

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**



For

POWERCO

Prepared by: Rebecca Elliot

Date audit commenced: 8 June 2018

Date audit report completed: 6 October 2017

Audit report due date: 10-Aug-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 audit, in accordance with clause 11.10 of part 11. The audit was carried out at Powerco's premises in New Plymouth, on June 22 & 23, 2018.

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

Powerco operate the second largest network in New Zealand covering two separate geographical regions on the East and West coasts of the North Island.

This audit found 11 non-compliances and makes one recommendation.

Four of the eleven non-compliances relate to the backdating of new connections. This is due to two main reasons. The first relates to the late acceptance of trader nominations. The second relates to the late return of network contractor paperwork where a network extension is required to be completed before the ICP is moved to the "Ready" status. Powerco are reviewing the ICP acceptance process.

A further four non-compliances relate to the updating of ICP information including the updating of the electrical connection date. Powerco are in the process of changing their process so that they will use the electrical connection date provided by the Powerco approved contractor, which will assist in identifying active date discrepancies.

The loss factor accuracy was assessed by balancing area using the rolling UFE information provided by the Electricity Authority. This identified one balancing area (BA1EASTPOCO) where the UFE indicates that the loss factors are too high as UFE is currently running at -1.5%. Powerco are in the process of formalising the loss factor process and will use the recently published loss factor guidelines. This will assist in ensuring that loss factors are as accurate as possible.

Overall the Powerco's data quality has continued to improve. For example, the management of distributed generation has been reviewed during the audit period and all ICPs with distributed generation were populated correctly. There is some further work in progress to improve the timeliness of these updates.

The next audit frequency table indicates that the next audit be due in six months. I have considered this result in conjunction with the responses from Powerco and I recommend that the next audit be due in 12 months.

The matters raised are shown in the tables below.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1)	Initial electrical connection date not taken from the electrical connection paperwork but uses the meter certification instead.	Weak	Low	3	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 for 86 (4.2%) ICPs.	Moderate	Low	2	Identified
Timeliness of Provision of Initial Electrical Connection date	3.5	7(2A) of Schedule 11.1	Late population of initial electrical connection date for 100 (4.1%) ICPs.	Weak	Low	3	Identified
Connection of ICPs	3.6	11.17	86 (4.2%) ICPs electrically connected prior to having a "trader" nominated on the registry.	Moderate	Low	2	Identified
Connection of ICP that is not an NSP	3.7	10..31	86 (4.2%) ICPs connected prior to retailer accepting responsibility and therefore before the request to connect has been given.	Moderate	Low	2	Identified
Changes to registry information	4.1	8 Schedule 11.1	Registry event updates backdated greater than three days. 2 ICPs change of NSP not updated within the required timeframe.	Moderate	Low	2	Identified
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	Historic incorrect NSPs recorded against a potential 168 ICPs.	Moderate	Low	2	Identified
ICP location	4.4	2	7,675 ICPs with	Strong	Medium	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
address		Schedule 11.1	addresses that are either duplicated or not readily locatable.				
Distributors to Provide ICP Information to the Registry	4.6	7(1) Schedule 11.1	Incorrect ICP designation recorded for nine LE ICPs. Initial electrical connection dates derived from meter certification and not electrical connection records. 10 ICPs recorded with the incorrect initial electrical connection date. Three incorrect unmetered load descriptions recorded.	Moderate	Low	2	Identified
Updating loss factors	5.2	22 of Schedule 11.1	Loss factors not updated two months prior to coming into effect.	Moderate	Low	2	Identified
Creation of loss factors	8.1	11.2	Loss factors are not accurate for balancing area BA1EASTPOCOG as indicated by the reconciliation losses.	Moderate	Medium	4	Identified
Future Risk Rating						26	
Indicative Next Audit Frequency						6 months	

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

RECOMMENDATIONS

Subject	Section	Recommendation	Next Action
Distributors to Provide ICP Information to the Registry	4.6	Update unmetered load details to "DUML" for those ICPs reconciled by a DUML database by the trader.	Powerco is reviewing the existing street lights process and existing data across the Powerco footprint.

ISSUES

Subject	Section	Issue	Next Action
		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 organisational structure.

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
Greg Turner	Customer Works Manager Western
Janice Goding	Customer Works Coordinator
Karly Johnson	Network Connections and Data Team Leader
Mark Ireland	Customer Solution Manager
Nikos Fairburn	Performance, Quality and Compliance Coordinator
Simon Hart	Network billing and Connection Analyst
Michael Warren	Revenue Manager

1.4. Use of contractors (Clause 11.2A)

Code reference

Clause 11.2A

Code related audit information

A participant who uses a contractor

- *remains responsible for the contractor's 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 electrical connection activities on their networks.

Audit commentary

Taranaki

- A J Greaves Electrical Limited
- Electrix
- Obertech Limited
- Downer Taranaki/Manawatu
- NPE-Tech Ltd Taranaki
- Wells Instruments Ltd

Whanganui

- Electrix
- Strong Electrical
- Alf Downs Ltd
- Downer Whanganui
- Scanpower Limited
- C&J Contracting (2011) Ltd

Manawatu

- Electrix
- Alf Downs Limited
- Scanpower Limited
- Downer Taranaki/Manawatu
- NPE-Ltd Taranaki
- C&J Contracting (2011) Ltd
- Max Tarr Ltd
- Couchmans Electrical

Wairarapa

- Power Related Services
- Poltech Power Works Ltd
- Downer Masterton
- Scanpower Power Limited
- C&J Contracting Ltd (2011)

Tauranga

- Northpower Papamoa
- McKay Limited
- Downer Tauranga
- NPE-Tech Ltd Tauranga
- Electrical Inspection Limited
- Elite Electrical Inspections
- Horizon Services Limited
- Switch Electrical
- Accord Electrical Inspections
- Kaimai Electrical Inspections Limited
- Double D Electrical & Inspections

Waikato and Coromandel

- Northpower Hamilton
- Northpower Matamata
- Downer Thames
- NPE-Tech Ltd Tauranga
- Metering Solutions
- Ross Walker
- McKay Ltd
- Kaimai Electrical Inspections Limited
- Double D Electrical & Inspections
- Sefton Electrical Limited

