

**01 ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**

For

**THE POWER COMPANY LTD,
ELECTRICITY INVERCARGILL LTD,
OTAGONET JOINT VENTURE,
ELECTRICITY SOUTHLAND LTD
(MANAGED BY POWERNET)**

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Date audit commenced: 14 May 2024

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Audit report due date: 10-Jun-24

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DRAFT

EXECUTIVE SUMMARY

This distributor audit was performed at the request of PowerNet as required by clause 11.10 of Part 11, to assure compliance with the Electricity Industry Participation Code 2010. PowerNet is a management company which manages the electricity network assets of:

- The Power Company Limited – TPCO
- Electricity Invercargill Limited – ELIN
- OtagoNet Joint Venture – OTPO
- Electricity Southland Limited (Trading name Lakeland Network) – LLNW

The relevant rules audited are as required by the Distributor Auditor Guidelines V7.0, issued by the Electricity Authority.

During the audit period, 1,497 ICPs were created across four networks.

The compliance results have shown further improvement compared to the previous audit. The previous Administration Supervisor has left the company, and a new person has been appointed. The ICP management system PowerNet Connect and the effective and efficient transfer of responsibilities have contributed to maintaining level of compliance level noted in the report.

The audit found 6 non-compliances (1 was cleared) for TPCO, 5 non-compliances (1 was cleared) for ELIN, and 4 non-compliances for LLNW and OTPO. Two recommendations were noted for all four networks.

The level of compliance has improved in the following areas:

- Quality of information in the registry
- The number of backdated updated entries in the registry decreased
- The number of information not populated in the registry decreased

The main issues identified during this audit are:

- The incorrect date used as the Effective Date for distributed generation
- Inconsistency: what date is used as the Effective Date in the registry for newly created ICP identifiers

The audit period is from 01/02/2023 to 31/03/2024

The Electricity Authority determines the date of the next audit, which is dependent on the level of compliance during this audit. Table 1 of the Guidelines for Distributor audit provides some guidance on this matter. The Future Risk Rating score is 8, which results in an indicative audit frequency of 18 months. We agree with the result.

We thank PowerNet for its full and complete cooperation in this audit.

AUDIT SUMMARY

NON-COMPLIANCES

TPCO

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A relatively small quantity of information in the registry was inaccurate	Moderate	Low	2	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	TPCO – 0.89% of IECD input to registry late	Strong	Low	1	Identified
Changes to registry information	4.1	8 of Schedule 11.1	Registry information not updated within 3 business days	Moderate	Low	2	Identified
ICP Location Address	4.4	2 of Schedule 11.1	37 ICPs with duplicate addresses	Moderate	Low	2	Identified
Distributors to Provide ICP Information to the Registry	4.6	7(1)(p) of Schedule 11.1	No IECD entry for 2 ICPs	Strong	Low	1	Identified
Responsibility for metering information for NSP that is not a POC to the grid	6.8	10.25(1)	Installation certification of LEV0331 expired on 27/05/23	Weak	Medium	6	Cleared
Future Risk Rating						8	

Future risk rating	1-2	3-6	7-9	10-19	20-24	25+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Recommendation	Description
Connection of ICP that is not an NSP	3.6	Review process of uploading new ICPs to the registry. Create a consistent process what date is used as the Effective Date in the registry. Our recommendation is use Trader Authority Date.	It appears that in some instances when a new ICP identifier is firstly uploaded to the registry, the Creation Date is uploaded to the registry, not the Trader Authority Date field. This leads to incorrect information in the registry and increases the number of backdated entries which impacts PowerNet compliance
Distributors to Provide ICP Information to the Registry manager	4.1	Record ROI date as the Effective Date for population of distributed generation information in the registry	The Input Date is recorded as the Effective Date for embedded generation

ISSUES

Subject	Section	Issue	Description
			Nil

ELIN

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A relatively small quantity of information in the registry was inaccurate	Moderate	Low	2	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	0.7% of IECD input to registry late IECD populated for ICP with the status "New" - ELIN	Strong	Low	1	Identified
Changes to registry information	4.1	8 of Schedule 11.1	Registry information not updated within 3 business days	Moderate	Low	2	Identified
ICP Location Address	4.4	2 of Schedule 11.1	6 ICPs with duplicate addresses	Moderate	Low	2	Identified

Responsibility for metering information for NSP that is not a POC to the grid	6.10	10.25(1)	Installation certification of LEV0331 expired on 27/05/23	Weak	Medium	6	Cleared
Future Risk Rating						7	

Future risk rating	1-2	3-6	7-9	10-19	20-24	25+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Recommendation	Description
Connection of ICP that is not an NSP	3.6	Review process of uploading new ICPs to the registry. Create a consistent process what date is used as the Effective Date in the registry. Our recommendation is use Trader Authority Date.	It appears that in some instances when a new ICP identifier is firstly uploaded to the registry, the Creation Date is uploaded to the registry not the Trader Authority Date field This leads to incorrect information in the registry and increases the number of backdated entries which impacts PowerNet compliance
Distributors to Provide ICP Information to the Registry manager	4.6	Use ROI date as the Effective Date for population of distributed generation information in the registry	The date of Network approval of DG application is used as the Effective Date in the registry

ISSUES

Subject	Section	Issue	Description
			Nil

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A relatively small quantity of information in the registry was inaccurate	Moderate	Low	2	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	4.5% of IECD input to registry late	Strong	Low	1	Identified
Changes to registry information	4.1	8 of Schedule 11.1	Registry information not updated within 3 business days	Moderate	Low	2	Identified
ICP Location Address	4.4	2 of Schedule 11.1	55 ICPs with duplicate addresses	Moderate	Low	2	Identified
Future Risk Rating						7	

Future risk rating	1-2	3-6	7-9	10-19	20-24	25+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Recommendation	Description
Connection of ICP that is not an NSP	3.6	Review process of uploading new ICPs to the registry. Create a consistent process what date is used as the Effective Date in the registry. Our recommendation is use Trader Authority Date.	It appears that in some instances when a new ICP identifier is firstly uploaded to the registry, the Creation Date is uploaded to the registry, not the Trader Authority Date field This leads to incorrect information in the registry and increases the number of backdated entries which impacts PowerNet compliance
Distributors to Provide ICP Information to the Registry manager	4.6	Use ROI date as the Effective Date for population of distributed generation information in the registry	The date of Network approval of DG application is used as the Effective Date in the registry

ISSUES

Subject	Section	Issue	Description
			Nil

LLNW

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A relatively small quantity of information in the registry was inaccurate.	Moderate	Low	2	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	1.64% of IECD input to registry late	Strong	Low	1	Identified
Changes to registry information	4.1	8 of Schedule 11.1	Registry information not updated within 3 business days	Moderate	Low	2	Identified
ICP Location Address	4.4	2 of Schedule 11.1	15 ICPs with duplicate addresses	Moderate	Low	2	Identified
Future Risk Rating						7	

Future risk rating	1-2	3-6	7-9	10-19	20-24	25+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Recommendation	Description
Connection of ICP that is not an NSP	3.6	Review process of uploading new ICPs to the registry. Create a consistent process what	It appears that in some instances when a new ICP identifier is firstly uploaded to the registry, the Creation Date is

		date is used as the Effective Date in the registry. Our recommendation is use Trader Authority Date.	uploaded to the registry not the Trader Authority Date field This leads to incorrect information in the registry and increases the number of backdated entries which impacts PowerNet compliance
Distributors to Provide ICP Information to the Registry manager	4.6	Use ROI date as the Effective Date for population of distributed generation information in the registry	The date of Network approval of DG application is used as the Effective Date in the registry

ISSUES

Subject	Section	Issue	Description
			Nil

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

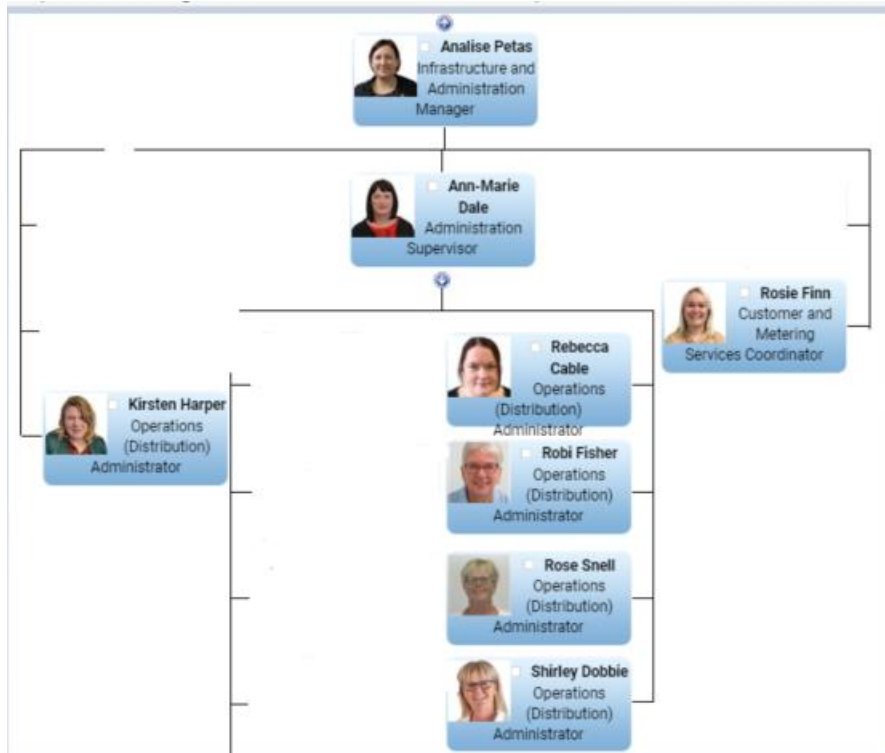
It was discussed with the PowerNet staff. The Electricity Authority website was checked.

Audit commentary

There is one exemption in place, Exemption Number 332. The Power Company is exempt from fitting metering to the interconnection point with ELIN, which provides an emergency backup supply to Southland Hospital. The exemption was granted on 18 August 2023.

1.2. Structure of Organisation





1.3. Persons involved in this audit

Name	Title	Company
Ann-Marie Dale	Administration Supervisor	PowerNet
Aaron Sinclair	Commercial Manager	PowerNet
Rosie Finn	Customer and Metering Services Co-ordinator	PowerNet
Matthew Ting	Network Asset Engineer	PowerNet
Marie Hallgath	Pricing and Billing Manager	PowerNet
Ewa Glowacka	Electricity Authority Approved Auditor	TEG & Associates Ltd

1.4. Use of contractors (Clause 11.2A)

Code reference

Clause 11.2A

Code related audit information

A participant who uses a contractor

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

Audit observation

PowerNet does not use agents for the functions covered by this audit.

