed in a more timely manner.</p> <p>At the request of retailers, and for the benefit of customers, Powerco will back date a price category changes. Powerco and retailers are bound by UoSA to backdate and/or make corrections to price category which works well with revision billing.</p>	In place	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>NSP switching notification process between Network Operations and the Network Connections and Data team has been reviewed, and a new process has been implemented to reduce the likelihood of this incident being repeated.</p> <p>Continual communication and education with all stakeholders involved that have an effect on the timing of registry updates.</p> <p>In regards to delays being the result of late paperwork for Customer Works, that have an impact on registry transactions:</p> <p>1. Analysis of actual IED in the field, using contractors who do both metering installation and network connection, to determine the accuracy of the various dates for each part of the connection process</p> <p>2. Create separate “ICP jobs” linked to the “Network Construction job) in CIWE for a given connection for larger works. This means the ICP WCN is not dependant on the full completion of the Network Construction job. This change has already started to be implemented.</p> <p>3. Review and follow up with contractors from the monthly WCN reports, where there are timeframes in excess of 3 working days.</p> <p>4. A new process for the processing of distributed generation applications is being implemented; however this will still not address the industry-wide issue of installers acting without distributor approval at private residences.</p>	<p>March 2018</p> <p>Implemented mid 2017</p> <p>March 2018</p> <p>March 2018</p>	

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 new connection process was examined and is described in detail in **Section 3**. I ran a concatenate query across the list file supplied. A sample of ten roads were checked using the extreme case methodology by looking for roads that have less than 3 ICPs and less than 10% allocated to an NSP.

Audit commentary

Powerco's system is directly linked to the GIS system so the likelihood of this occurring is greatly reduced. The concatenate query found 535 ICPs with potentially miss mapped NSPs across 303 different roads. A sample of ten were checked. These were checked and found to be mapped to the incorrect NSP. These were all historic.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.2 With: 7(1),(4) and (5) Schedule 11.1 From: 01-Jul-16 To: 30-Jun-17	Some historic incorrect NSPs recorded against a potential 535 ICPs Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Medium	I have rated the controls as strong as this is an historic issue and current controls in the creation of ICPs prevent this occurring. I have rated the audit risk rating as medium due to the number of potentially mismapped ICPs identified across multiple NSPs and balancing areas which if found to be incorrect will have an impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Powerco has analysed all ICPs provided by Veritek. 218 of the ICPs suspected were on the correct NSP. 305 are incorrect on registry, of which 138 have now been fixed. 12 need to be investigated because of their Geolocation. All ICPs found with during the audit were the result of old legacy issues with old data, that had not been found since acquisition of older networks and various data migrations. For any new ICPs it is not possible for NSP to be incorrect on an ICP due to our strong system based controls.		In place	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Ongoing data cleansing project to fixing legacy issues and NSP validation to ensure NSPs recorded in registry are correct.		March 2018	

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

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

Audit observation

The management of customer queries was examined.

Audit commentary

Powerco does receive direct requests for ICP identifiers and these are provided immediately.

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 manage address accuracy was examined and the list file was analysed. The list file was checked to confirm ICP location addresses are readily locatable.

Audit commentary

The ICP creation process flags to the user as the ICP is created, that there is a duplicate address potentially.

Powerco have continued to work on reducing these during the audit period. This has resulted in a reduction of 4,329 ICPs with duplicate addresses and 280 ICPs which previously had no street number or property name recorded.

	2017	2016	2015	Difference
Duplicate addresses	8,973	13,302	16,089	-4,329
Addresses without street number or property name	1,733	2,013	2,233	-280
New connections with duplicate addresses	4	0	2	+6

The four ICPs that were created during the audit period were due to human error and are not indicative of a systematic issue.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: 2 Schedule 11.1 From: 01-Jul-16 To: 30-Jun-17	10,710 ICPs with addresses that are either duplicated or not readily locatable Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Strong Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls are rated as strong as only four ICPs created during the audit period (0.08%) had duplicated addresses. The audit risk rating is medium as the volume of ICPs that are not readily locatable is still large and this can have a direct impact on the retailer's ability to read, disconnect and reconnect these sites.		
Actions taken to resolve the issue		Completion date	Remedial action status
Powerco is currently undertaking a large address cleansing project to resolve duplicate and incomplete addresses. Over the last year having resolved over 5000 address non-compliance issues, the team is committed to resolving the history address non-compliances.		October 2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
System validation is already in place. In the rare event that a non-compliant address is event is sent to registry, it will be captured up by Powerco exception reporting.		In place	

