

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**

For

NORTHPOWER LTD

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Date audit commenced: 9 March 2021

Date audit report completed: 29 April 2021

Audit report due date: 28-Apr-21

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EXECUTIVE SUMMARY

This distributor audit was performed at the request of Northpower (NPOW) as required by clause 11.10 of Part 11, to assure compliance with the Electricity Industry Participation Code 2010. The relevant rules audited are as required by the Guidelines for Distributor Audits V7.0 issued by the Electricity Authority.

Northpower considers data integrity to be a high priority within the business. This is evident in the diligent endeavours the staff put into maintaining accurate internal and registry information. Exception monitoring of data is routine, for example. Despite these efforts a relatively small level of information discrepancy was identified during the audit.

During the audit we identified 7 non-compliances and one recommendation.

The main issue found during the audit was the non-compliance of section 4.9, ICP registry status is being made "Ready" prior to retailer acceptance of responsibility being received by Northpower. This issue has seen non-compliance in previous audit reports. Northpower partly solved the problem by having a "blanket" acceptance agreement with 5 traders (Contact, Meridian, Genesis, Powershop, and Pioneer) to accept any new connection on their network. This process works well.

A number of non-compliances were recorded when the registry status was changed to "Ready" before the trader's acceptance is received from traders which were requested to accept each individual ICP. The new connection process is handled by two teams (Customer Care Team and the Network Commercial Team) which in our opinion makes the process unnecessarily complicated.

On 1 April 2021 Gentrack will be replaced by new software - Axos Registry Manager. The processes impacted by the changes are; creating new ICPs, the provision and updating of registry information, and the decommissioning of ICPs. Northpower has been advised that a Material change audit should be conducted as per the Code requirements (Part 16A). The audit is scheduled to be conducted in May.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. Table 1 of the Guidelines for Distribution Participant audit provides some guidance on this matter. The Future Risk Rating score is 13 which results in an indicative audit frequency of 12 months. We agree with this result.

We thank the Northpower staff for their full and complete cooperation in this audit.

The audit period was 01/03/2020 to 28/02/2021.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(2)	Relatively low number of information inaccuracies identified during the audit	Strong	Low	1	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	51 new ICP connections had the IECD uploaded to the registry more than 10 days after the event date. 2 ICPs had no IECD populated in the registry.	Moderate	Low	2	Identified
Connection of ICP that is not an NSP	3.6	11.17	25% of new ICP connections sampled had no retailer acceptance of responsibility recorded by Northpower (retailer with "blanket" acceptance are excluded)	Weak	Low	3	Identified
Connection of ICP that is not an NSP	3.7	10.31	39% of new ICP connections sampled had no retailer acceptance of responsibility recorded by Northpower (retailer with "blanket" acceptance are excluded)	Weak	Low	3	Identified
Changes to registry information	4.1	8(1)(b)&(4) of Schedule 11.1	Registry event updates backdated greater than three days. Changes of NSP for 464 was not recorded in the registry.	Moderate	Low	2	Identified
Distributors to provide ICP information to the	4.6	7(1)(p) of schedule 11.1	Missing information in the registry for Initial Electrical Connection Date (2 ICPs)	Strong	Low	1	Identified

registry manager							
Management of "ready" status	4.9	14 of Schedule 11.1	39% ICP registry status were made "Ready" prior to retailer acceptance or confirmation of responsibility being received by Northpower.	Moderate	Low	2	Identified
Future Risk Rating						13	
Indicative Audit Frequency						12 months	

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
Management of "ready" status	4.9	1.Consolidate new connection process within the Customer Care Team 2.Seek "blanket" acceptance from MEEN and TRUS	Presently the new connection process is split between the Customer Care Team and the Network Commercial Team which, in some situations, leads to non-compliance.

ISSUES

Subject	Section	Issue	Description

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

Northpower confirms that there are no exemptions in place which are relevant to the scope of this audit.