Audit commentary

All functions covered in this audit are performed in-house by PowerNet's staff, or by their database developers Digital Stock Ltd.

1.5. Supplier list

- Ace Computer Consultants
- Digital Stock Ltd

1.6. Hardware and Software

The key infrastructure required for the audited processes comprises of:

- Microsoft SQL Server 2017 (RTM) - 14.0.1000.169 (X64) Aug 22 2017 17:04:49 Copyright (C) 2017 Microsoft Corporation Standard Edition (64-bit) on Windows Server 2012 R2 Datacenter 6.3 <X64> (Build 9600:) (Hypervisor)
- MS Access 2016, MS Access 2019 & MS Access 365 – used for the Legacy ICP System
- PowerNet Connect runs on a virtual server running Microsoft Windows Server 2019 Version 1809 with IIS version 10.0.17763.1
- The virtual server runs on VMware ESX server v6.7.0.54000 on a LENOVO Think System SR650 server, connected to a v5030 SAN

Connect Training / UAT database that can also be used for testing database mods

1.7. Breaches or Breach Allegations

No breaches and alleged breaches were recorded in the period covered by this audit.

1.8. ICP and NSP Data

TPCO

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
TPCO	BLF0111	Bluff	INV0331	TPCO	SOUTHLDTPCOG	I	1/05/08	0
TPCO	EDN0331	Edendale			SOUTHLDTPCOG	G	1/03/16	1,857
TPCO	ELL0111	Elles Rd	INV0331	TPCO	SOUTHLDTPCOG	I	1/05/08	0
TPCO	GOR0331	GORE			SOUTHLDTPCOG	G	1/03/16	10,296
TPCO	INV0331	Invercargill			SOUTHLDTPCOG	G	1/05/08	10,492
TPCO	LEV0331	Leven St	INV0331	TPCO	SOUTHLDTPCOG	I	1/05/08	0
TPCO	NMA0331	Nth Makarewa			SOUTHLDTPCOG	G	1/05/08	16,777
TPCO	OCB0111	CB46	INV0331	TPCO	SOUTHLDTPCOG	I	1/05/08	0
TPCO	SOU0331	Southern Sub	INV0331	TPCO	SOUTHLDTPCOG	I	1/05/08	0

TPCO	STD0111	Stead St	INV0331	TPCO	SOUTHLDTPCOG	I		0
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Status	Number of ICPs (12/04/2024)	Number of ICPs (2023)	Number of ICPs (2021)	Number of ICPs (2020)	Number of ICPs (2019)
New (999,0)	2	1	1	0	1
Ready (0,0)	75	93	101	105	84
Active (2,0)	37,858	37,530	36774	36,489	36,229
Distributor (888,0)	1	1	1	1	1
Inactive – new connection in progress (1,12)	37	48	94	51	58
Inactive – electrically disconnected vacant property (1,4)	1,256	1,241	1,348	1,355	1,381
Inactive – electrically disconnected remotely by AMI meter (1,7)	151	143	106	85	57
Inactive – electrically disconnected at pole fuse (1,8)	29	26	21	14	17
Inactive – electrically disconnected due to meter disconnected (1,9)	7	8	9	10	7
Inactive – electrically disconnected at meter box fuse (1,10)	0	0	2	0	1
Inactive – electrically disconnected at meter box switch (1,11)	1	1	0	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	2	1	10	22	21
Inactive – reconciled elsewhere (1,5)	3	3	1	1	1
Decommissioned (3)	4,293	4,161	3,981	3,819	3,721

ELIN

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
ELIN	BLF0111	Bluff	INV0331	ELIN	INVGILLELING	I	01/05/08	0
ELIN	ELL0111	Elles Rd	INV0331		INVGILLELING	I	01/05/08	0
ELIN	INV0331	Invercargill		ELIN	INVGILLELING	G	01/05/08	18,070
ELIN	LEVO331	Leven St	INV0331	ELIN	INVGILLELING	I	01/05/08	0
ELIN	OCB0111	IVC-CB13	INV0331	ELIN	INVGILLELING	I	01/05/08	0
ELIN	STD0111	Stead St	INV0331	ELIN	INVGILLELING	I	01/05/08	0

Status	Number of ICPs (10/04/2024)	Number of ICPs (2023)	Number of ICPs (2021)	Number of ICPs (2020)	Number of ICPs (2019)
New (999,0)	0	3	0	0	1

Ready (0,0)	18	24	38	8	20
Active (2,0)	17,699	17,562	17,485	17,405	17,416
Distributor (888,0)	2	2	1	1	0
Inactive – new connection in progress (1,12)	13	38	19	18	15
Inactive – electrically disconnected vacant property (1,4)	231	266	265	298	321
Inactive – electrically disconnected remotely by AMI meter (1,7)	81	62	46	66	47
Inactive – electrically disconnected at pole fuse (1,8)	16	11	6	7	8
Inactive – electrically disconnected due to meter disconnected (1,9)	4	5	4	3	1
Inactive – electrically disconnected at meter box fuse (1,10)	4	2	3	2	3
Inactive – electrically disconnected at meter box switch (1,11)	1	1	0	0	1
Inactive – electrically disconnected ready for decommissioning (1,6)	0	0	1	4	4
Inactive – reconciled elsewhere (1,5)	1	0	0	0	0
Decommissioned (3)	1,665	1,587	1,530	1,454	1,350

OTPO

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
OTPO	BAL0331	Balclutha			BALCTHAOTPOG	G	01/01/12	10,032
OTPO	HWB0331	Halfway Bush			PALMSBYOTPOG	G	07/11/14	3,696
OTPO	NSY0331	Naseby			PALMSBYOTPOG	G	01/05/08	2,707

Status	Number of ICPs (12/04/2024)	Number of ICPs (2023)	Number of ICPs (2021)	Number of ICPs (2020)	Number of ICPs (2019)
New (999,0)	0	0	0	0	0
Ready (0,0)	15	31	31	27	23
Active (2,0)	15,640	15,553	15,343	15,189	15,103
Distributor (888,0)	0	0	0	0	0
Inactive – new connection in progress (1,12)	14	22	44	30	22
Inactive – electrically disconnected vacant property (1,4)	672	655	670	678	661
Inactive – electrically disconnected remotely by AMI meter (1,7)	67	44	45	44	39

Inactive – electrically disconnected at pole fuse (1,8)	16	13	11	9	7
Inactive – electrically disconnected due to meter disconnected (1,9)	10	10	10	6	5
Inactive – electrically disconnected at meter box fuse (1,10)	0	0	0	0	0
Inactive – electrically disconnected at meter box switch (1,11)	0	2	2	2	0
Inactive – electrically disconnected ready for decommissioning (1,6)	0	0	10	25	43
Inactive – reconciled elsewhere (1,5)	1	1	2	0	0
Decommissioned (3)	2,115	2,062	1,965	1,902	1,860

LLNW

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
LLNW	CLVL0111	Kirimiko Crescent Wanaka	CML0331	DUNE	CLV011LLNWE	E	17/05/21	79
LLNW	FKN0331	Frankton			LAKELNDLLNWG	G	01/10/08	3,901
LLNW	NLK0111	Outlet Rd Wanaka	CML0331	DUNE	NLK0111LLNWE	E	12/07/17	735
LLNW	WTR0111	Shortcut Road Cromwell	CML0331	DUNE	WTR011LLNWE	E	20/05/21	141
LLNW	NTU0111	George Road Queenstown	FKN0331	DUNE	NTU011LLNWE	E	27/06/22	28

Status	Number of ICPs (12/04/2024)	Number of ICPs (2023)	Number of ICPs (2021)	Number of ICPs (2020)	Number of ICPs (2019)
New (999,0)	0	0	0	0	1
Ready (0,0)	29	23	32	53	15
Active (2,0)	4,759	4,308	3,032	2,399	2,025
Distributor (888,0)	0	0	0	0	0
Inactive – new connection in progress (1,12)	66	47	105	79	45
Inactive – electrically disconnected vacant property (1,4)	21	14	37	23	7
Inactive – electrically disconnected remotely by AMI meter (1,7)	8	10	6	8	2
Inactive – electrically disconnected at pole fuse (1,8)	0	0	0	0	0

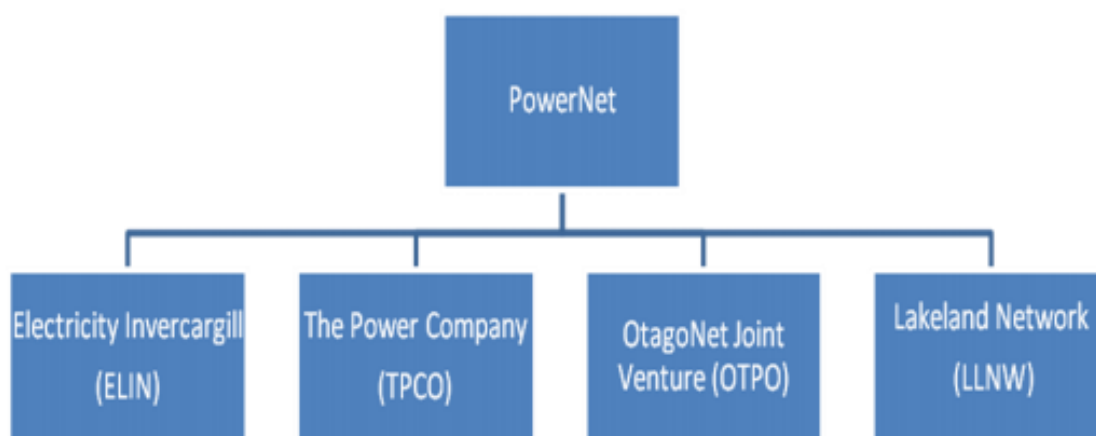
Inactive – electrically disconnected due to meter disconnected (1,9)	1	1	3	3	4
Inactive – electrically disconnected at meter box fuse (1,10)	0	1	0	1	0
Inactive – electrically disconnected at meter box switch (1,11)	0	0	0	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	0	0	2	9	9
Inactive – reconciled elsewhere (1,5)	0	0	0	0	0
Decommissioned (3)	180	159	131	106	89

1.9. Authorisation Received

PowerNet provided the auditor with a letter of authorization permitting data collection from other parties regarding matters directly related to the audit.