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

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

Audit commentary

Powerco's "Electricity Network Connection Standard" provides clear instruction on this matter. In addition, Powerco has established a regular communication mechanism with contractors, and this issue forms part of that communication. All new connection applications (Customer Works Management System or "CWMS") require a "concept design" which is reviewed by the Asset Management Group; any issues related to compliance with this rule would be identified and addressed at this stage. This process has not changed since the previous audit.

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 new connection and updating of ICP information processes for populating all required registry fields was examined. The list file was examined to check for the population of all required information and its alignment with the trader where appropriate e.g. Distributed generation, unmetered load if known and shared unmetered load. A sample of five variances of unmetered load variances were checked using the typical case methodology. A sample of ten variances were checked for initial energisation dates and distributed generation due to the volume of variance identified.

Audit commentary

Distributed Generation

The list file was analysed and found 2,404 ICPs with embedded generation. This is an increase from the 1,554 recorded in 2016 and the 975 recorded in 2015. All have fuel type and capacity populated. All have the correct installation type of "B" or "G".

Applications for distributed generation are managed via a master spreadsheet in the customer information team. Applications can come from the customer or the customers agent. Applications are approved via the customer information team. A copy of the application is then sent to the PAC (Powerco Approved Contractor) and the customer or the customers agent. They are then expected to liaise with the PAC to complete the installation and advise Powerco but there are many instances where the electrician will complete the installation and does not liaise with the PAC. Therefore, distributed generation is being connected without Powerco's knowledge. Powerco have put reporting in place to identify these installations where possible. The report looks for any instances where the Retailer has a profile that suggests distributed generation has been installed or where there are meters with an injection channel recorded on the registry. Any with missing information are being investigated. A check of the list file identified 240 active ICPs with an injection channel indicated by the MEP and/or a profile indicating generation is present. The sample checked found:

- Confirmation of installation has been received for five ICPs. These have been updated on the registry since the list file was provided.
- Two ICPs are cell sites and these are unlikely to have distributed generation installed. This is likely to have the incorrect channel direction recorded on the registry.
- Two ICPs have not provided the COC but injection has been indicated in the EIEP file.
- No application has been received for ICP 0000900537TUC27.

Powerco continue to investigate the ICPs being identified from their reporting. The management process for the capturing of distributed generation is under review.

Initial Energisation Date

The system logic for the population has been reviewed during the audit period. The previous issue of all meter certifications populating an initial energisation date was corrected in mid-December 2016. Examination of the list file found no evidence of this occurring post the fix being deployed.

The last audit found not all initial energisation dates were being populated. This was found to be a system bug and a bulk upload in December was carried out to correct this. Powerco have put reporting in place to identify any new active ICPs with no initial energisation date recorded made active. This is part of the BAU registry discrepancy process.

The list file was analysed and found 4,829 new ICPs made active during the audit period. 25 of these had no initial energisation date populated. A sample of five of these were checked and found that these had been updated since the list file was drawn down.

I checked the accuracy of the initial energisation date against the active date and meter certification date from the EDA and found:

3,902 ICPs with both initial energisation date populated and active date. Of these:

- 3,787 (97%) had matching dates
- 115 (3%) had a different active date. A sample of ten of these were checked and found none were new connections and the initial energisation date had been incorrectly recorded due to a meter change. These were all recorded prior to the system fix. No evidence of this occurring post December 2016 was found.

Powerco use of the meter certification results in a high rate of matching dates of active but this should be taken from the energisation paperwork. In other Distributor audits where they carry out energisation I have found instances where the BTS supply is not being recorded on the registry and the permanent supply is the first meter to be recorded on the registry. If this is occurring on the Powerco network this will not be identified. The use of the meter certification date as the initial energisation date is recorded as non-compliance.