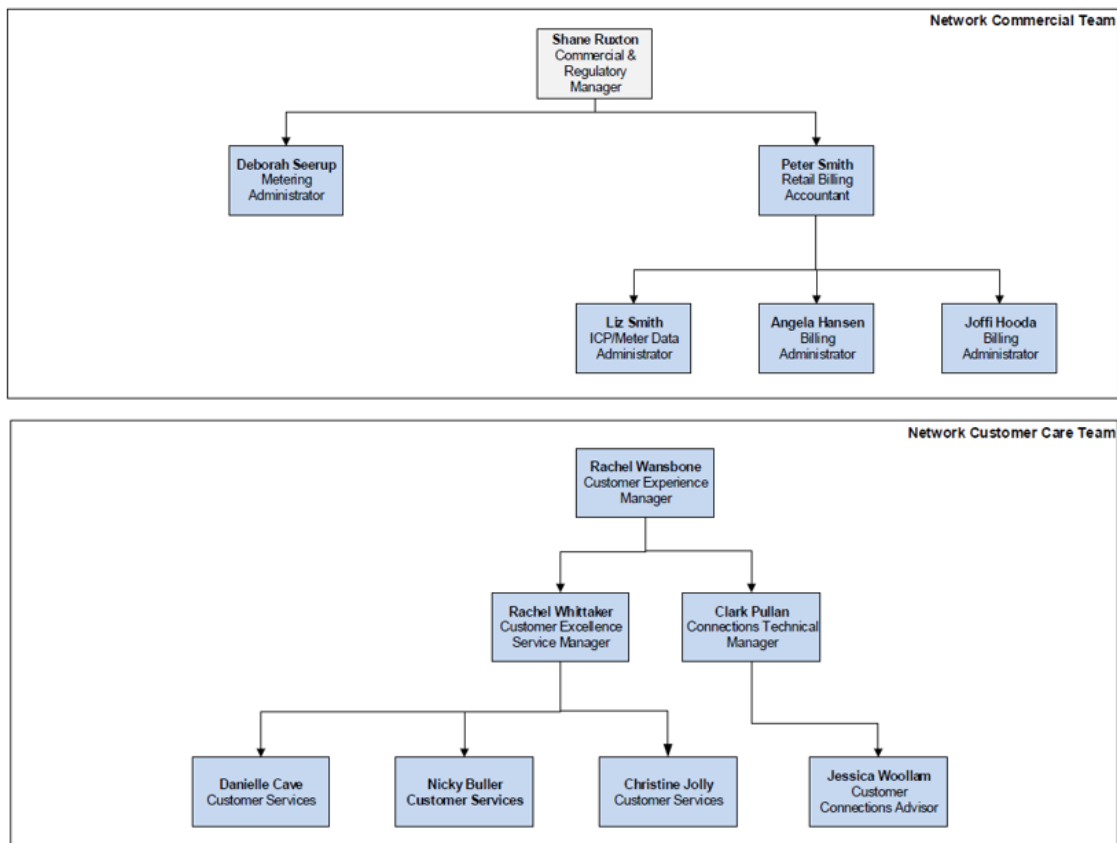
Audit commentary

We checked the Electricity Authority website and confirmed that there are no exemptions in place.

1.2. Structure of Organisation

Northpower provided the organisational chart

Northpower Organisation Chart – Network Functional Areas Affected By The Audit



1.3. Persons involved in this audit

Name	Title	Company
Peter Smith	Retail Billing Accountant	Northpower Ltd
Elisabeth Smith	ICP/Meter Data Administrator	Northpower Ltd
Shane Ruxton	Commercial & Regulatory Manager	Northpower Ltd
Rachel Whittaker	Customer Excellence Service Manager	Northpower Ltd
Rachel Wansbone	Customer Experience Manager	Northpower Ltd
Russell Watson	Acting Asset Strategy & Investment Manager	Northpower Ltd
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 fulfilment of the participants Code obligations*
- *cannot assert that it is not responsible or liable for the obligation due to the action of a contractor*
- *must ensure that the contractor has at least the specified level of skill, expertise, experience, or qualification that the participant would be required to have if it were performing the obligation itself*

Audit observation

There are no contractors who assist with, or are used in, the Northpower operations that were audited.

Audit commentary

During the audit, we did not identify any contractors who assist Northpower to meet their obligations.

1.5. Supplier list

There were no suppliers who assisted Northpower during the audit period with the operations audited.

1.6. Hardware and Software

Software Application	Purpose/Use
Gentrack Velocity	<ul style="list-style-type: none"> • Key database to support EIPC compliance • ICP creation and management • Automated Registry interface (all updates to the registry and notifications from the registry)
SalesForce	<ul style="list-style-type: none"> • CRM platform to support customer experience and service • Manages customer contact • Workflow of new network connection applications and alterations to existing connections

	<ul style="list-style-type: none"> Interface between retailers, customers, and Warranted Persons for the above tasks.
MS Access	<ul style="list-style-type: none"> Registry exception reporting Exception and discrepancy reporting from other Northpower information systems

1.7. Breaches or Breach Allegations

Northpower has stated it has no breaches of the Electricity Industry Participation Code related to this audit.

1.8. ICP and NSP Data

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
NPOW	BRB0331	BREAM BAY			ALLGXPSNPOWG	G	1/05/08	5,622
NPOW	MPE1101	MAUNGATAPERE			ALLGXPSNPOWG	G	1/04/13	45,326
NPOW	MTO0331	MAUNGATUROTO			ALLGXPSNPOWG	G	1/05/08	10,954

Status	Number of ICPs (05/03/2021)	Number of ICPs (2020)	Number of ICPs (2019)	Number of ICPs (2017)
New (999,0)	12	4	8	7
Ready (0,0)	131	109	146	112
Active (2,0)	60,319	59,519	58,704	57,438
Distributor (888,0)	9	9	9	9
Inactive – new connection in progress (1,12)	82	57	103	87
Inactive – electrically disconnected vacant property (1,4)	1,169	1,104	1,020	1,011
Inactive – electrically disconnected remotely by AMI meter (1,7)	137	138	114	82
Inactive – electrically disconnected at pole fuse (1,8)	18	21	9	0
Inactive – electrically disconnected due to meter disconnected (1,9)	21	19	8	4
Inactive – electrically disconnected at meter box fuse (1,10)	2	4	4	0
Inactive – electrically disconnected at meter box switch (1,11)	2	3	2	0
Inactive – electrically disconnected ready for decommissioning (1,6)	58	56	59	64
Inactive – reconciled elsewhere (1,5)	0	0	0	0
Decommissioned (3)	6,513	6,339	6,174	5,711

1.9. Authorisation Received

Northpower provided a letter of authorisation to the auditor permitting the collection of data from other parties for matters directly related to the audit.

1.10. Scope of Audit

This audit was performed at the request of Northpower, as required by clause 11.10 of Schedule 11, to assure compliance with the Electricity Industry Participation Code 2010. The audit covers the following processes, under clause 11.10(4) of Part 11, performed by Northpower:

- (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 Northpower premises at 28 Mount Pleasant Road in Whangarei, on the 9/10 March 2021.