1.10. Scope of Audit

This audit was performed at PowerNet’s request as required by clause 11.10 of Part 11 to assure compliance with the Electricity Industry Participation Code 2010. PowerNet Limited is a joint venture that manages the electricity reticulation networks of Electricity Invercargill Limited, The Power Company Limited, OtagoNet Joint Venture, and Electricity Southland Limited (Lakeland Network).



This audit covers the following processes under clause 11.10(4) of Part 11 performed by PowerNet on behalf of the networks listed above:

- (a) -The creation of ICP identifiers for ICPs
- (b) -The provision of ICP information to the registry and the maintenance of that information
- (c) - The creation and maintenance of loss factors

The audit was carried out on the PowerNet premises at 251 Racecourse Road in Invercargill, on the 14-16 May 2024.

1.11. Summary of previous audit

TPCO

Subject	Section	Clause	Non Compliance	Comment
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Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A relatively small quantity of information in the registry was inaccurate	Still exists
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	TPCO - 1.56% of IECD input to Registry late	Still exists
Changes to registry information	4.1	8 of Schedule 11.1	Registry information not updated within 3 business days	Still exists
ICP Location Address	4.4	2 of Schedule 11.1	A small number of duplicate addresses was identified across all networks	Still exists
Distributors to Provide ICP Information to the Registry	4.6	7(1) of Schedule 11.1	No IECD entry for TPCO (3 ICP)	Still exists

ELIN

Subject	Section	Clause	Non Compliance	Comment
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A relatively small quantity of information in the registry was inaccurate,.	Still exists
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	2.47% of IECD input to registry late IECD populated for ICP with the status "New" - ELIN	Still exists
Changes to registry information	4.1	8 of Schedule 11.1	Registry information not updated within 3 business days	Still exists
ICP Location Address	4.4	2 of Schedule 11.1	A small number of duplicate addresses was identified across all networks	Still exists
Distributors to Provide ICP Information to the Registry	4.6	7(1) of Schedule 11.1	No UML entry for ELIN (3 ICP) No IECD entry for ELIN (1 ICP)	Cleared

			IECD populated for ICP with the status "New" - ELIN	
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OTPO

Subject	Section	Clause	Non Compliance	Comment
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A relatively small quantity of information in the registry was inaccurate,.	Still exists
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	4.8% of IECD input to registry late Incorrect IECD for 2 ICPs	Still exists
Changes to registry information	4.1	8 of Schedule 11.1	Registry information not updated within 3 business days	Still exists
ICP Location Address	4.4	2 of Schedule 11.1	A small number of duplicate addresses was identified across all networks	Still exists
Distributors to Provide ICP Information to the Registry	4.6	7(1) of Schedule 11.1	No UML entry for No IECD entry for OTPO (2 ICPs)	Cleared

LLNW

Subject	Section	Clause	Non Compliance	Comment
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	A relatively small quantity of information in the Registry was inaccurate.	Still exists
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	1.16% of IECD input to registry late	Still exists
Connection of NSP that is not point of connection to grid	3.9	10.30	The meter installation certification expiry date advised 5 days after certification for NSP NTU0111	Cleared

Changes to registry information	4.1	8 of Schedule 11.1	Registry information not updated within 3 business days	Still exists
ICP Location Address	4.4	2 of Schedule 11.1	A small number of duplicate addresses was identified across all networks	Still exists
Distributors to Provide ICP Information to the Registry	4.6	7(1) of Schedule 11.1	No UML entry for LLNW(1 ICP) No IECD entry for LLNW (1 ICP)	Cleared
Responsibility for metering information when creating an NSP that is not a POC to the grid	6.9	10.25(2)	The meter installation certification expiry date for NTU0111 was provided to the reconciliation manager more than five business days after certification.	Cleared

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

The Audit Compliance Reports, LIS and EDA files for the audit period and registry were checked. It was discussed with PowerNet staff what processes were in place to ensure correct information was in their systems (PowerNet Connect) and provided to the registry.

Audit commentary

PowerNet Connect delivers distributor functions such as creating ICPs, maintaining registry information, and maintaining NSPs. Changes to any data in PowerNet Connect are sent automatically overnight to the registry, but they can also be sent manually.

Despite the efforts to maintain accurate information, PowerNet relies on timely information from third parties, and data entry is largely manual, so errors are understandable from time to time.

According to the new connection process, new ICPs are uploaded once an acceptance email is received from the trader and logged in PowerNet Connect. It appears that in some instances, when a new ICP identifier is first uploaded to the registry, the Creation Date is uploaded to the registry, not the Trader Authority Date field. This leads to incorrect information in the registry and increases the number of backdated entries, impacting PowerNet compliance. It was noted in the previous audit.

We sampled 20 randomly chosen distributed generation connections and noted the Effective Date of connecting distributor generation in the registry is the same as the Input Date, which is incorrect. The outcome of such a process is that information recorded in the Audit Compliance reports related to the timeliness of updates of distributed generation information in the registry does not truly reflect a level of compliance. We also noted that for 30% of sampled ICPs, the value of Generation Capacity in the registry was incorrect. It is important to note that documentation of the connection of solar/batteries is complicated and difficult to interpret.

Section	Registry Discrepancy
3.5	TPCO – 0.89% of IECD input to Registry late ELIN - 0.7% of IECD input to Registry late OTPO – 4.5% of IECD input to Registry late LLNW – 1.64% of IECD input to Registry late
4.1	Registry information not updated within 3 business days by all PowerNet Distribution Networks ELIN, TPCO, LLNW, OTPO
4.4	A number of duplicate addresses created was identified <ul style="list-style-type: none"> • ELIN – 6 ICPs • LLNW – 15 ICPs • OTPO – 55 ICPs • TPCO – 37 ICPs
4.6	<ul style="list-style-type: none"> • No IECD entry TPCO – 2 ICPs

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: clause 11.2(1) and 10.6(1) From: 01-Feb-23 To: 31-Mar-24	A relatively small quantity of information in the registry was inaccurate, it was spread broadly across all PowerNet networks ELIN, TPCO, LLNW, OTPO. Potential impact: Low Actual impact: Low Audit history: Many times previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as moderate. The audit risk rating is assigned as low due to the relatively low number of ICPs involved.		
Actions taken to resolve the issue		Completion date	Remedial action status
Continual development of PowerNet Connect and additional support reporting to monitor these details and work towards resolving the issue. Use of the Audit Compliance Report to help monitor these issues, this will be run monthly.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As above		Ongoing	

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

Code reference

Clause 11.2(2) and 10.6(2)

Code related audit information

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

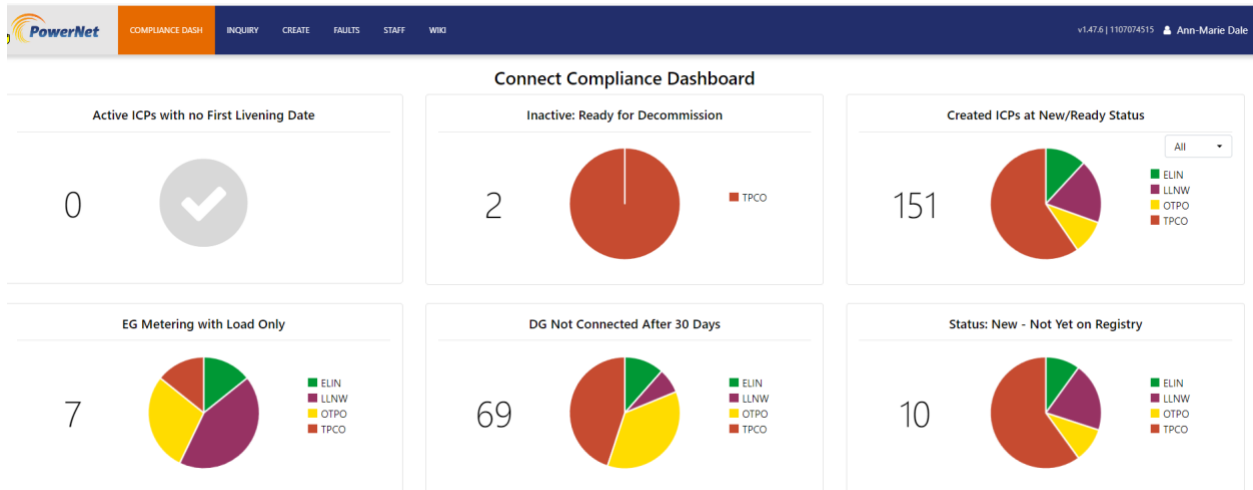
Audit observation

The Audit Compliance Reports for the audit period and the LIS and EDA files were checked. It was discussed with PowerNet staff what processes were in place to identify incorrect information in their systems and the registry and the process to correct that data as soon as practicable.

Audit commentary

PowerNet Connect has a range of exception reports and a dashboard view to more closely monitor key information, enabling investigation and leading to timely error correction. Some of the reports are shown below:

- ICPs made ACTIVE with no first living date
- ICPs with the status “inactive de-energised ready for decommissioning.”
- New ICP Created Not yet on the Registry
- EG metering with Load only
- Distributed Generation Approved Not Yet Connected



Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

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

Audit observation

This was discussed during the audit.

Audit commentary

It is PowerNet’s policy not to work on the customers’ installation. If there is a problem with the meter, customers are advised to contact their retailer or their electrician.

The only time seals are broken and replaced is in emergency situations or during the annual metering inspections. In each situation, the MEP is notified.

Audit outcome

Compliant

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

Code reference

Clause 11.30A

Code related audit information

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

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

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

Audit observation

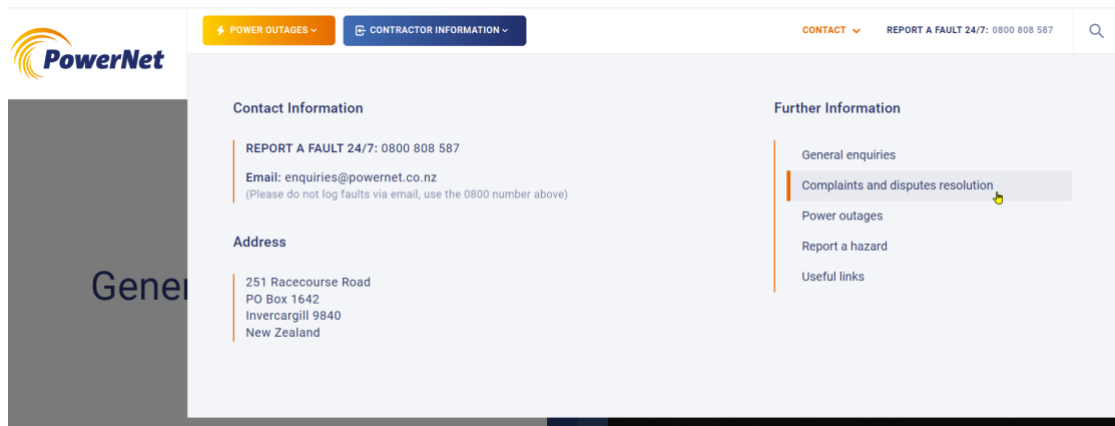
This was discussed during the audit.