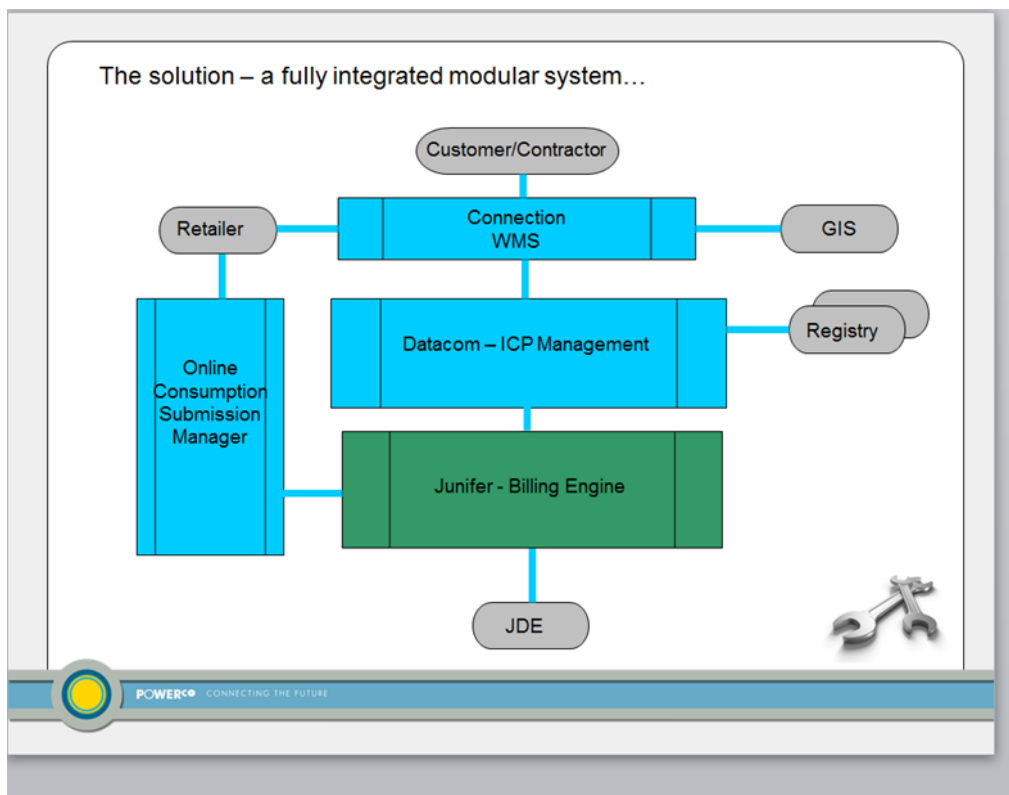
1.5. Supplier list

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 related to the scope of this audit 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.

There have been no changes made to the NSPs for the Powerco network during the audit period. 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	34,377
POCO	BRK0331	BRUNSWICK			BA3WESTPOCOG	G	1/08/2016	12,223
POCO	CST0331	CARRINGTON ST			BA1WESTPOCOG	G	1/05/2008	18,442
POCO	GYT0331	GREYTOWN			BA6WESTPOCOG	G	1/05/2008	6,965
POCO	HIN0331	HINUERA			BA5EASTPOCOG	G	1/05/2008	11,070
POCO	HUI0331	HUIRANGI			BA1WESTPOCOG	G	1/12/2008	10,207

POCO	HWA0331	HAWERA			BA2WESTPOCOG	G	1/05/2008	9,226
POCO	KIN0112	KINLEITH			KIN0112POCOG	G	20/05/2013	1
POCO	KIN0331	KINLEITH			BA2EASTPOCOG	G	1/05/2008	6,614
POCO	KMO0331	Kaitemako			BA1EASTPOCOG	G	1/04/2009	8,469
POCO	KPU0661	KOPU			BA3EASTPOCOG	G	1/05/2008	24,721
POCO	LTN0331	LINTON			BA4WESTPOCOG	G	1/05/2008	16,615
POCO	MGM0331	MANGAMAIRE			BA5WESTPOCOG	G	1/05/2008	4,266
POCO	MST0331	MASTERTON			BA6WESTPOCOG	G	1/05/2008	17,881
POCO	MTM0331	MT. MAUNGANUI			BA1EASTPOCOG	G	1/05/2008	24,899
POCO	MTN0331	MARTON			BA3WESTPOCOG	G	1/05/2008	6,132
POCO	MTR0331	MATAROA			BA3WESTPOCOG	G	1/05/2008	2,763
POCO	NPL0331	New Plymouth			BA1WESTPOCOG	G	1/07/2010	9,057
POCO	OKN0111	OHAKUNE			BA3WESTPOCOG	G	1/05/2008	1,197
POCO	OPK0331	OPUNAKE			BA2WESTPOCOG	G	1/05/2008	3,051
POCO	PAO1101	PIAKO 110KV			BA5EASTPOCOG	G	24/07/2012	7,575
POCO	SFD0331	STRATFORD			BA1WESTPOCOG	G	1/01/2015	8,307
POCO	TGA0111	TAURANGA			BA1EASTPOCOG	G	1/05/2008	9,658
POCO	TGA0331	TAURANGA			BA1EASTPOCOG	G	1/05/2008	32,820
POCO	TMI0331	TE MATAI			BA1EASTPOCOG	G	1/05/2008	8,544
POCO	WGN0331	WANGANUI			BA3WESTPOCOG	G	1/08/2016	9,841
POCO	WHU0331	WAIHOU			BA5EASTPOCOG	G	1/05/2008	5,124
POCO	WKO0331	WAIKINO			BA4EASTPOCOG	G	1/05/2008	16,233
POCO	WVY0111	WAVERLEY			BA3WESTPOCOG	G	1/05/2008	1,339

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	1/04/2017
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

No new embedded networks have been created during the audit period. BSC0011 has a new start date but this is not a new embedded network and is likely to indicate that the embedded network owner has changed traders.

Powerco provided a list file of all ICPs as at 31 May 2018. A summary of this data by "ICP status" is as follows.

Status	Number of ICPs 2018	Number of ICPs 2017	Number of ICPs 2016
Distributor (888)	64	64	65
New (999)	104	95	87
Ready (000)	131	170	109
Active (2,0)	327,617	324,102	319,558
Inactive- new connection in progress (1,12)	350	389	316
Inactive – electrically disconnected vacant property (1,4)	7,306	7,454	7,755
Inactive – electrically disconnected remotely by AMI meter (1,7)	818	752	2
Inactive – electrically disconnected at pole fuse (1,8)	55	47	11
Inactive – electrically disconnected due to meter disconnected (1,9)	93	39	14
Inactive – electrically disconnected at meter box fuse (1,10)	36	8	0
Inactive – electrically disconnected at meter box switch (1,11)	18	9	0

Inactive – electrically disconnected ready for decommissioning (1,6)	2,718	3,211	4,724
Inactive – reconciled elsewhere (1,5)	3	0	0
Decommissioned (3)	24,454	23,107	20,482

1.9. Authorisation Received

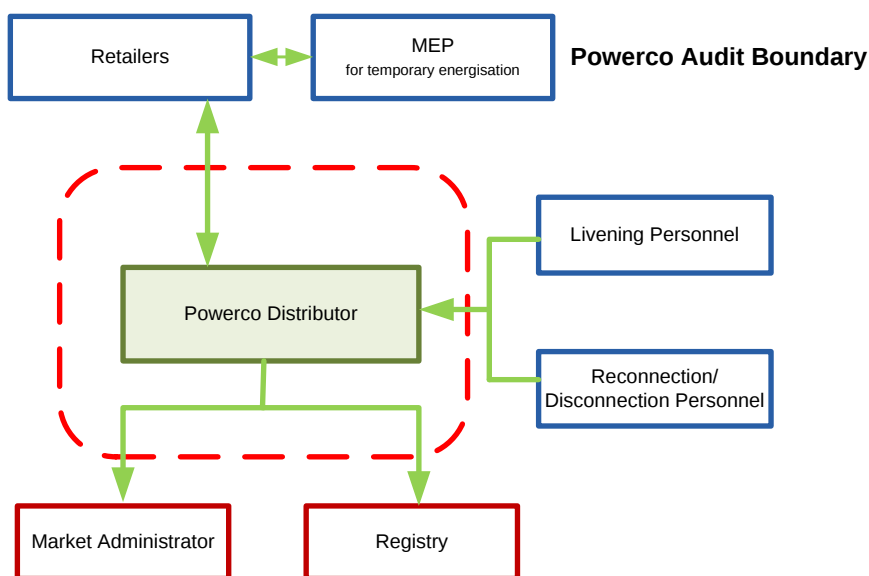
Powerco provided a letter of authorisation to Veritek, permitting the collection of data from other parties for matters directly related to the audit.