1.11. Summary of previous audit

The previous audit was carried out in March 2020 by Allan Borcoski of Borcoski Energy Services Ltd. The findings of the audit are shown below:

Subject	Section	Clause	Non-Compliance	Comment
Requirement to provide complete and accurate information	2.1	11.21(1) & 10.6(1)	Relatively low number of information inaccuracies identified during the audit	Still exists
Timeliness of provision of Initial Electrical Connection Date (IECD)	3.5	7(2A) of Schedule 11.1	8 New ICP connections had the IECD uploaded to the registry more than 10 days after the event date.	Still exists
Connection of ICP that is not an NSP	3.6	11.17	10% of New ICP connections sampled had no retailer acceptance of responsibility recorded by Northpower	Still exists
Connection of ICP that is not an NSP	3.7	10.31	For a number of ICPs there is no retailer authorisation/request to connect recorded by Northpower	Still exists
Changes to registry information	4.1	8 of Schedule 11.1	19% of registry information updates were greater than 3 business days from the event date.	Still exists
ICP location address	4.4	2 of Schedule 11.1	2 ICPs with duplicate addresses (corrected during audit)	Cleared

Distributor to provide ICP information to the registry manager	4.6	7(1) of Schedule 11.1	Incorrect or missing information in the registry for addresses, distributed generation, and Initial Electrical Connection Date	Still exists
Management of "ready" status	Error! Reference source not found.	14 of Schedule 11.1	ICP registry status was made "Ready" prior to retailer acceptance or confirmation of responsibility being received by Northpower.	Still exists

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

We checked the Audit Compliance report and EDA file for the audit period and the LIS EDA and PR255 files dated 05/03/2021. We reviewed Gentrack and Salesforce CRM and where relevant checked against registry records.

We discussed with Northpower what processes were in place to ensure accurate information was provided to the registry.

Audit commentary

Northpower staff diligently verify the accuracy of the information recorded in Gentrack and check that it matches the registry information. Despite the efforts to maintain accurate information Northpower are reliant on timely information from third parties and data entry is largely manual, so errors occur, understandably, from time to time. The comprehensive exception reporting processes are outlined in **section 2.2**.

The small number of information inaccuracies identified during the audit are noted below:

Section	Registry Discrepancy
3.5	<ul style="list-style-type: none">51 New ICP connections had the IECD (Initial Electrical Connection) uploaded to the registry more than 10 days after the event date.2 ICPs had no IECD (Initial Electrical Connection) populated in the registry.
3.6	<ul style="list-style-type: none">25% of new ICP connections sampled had no retailer acceptance of responsibility for ICP in registry
3.7	<ul style="list-style-type: none">39% of new ICP connections sampled had no retailer request to connect ICPs recorded by Northpower (traders with "blanket" acceptance is excluded)
4.1	<ul style="list-style-type: none">Registry event updates backdated greater than three days
4.6	<ul style="list-style-type: none">Incorrect or missing information in the registry for IECD (Initial Electrical Connection Date)

Audit outcome

Non-compliant

Non-compliance	Description
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Audit Ref: 2.1 With: 11.2(1) From: 01-Mar-20 To: 28-Feb-21	Relatively low number of information inaccuracies identified during the audit 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	The controls are recorded as strong. During the audit evidence was produced showing considerable steps taken to achieve accuracy, exception reporting in place and correction of any errors discovered. No impact on settlement outcomes. Audit risk rating low.	
Actions taken to resolve the issue	Completion date	Remedial action status
Refer to Northpower comments on the individual non-compliance areas in this report (Audit Ref: 3.5, 3.6, 3.7, 4.1, and 4.6)	31/3/2021	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Refer to Northpower's comment and corrective actions to be taken in the individual non-compliance areas in this report (Audit Ref: 3.5, 3.6, 3.7, 4.1, and 4.6)	31/3/2022	

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

We checked the Audit Compliance report and EDA file for the audit period and the LIS EDA and PR255 files dated 05/03/2021. We reviewed Gentrack and Salesforce CRM and where relevant checked against registry records.

We discussed with Northpower what processes were in place to identify information discrepancies in their systems and the registry, and what methods are used to correct that data as soon as practicable.

Audit commentary

Northpower aim to maintain accurate registry information and alignment with Gentrack. A significant amount of effort was evident with routine exception reporting. Discrepancies were investigated and

addressed quickly including those discovered during the audit. Registry files are checked, and discrepancies addressed daily, for example the NMR files are checked to identify ICPs requiring price category changes (e.g. builders supply to permanent or new DG installed) and newly livened ICPs so the correct price category, address details and IECD data can be entered into the Registry where a third party has not advised us of the changes directly.

A few examples of queries, run daily, are listed below:

- ICP decommissioned in the registry by trader
- Live ICP with NSP which does not exist
- Initial Electrical Connection Date missing
- The registry status “ready”, Gentrack status “live”
- BTS – incorrect price code
- GPS coordinates – blank field
- Identify new/ready status greater than 24 months
- IECD but not active
- IECD date vs meter install date
- IECD missing
- Active ICP with incorrect NSP
- Incorrect price codes
- Registry status ready Gentrack status energised

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

Clause 48(1A) and 48 (1B) came in to force on 01/02/2021

Northpower already had a process in place to deal with removing or breaking seals and to bridge or unbridge the load control device before the clauses came to force. The process requires notification of the broken seal to the MEP recorded in the registry. We reviewed 5 examples and confirm the process was followed.

Audit commentary

The process has been updated to comply fully with the above clauses. The process states that *“if a contractor, acting as an agent for Northpower, removes or breaks a seal without the authorisation of the MEP recorded in the registry against the ICP they must fully complete the Northpower Form and ensure this form is provided to the Northpower Network ICP Administrator within 1 business day by emailing to the specified email address.*

The Northpower Network ICP Administrator will, within 10 business days of the seals being removed or broken, advise the MEP and the trader recorded in the registry against the ICP:-

- *that the seals were removed or broken*
- *the reason for the seals being removed or broken”*

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 Report and the EDA file for the audit period and LIS dated 05/03/2021 were checked.

The new connections process was discussed with Northpower's staff.

A randomly selected sample of 20 new ICP connections was reviewed.

Audit commentary

Northpower adopted the following processes to create new ICPs:

- If the new connection does not require any line or cable work, an ICP is created straight away. A trader, who is specified on the application form by a customer is notified by the Customer Care team of the new ICP by email and asked for ICP acceptance and approval to connect. The trader receives a copy of the completed Application for Network Connection or Alteration to Supply form
- In a situation where some planning and line work is required or overhead line is converted to underground, an ICP will not be created until an agreement between a customer and Northpower is reached, and a deposit is paid. When the planning and construction work is completed the ICP is created by the Customer Care team, and the trader is notified via email as above.