Audit commentary

We examined the PowerNet website and confirmed that information about Utilities Disputes is present in the Disclosures section.

At the bottom of the email sent to customers, there is the following text:

Customer service is important to us at PowerNet. If we don't meet your expectations, we would like the opportunity to work through a solution with you; please call our office on 03 211 1899. If we are unable to resolve your concern, there is a free and independent resolution service available through Utilities Disputes Limited www.udl.co.nz



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 Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

PowerNet uses PowerNet Connect to create ICPs for connections on all of its networks.

Customers apply to PowerNet for a new connection using an online Installation Connection Application form. New connection applications are assessed to ensure the proposed connection meets PowerNet requirements. New non-residential connections are set up in Maximo, and a project manager is assigned to them. Any customer charges associated with the new connection are calculated, and a quote is provided to the customer for acceptance. When the customer notifies PowerNet that they have accepted the quote and paid a 50 % deposit, the application is approved, and an ICP identifier is created in PowerNet Connect.

The installation owner or their representative is provided with the ICP. An email is also sent to the trader nominated by the customer. Once an acceptance email is received from the trader and logged in PowerNet Connect, the ICP is uploaded to the registry. The registry is populated with the new ICP in the overnight update.

PowerNet has agreements with Contact Energy, Genesis, and Trustpower, under which, for all new connections where a customer nominates them as a proposed trader, the ICPs are automatically accepted by those traders.

The process is well documented and appears to be followed, as no discrepancies were identified in the sample. The table below shows the number of ICPs created for new connections during the audit period.

Network	ICPs issued during the audit period
TPCO	438
ELIN	153
OTPO	156
LLNW	750
Total	1,497

Audit outcome

Compliant

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

Code reference

Clause 11.5(3)

Code related audit information

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

Audit observation

The Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records proportioned by the network was also checked.

Audit commentary

Customers are requesting PowerNet to create an ICP identifier for new connection.

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 Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

New connection application information is recorded in PowerNet Connect. Once technical issues are evaluated and the customer agrees to all charges relating to the application, it is approved. Then, an ICP identifier is created in PowerNet Connect and provided to the installation owner or their representative. An email is also sent to the trader nominated by the customer. PowerNet has agreements with Contact Energy, Genesis, and Trustpower whereby, for all new connections where a customer nominates them as a proposed trader, the ICPs are automatically accepted by those traders.

Once the trader accepts the ICP, it is logged in PowerNet Connect, and the ICP identifier and associated information are uploaded to the registry overnight. The upload process includes functionality to ensure mandatory fields are populated before the information is uploaded. The registry assigns the status "READY."

The connections of capacity greater than 100 kVA are uploaded to the registry with no price category and loss category codes; therefore, the status assigned by the registry is "NEW". These customers have their price category and loss category codes assigned later on after a verification of their initial capacity is recorded on the application by the Billing Section. Once a price category and loss category is uploaded, the registry status is changed to "READY".

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 Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

ICP information is uploaded to the registry after the trader accepts a new ICP connection. The registry assigns the "READY" status. PowerNet has agreements with Contact Energy, Trustpower, and Genesis for all new connections where a customer nominates them as a proposed trader; those traders automatically accept the ICPs.

The Audit Compliance report identified the two ICPs that remained in the Status "NEW" prior to electricity being traded at the ICP. After closer analysis, we found a reasonable justification for compliance.

ICP	Audit Compliance Report	Comment
0000834399NV617	Made "Active" by MERX 25/03/24 effective 19/03/24. Made "Ready" by ELIN 21/03/24 backdated to 19/03/24	This connection chargeable capacity is 500 kVA. This customers has their price category and loss category codes assigned later on, after a verification of its initial capacity recorded on the application by the Billing Section. Once a price category and loss category is uploaded, the registry status is changed to "READY".
0074471015NV261	Made "Active" by MERX 19/10/23 effective 30/01/23. Made "Ready" by ELIN 17/07/23 backdated to 21/10/22	This connection chargeable capacity is 150 kVA. This customers has their price category and loss category codes assigned later on, after a verification of its initial capacity recorded on the application by the Billing Section. Once a price category and loss category is uploaded, the registry status is changed to "READY".

Audit outcome

Compliant

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

Code reference

Clause 7(2A) of Schedule 11.1

Code related audit information

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

Audit observation

The Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

We reviewed the Audit Compliance reports, the summary of findings are in the table below.

Network	ICPs Connected During Audit Period	IECD Input to the registry later than 10 business days	Comment
TPCO	336	3 (0.89%)	Range 13- 74 business days
ELIN	129	1 (0.7%)	23 business days
OTPO	133	6 (4.5%)	Range 11 - 29 business days
LLNW	669	11 (1.64%)	Range 11 - 159 business days
Total	1,267	21 (1.68%)	

We would like to acknowledge that PowerNet compliance has improved in this area (last audit 1.82% total) since the last audit.

Late information from the field remains a key reason for late updates. PowerNet staff commented that the exception monitoring dashboard in PowerNet Connect has contributed to this improvement. The dashboard is monitored daily, so PowerNet followed up with installations that have been livened, but no paperwork has been received in the office yet.

Daily monitoring of the PowerNet Connect dashboard identifies ICPs that have become "Active", but no IECD has been loaded. This prompts updating the registry and investigating missing information from the field.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1 From: 01-Feb-23 To: 31-Jan-23	TPCO – 0.89% of IECD input to registry late ELIN - 0.7% of IECD input to registry late OTPO – 4.5% of IECD input to registry late LLNW – 1.64% of IECD input to registry late Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as strong. The ICP connection management system and processes applied have demonstrated improved results. They are consistent across networks. The audit risk rating is assigned as low due to negligible impact on settlement outcomes.		
Actions taken to resolve the issue		Completion date	Remedial action status
Creation of PowerNet Connect Dashboard that identifies “ACTIVE” ICPs without IECD is updated and monitored daily. This is available to all Operators who enter this data. We are pleased with the improvement in this area but continue to strive for Compliance.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As above		Ongoing	

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

Code reference

Clause 11.17

Code related audit information

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

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

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

Audit observation

The Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

New connection information is captured in PowerNet Connect, and once the customer’s application is approved, an ICP identifier is created in PowerNet Connect, and information is provided to the installation owner or their representative. An email is also sent to the trader nominated by the customer. Once an acceptance email is received from the trader and logged in PowerNet Connect, the ICP and associated information is provided to the registry in an overnight upload. PowerNet has agreements with Contact Energy, Genesis, and Trustpower whereby, for all new connections where a customer nominates them as a proposed trader, the ICPs are automatically accepted by those traders. The date the trader took responsibility for the ICP is recorded in the Trader Authority Date field in PowerNet Connect.

The Trader Authority Date field is uploaded to the registry. We observed some inconsistencies. On some occasions, PowerNet Connect uploads the Creation Date of ICP, not the Trader Authority Date field, as the Effective Date in the registry. This leads to incorrect information in the registry and increases the number of backdated entries, impacting PowerNet compliance.

It was discussed with PowerNet and will be addressed in a new Power Connect version when PowerNet implements it.

The sampling demonstrated that ICPs had traders recorded in PowerNet Connect prior to IECD.

Audit outcome

Compliant

Recommendation	Description	Audited party comment	Remedial action
<p>Review process of uploading new ICPs to the registry. Create a consistent process what date is used as the Effective Date in the registry. Our recommendation is use Trader Authority Date.</p>	<p>It appears that in some instances when a new ICP identifier is firstly uploaded to the registry, the Creation Date is uploaded to the registry, not the Trader Authority Date field. This leads to incorrect information in the registry and increases the number of backdated entries which impacts PowerNet compliance</p>	<p>Agree with recommendation.</p>	<p>PowerNet are looking to move from the PowerNet Connect database to an updated ARC database this Financial Year which should allow us to improve our compliance in this area as it appears that, in some instances, the incorrect date is being pulled through from our Database to the Registry.</p>

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

Code reference

Clause 10.31

Code related audit information

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

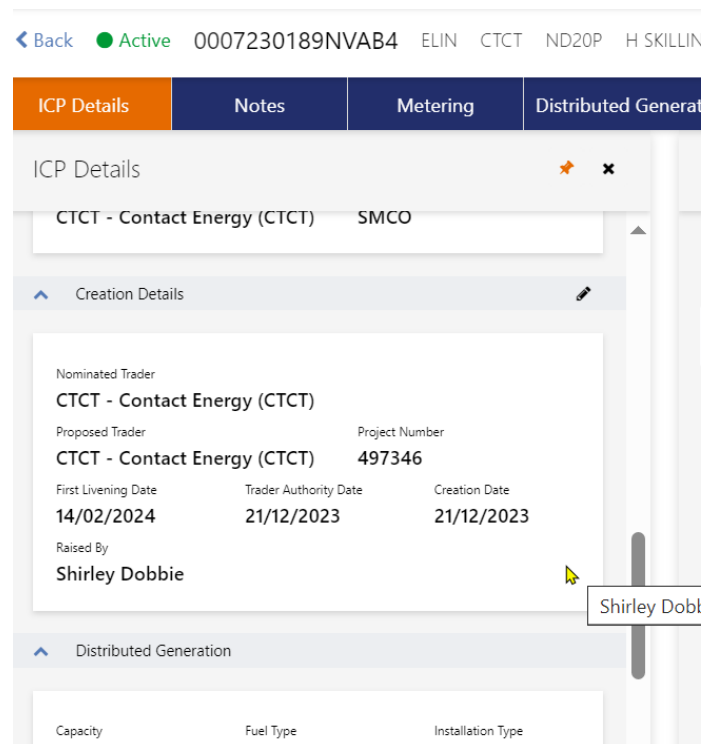
Audit observation

The Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

New connection information is captured in PowerNet Connect, and once the customer's application is approved, an ICP identifier is created in PowerNet Connect, and information is provided to the installation owner or their representative. An email is also sent to the trader nominated by the customer; this email also asks the trader to approve the connection of the ICP when it is ready to do so. Once an acceptance email is received from the trader and logged in PowerNet Connect the ICP identifier and associated information is provided to the Registry in an overnight upload. The upload process includes the functionality to ensure mandatory fields are populated before the information is uploaded to the registry. PowerNet has agreements with Contact Energy, Genesis, and Trustpower whereby, for all new connections where a customer nominates them as a proposed trader, the ICPs are automatically accepted by those traders.