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 audit, in accordance with clause 11.10 of part 11. The audit was carried out at Powerco’s premises in New Plymouth, on June 22 & 23, 2018.

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 2017 by Rebecca Elliot of Veritek Limited. The findings are detailed in the table below:

TABLE OF NON-COMPLIANCE

Subject	Section	Clause	Non-Compliance	Status
Requirement to provide complete and accurate information	2.1	11.2(1)	Initial energisation date not taken from the energisation paperwork but uses the meter certification date instead.	Still existing
Participants may request distributors to create ICPs	3.2	11.5(3)	1 ICP not created within three days.	Cleared
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.	Still existing
Timeliness of Provision of Initial Energisation Date	3.5	7(2A) of Schedule 11.1	Late population of initial energisation date for some ICPs.	Still existing
Connection of ICPs	3.6	11.17	Some ICPs electrically connected prior to having a “trader” nominated on the registry.	Still existing
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 been given.	Still existing
Electrical connection of ICP that is not an NSP	3.8	10.31	Some ICPs electrically connected prior to retailer accepting responsibility and therefore before the request to electrically connect has been given.	Still existing
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.	Still existing
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.	Still existing- note much smaller number identified this year
ICP location address	4.4	2 Schedule 11.1	10,710 ICPs with addresses that are either duplicated or not readily locatable.	Still existing- continuing to reduce
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	Still existing

Subject	Section	Clause	Non-Compliance	Status
			recorded (maximum of 23).	

RECOMMENDATIONS

Subject	Section	Recommendation	Next Action
		Nil	

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 11.2(1) and 10.6(1)

Code related audit information

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

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

Audit observation

Powerco's data management processes were examined. The list file as at 31 May 2018, was examined to confirm compliance.

Audit commentary

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

Powerco has continued to use the date of the meter certification as the record of the initial electrical connection date. They are in the process of changing this process and will take the initial electrical connection date from the PAC (Powerco Approved Contractor). This will then highlight any 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, and other potential date mismatches. Some changes to existing processes need to be undertaken including communicating this requirement to the PACs. The new process is expected to be in place by October 2018.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: 11.2(1) From: 01-Jul-17 To: 31-May-18	Initial electrical connection date not taken from the electrical connection paperwork but uses the meter certification instead. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The current process controls are rated as weak as Powerco rely on the MEP for the initial electrical connection date. The new process will address this. I have rated the audit risk rating as low as the initial electrical connection date has no direct impact on settlement.		
Actions taken to resolve the issue		Completion date	Remedial action status
Response: Powerco understands that its current method of acquiring the IECD data may result in non-compliance. Actions: 1. Powerco will stop taking the IECD from the meter certification date. 2. Powerco is developing a new business process to populate the IECD using Powerco Approved Contractor data. 3. Powerco will improve the source of its data by ensuring the Powerco Approved Contractor clearly understand the importance of providing this data in a accurate and timely manner. 4. These improvements will be implemented by October 2018.		Date December 2018	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Comments Powerco is developing a system change and cessation the existing process that takes the IECD from the meter certification date: • System provider has been engaged • Further action has been taken to improve the data provision from the Powerco Approved Contractor, including physical works and data administration Powerco is confident the new processes and system changes will align with code compliance.	Date December 2018	

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

Code reference

Clause 11.2(2) and 10.6(2)

Code related audit information

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

Audit observation

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. do the price and loss codes align. Any errors are corrected as soon as possible. These reports are reviewed, and additional queries created as required.

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 4,314 ICPS created were checked from the point of application through to when the ICP was created. The sample was selected using the typical characteristic methodology. 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. No new embedded networks were created during the audit period. One new embedded network LE ICP was created during the audit period. The LE ICP 1000575039PC92C was created on 19/4/18 at "New" and then updated to status "Distributor" (888) on 25/5/18 in alignment with the connection of a new supply point for the "Tauranga Crossing Taurikura Drive" embedded network.

Audit outcome

Compliant

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

Code reference

Clause 11.5(3)

Code related audit information

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

Audit observation

The new connection process was examined in detail. Ten new connection applications of the 4,314 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 period from December 2017 to May 2018 was examined to identify any updates to the “Ready” status that were updated after the first active date. This identified 86 (3.4%) of the 2,465 new connections in the event detail report that were electrically connected. I checked a sample 20 of these ICPs to determine the root causes for the late updating. I split the sample into two groups. Ten of these were selected using the extreme case methodology. The other ten were selected using the homogenous methodology for ICPs updated to the registry between 18-30 days.

Audit commentary

The ICP creation process has not changed during the audit period. ICPs are created at “Ready” once the trader has confirmed their acceptance, unless network build is required. In these cases, the ICP will be created at the “New” status and moved to the “Ready” status once the field work is confirmed to be complete. ICP requests are received directly from customers or their agents except for Trustpower who request ICPs directly where they are the field contractor. ICP applications can be made “on line” via the “Customer Initiated Works System” (CIW). This allows agents or traders to track the progress of ICPs in situations where engineering work is required. Therefore, this clause is only applicable for those ICPs where Trustpower is the field contractor and has requested them. One of the sample checked was initiated by Trustpower and it was provided within the required timeframes.

None of the sample of backdated “ready” status ICPs related to the ICP not being created within three business days of a trader’s request.

Audit outcome

Compliant

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

Code reference

Clause 11.7

Code related audit information

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

Audit observation

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 that the 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 manager (Clause 7(2) of Schedule 11.1)

Code reference

Clause 7(2) of Schedule 11.1

Code related audit information

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

Audit observation

The new connection process was examined. The event detail report for the period from December 2017 to May 2018 was examined to identify any updates to the “Ready” status that were updated after the first active date. This identified 86 (4.2%) of the 2,046 new connections in the event detail report that were backdated new connections. I checked a sample of 20 late ICPs to determine the root causes for the late updating of the registry. I split the sample into two groups. Ten of these were selected using the extreme case methodology. The other ten were selected using the homogenous methodology where ICPs were updated between 18-30 days after the trader’s first active date.

Audit commentary

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

The late updates to “Ready” found that all but one ICP were created at “New” status and the delay to be moved to the “Ready” status was due to two main causes:

- The first was due to the late trader acceptance of the ICP. In these instances, it appears that the trader having received the notification to accept the ICP are issuing the ICP to their contractors who then go and electrically connect before they have accepted the nomination. The ICP is not moved to “Ready” until the trader contacts Powerco to request it be progressed causing the ICP to be backdated. Powerco are investigating potential changes to their process to prevent this occurring.
- The second was due to late paperwork being returned from the network contractor where work on the network was required before the ICP was “Ready” as defined by the code: “the associated **electrical installations** are ready for connecting to the **electricity** supply”

These findings are detailed in the breakdown of the two samples checked:

Extreme sample (>30days)	
Root cause	No. of ICPs
Late trader acceptance	7
Late paperwork from Network contractor	1
*Correction to start date	2

*These were already at “ready” and the backdating related to a correction to the ICP’s start date

Homogenous sample (18-30 days)	
Root cause	No. of ICPs
Late trader acceptance	2
Late paperwork from Network contractor	7
*Correction to start date	1