Unmetered Load

The population of the registry is still manual for this field. There have been 20 ICPs with unmetered load created since the last audit. All have the correct unmetered load details load recorded against them in the recommended format.

Analysis of the list file found three ICPs where Powerco have an unmetered load recorded but the trader has none. I cannot determine who is correct. Powerco are liaising with the retailers concerned to resolve this.

The unmetered loads were compared where the load is in the recommended format. This found 585 ICPs where the load can be calculated and found that 562 (96%) matched. 23 ICPs had loads that varied.

These are being worked through by Powerco. The sample checked found three ICPs were incorrect as the ballast was missing from the calculation and the remaining two ICPS, Powerco's load was correct:

ICP	Powerco load description	Powerco Daily kWh	Retailer Daily kWh	Notes
0033050000WRD13	9 x 150 Watt Railway Station Lighting	16.2	9.07	Ballast missing is from the load description and therefore load calculation. Load calculation should be 19.76 kWh
0036810007PCADE	250 WATTS 2X STREETLIGHTS	6	6.4	Ballast missing is from the load description and therefore load calculation. Load calculation should be 19.76 kWh
1000542398PCB39	0150;12; 1 x 150w sodium fitting	1.8	2	Ballast missing is from the load description and therefore load calculation. Load calculation should be 2.2 kWh
1000554259PC4B6	0200;24;200 WATTS COMMS CABINET	4.8	0.24	Powerco load is calculated correctly
1000568089PC95F	0288;12;4x72 watt lighting on bus shelter	3.456	0.29	Powerco load is calculated correctly

Overall Powerco have made excellent progress detailing the unmetered loads "if known" in the required format.

Last year I raised the issue that potentially, there was NZTA lighting not recorded in a database for Palmerston North. Powerco are still working NZTA in the Manawatu area to ensure that all the unmetered street lights are recorded in a database. I also raised an issue that the Palmerston North lights may not be allocated to the correct NSP. This council has changed retailers during the audit period and Veritek will be undertaking this street light audit and this issue will be followed up.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.6</p> <p>With: 7(1) of Schedule 11.1</p> <p>From: 01-Jul-16</p> <p>To: 30-Jun-17</p>	<p>Distributed generation connected without being recorded in the registry</p> <p>Initial energisation dates derived from meter certification and not energisation records</p> <p>Some incorrect unmetered load descriptions recorded (maximum of 23)</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Weak</p> <p>Breach risk rating: 6</p>		
Audit risk rating	Rationale for audit risk rating		
Medium	<p>The controls are rated as the weak as the use of the meter certification date is not necessarily the energisation date and the management of Distributed generation is not capturing all connections in a timely way.</p> <p>Distributed generation has a direct impact on settlement therefore the audit risk rating is medium</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Continue to develop and improve existing processes in order ensure information accuracy and integrity.</p> <p>This includes:</p> <ul style="list-style-type: none"> - DG process improvements (underway) March 2018 - Unmetered load ongoing data cleansing of historic issues (underway) May 2018 - Investigate the creation of a IED Validation report 		May 2018	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>We are about to implement a new DG process that will track and follow up on DG applications.</p> <p>We have also developed more robust reporting to help track any unapproved DG installation on the Powerco network.</p> <p>Contractor education about Initial Energisation Date vs Works Completed Dates</p> <p>Powerco to reassess what is the appropriate source of the Initial Energisation</p>		March 2018	

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 new connection process was examined in detail.

Audit commentary

The price category and chargeable capacity (if any) are known at the time of the ICP being created therefore these are recorded correctly in the first instance. Examination of the backdated price events found none related to new connections.

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

Powerco do not populate GPS co-ordinates therefore this clause was not evaluated.

Audit commentary

N/A

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

The management of ICPs in relation to the use of the "ready" status was examined. The list file and event detail report for January to June 2017 were examined in relation to the use of the "ready" status.

Audit commentary

Powerco creates ICPs at "Ready" for those that do not require any network build to occur and where the nominated Retailer has confirmed their acceptance. A small number of ICPs where network build was required and the paperwork from the field contractor was returned late has caused some ICPs to be energised prior to being made "Ready" on the registry. This is raised as non-compliance in **section 3.5**.