935 new ICPs were created during the audit period. We verified that new ICP connection information is captured in Gentrack and that the data matched that in the registry.

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

All ICPs are requested by a customer or his/her representative not by traders.

Audit commentary

No requests are accepted from traders therefore this clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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 Report and the EDA file for the audit period and LIS dated 05/03/2021 were checked.

The new connections process was discussed with Northpower’s staff.

A randomly selected sample of 20 new ICP connections was reviewed.

Audit commentary

Customers or their agents apply directly to Northpower for a new connection to the network. A network capacity/GIS check is performed. Network connection and application details are recorded in Salesforce and Gentrack.

Once the application is approved and the customer has paid the network capacity charge (if applicable) (or deposit where works need to be completed by Northpower Contracting to enable the connection), the Customer Care team will create the ICP in Gentrack.

A file is generated by Gentrack containing the ICP with supporting information such as address, NSP, installation type, proposed trader, and reconciliation type. The file is uploaded to the registry overnight. The registry assigns a status of “New” because the file does not contain a price category. The next business day Northpower uploads a holding price category code of NEWICP which moves the status to “ready” in those cases where a “blanket” retailer acceptance of new ICPs is held.

A sample of 20 new ICP connections confirmed they were compliant with the documented new connection process and the above clause requirements.

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 Report and the EDA file for the audit period and LIS file dated 05/03/2021 were checked.

The new connections process discussed with Northpower's staff.

A randomly selected sample of 20 new ICP connections was reviewed.

Audit commentary

Customers or their agents apply directly to Northpower for a new connection to the network. A network capacity/GIS check is performed. Network connection and application details are recorded in Salesforce and Gentrack.

Once the application is approved and the customer has paid the network capacity charge (if applicable) (or deposit where works need to be completed by Northpower Contracting to enable the connection), Northpower will create the ICP in Gentrack.

A file is generated by Gentrack containing the ICP with supporting information such as address, NSP, installation type, proposed trader, and reconciliation type. The file is uploaded to the registry overnight. The registry assigns the status of "New" because the file does not contain a price category. The next business day Northpower uploads a holding price category code of NEWICP which moves the status to "ready" in those cases where a "blanket" retailer acceptance of new ICPs is held.

The process adopted by Northpower is robust. A sample of 20 new ICP connections confirmed they were compliant with the documented new connection process and the above clause requirements.

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 Report and the EDA file for the audit period and LIS file dated 05/03/2021 were checked.

The new connections process was discussed with Northpower's staff.

A randomly selected sample of 20 new ICP connections was reviewed.

Audit commentary

As was noted in the previous audit, since 01/04/2019 Northpower (via Northpower Contracting) ceased to offer a service to initially electrically connect ICPs to the network or install metering. Warranted Persons (i.e. Northpower approved third party contractors) carry out new ICP connection work on the network. The contractors are engaged by traders to carry out initial electrical connections for new ICPs once Northpower has completed its new connection application process and approved and authorised the ICP for connection to the network. The Network Commercial Team is responsible for the population of the IECD in the registry.

In the audit period Northpower had 935 new connections made.

- 51 ICPs had the IECD uploaded into the registry greater than 10 days after the actual event date, which is recorded as non-compliance. Initial Electrical Connection date was entered for 5 ICPs, which were identified during the last audit.
- 2 ICPs had no IECD populated in the registry (0000571962NR0E4, 0000572290NR198). It was discussed with Northpower. For the 2 ICPs, the files containing the date of electrical connection date were rejected and it was not noticed by the Network Commercial team.

ICP	Initial Electrically Connected Date	Network Event input date	Business Days	Comment
0000572530NR685	23/12/2020	25/01/2021	19	
0000572439NR1D0	23/12/2020	13/01/2021	11	
0000572435NR2CE	17/12/2020	13/01/2021	15	
0000572419NRC85	22/12/2020	13/01/2021	12	
0000572391NR4D9	22/12/2020	13/01/2021	12	
0000572384NR33B	10/12/2020	13/01/2021	20	
0000572338NR297	21/12/2020	13/01/2021	13	
0000572268NR39B	22/12/2020	13/01/2021	12	
0000572014NRFDF	16/12/2020	13/01/2021	16	
0000571689NRB85	23/12/2020	13/01/2021	11	
0000571688NR7C0	23/12/2020	13/01/2021	11	
0000572526NRDA7	21/12/2020	12/01/2021	12	
0000572499NR9CF	22/12/2020	12/01/2021	11	
0000572495NRAD1	21/12/2020	12/01/2021	12	
0000572492NR71B	18/12/2020	12/01/2021	13	
0000572452NR0F4	20/12/2020	12/01/2021	12	
0000572396NR913	22/12/2020	12/01/2021	11	
0000572291NRDDD	03/12/2020	12/01/2021	24	
0000572395NR5D3	02/12/2020	23/12/2020	15	
0000572052NRCF5	31/08/2020	23/09/2020	17	
0000571851NR2D8	06/07/2020	07/08/2020	24	
0000569118NR2C4	28/02/2018	04/06/2020	565	Updated after last audit
0000571503NRF5D	05/05/2020	03/06/2020	20	
0000571597NR1B0	23/03/2020	07/05/2020	30	
0000571629NR39A	24/02/2020	19/03/2020	18	
0000571530NR465	23/01/2020	04/03/2020	28	
0000570436NRD4E	12/12/2018	04/03/2020	303	Updated after last audit
0000570424NR766	12/12/2018	04/03/2020	303	Updated after last audit
0000570978NR978	27/05/2019	04/03/2020	194	Updated after last audit
0000570977NR6A6	24/05/2019	04/03/2020	195	Updated after last audit

Since the last audit, the number of ICPs for which the IECD was uploaded to the registry more than 10 days after the event date increased from 8 to 27 ICPs. This is a result of implementing a new process in April 19. According to the process, the contractors are engaged by retailers to carry out initial electrical connection for new ICPs once Northpower has completed its new connection application process and approved and authorised the ICP for connection to the network.