Powerco have undertaken contractor roadshows during the audit period with the field contractors. They have identified that the contractor administration staff also need to be included in this process and plan to address this.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.4 With: 7(2) of Schedule 11.1 From: 01-Dec-17 To: 31-May-17	Registry not updated prior to commencement of trading for 86 (4.2%) ICPs. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Delays from external parties are causing delays therefore I have rated the controls as moderate. The overall level of compliance is high. The number of ICPs affected will only have a minor impact on settlement hence the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Participant Comments Response: Powerco accepts auditor findings. Actions: Powerco will continue to improve the ensuring the Powerco Approved Contractor clearly understand the importance of providing this data accurately and timely manner - Powerco has initiated discussions with retailers to acquire blanket approval for new connections. This will eliminate the risk of late trader acceptance leading to the back-dating of ready status, - Powerco is targeting PAC administrators to ensure that both the field contractor and the administrator processing the paperwork understand the importance accurate and timely information.		Date Ongoing	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Participant Comments Comments: Powerco is confident these enhancements will result stronger controls. Powerco will continue to monitor the improvements in regards to code compliance.	Date Ongoing	

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

Code reference

Clause 7(2A) of Schedule 11.1

Code related audit information

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

Audit observation

The process for populating of the initial Electrical Connection date was examined. The event detail report for the period from December 2017 through to May 2018 was examined. Examination of the event detail report identified 2,385 initial electrical connection events. 24 events had an effective event date different to the initial electrical connection date. This is discussed further in **section 4.6**. The initial electrical connection date and the registry update date were compared and found 100 ICPs (4.1%) of the total population were updated more than ten days after the event. A sample of 20 ICPs updated later than ten business days were examined using the extreme case methodology and this included six of the 24 ICPs that had a different event date.

Audit commentary

Powerco's new connection process remains unchanged from the previous audit. They do not physically carry out electrical connection on their network. This is carried out for traders by Powerco approved contractors. The CWMS system uses the MEP's meter certification date to populate the initial electrical connection date. As discussed in **section 2.1**, Powerco are in the process of changing this process and will take the initial electrical connection date from the PAC (Powerco Approved Contractor) paperwork. This will then highlight any 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 and other potential date mismatches.

As the current process is linked to the MEP meter certification update date, if this is late Powerco's update will be late. The sample checked confirmed this. The six late updates with a different event date to the initial electrical connection date were found to be corrections to the active date. These were identified through validation reporting and were updated as a result of the trader changing their first active date.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: 7(2A) of Schedule 11.1 From: 01-Dec-17 To: 31-May-18	Late population of initial electrical connection date for 100 (4.1%) ICPs. Potential impact: None Actual impact: None Audit history: Once Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Powerco rely on the MEP to populate the meter certification date therefore the controls are weak for this process. This has no direct impact on submission hence the audit risk rating is low		
Actions taken to resolve the issue		Completion date	Remedial action status
Participant Comments Response: Powerco accepts the auditor's findings. Actions: Along with the actions outlined in 2.1 Powerco will be getting this Data from a new source. Eliminating the risk of a MEPs data leading to late population of IECD.		Date December 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Participant Comments Powerco will adapt existing exception reporting in order to monitor timeliness of the population of the IECD. As outlined in 2.1 Powerco will continue to educate its PACs and their administrators.		Date December 2018	

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

Code reference

Clause 11.17

Code related audit information

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

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

In respect of ICPs across which unmetered load is shared, the distributor must not connect an ICP unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load.

Audit observation

The new connection process was examined in **section 3.2**. The event detail report for the period from December 2017 through to May 2018 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 electrically connect ICPs. All these activities are performed at the request of traders by contractors authorised by both parties. As discussed in **section 3.4**, 86 (4.2%) of the 2,046 new connections in the event detail report had a first active date recorded that was prior to the “Ready” event update on the registry, therefore the ICP was electrically connected before the trader was recorded as being responsible in the registry. The sample checked confirmed this to be the case.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 3.6 With: 11.17 From: 01-Dec-17 To: 31-May-18	86 (4.2%) ICPs electrically connected prior to having a “trader” nominated on the registry. Potential impact: None 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 only have a minor impact on settlement hence the audit risk rating is low.	
Actions taken to resolve the issue		Completion date
Participant Comments Response: Powerco accepts the auditor findings. Actions: These issues result from the non-compliance outlined in section 3.4 and 3.7. Refer to 3.4 for corrective actions and comments.		Date Ongoing
Preventative actions taken to ensure no further issues will occur		Completion date

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

Code reference

Clause 10.31

Code related audit information

- *A distributor must not connect an ICP that is not an NSP unless requested to do so by the trader trading at the ICP.*

Audit observation

The new connection process was examined in **section 3.2**. The event detail report for the period from December 2017 through to May 2018 was examined. The list file was examined to determine if the ICPs were connected at the request of the trader.

Audit commentary

The new connections process is designed to include a “retailer responsibility” step. As identified in **Section 3.2**, analysis of the event detail report identified 86 ICPs that 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 connection. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.7 With: 10.31 From: 01-Dec-17 To: 31-May-18	86 (4.2%) ICPs connected prior to retailer accepting responsibility and therefore before the request to connect has 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. The number of ICPs affected will only have a minor impact on settlement hence the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Participant Comments Response: Powerco accepts the auditor findings. Actions: These issues result from the non-compliance outlined in section 3.4 and 3.6. Refer to 3.4 for corrective actions and comments.		Date Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

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

Code reference

Clause 10.31A

Code related audit information

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

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

Audit observation

The new connection process was examined in **section 3.2**. The event detail file and registry list were examined to determine compliance.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10.30

Code related audit information

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

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

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

Audit observation

The NSP table was examined.

Audit commentary

No new embedded NSPs have been created by Powerco and are not expected to be in the near future.

Audit outcome

Compliant

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

Code reference

Clause 10.30(A)

Code related audit information

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

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

Audit observation

The NSP table was examined.

Audit commentary

No new embedded NSPs have been created by Powerco and are not expected to be in the near future.

Audit outcome

Compliant

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

Code reference

Clause 1(1) Schedule 11.1

Code related audit information

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

xxxxxxxxxxxccc 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

3.12. Loss category (Clause 6 Schedule 11.1)

Code reference

Clause 6 Schedule 11.1

Code related audit information

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

Audit observation

The process of allocation of the loss category was examined. The 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

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

Code reference

Clause 13 Schedule 11.1

Code related audit information

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

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

Audit observation

The 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 created at the “New” status if there is any network build required to connect them to the network, or the trader has yet to accept the ICP nomination.

There are 104 ICPs at the “New” status in the list file and ICP 1000559913PCDAC has been at this status for more than 24 months. This is discussed in **section 3.14**.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

If an ICP has had the status of “New” or has had the status of “Ready” for 24 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 31 May 2018 was examined.

Audit commentary

Aging ICPs at these statuses are routinely reported and Powerco communicates with the relevant traders to confirm they are still required. There was one ICP that has been at the “New” status for greater than 24 months. Powerco has been liaising with Trustpower in relation to ICP 1000559913PCDAC. Trustpower have advised since the list file was provided that this ICP is no longer required and it has been “Decommissioned-set up in error” on the registry.

ICP 1000554403PC829 was noted in the last audit as having been at ready for more than 24 months with Contact as the nominated trader. Powerco liaised with the customer and were advised that the trader should be Meridian and the ICP has since been updated it to active.

Audit outcome

Compliant

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

Code reference

Clause 7(6) Schedule 11.1

Code related audit information

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

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

Audit observation

This requirement was discussed, and the list file was examined.

Audit commentary

The list file was analysed and all five active 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 give written notice to the registry manager 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 December 2017 through to May 2018 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, and this included NSP changes.