The price category field in Powerco's ICP database contains a "drop down" list, which ensures each ICP can only have a single price category.

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

The management of ICPs in relation to the use of the "distributor" status was examined. The list file and event detail report for the period from January to June 2017 were examined in relation to the use of the "distributor" status.

Audit commentary

Powerco has 64 ICPs which have an ICP status of "Distributor". Nine of these are points of connection between embedded networks and the Powerco network. This includes one new embedded network LE ICP created during the audit period. The LE ICP 1000568298PC5B0 was created on 19/6/17 at "new" and then updated to status "Distributor" (888) in alignment with the network start date of 1/7/17.

The remaining 55 are shared unmetered load parent ICPs. No new Distributor ICPs have been created for shared unmetered load during the audit period. Three have been decommissioned. These all relate to some lights that were thought to be private in the PNCC database but the council has agreed to include these in their database. Shared unmetered load is discussed further in **section 7**.

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 management of ICPs in relation to the use of the “decommissioned” status was examined. The list file and event detail report for the period from January to June 2017 were examined in relation to the use of the “decommissioned” status.

Audit commentary

The analysis of Powerco’s list file shows that there are 3,211 ICPs that are “Ready for decommissioning”. As noted in Section 3.1 above, this number has decreased from 4,720 in 2016. Powerco are continuing to work through the historic ICPs at the pending decommission status. Powerco will always record the physical date of decommissioning or if this is unknown the date when the site has been confirmed as decommissioned.

Powerco still have the incentive scheme in place that rewards Contractors for the prompt return of paperwork from the field. Whilst Powerco endeavour to update the registry within three days of decommissioning, if the retailer backdates, this in turn causes Powerco to be non-compliant. Non-compliance is recorded in **section 4.1** in relation to the timeliness of updates.

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 2 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

Powerco have created four new price categories during the audit period. These were all notified more than two months of coming into effect.

Audit outcome

Compliant

5. CREATION AND MAINTENANCE OF LOSS FACTORS

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

Code reference

Clause 21 Schedule 11.1

Code related audit information

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

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

A loss category code takes effect on the specified date.

Audit observation

The loss category code table on the registry was examined.

Audit commentary

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

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

If the distributor wishes to replace an existing loss factor on the table 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

All 35 loss category codes have been updated during the audit period. All were updated more than two months before coming into effect.

Audit outcome

Compliant

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

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

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

If the distributor is creating or decommissioning an NSP that is an interconnection point between 2 local networks, the distributor must 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 2 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 on the registry was examined. No NSPs were created or decommissioned during the audit period, therefore this was not assessed as part of this audit.

Audit commentary

N/A

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 2 local networks. In all other cases, the request must be made at least 1 calendar month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period therefore this was not assessed as part of this audit.

Audit commentary

N/A

Audit outcome

Not applicable

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 on the registry was examined. No new balancing areas were created during the audit period, therefore this was not assessed as part of this audit.

Audit commentary

N/A

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 1 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 on the registry was examined. No new NSPs were created during the audit period, therefore this was not assessed as part of this audit.

Audit commentary

N/A

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 3 business days after the change takes effect.

Audit observation

The NSP table on the registry was examined. No balancing areas were changed during the audit period, therefore this was not assessed as part of this audit.

Audit commentary

N/A

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 1 calendar month before the transfer.

Audit observation

The NSP table on the registry was examined. Powerco has not had any ICPs that have changed to become an NSP during the audit period, therefore this was not assessed as part of this audit.

Audit commentary

N/A

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 3 business days before the transfer takes effect.

Audit observation

Powerco has not acquired any networks therefore this was not assessed as part of this audit.

Audit commentary

N/A

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 1 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

Powerco is not responsible for any metering installations in accordance with this clause.

Audit commentary

N/A

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 table on the registry was examined. No new NSPs were created during the audit period, therefore this was not assessed as part of this audit.

Audit commentary

N/A

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 1 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

Powerco has not acquired any networks therefore this was not assessed as part of this audit.

Audit commentary

N/A

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

Powerco has not created any new embedded networks, therefore this was not assessed as part of this audit.