The Network Commercial Team is responsible for entering the Initial Electrical Connection date to Gentrack, which updates the registry. There are delays in receiving the required information from the third party (Warranted Persons) to allow the population of the registry. To mitigate the late receipt of information Northpower use registry files such as the NMR to identify when metering was installed. It also developed a number of exception reports to query Northpower information systems.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: 7(2A) of Schedule 11.1 From: 01-Feb-20 To: 28-Feb-21	51 new ICP connections had the IECD uploaded to the registry more than 10 days after the event date. 2 ICPs had no IECD populated in the registry. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate because Northpower has well documented processes, information recording and exception reporting. The main issue appears to be receiving late data from third parties. No impact on settlement outcomes. Audit risk rating low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Due to the infancy of process to have warranted persons, other than the internal contracting arm, on the Northpower Network, a relationship based approach was followed to ensure compliance with S6.5 of the Default Distributor Agreement. A Contractor presentation was conducted in March 2020 to inform/remind Contractors of their obligation around paperwork. Follow up communication with the Contractor that completes the majority of new connections on the Network resulted in some improvement, but not compliance. Lack of alternative options for customers on the Network constrained Northpower’s ability to enforce the obligation.		31 March 2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

<p>Now that more external parties are now Warranted to work on the Network, a more formal process will be instigated. This will involve a notice to Contractors not meeting the requirement to return information as per S6.5 of the Default Distributor Agreement. Two reminder notices will be sent with the consequence of a third notice of non-compliance being a time bound suspension from the Network. A fourth notice ultimately resulting in Warranted person status being revoked.</p>	<p>31 March 2022</p>	
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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 Report and the EDA file for the audit period and LIS file dated 05/03/2021 were checked.

The new connections process was discussed with Northpower’s staff.

A randomly selected sample of 28 new ICP connections was reviewed.

Audit commentary

Customers or their agents apply directly to Northpower for a new connection to the network. A network capacity/GIS check is performed. Network connection and application details are recorded in Salesforce.

Once the application is approved and the customer has paid the network capacity charge (if applicable, or deposit where works need to be completed by Northpower Contracting to enable the connection), Northpower will create the ICP in Gentrack.

A file is generated by Gentrack containing the ICP with supporting information such as address, NSP, installation type, proposed trader, and reconciliation type. The file is uploaded to the registry overnight. The registry assigns the status of “New” because the file does not contain a price category.

The ICP is supplied to the customer and an email sent to notify the proposed retailer with the ICP details. Northpower has a “blanket” acceptance and approval to connect with Contact, Genesis, Meridian Energy, Pioneer, and Powershop – these retailers were responsible for 63% of the 935 newly connected ICPs in the period under review. It means that for such ICPs a proposed trader is uploaded to the registry and Northpower does not expect to receive ICP’s acceptance from traders. The following business day Northpower enters a special holding price category code NEWICP and the registry changes the ICP status to “Ready”.

As mentioned in the previous section, Northpower has a “blanket” ICP acceptance and connection with Genesis, Powershop, Meridian, Pioneer, and Contact. There are many other traders who are chosen by customers as a proposed retailer such as Mercury Energy, Pulse Energy, Trustpower etc for which Northpower must have an individual ICP’s acceptance to be compliant with the above clause. Once the acceptance is received a price category code is uploaded to the registry and the status is changed to “Ready”.

We sampled 28 (an 8% sample) of new connections for which a customer specified trader does not have a “blanket” acceptance agreement with Northpower. This sample represented 3% of total new connections. The table below is a summary of the sample analysis. It finds that 7 ICPs (25%) of the sample had no evidence of traders taking responsibility for the ICP recorded or authorisation to connect.

ICP	Trader	Trader notified	Registry status “Ready”	Trader ICP acceptance date	Comment	Compliant
0000572382NR2B4	MEEN	12/11/2020	30/11/2020	no acceptance received		N
0000571754NR098	MEEN	09/07/2020	08/04/2020	no acceptance received	urgent medical dependent	N
0000571668NRD7A	MEEN	24/02/2020	25/02/2020	26/02/2020	wrong date on approval	N
0000571688NR7C0	MEEN	27/02/2020	28/02/2020	no acceptance received		N
0000571854NRF97	MEEN	08/06/2020	9/06/2020	no acceptance received		N
0000571896NR8FD	PUNZ	19/06/2020	22/06/2020	no acceptance received		N
0000572642NR05E	MEEN	2021-02-05	9/02/2021	no acceptance		N

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.6 With: 11.17(2) From: 01-Feb-20 To: 28-Feb-21	25% of new ICP connections sampled had no retailer acceptance of responsibility recorded by Northpower (retailers with “blanket” acceptance are excluded). Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Weak Breach risk rating: 3

Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as weak because handling of new connections is split between two team; there are no robust processes between the two teams, already noted as non-compliance in the last audit. No impact on settlement outcomes. Audit risk rating low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Northpower has investigated the process and discovered that at the same time as requesting a retailer to accept an ICP and provide its approval to connect, the trader and its contractor is often advised it may electrically connect the ICP. Because this approval to electrically connect is being granted before the retailer provides its acceptance, often the retailer does not accept the ICP at all, or provides the acceptance after the ICP is electrically connected.		31/3/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>To address this we will:</p> <ul style="list-style-type: none"> • change our process so that we do not authorise electrical connection of the ICP until the retailer accepts the ICP. • Create and run a report from Salesforce identifying Acceptance / Approvals that have not been received and do not have blanket approval, and follow up with retailers. • Re-approach retailers who have previously declined to provide a blanket acceptance and approval to connect to see, if they are now willing to provide one. 		31 Mar 2022	

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 Report and the EDA file for the audit period and LIS file dated 05/03/2021 were checked.

The new connections process was discussed with Northpower's staff.