The trader's request to connect is inherent in the date the trader took responsibility for the ICP recorded in the Trader Authority Date field in PowerNet Connect.



PowerNet does not allow any new shared unmetered load connected to networks managed by them.

Audit outcome

Compliant

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

Code reference

Clause 10.31A

Code related audit information

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

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

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

advising all traders would impose a material cost on the distributor, and

in the distributor's reasonable opinion the advice would not result in any material benefit to any of the traders.

Audit observation

The new connection process documents were reviewed and discussed with PowerNet staff.

Audit commentary

PowerNet staff state there have not been any requests to temporarily electrically connect any installation during this audit period.

PowerNet staff are aware of the Code requirements in this area.

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 trader responsible for ensuring there is a metering installation for the point of connection.

The distributor that initiates the connection under Part 11 and connects the NSP must, within 5 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 Audit Compliance Reports, LIS, EDA reports and the registry were checked for the audit period. The registry NSP table and the Network Supply Point table were reviewed. The clause was discussed with PowerNet staff.

Audit commentary

No new NSP was created during the audit period.

Audit outcome

Compliant

3.10. Electrical connection of NSP that is not point of connection to grid (Clause 10.30A and 10.30B)

Code reference

Clause 10.30A and 10.30B

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.

A distributor may only electrically connect an NSP if:

- each distributor connected to the NSP agrees
- the trader responsible for delivery of submission information has requested the electrical connection
- the metering installations for the NSP are certified and operational metering

Audit observation

The clause was discussed with PowerNet staff.

Audit commentary

PowerNet staff states that during this audit period, there have been no requests to temporarily electrically connect any NSP that is not a point of connection to the grid, as no new NSP was created.

PowerNet staff are aware of the Code requirements in this area.

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:

xxxxxxxxxxccc where:

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

Audit observation

The Audit Compliance Reports, LIS, EDA reports and the Registry were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

ICP identifiers for the PowerNet Networks are generated by PowerNet Connect. They use a combination of the road number and connection location along the road to create a unique installation number. The operator then combines this number with one of the distributor codes from the table to create each ICP associated with that distribution network.

- TPCO – The Power Company - TP

- ELIN – Electricity Invercargill - NV
- OTPO – Otago Net JV - TG
- LLNW – Lakeland – LN

It was verified that Power Connect creates correctly formatted ICPs and uploads them to the registry.

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 Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

All ICPs with the status of “READY”, “ACTIVE”, and “INACTIVE” have a single loss category code assigned. The loss category code is assigned to an ICP when it is first uploaded to the registry. It excludes ICP identifiers for big customers with a capacity greater than 100 kVA for which loss category code is individually calculated/assigned and loaded to the registry after the initial uploading of the ICP identifier.

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 Audit Compliance Reports, LIS and EDA reports were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

ICP identifiers for new connections with capacity >100 kVA are uploaded without price category and loss category codes, and therefore, the registry status is “NEW.” These customers have the price category and loss category codes assigned later after the Billing Section verifies the initial capacity recorded on the application. The registry status is changed to “READY” after uploading price and loss category codes.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

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

Audit observation

The audit compliance reports, LIS, EDA reports, and the registry were checked for the audit period. This was discussed with the PowerNet staff.

Audit commentary

There were no ICPs in the Registry with NEW status for two years or more for any of the distributor networks PowerNet are responsible for.

Distributor Network	READY 2024	READY 2023	READY 2021	READY 2020	READY 2019	READY 2018
TPCO	1	2	0	6	7	6
ELIN	1	5	0	2	2	0
OTPO	2	2	0	0	2	2
LLNW	0	0	0	0	1	0

PowerNet staff advises that they have been actively contacting customers and checking if ICPs are still required for any appearing on the monitoring dashboard. As a result of these checks, where appropriate, this situation is also referred to the trader. The number of ICPs in the “Ready” status has decreased since the last audit.

Audit outcome

Compliant

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

Code reference

Clause 7(6) Schedule 11.1

Code related audit information

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

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

Audit observation

The LIS, EDA reports, and registry were checked for the audit period. The registry NSP table was reviewed, and the clause was discussed with PowerNet staff.

Audit commentary

TPCO—ICP 0000315340TPEFC White Hill wind farm has a capacity of 58MW and a Loss Factor Code PNL42. During this audit period, PowerNet added another ICP 0002196805TPA77 (Wind farm Kaiwera Downs) with a capacity of 43MW. The Loss Factor is PNLKAI.

OTPO – ICP 0002751984TGB5D Paerau-Patearoa Power Station has a capacity of 12.45MW with Loss Factor Code 2751984.

It is confirmed that each ICP has an individual loss category code.

Audit outcome

Compliant

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

Code reference

Clause 10.33A(4)

Code related audit information

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

Audit observation

The Audit Compliance Reports, LIS, EDA reports and the registry were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records, proportioned by network, was also checked.

Audit commentary

An email is sent to the trader nominated by the customer; this email also asks the trader to approve the connection of the ICP when it is ready to do so. Once an acceptance email is received from the trader and logged in PowerNet Connect, the ICP identifier and associated information are provided to the registry in an overnight upload.

The trader's request to connect is inherent in the date the trader took responsibility for the ICP recorded in the Trader Authority Date field in PowerNet Connect.

It was noted that PowerNet Staff do not electrically connect new ICP connections to the network. Traders issue instructions directly to MEP metering technicians that hold PowerNet warrants to electrically connect ICPs on the distribution networks PowerNet are responsible for. PowerNet provides authorisation to electrically connect each ICP via approval of the connection application form, which is provided to the metering technician by the customer applicant or their agent (usually the customer electrician), who must have this on-site at the initial electrical connection.

Applicant	Location	Loadings	Other	Mains	Capacity	Electrician
Motor	Declaration					

Electrician

Name*

Company*

Phone* **Email***

Preferred Inspector **Phone**

Preferred Meter Installer **Phone**

Audit outcome

Compliant

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

Code reference

Clause 10.30C and 10.31C

Code related audit information

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

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

Audit observation

This was discussed during the audit with PowerNet staff.

Audit commentary

PowerNet does complete disconnections only when an ICP is decommissioned. PowerNet will electronically disconnect only with authorisation from the property owner in conjunction with any tenant. This may come as a request directly from them via the online Disconnection Form or via a Retailer Service Request that PNET would then contact the owner and ask for the form to be completed.

PowerNet will send their linemen out to totally remove the line from the network and pull the fusing, and where they are the MEP or agent for the MEP (SMCO), they will also retrieve the meters. The retailer is notified and requests the ICP status be moved as of the de-energisation date and decommission the ICP in the registry.

Audit outcome

Compliant

3.18. Meter bridging (Clause 10.33C)

Code reference

Clause 10.33C

Code related audit information

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

The distributor can then only proceed with bridging the meter if, despite best endeavours:

- *the MEP is unable to remotely electrically connect the ICP*
- *the MEP cannot repair a fault with the meter due to safety concerns*
- *the consumer will likely be without electricity for a period which would cause significant disadvantage to the consumer*

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

Audit observation

This was discussed during the audit with the PowerNet staff.

Audit commentary

PowerNet stated that their policy is not to bridge meters. It is always done by MEPs. However, if there are hot water issues that cannot be fixed, the repairs will be carried out on the network side, for example, in the pillar or pole. If the problem is with the meter, customers are advised to contact their retailer.

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 10 business days, the notification must be provided no later than the 13th business day and be backdated to the date the change took effect.

In the case of decommissioning an ICP, notification must be given by the later of 3 business days after the registry manager has advised the distributor that the ICP is ready to be decommissioned, or 3 business days after the distributor has decommissioned the ICP.

Audit observation

The EDA files were analysed, and the Audit Compliance Reports were checked for the audit period. This was discussed with PowerNet staff.

The management of registry updates and NSP changes was reviewed. The process was discussed with PowerNet's staff.

Audit commentary

Any changes to ICP information are made in PowerNet Connect. The registry updates are uploaded each evening. The Audit Compliance reports were analysed to identify backdated event updates. The summary of late updates is below:

ELIN

Activity	Number of late entries	Percentage Compliance	Average Business Days between Network Event Date and Network Event input date
Network	26	87.06%	2.05
Decommissioning	8	81.40%	2.16

LLNW

Activity	Number of late entries	Percentage Compliance	Average Business Days between Network Event Date and Network Event input date
Network	37	95.79%	0.85
Decommissioning	1	86.67%	1.47
Distributed generation	3	96.05%	0.84

OTPO

Activity	Number of late entries	Percentage Compliance	Average Business Days between Network Event Date and Network Event input date
Network	21	91.04%	2.10
Decommissioning	10	73.68%	3.29

TPCO

Activity	Number of late entries	Percentage Compliance	Average Business Days between Network Event Date and Network Event input date
Address	29	89.79%	76.76
Network	64	89.54%	4.67
Decommissioning	13	83.12%	2.04
Distributed generation	2	94.3%	2.25

Pricing events

The PowerNet allows the backdating of a price code within a month. If the retailer provides an effective date for the prior month, it will be changed to the 1st day of the current month. If it is PowerNet's fault that it is not processed within the current month –the price change will be backdated to the requested date. The network pricing structure for TPCO and ELIN is complex. In some cases, files requesting a price code change provided by traders contain a lot of ICPs. Evaluating the correctness of traders' requests requires a lot of time and resources. PowerNet commented that it is not always possible to finalise it within 3 business days, but files are processed as soon as possible.

Distributed generation

We sampled 20 randomly chosen ICPs to confirm the correctness of the registry's information. The capacity is correctly recorded in the registry. The Effective Date in the registry is the same as The Input Date, which is incorrect. The outcome of such a process is that information recorded in the Audit Compliance reports related to the timeliness of updates of distributed generation information in the registry does not truly reflect a level of compliance. We also noted that for 30% of sampled ICPs, the value of Generation Capacity in the registry was incorrect. We would like to note that documentation of the connection of solar/batteries is complicated and difficult to interpret.