Audit commentary

The process of updating ICPs has not changed during the audit period. 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:

- 466 ICPs were decommissioned. 98 (21%) of these were updated within three business days. The remaining 368 ICPs (79%) 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**.
- 4,295 address events. 3,280 (76.4%) of these were updated within three business days. 1,014 of these were backdated by more than three business days. All but one of these late updates related to a bulk update made on the 10/4/18. This was due to human error. An update occurred in the live system when it should have been in the test system. This file made no actual changes to the address details but was to add the word "dwelling" etc. This did not follow Powerco's normal testing processes. The remaining ICP (1000571082PC3CA) was due to a correction to the ICP start date which created a backdated address update at the same time, again no change was made to the ICP's physical address.
- 4,148 network events. This excludes the population of the initial electrical connection date (where it was possible to identify these) which is discussed in **section 3.5**. 3,480 (83.8%) of these were updated within three business days. This is an improvement from the 36% recorded in the last audit. The remaining 668 (16%) were backdated greater than three business days. Analysis of these found:

- o 66 of these were to update the unmetered load details. 45 (41%) of these were backdated greater than three business days. 22 of these were to correct the shared unmetered load details. The sample checked found nine of these were related of the shared unmetered load. ICP 1000571082PC3CA was a backdated unmetered new connection.
 - o 640 of these were to update the distributed generation details. 491 (76%) of these were backdated greater than three business days. Powerco undertook a data cleanse of distributed generation. The sample checked confirmed that these were all backdated to correctly reflect the actual date of the distributed generation electrical connection. This is discussed in detail in **section 4.6**.
 - o 144 were NSP changes. These are required to be updated within eight days from the 15th day after the change. 143 were updated within this time frame (23 business days from the event date). ICP 1000566066PC4FB was updated 23 days late (46 days from the event date). This was examined and found that this was due to the installation of distributed generation around the same time as the change of NSP. Changes need to be recorded in the order of the event date in the registry, therefore the distributed generation event had to be reversed before the NSP event could be recorded causing it to be backdated.
 - o A sample of ten ICPs using the extreme case methodology was checked for the backdating of the remaining 150 ICPs and found that seven of these related to the late updating of the initial electrical connection date. These are recorded as non-compliant in **section 3.5**. The remaining three ICPs found two related to corrections to first active date and ICP 1000549329PCA2E related to the same issue as detailed in the point above where a distributed generation update coincided with an NSP change and therefore the events had to be updated in the order of the event date causing the backdating of the network event.
- 198,715 price code changes were made. Powerco’s approach to pricing change remains unchanged. They don’t generally backdate but will at the request of retailers’ in the following instances:
 - o Price code correction.
 - o As obliged by some of the existing use of system agreements that allow for pricing to be backdated up to 14 months.
 - o For residential customers, these are generally handled in a bulk update, typically monthly which may result in some backdated price code changes.

197,709 (99.4%) of the updates were updated within three business days. 1,006 (0.6%) of those were backdated by more than three business days. Powerco updated their pricing during the audit period. The affected ICPs were updated via a bulk update. There were 22 ICPs that had a duplicated pricing line in the Powerco system. These needed to be deleted in the local system to enable the script update to run. This created a backdated update in the registry although there was no change to the pricing in these instances. Six of the sample checked related to this issue. The remaining four ICPs checked were corrections requested by traders to the price category.

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 non-compliant with this clause.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: 8 Schedule 11.1 From: 01-Dec-17 To: 31-May-18	Registry event updates backdated greater than three days. 2 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
Participant Comments Response: Powerco is committed to populating registry in a timely manner. This is reflected in the auditor findings. However will continue to make corrections to historical events where more complete or accurate information becomes available. Actions: Powerco recognize that there are improvements to be made. Particularly with status (Decommissioning) events. As outlined in 2.1 , 3.4, 3.6 and 3.7 Powerco is continuing its education of PACs,		Date Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Participant Comments The effects of the new Distributed Generation process will be reflected over the next audit period. A new process has been implemented and new resources have been made available.		Date Ongoing	

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

Code reference

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

Code related audit information

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

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

Audit observation

The 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 24 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. Powerco worked through the analysis provided last year and the obvious errors were corrected. This is evident in the reduction from 535 potentially mismapped ICPs to 193 potentially mismapped ICPs identified in this audit. 151 ICPs or 117 roads were also identified in the 2017 audit and 34 new roads (42 ICPs) were identified. These new roads will have been identified as a result of the address duplication work being undertaken or address change requests received from traders. They are not necessarily mismapped and Powerco are reviewing these.

The sample of 24 roads checked found that seven ICPs (across four roads) were confirmed to be correctly mapped in 2017. The remaining 26 ICPs (across 20 roads) checked found 14 ICPs (across 13 roads) were identified in the last audit. These were rechecked and found:

- Nine ICPs (across eight roads) are correctly mapped. ICP 0000038750CP153 has the incorrect town reference.
- Three ICPs (across three roads) are still being investigated to determine if the address or the NSP is incorrect. They are all on the border of two NSPs.
- ICPs 0000042372UN0E8 & 0000043681UN89A (across two roads) are mapped to the incorrect NSP. These were incorrectly marked as having been corrected post the last audit. These are being corrected.

The 12 ICP (across seven new roads) not identified in the last audit were checked and found:

- Eight ICPs (across five roads) are correctly mapped. Three ICPs in Sharyn Place have the incorrect town reference.
- ICPs 0000038595CP1F4 & 0000041403CP081 (across one road) have the incorrect NSP allocated. This is being corrected.
- ICPs 0000014790UN062 & 0000596565UN68B (across one road) are being investigated to determine if the address or the NSP is incorrect.

All ICPs were historic.

Powerco continue to review these and correct any historic incorrect NSPs as they are identified.

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	Historic incorrect NSPs recorded against a potential 168 ICPs. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	I have rated the controls as moderate as whilst the new process prevents new ICPs being mismapped, it appears that address changes requested by traders are potentially creating ICPs to appear to be on the incorrect NSP. I have rated the audit risk rating as low due to the small number of potentially mismapped ICPs identified which if found to be incorrect will have a minor impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Participant Comments Response: Powerco accepts that 24 of the 187 ICPs had incorrect NSP on registry. All incorrect NSPs found are from historical data issues. Actions: Powerco has been working through the historic NSP exceptions provided by the auditor in 2017 and will continue to work investigate until all potential errors have been eliminated. Out of the 187 potential incorrect NSPs 127 were found to be correct (68%) 43 required NSP corrections (23%) 17 will require further investigation (9%)		Date	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Participant Comments Powerco have strong controls to ensure the correct NSP is assigned at ICP creation or changes. The ICPs identified in the audit will be determined to be correct or otherwise by December 2018. Powerco will continue to investigate historical data issues.		Date	

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

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

Audit observation

The management of customer queries was examined.

Audit commentary

Powerco directly receives very few 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 potentially a duplicate address.

Powerco have continued to work on reducing these during the audit period. Addresses are being checked against the meter reading location data. This has resulted in a reduction of 2,882 ICPs with duplicate addresses and 148 ICPs which previously had no street number or property name recorded.