A randomly selected sample of 28 new ICP connections was reviewed. We decided to sampled higher number of ICPs for this clause and other clauses relating to the new connection process.

Audit commentary

Since the audit carried out by Ewa Glowacka (01/04/2019), Northpower (via Northpower Contracting) has ceased to offer the service of connection to the network, installation of metering or to carry out ICP electrical connection work. This change means that Northpower no longer receives a service request from the retailer to carry out connection work.

Northpower requests and receives back via email acceptance of the ICP and approval to connect. Northpower then provides an authorisation to the traders and their contractor (who is a “Warranted Person”) to electrically connect the ICP to the network.

Northpower has a “blanket” acceptance and approval to connect with Contact, Genesis, Meridian Energy, Pioneer, and Powershop. It means that for such ICPs a proposed trader is uploaded to the registry and Northpower does not expect to receive an acceptance from these traders. This arrangement covered 63% of the 935 ICPs newly livened on the Northpower Network during the audit period

Northpower’s Salesforce system captures the approval to connect provided to the traders and its contractor by Northpower, as well as the email from the traders accepting/authorising the ICP connection. Salesforce also has visibility of the initial electrical connection scheduling and workflow tracking of an ICP connection.

The table below is an analysis summary of the sample of the 28 new ICP connections (an 8% sample) where a blanket acceptance/approval to liven is not held by Northpower. It finds that 39% of the sample does not comply with the code requirements because there was no evidence recorded of the retailer authorising or requesting the ICP to be connected. Whilst the registry status of “Inactive –New connection in progress” may be considered retailer acceptance of responsibility, it does not appear to be a request or authorisation to connect in this case. It is expected that this sample is representative of Northpower’s new ICPs connected during the audit period where a blanket acceptance/approval to liven is not held.

ICP	Trader	Trader notified	Registry status “Ready”	Trader ICP acceptance date	Comment	Compliant
0000572382NR2B4	MEEN	12/11/2020	30/11/2020	no acceptance received		N
0000572232NR902	TRUS	16/10/2020	28/10/2020	Reg set to 1,12 on 12/11/2020 22/02/2021 - email	made “ready” before acceptance received	N
0000571754NR098	MEEN	09/07/2020	08/04/2020	no acceptance received	urgent medical dependent	N
0000571668NRD7A	MEEN	24/02/2020	25/02/2020	26/02/2020	wrong date on approval	N
0000571688NR7C0	MEEN	27/02/2020	28/02/2020	no acceptance received		N

0000571833NRDAD	TRUS	27/05/2020	28/05/2020	no acceptance received Reg set to 1,12 on 29/05/2020		N
0000571854NRF97	MEEN	08/06/2020	9/06/2020	no acceptance received		N
0000571880NR3DF	MEEN	16/06/2020	17/06/2020	19/06/2020	made "ready" before acceptance received	N
0000571896NR8FD	PUNZ	19/06/2020	22/06/2020	no acceptance received		N
0000572626NREA4	TODD	03/02/2021	16/02/2021	no acceptance received Reg set to 1,12 on 18/02/2021		N
0000572642NR05E	MEEN	2021-02-05	9/02/2021	no acceptance		N

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.7 With: 10.31 From: 01-Mar-20 To: 28-Feb-21	39% of new ICP connections sampled had no retailer acceptance of responsibility recorded by Northpower (retailer with "blanket" acceptance are excluded) Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as weak because the handling of new connections is split between two team; there are no robust processes between two teams, already noted as non-compliance in the last audit. No impact on settlement outcomes. Audit risk rating low.		
Actions taken to resolve the issue		Completion date	Remedial action status

Northpower has investigated the process and discovered that at the same time as requesting a retailer to accept an ICP and provide its approval to connect, the trader and its contractor is often advised it may electrically connect the ICP. Because this approval to electrically connect is being granted before the retailer provides its acceptance, often the retailer does not accept the ICP at all, or provides the acceptance after the ICP is electrically connected.	31/3/2021	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>To address this we will:</p> <ul style="list-style-type: none"> • change our process so that we do not authorise electrical connection of the ICP until the retailer accepts the ICP. • Create and run a report from Salesforce identifying Acceptance / Approvals that have not been received and do not have blanket approval, and follow up with retailers. • Re-approach retailers who have previously declined to provide a blanket acceptance and approval to connect to see, if they are now willing to provide one. 	31 Mar 2022	

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

Code reference

Clause 10.31A

Code related audit information

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

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

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

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

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

Audit observation

This was discussed with Northpower staff.

Audit commentary

Northpower has not been asked to temporarily electrically connect any installation.

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

A check of the NSP table in the registry showed that Northpower does not have any NSP on its network that is not a point of connection to the grid.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

A check of the NSP table in the registry showed that Northpower does not have any NSP on its network that is not a point of connection to the grid.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 1(1) Schedule 11.1

Code related audit information

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

yyyyyyyyyyxxccc where:

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

Audit observation

The Audit Compliance Report and the EDA file for the audit period and LIS file dated 05/03/2021 were checked.

The new connections process was discussed with Northpower's staff.

A randomly selected sample of 20 new ICP connections was reviewed.

Audit commentary

Gentrack creates ICPs based on a sequential number, unique distributor code and checksum, which is generated according to the algorithm. The check sum is generated by the Electricity Authority approved algorithm.

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 Report and the EDA file for the audit period and LIS file dated 05/03/2021 were checked.

The new connections process was discussed with Northpower's staff.

Audit commentary

All ICPs recorded in the registry have a single loss category code except ICPs with the status "Decommissioned".

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 Report and the EDA file for the audit period and LIS file dated 05/03/2021 were checked.

The new connections process was discussed with Northpower's staff.

A randomly selected sample of 20 new ICP connections was reviewed.

Audit commentary

Customers or their agents apply directly to Northpower for a new connection to the network. A network capacity/GIS check is performed. Network connection and application details are recorded in Salesforce.

Once the application is approved and the customer has paid the network capacity charge (if applicable, or deposit where works need to be completed by Northpower Contracting to enable the connection), the Customer Care Team will create the ICP in Gentrack.