We identified a few late distributed generation updates in the LLNW and TPCO registry.

The Audit Compliance Report identified 4 ICPs (TPCO), 1 ICP (ELIN), 4 ICPs (LLNW), and 3 ICPs (OTPO), which, according to retailer registry information, have solar installed, but PowerNet stated that this was incorrect.

NSP changes

PowerNet has a process for monitoring weekly logs from System Control to identify NSP changes to satisfy clause 8 (4) of Schedule 11.1. Whilst no actual NSP change discrepancies were identified, the Audit Compliance report noted a small number of possible data entry errors for the TPCO and OTPO network of NSPs. PowerNet reviewed the findings and found that the NSPs allocated to the ICPs in question are correct.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: Clause 8 of Schedule 11.1 From: 01-Feb-23 To: 31-Jan-23	Registry information not updated within 3 business days by all PowerNet Distribution Networks ELIN, TPCO, LLNW, OTPO Potential impact: Low Actual impact: Low Audit history: Multiple times previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as moderate, in majority cases the registry is updated within timeframe specified by the Code. The audit risk rating is assigned as low due to minimal impact on settlement outcomes.		
Actions taken to resolve the issue		Completion date	Remedial action status
Use of the Audit Compliance Report to help monitor these issues, which will be run and monitored monthly.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Use of the Audit Compliance Report to help monitor these issues, which will be run and monitored monthly.		Ongoing	

Recommendation	Description	Audited party comment	Remedial action
Record ROI date as the Effective Date for population of distributed generation information in the registry	The Input Date is recorded as the Effective Date for embedded generation	Agree with Recommendation.	Use ROI date as the Effective Date for population of distributed generation information in the registry

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 EDA files were analysed, the Audit Compliance Reports were checked for the audit period, and the matter was discussed with PowerNet staff.

Audit commentary

NSPs are uploaded into the registry when ICPs are initially loaded into the registry. PowerNet Connect has a network model integrated within it where NSP – transformer - ICP are linked together. If the NSP - transformer relationship changes then all ICPs linked to the transformer are identified so a registry update to the new NSP can be conducted.

Audit outcome

Compliant

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

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

Audit observation

The clause was discussed with PowerNet staff.

Audit commentary

Any request from a customer for advice on an ICP for an existing connection is actioned immediately, while the customer is on the phone or at the office.

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 LIS files, EDA, and Audit Compliance reports were checked for the audit period. It was discussed with the PowerNet staff.

Audit commentary

PowerNet Connect has functionality that ensures assigned addresses are valid and easily located. ICP creation first involves setting up a project in Maximo (PowerNet Asset Management system), including the address that must be verified to produce a project number. The project number and address are input into PowerNet Connect, where the address is validated against existing addresses in PowerNet Connect. If the address is already used, creation of the ICP will not progress. Addresses for new ICPs meet code requirements.

The review of the Audit Compliance reports identified a number of ICPs for which the location address does not allow the ICP to be readily located. It is important to note that it is related to ICPs created in the past. PowerNet is making slow progress in reviewing duplicate addresses.

- ELIN – 6 ICPs
- LLNW – 15 ICPs
- OTPO – 55 ICPs
- TPCO – 37 ICPs

All identified ICPs were created outside of this audit period.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: clause 2 of Schedule 11.1 From: 01-Feb-23 To: 31-Jan-23	A small number of duplicate addresses were identified across all networks <ul style="list-style-type: none"> • ELIN – 6 ICPs • LLNW – 15 ICPs • OTPO – 55 ICPs • TPCO – 37 ICPs Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as moderate. The reason for this non-compliance is recognised and remedial action will be implemented. The audit risk rating is assigned as low due to minimal impact on settlement outcomes.		
Actions taken to resolve the issue		Completion date	Remedial action status
The Audit Compliance Report and PowerNet Connect reporting will continue to be used to identify duplicate addresses. There are several historic ones that require us finding out from the customers of both ICP's if they are for Flats, for example, so that the address can be updated accordingly. We rely on the Retailers supplying customer contact information or contacting their customers directly to achieve this. Some headway has been made since the Audit was undertaken and this will continue to be worked on.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As above		Ongoing	

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 clause was discussed with PowerNet staff.

Audit commentary

PowerNet staff state there are no known ICPs that could not be electrically disconnected without electrically disconnecting another ICP.

Audit outcome

Compliant

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

Code reference

Clause 7(1) Schedule 11.1

Code related audit information

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

- *the location address of the ICP identifier (Clause 7(1)(a) of Schedule 11.1)*
- *the NSP identifier of the NSP to which the ICP is usually connected (Clause 7(1)(b) of Schedule 11.1)*
- *the installation type code assigned to the ICP (Clause 7(1)(c) of Schedule 11.1)*
- *the reconciliation type code assigned to the ICP (Clause 7(1)(d) of Schedule 11.1)*
- *the loss category code and loss factors for each loss category code assigned to the ICP (Clause 7(1)(e) of Schedule 11.1)*
- *if the ICP connects the distributor's network to an embedded generating station that has a capacity of 10MW or more (Clause 7(1)(f) of Schedule 11.1):*
 - a) *the unique loss category code assigned to the ICP*
 - b) *the ICP identifier of the ICP*
 - c) *the NSP identifier of the NSP to which the ICP is connected*
 - d) *the plant name of the embedded generating station*
- *the price category code assigned to the ICP, which may be a placeholder price category code only if the distributor is unable to assign the actual price category code because the capacity or volume information required to assign the actual price category code cannot be determined before electricity is traded at the ICP (Clause 7(1)(g) of Schedule 11.1)*
- *if the price category code requires a value for the capacity of the ICP, the chargeable capacity of the ICP as follows (Clause 7(1)(h) of Schedule 11.1):*
 - a) *a placeholder chargeable capacity if the distributor is unable to determine the actual chargeable capacity*
 - b) *a blank chargeable capacity if the capacity value can be determined for a billing period from metering information collected for that billing period*
 - c) *if there is more than one capacity value at the ICP, and at least one, but not all, of those capacity values can be determined for a billing period from the metering information collected for that billing period-*
 - (i) no capacity value recorded in the registry field for the chargeable capacity; and*

- (ii) either the term “POA” or all other capacity values, recorded in the registry field in which the distributor installation details are also recorded
- d) if there is more than one capacity value at the ICP, and none of those capacity values can be determined for a billing period from the metering information collected for that billing period-
 - (i) the annual capacity value recorded in the registry field for the chargeable capacity; and
 - (ii) either the term “POA” or all other capacity values, recorded in the registry field in which the distributor installation details are also recorded
- e) the actual chargeable capacity of the ICP in any other case
 - the distributor installation details for the ICP determined by the price category code assigned to the ICP (if any), which may be placeholder distributor installation details only if the distributor is unable to assign the actual distributor installation details because the capacity or volume information required to assign the actual distributor installation details cannot be determined before electricity is traded at the ICP (Clause 7(1)(i) of Schedule 11.1)
 - the participant identifier of the first trader who has entered into an arrangement to sell or purchase electricity at the ICP (only if the information is provided by the first trader) (Clause 7(1)(j) of Schedule 11.1)
 - the status of the ICP (Clause 7(1)(k) of Schedule 11.1)
 - designation of the ICP as "Dedicated" if the ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)
 - if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)
 - if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)
 - if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):
 - a) the nameplate capacity of the generator; and
 - b) the fuel type
 - the initial electrical connection date of the ICP (Clause 7(1)(p) of Schedule 11.1).

Audit observation

The Audit Compliance Reports, LIS, files and the registry were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records proportioned by the network was also checked.

Audit commentary

20 new ICPs were randomly selected, and data was checked. No issues were found with the new ICP information.

The examination of the Audit Compliance reports showed that 2 ICPs - 0005270085TP219 and 0004327422TPEOC did not have IECD recorded.

Daily monitoring of the PowerNet Connect dashboard identifies ICPs that have become “Active”, but no IECD has been loaded. This prompts updating the registry and investigating missing information from the field.

The Audit Compliance report identified a small number of ICPs that were electrically connected, but a retailer had not changed their status to “Active.” By the time this report was finalised, most of the ICPs had been claimed by traders.

IECD recorded, but the status is not “Active”

LLNW - 0009868401LNB87 – IECD 05/03/2024, the status “Ready”

TPCO - 0000224304TP9B3 - IECD 27/07/2023, the status “Ready”

0000405588TP0EB - IECD 15/03/2024, the status “Ready”

IECD is different to that of the first active date and/or the meter certification date

The Audit Compliance reports identified the following discrepancies between IECD (Initial Electrical Connection Date) and the first “Active” date.

LLNW – 5 ICPs – we checked with PowerNet and confirmed their registry entry was correct

OTPO – 2 ICPs - we checked with PowerNet and confirmed their registry entry was correct

TPCP – 7 ICPs - we checked with PowerNet and confirmed their registry entry was correct

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: Clause 7(1)(p) Schedule 11.1 From: 01-Feb-23 To: 31-Jan-23	TPCO - No IECD entry for 2 ICPs Potential impact: Low Actual impact: Low Audit history: Many times previously Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as moderate. PowerNet depends a lot on timeliness of information provided by the third parties. The audit risk rating is assigned as low due to a small number of ICPs with minimal impact on settlement outcomes.		
Actions taken to resolve the issue		Completion date	Remedial action status
PowerNet Connect Dashboard identifies “ACTIVE” ICPs without IECD is updated and monitored daily. This is available to all Operators who enter this data.			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
PowerNet will look into why there was a failure of the system in this instance.			

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 Audit Compliance Reports, LIS, EDA files, and the registry were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records was checked.

Audit commentary

New connection information is captured in PowerNet Connect, and once the customer's application is approved, an ICP identifier is created in PowerNet Connect, and information is provided to the installation owner or their representative. An email is also sent to the trader nominated by the customer. Once an acceptance email is received from the trader and logged in PowerNet Connect the ICP identifier and associated information is provided to the Registry in an overnight upload. The upload process includes the functionality to ensure mandatory fields are populated before the information is uploaded to the registry.

ICPs for new connections with capacity >100 kVA are uploaded without price category and loss category codes, and therefore, the registry status is "NEW." These customers have the price category and loss category codes assigned later, after the Billing Section verifies the initial capacity recorded on the application. The registry status is changed to "READY" after uploading the price and loss category codes.

We confirm that all ICPs have the actual price category code assigned to them before the trading of electricity at the ICP commences

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 LIS files and the registry were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff.

Audit commentary

No GPS coordinates are loaded into the registry for any network managed by PowerNet.