	2018	2017	2016	Difference
Duplicate addresses	6,091	8,973	13,302	-2,882
Addresses without street number or property name	1,584	1,733	2,013	-148
New connections with duplicate addresses	0	4	0	-

There were no ICPs created during the audit period with duplicate addresses.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: 2 Schedule 11.1 From: 01-Jul-17 To: 31-May-18	7,675 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 there were no ICPs created during the audit period 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
Participant Comments Response: Powerco agrees with the auditor's findings that Powerco has strong controls in place. Actions: Powerco will continue the existing programme of work with the intention of resolving historic address issues.		Date October 2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Participant Comments It is evident that Powerco continues to make improvements with addresses.		Date October 2019	

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

Code reference_

Clause 3 Schedule 11.1

Code related audit information

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

Audit observation

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

Audit commentary

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 manager (Clause 7(1) Schedule 11.1)

Code reference

Clause 7(1) Schedule 11.1

Code related audit information

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

- *the location address of the ICP identifier (Clause 7(1)(a) of Schedule 11.1)*
- *the NSP identifier of the NSP to which the ICP is usually connected (Clause 7(1)(b) of Schedule 11.1)*
- *the installation type code assigned to the ICP (Clause 7(1)(c) of Schedule 11.1)*
- *the reconciliation type code assigned to the ICP (Clause 7(1)(d) of Schedule 11.1)*
- *the loss category code and loss factors for each loss category code assigned to the ICP (Clause 7(1)(e) of Schedule 11.1)*
- *if the ICP connects the distributor's network to an embedded generating station that has a capacity of 10MW or more (Clause 7(1)(f) of Schedule 11.1):*
 - a) *the unique loss category code assigned to the ICP*
 - b) *the ICP identifier of the ICP*
 - c) *the NSP identifier of the NSP to which the ICP is connected*
 - d) *the plant name of the embedded generating station*
- *the price category code assigned to the ICP, which may be a placeholder price category code only if the distributor is unable to assign the actual price category code because the capacity or volume information required to assign the actual price category code cannot be determined before electricity is traded at the ICP (Clause 7(1)(g) of Schedule 11.1)*
- *if the price category code requires a value for the capacity of the ICP, the chargeable capacity of the ICP as follows (Clause 7(1)(h) of Schedule 11.1):*
 - a) *a placeholder chargeable capacity if the distributor is unable to determine the actual chargeable capacity*
 - b) *a blank chargeable capacity if the capacity value can be determined 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*
- *the initial electrical connection 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 and the event detail report were 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. All variances were examined and the whole population examined.

Audit commentary

All ICP information was checked and confirmed compliant unless discussed below:

Distributed Generation

The list file was analysed and found 3,345 ICPs with distributed generation recorded. The table below tracks the growth year on year:

Year	ICPs with distributed generation
2015	975
2016	1,554
2017	2,404
2018	3,345

All have a fuel type and capacity populated and the correct installation type of "B" or "G".

Powerco have reviewed this process during the audit period. Applications for distributed generation are still 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 customer's agent. NPE Tech are Powerco's approved contractor for distributed generation and they track the progression of the applications with the installer. The expected installation date is recorded on the application. Powerco are in the process of bringing this back "in-house" so they are managing the process from start to finish. Once "in-house" all applications will be tracked and proactively managed from the expected install date to ensure that these are updated in a more timely manner. The timeliness of updates is detailed in **section 4.1**.

Powerco's reporting identifies any ICPs where the trader 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 no application or an application in progress are investigated.

The last audit identified 240 ICPs with an injection channel indicated by the MEP and/or a profile indicating generation is present. These were all checked and resolved post the last audit. A check of the list file identified only six active ICPs with potential distributed generation installed. These were all checked and found:

- three have since been updated as part of BAU with distributed generation
- three have incorrect metering details and Powerco have confirmed that no distributed generation is present.

Initial Electrical Connection Date

As discussed in **section 3.5**, Powerco continues to use of the meter certification to derive the initial electrical connection date. They are in the process of changing this process and will take the initial electrical connection date from the PAC (Powerco Approved Contractor) paperwork. This will then highlight any 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 and other potential date mismatches. The use of the meter certification date as the initial electrical connection date is recorded as non-compliance.

The list file and event detail report found 2,452 new ICPs made active during the audit period. 29 of these had no initial electrical connection date populated. All of these were checked and found all have since been updated as part of BAU. The timeliness of the initial electrical connection date updates is detailed in **section 3.5**.

I checked the accuracy of the initial electrical connection date against the active date and meter certification date from the event detail report and found:

2,367 ICPs with both initial electrical connection date populated, and an active date recorded in the event detail report. Of these:

- 2,343 ICPs (99%) had matching dates
- 24 ICPs (1%) had a different active date. These were all checked and found:
 - 13 where the trader appears to have the incorrect active date (the meter is certified prior to first active date) or in the case of ICP 1000574484PC964 the trader has used the active status instead of the "inactive-new connection in progress" status
 - ten where Powerco appears to have the incorrect initial electrical connection date due to the meter certification date being later than the active date recorded by the trader (the code allows up to five business days for meters to be certified)
 - ICP 1000574433PC61C has since been returned to the "Ready" status by the trader.

ICP Designation

Analysis of the list file found nine LE ICPs that are located in a balancing area that has more than one NSP located within it, therefore these ICPs should be recorded as dedicated. This was due to human error and these have since been corrected. The process is documented therefore any further LE ICPs will be created correctly.

Unmetered Load

The population of the registry is still manual for this field. There have been 22 ICPs with unmetered load created since the last audit. The unmetered load is recorded in the recommended format for all. The load was checked against the traders recorded daily kWh load and found 13 have a load variance. These were all checked and found that the trader has the incorrect load recorded for 21 of these ICPs. ICP 1000574018PC99C has the incorrect wattage recorded due to human error. This is being corrected.

Analysis of the list file found three ICPs where Powerco have an unmetered load recorded, but the trader has none. Two of these relate to shared unmetered load and the trader is incorrect. ICP 0037940240PCE17 is historic and has the text "unmetered load" recorded. There is no unmetered load present, and this is being removed.

The unmetered loads were compared where the load is in the recommended format. This found 566 ICPs where the load can be calculated and found that 542 (95%) matched. 24 ICPs had loads that varied. These were checked and found:

- Nine of these are distributed unmetered load ICPs that are reconciled using a database by the trader. I recommend that the load details are removed from the registry and "DUML" is noted in the unmetered load details.

Description	Recommendation	Audited party comment	Remedial action
Provide ICP information to the registry	Update unmetered load details to "DUML" for those ICPs reconciled by a DUML database by the trader.	Powerco accept the auditor's recommendations.	Powerco is reviewing the existing street lights process and existing data across the Powerco footprint.

- Nine ICPs require investigation with the trader to determine which load is correct.
- Three ICPs have the incorrect load recorded as the ballast is missing from the registry. ICPs 0036810007PCADE & 1000542398PCB39 were recorded in the last audit with ballast missing but were not updated due to the uncertainty of the light type. This was clarified during the site audit and these will be updated.
- Three ICPs where Powerco have the correct load and the traders load is incorrect.

Powerco have updated all the unmetered load details for those ICPs where the load "known" in the required format.