A file is generated by Gentrack containing the ICP with supporting information such as address, NSP, installation type, proposed trader, and reconciliation type. The file is uploaded to the registry overnight. The registry assigns the status of "New" because the file does not contain a price category. The next business day Northpower uploads a holding price category code of NEWICP which moves the status to "ready" in those cases where a "blanket" retailer acceptance of new ICPs is held. The ICP is supplied to the customer and an email sent to notify the proposed retailer with the ICP details asking for its acceptance.

A sample of 20 new ICP connections demonstrated they were compliant with the documented new connection process and the Code requirements.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

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

Audit observation

The Audit Compliance report for the audit period and the LIS file were checked.

Audit commentary

10 ICPs were identified with the registry status of “ready” for greater than 24 months

ICP	Creation date	Status	NPOW Comment
0000567946NR19A	30/09/2016	Ready	Last check with retailer 10/9/2018, then 17/06/20, then 8/03/21 (now Decommissioned Setup In Error)
0000570268NR0DB	21/09/2018	Ready	Emailed Retailer 20/8/20: Reply from retailer is that ICP still wanted & customer to build in about six months
0000570265NRF80	21/09/2018	Ready	Emailed Retailer 20/8/20: Retailer advised customer still wishes to use ICP. Covid has delayed building.
0000570380NR171	25/10/2018	Ready	Emailed Retailer on 1/12/20 (no reply) then 8/3/21 requesting a reply. Retailer (19/3/21) said their customer had not replied.
0000570411NRDD1	01/11/2018	Ready	Emailed Retailer 1/12/20: Reply from retailer is that customer to start building in the new year.
0000570581NRB32	17/12/2018	Ready	Emailed Retailer 2/12/20: Retailer said customer still wishes to use ICP.
0000570638NR4D2	14/01/2019	Ready	Emailed Retailer 8/3/21: Retailer said customer still wishes to use ICP.

0000570648NR18F	17/01/2019	Ready	Emailed Retailer 8/03/2021: No reply received from retailer.
0000570761NRB8F	27/02/2019	Ready	Emailed Retailer 8/03/2021: Retailer said to ICP can be decommissioned set-up in error.
0000570752NR0B7	27/02/2019	Ready	Emailed Retailer 8/03/2021: Retailer said to ICP can be decommissioned set-up in error.

Northpower monitors ICPs with the status of “new” and “ready” using an exception report and follows up with the retailer on a monthly basis. Northpower asks the trader to confirm their customer’s intentions to proceed with connection or not.

Audit outcome

Compliant

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

Code reference

Clause 7(6) Schedule 11.1

Code related audit information

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

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

Audit observation

We checked the LIS file dated 05/03/2021.

Audit commentary

Northpower has an embedded hydro generation station that has a capacity of 5MW (ICP: 0000100001NR87B) traded by Simply Energy. Trustpower has an embedded diesel “peaking plant” generator with 10 MW capacity situated at Bream Bay (ICP: 0000100002NR4BB). We examined the information and confirmed both ICPs have unique loss category codes assigned. ICP 0000100001NR87B has the loss category code G1 and ICP 0000100002NR4BB has a loss category code of G2.

Audit outcome

Compliant

3.16. Electrical connection 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

Both clauses were discussed with Northpower during the audit. Clause 10.30C refers to electrically connecting or disconnecting NSP that is not a point of connection to the grid. Northpower does not have any NSP on its network that is not a point of connection to the grid.

Clause 10.31C refers to electrically connecting or disconnecting an ICP that is not an NSP.

Audit commentary

Clause 10.30C is not relevant to Northpower because the network does not have any NSP on its network that is not a point of connection to the grid.

Clause 10.31C is not relevant to Northpower because the company does not electrically connect or disconnect ICPs. It is done by a contractor nominated by a trader and they have the status of “a warranted person” authorised by Northpower to work on its network.

Audit outcome

Not applicable

3.17. 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

Clause 10.33C came in to force on 01/02/2021. Northpower sometimes bridges meters in fault situations to enable power to be restored to the customer, particularly in the event of a high/low clash.

Audit commentary

Where Northpower bridges a meter the faultperson completes a form which is returned to the Network ICP Administrator within 1 business day by emailing to the specified address. This is then forwarded to

the retailer to make them aware of the bridged meter so they can organise with the MEP for it to be repaired and unbridged.

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

We examined the EDA file and the Audit Compliance report for the audit period to assess compliance. A diverse sample of a minimum of 10 backdated events by event type were reviewed to determine the reasons for the late updates.

The findings were discussed with Northpower.

The management of NSP changes was examined.

Audit commentary

Northpower intent is to achieve the 3 business day notification as per this clause requirement. Unfortunately, this is not always possible for several reasons resulting in non-compliance.

For example, late notifications or backdated data requests from retailers and third party contractors (such as metering, new connection, distributed generation) result in late registry updates. Requests from retailers for backdates for addresses (BTS to permanent is common), pricing and decommissions. To mitigate late registry updates Northpower checks registry NOT and NMR files regularly along with a range of Gentrack and Salesforce exception reports.

The audit compliance report was analysed to identify backdated event updates, and found:

Address events

83.52% of all Northpower address updates were made on time with an average time to update the registry of 2.99 days. There were 376 late address updates.

Where Address event changes are the result of another event change e.g. BTS to permanent which involves a Price Event change or other notification, these Address Events always get dated to match the “triggering” event date when it happens not when it was made known to Northpower.

Networks events

The network events evaluated excluded those relating to the population of the initial electrical connection dates (discussed in section 3.5), NSP changes (discussed below) and the initial network events relating to the creation of ICPs.

Overall compliance of Northpower network updates was 86.36% with 48 late network update events with an average of 4.13 days to update. A change on 1 April 2019 to using third party contractors engaged by retailers to carry out initial electrical connections for new connections ICPs have contributed to the majority of the increase in updates later than 3 business days.