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 Audit Compliance Reports, LIS, EDA files and the Registry were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff. A random sample of 20 new ICP connection records was checked.

Audit commentary

New connection information is captured in PowerNet Connect, and once the customer’s application is approved, an ICP identifier is created in PowerNet Connect, and information is provided to the installation owner or their representative. An email is also sent to the trader nominated by the customer. Once an acceptance email is received from the trader and logged in PowerNet Connect, the ICP and associated information is provided to the registry in an overnight upload. The upload process includes functionality to ensure mandatory fields, such as price category, loss category, etc, are populated before the information is uploaded to the registry. The registry assigns the status “Ready”.

ICP for new connections with a capacity greater than 100 kVA are uploaded without a price category and loss category codes; therefore, the “New” status is assigned. Missing information is later uploaded after the Billing Team evaluates the initial application information and the registry changes to the status “Ready.”

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 Audit Compliance Reports, LIS, EDA files and the registry were checked for the audit period. The new connection process documents were reviewed and discussed with PowerNet staff.

Audit commentary

PowerNet manages two distributor status ICPs for ELIN: 0000900392NVB03 and 0090037054NVAED. These ICPs represent a connection to an embedded network known as Kmart.

During this audit period, one new distributor, ICP (0008001164TPFA7), was created. It is a gate meter ICP for the Makarewa FW embedded network.

ICP 0004031015TP9AA was decommissioned. It was a connection to the Aurora embedded network.

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 Audit Compliance Reports, EDA files, and registry were checked for the audit period. The decommission process documents were reviewed and discussed with PowerNet staff. A random sample of 20 decommissioned ICP records was also checked.

Audit commentary

PowerNet will electronically disconnect only with authorisation from the property owner in conjunction with any tenant. This may come as a request directly from them via the online Disconnection Form or via a Retailer Service Request that PowerNet would then contact the owner and ask for the form to be completed. PowerNet put this measure in place to ensure ICPs are not incorrectly de-energised as they often get permanent disconnection requests from the retailer that, after talking to the customer, turn out to be only safety/temporary disconnection only, or even, in some instances for a change to Inactive – Vacant Property.

PowerNet sends its linemen out to totally remove the line from the network, pull the fusing, retrieve the meters, and take a final read, where they are MEP or agent for MEP (SMCO).

Upon the permanent disconnection of the ICP from the network, the completed paperwork is returned to PowerNet on the same day. PowerNet Connect is updated, and the trader is notified, including a final meter reading as required. The trader is asked to update the registry status of the ICP to “Inactive Ready For Decommissioning”. PowerNet monitors the registry via the dashboard and, when the status has been changed, updates the ICP status to “Decommissioned” in PowerNet Connect, which updates the registry with an overnight file update.

We sampled 20 decommissioned ICPs and confirmed that the date of physical decommissioning was recorded as the Effective Date in the registry.

Audit outcome

Compliant

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

Code reference

Clause 23 Schedule 11.1

Code related audit information

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

Each entry must specify the date on which each price category code takes effect, which must not be earlier than 2 months after the date the code is entered in the table.

A price category code takes effect on the specified date.

Audit observation

The Price Category table in the registry was examined for all networks managed by PowerNet. This was discussed with PowerNet staff.

Audit commentary

There were no new Price Category codes recorded in the Registry during the audit period.

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 tables in the registry were examined for all networks managed by PowerNet. This was discussed with PowerNet staff.

Audit commentary

There were no new Loss Category Codes added to the registry tables for any of the PowerNet networks during this audit period.

Audit outcome

Compliant

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

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

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

Audit observation

All PowerNet networks' Loss Category Code tables in the registry were examined, and this was discussed with PowerNet staff.

Audit commentary

PowerNet updated the Loss Factors on the TPCO, ELIN, and OTPO networks during the audit period. The updated loss factors' start dates are 01/05/24, 01/08/2024, and 01/10/2024. The registry was updated on 26/02/2024 and 15/05/2024. OTPO loss factor changes were updated on 31/01/2023; the start date is 01/04/2023

As observed on the registry, the Loss Factor changes met the Code requirements.

Audit outcome

Compliant

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

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

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

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

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

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

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

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

If the distributor wishes to change the record in the registry of an ICP that is not recorded as being usually connected to an NSP in the distributor's network, so that the ICP is recorded as being usually connected to an NSP in the distributor's network (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 mapping table in the registry, the Network Supply Points table, and relevant notifications were reviewed. They were also discussed with PowerNet staff.

Audit commentary

PowerNet staff confirmed that PowerNet did not create new NSP during the audit period.

Last year's audit report noted that the Heritage embedded network, owned by Aurora network, was disestablished. On 31 May 2023, PowerNet decommissioned NSP HER0111, which was connected to the TPCO network. The reconciliation manager was notified about HER0111's decommissioning last year.

The network was de-established, and all ICPs were transferred to the TPCO network as of 1/12/2022. The delay in NSP decommissioning was caused by Aurora Energy's lack of resources to complete the agreed cable work and removal of the gateway meter on 1/12/2022.

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 mapping table in the registry, the Network Supply Points table, and relevant notifications were reviewed, and this was discussed with PowerNet staff.

Audit commentary

PowerNet staff confirmed that the reconciliation manager was not asked to create a new unique NSP identifier 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 mapping table in the registry and the Network Supply Points table were reviewed. It was discussed with PowerNet staff.

Audit commentary

PowerNet staff confirmed that PowerNet did not create a new NSP during this 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 mapping table in the registry and the Network Supply Points table were examined and discussed with PowerNet staff.

Audit commentary

PowerNet staff confirmed that PowerNet did not create a new NSP during this 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 3 business days after the change takes effect.

Audit observation

The NSP mapping table in the registry and the Network Supply Points table were reviewed, and this was discussed with PowerNet staff.

Audit commentary

No balancing areas were changed during the audit period. As described in section 6.1, the balancing area HERITGEDUNEE was decommissioned in May 2023 after HER0111 was decommissioned. The reconciliation manager was advised as required.

Audit outcome

Compliant

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

Code reference

Clause 27 Schedule 11.1

Code related audit information

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

Audit observation

The NSP mapping in the registry and Network Supply Points tables were examined.

Audit commentary

PowerNet staff stated that during the audit period, PowerNet did not transfer any ICP, which resulted in an ICP becoming an NSP at which an embedded network connected to a network or an ICP becoming an NSP that is an interconnection point.

PowerNet staff advise they are aware of the Code requirements.

Audit outcome

Compliant

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

Code reference

Clause 1 to 4 Schedule 11.2

Code related audit information

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

Audit observation

This was discussed with PowerNet staff.

Audit commentary

PowerNet staff stated that PowerNet did not transfer 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 1 or more metering installations (Clause 10.25(1)(a)); and*
- *the electricity is conveyed and quantified in accordance with the Code (Clause 10.25(1)(b))*

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

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

Audit observation

The Network Supply Points table was examined. This was discussed with PowerNet staff.

Audit commentary

The network supply points table was reviewed. All NSPs had certified metering installations on the date the table was checked, and one metering installation had their certification expired during the audit period.

Distributor	NSP POC	Description	MEP	Current expiry	Comment
TPCO/ELIN	STD0111	Interconnection	PWNT	25/07/28	
TPCO/ELIN	ELL0111	Interconnection	PWNT	31/03/33	Exemption
TPCO/ELIN	OCB0111	Interconnection	PWNT	07/07/25	
TPCO/ELIN	BLF0111	Interconnection	PWNT	07/07/25	
TPCO/ELIN	LEV0331	Interconnection	PWNT	27/05/23	
TPCO/ELIN	SOU0331	Interconnection	PWNT	13/09/24	
LLNW	CLV0111	Kirimoko Crescent Wanaka	PWNT	8/07/31	
LLNW	NLK0111	Outlet Road Wanaka	PWNT	27/07/27	
LLNW	NTU0111	Gorge Road Queenstown	PWNT	27/06/32	
LLNW	WTR0111	Shortcut Road Cromwell	PWNT	4/06/31	

We noted that the certification for LEV0331 expired on 27/05/2023. PowerNet confirmed that LEV0331 installation was certified on 21/05/2024

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref 6.8 With: 10.25(1) From: 27-May-23 To: 31-Mar-24	TPCP/ELIN - Installation certification of LEV0331 expired on 27/05/23 Potential impact: Medium Actual impact: Medium Audit history: None Controls: Weak Breach risk rating: 6		
Audit risk rating	Rationale for audit risk rating		
Medium	Controls are recorded as weak. The audit risk rating is assigned as medium because certification for LDEV033 (installation category 5) expired one year ago.		
Actions taken to resolve the issue		Completion date	Remedial action status
This has now been rectified and we now hold a Certificate of Compliance from 21 may 2024 until 21 May 2027.		21/05/24	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
A "task" has been set up for Audit Compliance in our Promapp system so that this is checked before the certification expiry date.		21/05/24	

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 the reconciliation participant for the NSP (Clause 10.25(2)(b)); and
- no later than 5 business days after the date of certification of each metering installation, advise the reconciliation manager of
 - a) the MEP for the NSP (Clause 10.25(2)(c)(i)); and
 - b) the NSP of the certification expiry date (Clause 10.25(2)(c)(ii)).

Audit observation

The NSP mapping table in the registry was reviewed. This was discussed with PowerNet staff.

Audit commentary

PowerNet stated that no new NSP was created during this audit period.

Audit outcome

Compliant

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

Code reference

Clause 29 Schedule 11.1

Code related audit information

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

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

At least 1 month notification is required before the acquisition (Clause 29(2) of Schedule 11.1).

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

Audit observation

This was discussed with PowerNet staff. The LIS files for the audit period and the registry were checked.

Audit commentary

PowerNet staff stated that PowerNet did not acquire all or part of any network during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 10.22(1)(b)

Code related audit information

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

Audit observation

The Network Supply Points table was examined to determine whether there have been any MEP changes during the audit period. This was discussed with PowerNet staff.

Audit commentary

There are no plans to change the MEP for interconnections between Electricity Invercargill and The Power Company and any embedded network managed by PowerNet.

If such a situation occurs, PowerNet will advise the reconciliation manager.

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

This was discussed with PowerNet staff. The LIS files for the audit period and the registry were checked.

Audit commentary

PowerNet staff stated that PowerNet did not transfer 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

This was discussed with PowerNet staff. The LIS reports for the audit period and the registry was checked.