Last year I reported that potentially, there was NZTA lighting not recorded in a database for Palmerston North City Council. Powerco are working the trader in relation to the NZTA lights in the Manawatu area to ensure that all the unmetered street lights are recorded in a database. I also raised a potential issue that the Palmerston North lights may not be allocated to the correct NSP. It has been confirmed that the lights can be fed from either NSP, but they are recorded against the NSP they are predominantly connected to, therefore no new ICP is required to be created and the load is being reconciled against the correct NSP. I also note that both NSPs are within the same balancing area.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 4.6 With: 7(1) of Schedule 11.1 From: 01-Jul-17 To: 31-May-18	Incorrect ICP designation recorded for nine LE ICPs. Initial electrical connection dates derived from meter certification and not electrical connection records. 10 ICPs recorded with the incorrect initial electrical connection date. Four ICPs with the incorrect unmetered load recorded. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are rated as the moderate as the use of the meter certification date is not necessarily the electrical connection date, but I note this is being addressed. The number of discrepancies is minor and has no direct impact on reconciliation.	
Actions taken to resolve the issue		Completion date
Participant Comments Response: Powerco accepts the auditors findings Actions: - The nine ICPs with Dedicated field set incorrectly have been corrected. - As discussed 2.1, 3.4, 3.5 and 3.6 the process of acquiring the IECD will be changing. - The 4 UML ICPs have been corrected		Date December 2018
Preventative actions taken to ensure no further issues will occur		Completion date
Participant Comments Powerco has discussed this issue with the Electricity Authority to better understand the dedicated designation and amended the existing process accordingly. We believe our controls are strong, Refer preventative actions in 3.4 regarding IECD Powerco is confident these enhancements will result stronger controls.		Date December 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 manager no later than 10 business days after the trading of electricity at the ICP commences:

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

Audit observation

The new connection process was examined in detail. The list and event detail files were examined to identify any new connections that have either no price category code assigned, or changes to price category codes greater than ten days from the first active date.

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.

Audit outcome

Compliant

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

Code reference

Clause 7(8) and (9) Schedule 11.1

Code related audit information

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

Audit observation

The registry list was reviewed to determine compliance.

Audit commentary

Powerco do not populate GPS co-ordinates, but all ICPs are plotted in Powerco's GIS system and therefore the GPS co-ordinates are known.

Audit outcome

Compliant

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

Code reference

Clause 14 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

The management of ICPs in relation to the use of the “Ready” status was examined. The list file and event detail report for December 2017 to May 2018 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 electrically connected 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 December 2017 to May 2018 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 1000575039PC92C was created on 19/4/18 at “New” and then updated to status “Distributor” (888) on 25/5/18 in alignment with the connection of a new supply point for the “Tauranga Crossing Taurikura Drive” embedded network.

The remaining 55 are shared unmetered load parent ICPs. No new Distributor ICPs have been created for shared unmetered load during the audit period. 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 December 2017 to May 2018 were examined in relation to the use of the “Decommissioned” status.

Audit commentary

The analysis of Powerco’s list file shows that there are 2,718 ICPs that are “Ready for decommissioning”. As noted in **section 4.1**, this number continues to decrease year on year. Analysis of the event detail report identified 524 ICPs that have been set to ready for decommissioning during that period suggesting that 2,194 are historic. Of the 524 ICPs set to “Ready for decommissioning” in the event detail report, 414 have since been decommissioned.

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 trader 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 two months after the date the code is entered in the table.

A price category code takes effect on the specified date.

Audit observation

The price category code table on the registry was examined.

Audit commentary

Powerco have created nine new price categories during the audit period. These were all notified more than two months before 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

Compliant

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

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

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

Two loss category codes have been updated during the audit period. These were updated on 26/3/18 with an effective date of 1/04/2018. This was less than the required two month notice period due to notification not being provided to the relevant department.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 5.2 With: 22 of Schedule 11.1 From: 01-Feb-18 To: 26-Apr-18	Loss factors not updated two months prior to coming into effect. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as they will mitigate risk most of the time, but there is room for errors to occur. The audit risk is low as these were updated before they came into effect so any impact on reconciliation will be captured in the reconciliation revision process.		
Actions taken to resolve the issue		Completion date	Remedial action status
Participant Comments Response: Powerco accepts the non-compliance and that the Loss factors for 2 loss factors were not updated on time, potentially affecting 66 ICPs that use these loss factors. The final pricing policy was distributed to all retailers on 31 January 2018, this includes the loss factor changes.		Date	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Participant Comments Powerco have set up a reminder as part of the annual pricing project to ensure future loss factor updates are made within the required timeframe.		Date Implemented.	

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

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

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

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

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

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

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

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

Audit observation

The NSP table was reviewed.

Audit commentary

Powerco has not created or decommissioned any NSPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 26(1) and (2) Schedule 11.1

Code related audit information

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

The request must be made at least 10 business days before the NSP is electrically connected, in respect of an NSP that is an interconnection point between 2 local networks. In all other cases, the request must be made at least 1 month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table was reviewed.

Audit commentary

No NSPs have been created or decommissioned during the audit period.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

Audit observation

The NSP table was reviewed.

Audit commentary

No NSPs have been created or decommissioned during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 26(4) Schedule 11.1

Code related audit information

If a participant notifies the creation of an NSP, or the transfer of an ICP to an NSP that is a point of connection between a network and an embedded network owned by the distributor, the distributor must give notice to the reconciliation manager at least 1 month before the creation or transfer of:

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

Audit observation

The NSP table was examined.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 24(2) and (3) Schedule 11.1

Code related audit information

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

Audit observation

The NSP table was reviewed.

Audit commentary

No balancing area changes have occurred during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 27 Schedule 11.1

Code related audit information

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

Audit observation

The NSP table was reviewed.

Audit commentary

No existing ICPs became NSPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 1 to 4 Schedule 11.2

Code related audit information

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

Audit observation

The NSP table was reviewed.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10.25(1) and 10.25(3)

Code related audit information

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

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

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

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

Audit observation

The NSP supply point table was examined.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10.25(2)

Code related audit information

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

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

Audit observation

The NSP supply point table was reviewed.

Audit commentary

Powerco have not connected any new NSPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 29 Schedule 11.1

Code related audit information

If a network owner acquires all or part of a network, the network owner must 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 Authority (Clause 29(1)(c) of Schedule 11.1)*
- *every reconciliation participant who trades at an ICP connected to the acquired network or part of the network acquired (Clause 29(1)(d) of Schedule 11.1).*

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

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

Audit observation

The NSP supply point table was reviewed.

Audit commentary

Powerco have not initiated any changes of network owner.

Audit outcome

Compliant

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

Code reference

Clause 10.22(1)(b)

Code related audit information

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

Audit observation

The NSP supply point table was examined.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clauses 5 and 8 Schedule 11.2

Code related audit information

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

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

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

Audit observation

The NSP supply point table was reviewed.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 11.2

Code related audit information

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

Audit observation

The NSP supply point table was reviewed.

Audit commentary

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

Audit outcome

Compliant

7. MAINTENANCE OF SHARED UNMETERED LOAD

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

Code reference

Clause 11.14(2) and (4)

Code related audit information

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

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

Audit observation

The 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.

Audit outcome

Compliant

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

Code reference

Clause 11.14(5)

Code related audit information

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

Audit observation

The list file contained 410 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. Some corrections have been made to shared unmetered load ICPs. These were updated and backdated to the actual effective date. The late updating of these ICPs is recorded as non-compliance in **section 4.1**.