Audit commentary

N/A

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

Powerco do not own any embedded networks therefore this was not examined.

Audit commentary

N/A

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

Powerco has not acquired any networks therefore this was not assessed as part of this audit.

Audit commentary

N/A

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

Powerco has not acquired any networks therefore this was not assessed as part of this audit.

Audit commentary

N/A

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

The list file was examined and the streetlight audits of the network were assessed.

Audit commentary

There are 55 shared unmetered load parent ICPs. No new Distributor ICPs have been created for shared unmetered load during the audit period. Three have been decommissioned. These were no longer required as the previous limit of child ICPs has been fixed in the registry and were no longer required.

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 list file contained 408 child ICPs across 55 SI ICPs. I checked the accuracy of the daily unmetered kWh.

Audit commentary

The loads were checked and found them to be all shared equally, in the recommended format. Ballast has been added where the light type can be confirmed.

Audit outcome

Compliant

8. CALCULATION OF LOSS FACTORS

8.1. Creation of loss factors (Clause 11.2)

Code reference

Clause 11.2

Code related audit information

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

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

Audit observation

The “Guidelines on the calculation and the use of loss factors for reconciliation purposes v2.1” is under review by the Loss Factor Review Panel.

Audit commentary

Powerco did conduct a review of their loss factors over the 1/11/2016-30/6/2017 period. They reviewed their reconciliation losses in January 2017 and the changes were implemented on the 1/4/2017.

Powerco did not review any of its technical loss factors over this period but they are aware of our obligations in respect to the guidelines. They are planning on conducting a complete technical review of loss factors in the latter part of 2018.

Audit outcome

Compliant

CONCLUSION

This audit found ten non-compliances and makes no recommendations. The non-compliances found are almost the same as those found last year.

Powerco continue to use the meter certification as the record of the initial energisation date. This information should be taken from the energisation paperwork. In other Distributor audits where they carry out energisation I have found instances where the BTS supply is not being recorded on the registry and the permanent supply is the first meter to be recorded on the registry. If this is occurring on the Powerco network this will not be identified.

The historic issues of pending ICPs at ready to be decommissioned and those ICPs not readily locatable continue to be a focus for Powerco. They have reduced the volume of both these groups of ICPs by a third during the audit period but due to the volume of these ICPs this will take more than a year to resolve.

During the audit period, they have further refined their discrepancy reporting which is evident in the reduction of the overall volume of discrepancies found. This is particularly evident in their management of unmetered load with ballast having been added where the light type has been confirmed.

Powerco recognise that the increasing volume of installation of distributed generation which is not always being notified to them is a growing issue and they are reviewing this process.

Overall Powerco continue to make good progress during the audit period and have demonstrated their commitment to continue to improve. Therefore, whilst the next indicative audit frequency is six months I recommend that their next audit be due in 12 months as the issues with a high score are already being worked on and these need sufficient time to resolve and little will be gained by conducting the audit earlier.

I thank Ana and the team for their input into this audit.

PARTICIPANT RESPONSE

We are committed to improving our EIPC compliance and Powerco team has dedicated significant resources to resolve historic data issues and plan to continue to do so over the coming years.

We have found no evidence of BTS installation issue highlighted above, and have had no example of this. All ICPs follow the same process, and if an IED is missing it would be highlighted on Powerco exception reporting, when it first becomes active. Any exception to this would undoubtedly be a problem for all parties involved if paperwork was incomplete. We would also question where in the code it is stated the initial energisation date must be taken from the Distributor's own energisation paperwork. However we do understand we must ensure this is any data populated to registry not misleading, and plan to investigate how we can improve in this area.

The review of our distributed generation process is in its final stages and we are now in the process of making improvements. Despite this we believe there will still be the ongoing issue of installers acting alone without approval.

We will continue develop smarter technologies to assist in improving our registry data and the timeliness of our updates to registry. It is important to note that Powerco is currently undergoing a very large system transformation project. This is a long-term project which is expected to take over 4 years, before being implemented to the management of ICPs there will be a significant amount of process review and data cleansing.

We agree with Veritek's comments in having another audit in 6 months would not allow us sufficient time to make any meaningful changes to improve our compliance.