Audit commentary

PowerNet staff stated that PowerNet did not transfer any ICPs during the audit period and that none of the networks it managed created a new embedded network.

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 LIS file and the registry were checked for the audit period. This was also discussed with PowerNet staff.

Audit commentary

PowerNet policy is not to allow a shared unmetered load to be connected on any of the networks it is responsible for.

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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 LIS file and the registry were checked for the audit period. This was also discussed with PowerNet staff.

Audit commentary

PowerNet policy is not to allow a shared unmetered load to be connected on any of the networks it is responsible for.

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

8. CALCULATION OF LOSS FACTORS

8.1. Creation of loss factors (Clause 11.2)

Code reference

Clause 11.2

Code related audit information

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

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

Audit observation

This was discussed with PowerNet staff, and the Asset Management Plans, Information Disclosure documents and Loss Factor Calculation on the PowerNet website were reviewed.

Audit commentary

Network Loss Factors for the networks PowerNet is responsible for are published on the PowerNet website.

PowerNet has published a Loss Factor Calculation Procedure on its website. The document clearly describes PowerNet's philosophy and methodology for calculating Network Loss Factors. PowerNet uses PSS Adept software to calculate the technical loss for its networks.

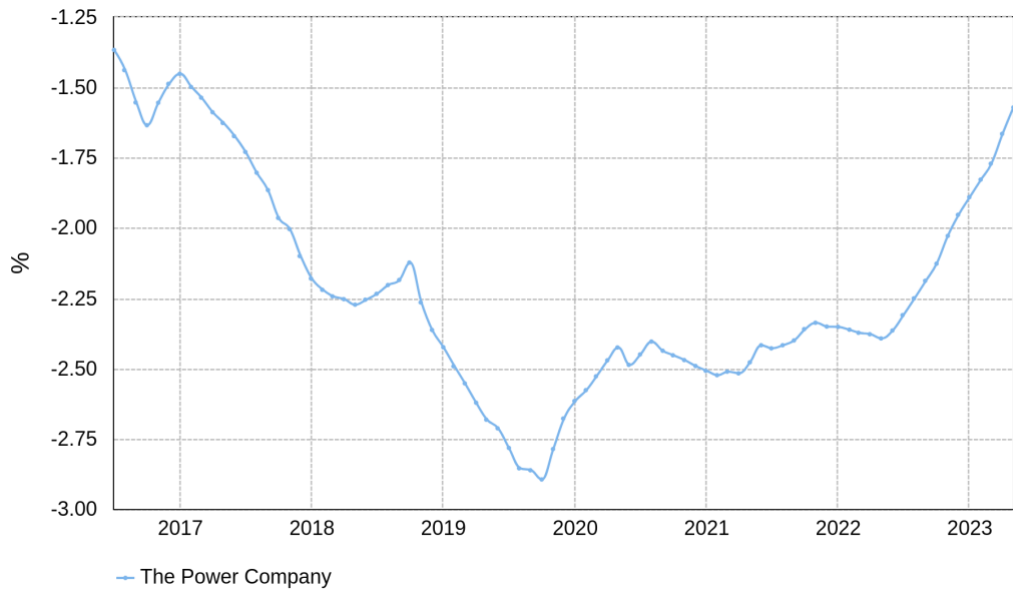
For major customers, the loss factors are reviewed periodically as they may have a noticeable impact on losses.

Last year, PowerNet completed a review of the general customer loss factors for all networks for which it is responsible. Following this review, PowerNet decided on minor adjustments, which were made to the Electricity Invercargill Ltd and The Power Company Limited Loss Factors from 1 May 2024.

Below are graphs of UFE on each network managed by PowerNet. UFE is influenced by many factors, not all of which can be controlled by PowerNet. The UFE figures are different for each network. UFE for Lakeland and the Power Company is negative, while for Electricity Invercargill and Otago Net JV, it is positive.

The Authority's guidelines recommend reviewing RLF every two years if a 12-month UFE trend is outside +/-1 %.

TPCO

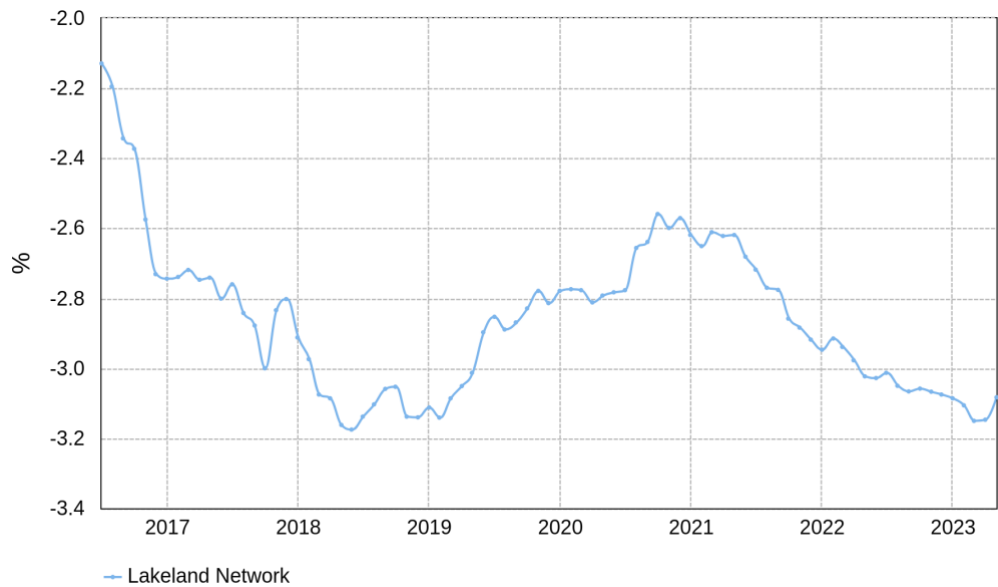


emi.ea.govt.nz/r/as3vm

UFE is approximately 1.6% (trending up) outside the EA recommendation. It decreased by 0.9% since the last audit.

We would like to recommend investigating reasons why the UFE on TPCO is outside +/-1 %.

LLNW

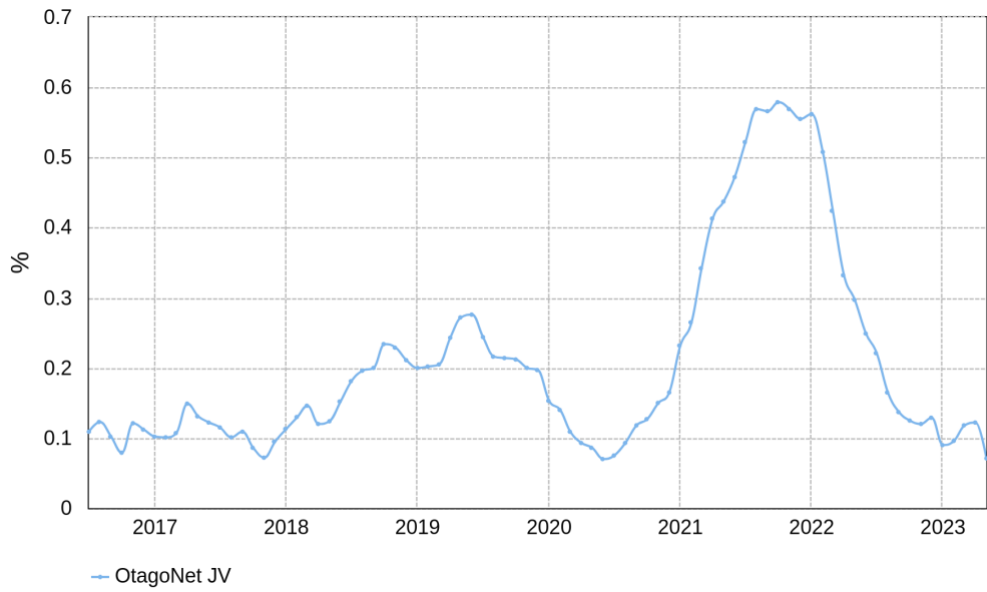


emi.ea.govt.nz/r/3kstp

UFE is approximately 3.1% (trending down) outside the EA recommendation. Negative UFE occurs when traders overstate volumes purchased and/or distributors overestimate loss factors.

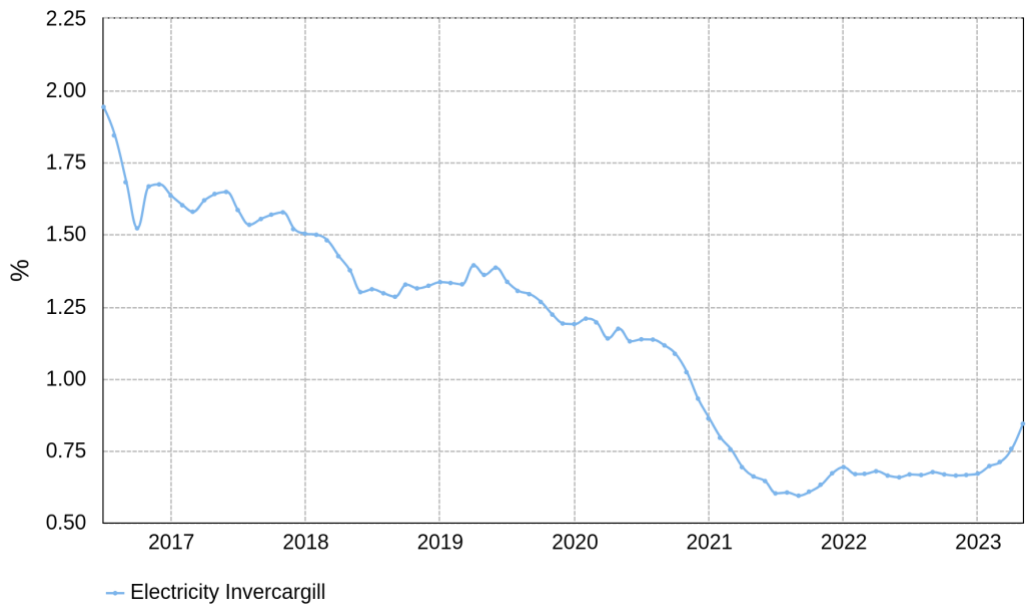
We would like to recommend investigating reasons why the UFE on LLNW is outside +/-1 %.

OTPO



UFE is approximately +0.05 % (trending down), within the EA recommendation.

ELIN



UFE approx. +0.8% (trending up), within the EA recommendation.

Audit outcome

Compliant

CONCLUSION

PARTICIPANT RESPONSE

DRAFT