Audit outcome

Compliant

8. CALCULATION OF LOSS FACTORS

8.1. Creation of loss factors (Clause 11.2)

Code reference

Clause 11.2

Code related audit information

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

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

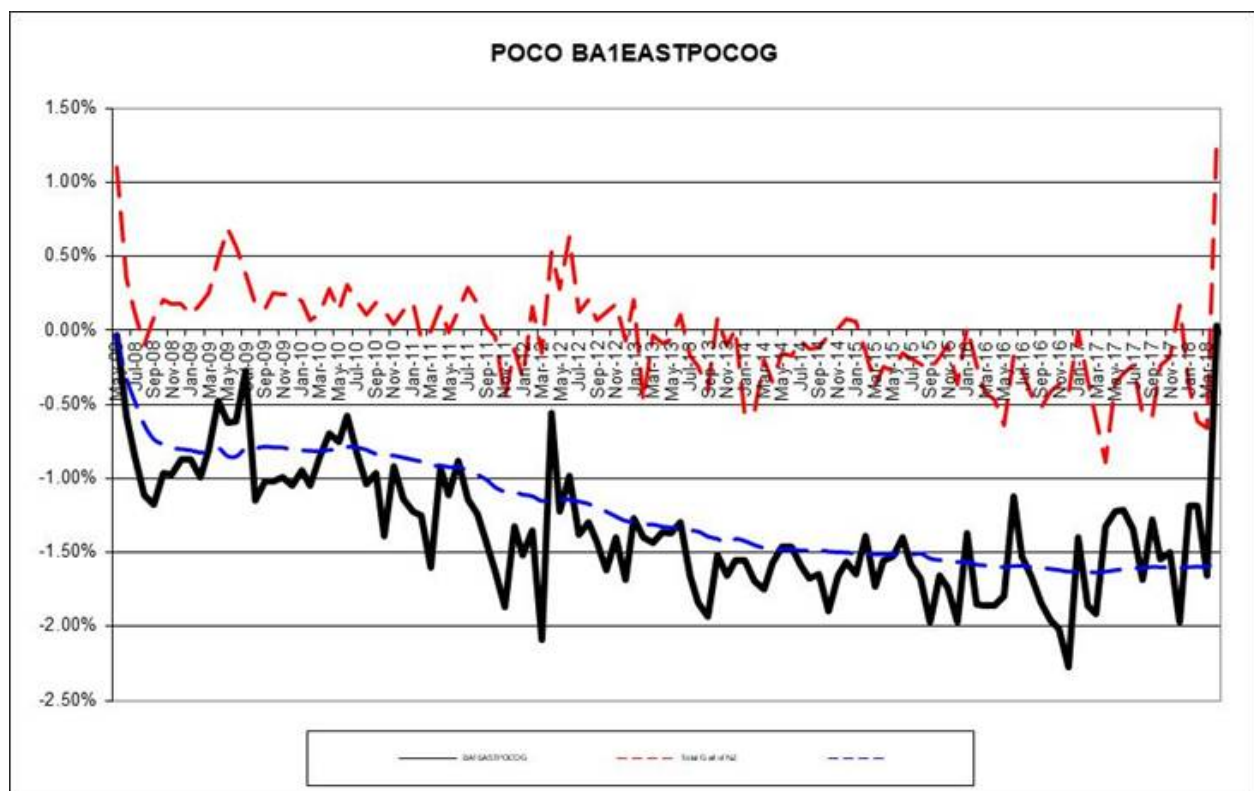
Audit observation

The “Guidelines on the calculation and the use of loss factors for reconciliation purposes” was published on 26 June 2018. I have assessed Powerco’s process and compliance against the guidelines recommended thresholds. As their network is geographically split, I assessed the loss factor accuracy by balancing area looking for any rolling UFE that was greater than +/- 1% (as indicated in the guideline).

Audit commentary

Powerco do conduct a review when it is deemed necessary to try and minimise the impact to the end consumer. This process is currently being formalised and the guideline will be used to assist in this.

Assessment of all the balancing areas using the rolling UFE figures provided by the Electricity Authority. I identified one balancing area where the losses appear to be too high as the rolling UFE is -1.5% as detailed in the graph below:



The balancing encompasses the Tauranga area with 63,757 active ICPs. The losses are not accurate for this balancing area. I note that the unaccounted for electricity (UFE) is allocated to traders so there is no adverse impact on reconciliation, however traders will make pricing decisions based on published loss factors and if the factors are not accurate this may have an impact. New traders in particular may rely more on published loss factors because they will not have their own history.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 8.1 With: 11.2 From: 01-Sep-12 To: 31-May-18	Loss factors are not accurate for balancing area BA1EASTPOCOG as indicated by the reconciliation losses. Potential impact: Medium Actual impact: Medium Audit history: None Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
Medium	The controls are rated as moderate as the losses are reviewed periodically, but the process is not formalised. UFE is allocated to participants; therefore there is no adverse impact on settlement; however traders may use published losses in pricing decisions, therefore the use of inaccurate loss factors could lead to incorrect pricing, which is considered to have a medium impact.		
Actions taken to resolve the issue		Completion date	Remedial action status
It is disappointing to be subjected to loss factor guidelines that were only published on 26 June 2018 (this audit was carried out on 27 th and 28 th June) when our loss factors are set at the start of the calendar year. Powerco conducted a thorough review of loss factors was conducted in 2017 and at the time we decreased the Low Voltage loss factors across the Tauranga region by 0.5% to try to reduce the Unaccounted for Electricity(UFE). Unfortunately, this adjustment did not materially affect UFE as we initially expected.		31/01/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will review the loss factor guidelines and implement an appropriate loss factor review process to ensure that we conduct regular and systematic annual reviews of our loss factors and UFE. Once the proposed review has taken place, any changes to the loss factor will published/included in Powerco's Pricing Policy effective April 2019.		Review completion date 31/01/2019 Implementation Date 01/04/2019	

CONCLUSION

This audit found 11 non-compliances and makes one recommendation.

Four of the eleven non-compliances relate to the backdating of new connections. This is due to two main reasons. The first relates to the late acceptance of trader nominations. The second relates to the late return of network contractor paperwork where network extension is required to be completed before the ICP is moved to the “Ready” status. Powerco are reviewing the ICP acceptance process.

A further four non-compliances relate to the updating of ICP information including the updating of the electrical connection date. Powerco are in the process of changing their process so that they will use the electrical connection date provided by the Powerco approved contractor which will assist in identifying active date discrepancies.

The loss factor accuracy was assessed by balancing area using the rolling UFE information provided by the Electricity authority. This identified one balancing area (BA1EASTPOCO) where the UFE indicates that the loss factors are too high as UFE is currently running at -1.5%. Powerco are in the process of formalising the loss factor process and will use the recently published loss factor guidelines. This will assist in ensuring that loss factors are as accurate as possible.

Overall the Powerco’s data quality has continued to improve. For example, the management of distributed generation has been reviewed during the audit period and all ICPs with distributed generation were populated correctly. There is some further work in progress to improve the timeliness of these updates.

The next audit frequency table indicates that the next audit be due in six months. I have considered this result in conjunction with the responses from Powerco and I recommend that the next audit be due in 12 months.

PARTICIPANT RESPONSE

Powerco is committed to improving systems and processes to help better meet its obligations in the Code. While the audit highlights areas where more work is required, Powerco believes it also shows measurable improvement compared to previous audits where changes have been implemented.

As identified in its previous audit, Powerco understands that its new connections process is currently not working to meet all its obligations in the Code and work has begun to fix these underlying issues. Powerco is confident that the changes being implemented will result in more accurate and timely registry information.

Powerco continues to identify and correct historic issues with its registry information, which is reflected in the reduction in duplicate addresses identified in the audit.

While the overall audit risk rating does not appear to indicate much improvement from the previous audit, many issues raised in the previous audit have seen significant improvement, especially considering the short audit period.

These improvements were offset by a new focus on loss factors, for which guidelines were published after the audit had commenced. As discussed in our comments in 8.1, Powerco is implementing a new loss factor review process based on the Guidelines, but changes won't be reflected in reconciliation until it is implemented.

With these factors in mind, Powerco believes a longer audit period would reflect improvements shown in the audit and better allow for the proposed process changes to be implemented and accurately assessed in its next audit.