Distributed generation

62.16% of all Northpower distributed generation network updates were made on time with an average time to update the registry of 6.62 days. There were 70 late network updates, driven by external installers providing information outside the timeframes Northpower is required to update the Registry. While an approval is required by the Network, the work occurs on and behind the meter and does not require a Warranted Person. As such the network has little leverage to ensure timely provision of data.

Change of NSP

During the audit it was noted that 464 ICPs were shifted between MPE1101 and MTO0331 due to a fault on a 11kV Dargaville feeder (CB9). The fault occurred 7/03/2020 at around 10:40pm and was restored 2/12/2020 at around 1:50pm. Once the fault was fixed the ICPs moved back to the original NSP. The registry was not updated in the required timeframe.

Pricing events

The Audit Compliance report identified only one late pricing update for new connections.

The report identified 3,682 late updates related to existing connections. It was discussed with Northpower. There are 6 main reason for late updates of the registry

- Price Plan Change as agreed with retailer
- Late paperwork from contractors
- Metering changes only notified by NMR file
- TOU and non-ToU Price Plan reversals
- Incorrect data correction

3,257 late updates were related to price plan change as agreed with retailers. These were usually related to retailer switches where the new retailer could, or could not, report consumption in the EIEP1 file under the mass market ToU price categories or the retailer requested a switch between “low fixed charge” and “principal place of residence” price categories.

Decommissioning Status events

The Audit Compliance report recorded that 85.85% of all Northpower status updates to decommissioned were made on time with an average time to update the registry of 2.35 days. There were 13 late updates.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.1 With: 8(1)(b)&(4) of Schedule 11.1 From: 01-Feb-20 To: 28-Feb-21	Registry event updates backdated greater than three days. Changes of NSP for 464 was not recorded in the registry. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>Controls are recorded as moderate as exception reporting and follow up is evident. Unfortunately, efforts made to correct and maintain registry information to be compliant with clause 11.2 can result in updates over 3 days and consequent non-compliance. The impact on settlement outcomes is minor therefore the audit risk rating is recorded as low</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Contractor info:</p> <p>Due to the infancy of the process to have Warranted Persons, other than the internal contracting arm, on the Northpower Network, a relationship based approach was followed to ensure compliance with (what is now) S6.5 of the Default Distributor Agreement. A Contractor presentation was conducted in March 2020 to inform/remind Contractors of their obligation around paperwork. Follow up communication with the Contractor that completes the majority of new connections on the Network resulted in some improvement, but not compliance. Lack of alternative options for customers on the Network constrained Northpower’s ability to enforce the obligation.</p>		<p>31 March 2021</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	

<p>Northpower will introduce the following new policies and actions:</p> <ul style="list-style-type: none"> • that address changes will be made in the Registry effective from the date at which it is made aware of the change. • that price category code changes will not be backdated prior to the date the request is received from the retailer, <i>unless</i> it relates to switching a price category code between ToU and non-ToU and aligns to a recent switch date. We will write to the EA separately regarding this issue. • that the EA audit report will be generated and reviewed on a monthly basis, including incorporation into month end packs to raise visibility. • That NP will not shift an ICP to the ToU price equivalent unless requested by the retailer (i.e. relying on retailer to review the price plan in accordance with NP's pricing policy upon an inward switch). <p>Contractor info:</p> <p>Now that more external parties are now Warranted to work on the Network, a more formal process will be instigated. This will involve a notice to Contractors not meeting the requirement to return information as per S6.5 of the Default Distributor Agreement. Two reminder notices will be sent with the consequence of a third notice of non-compliance being a time bound suspension from the Network. A fourth notice ultimately resulting in Warranted person status being revoked.</p>	<p>1 May 2021</p>	
	<p>31 March 2022</p>	

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

We checked the Audit Compliance report for the audit period and the LIS file and discussed with Northpower staff.

Audit commentary

The Audit Compliance report identified 7 ICPs which had incorrect NSPs assigned. It was discussed and validated with Northpower. Further investigation with Northpower staff confirmed the NSP assignments were correct.

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

Customer service processes were discussed with Northpower.

Audit commentary

Any request from a customer for advice on an ICP for an existing connection is answered immediately, while the customer is on the phone. This is a common occurrence, generally due to a customer requiring their ICP when moving, so that they can sign up with a trader for the electricity supply. Calls from customers are answered by the Northpower Customer Care or Commercial Team members who have access to Gentrack, Salesforce and GIS which stores connection/customer information.

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 Audit Compliance report for the audit period and the LIS file were checked.

Audit commentary

We did not identify any ICP which do not have a location address that allows the ICP to be readily located.

Audit outcome

Compliant

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

Code reference

Clause 3 Schedule 11.1

Code related audit information

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

Audit observation

The new connections process was discussed with Northpower. Attention was drawn to the previous audit report and the issue of a difficult to access central supply that controls 4 downstream ICPs.

Audit commentary

Northpower confirmed that that issues were successfully resolved by installing smart meters which can be disconnected remotely.

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

We checked the Audit Compliance report for the audit period, the EDA, LIS, and PR255 files dated 05/03/2021. ICP information processes were also discussed with Northpower staff.

Audit commentary

The Audit Compliance report stated the following mismatched or missing data

- Distributor generation discrepancies

4 ICPs for which traders recorded RPS PV1 profile. It was verified during the audit. 3 ICPs had embedded generation removed and the retailer had not updated the profile data in the Registry. ICP 0000527158NR334 had the Import/Export meter installed on 03/03/2021 however Northpower was only made aware of this via a meter change in the NMR file from the Registry dated 25/3/2021, which is outside of the audit period, and this was the source from which Northpower updated the DG data in the Registry.

ICP Identifier	Profile	Installation Type	Status	NPOW Comment
0000534929NR020	RPS PV1	L	2	DG removed 11/5/2020
0000527158NR334	RPS PV1	L	2	No DG
0000556950NRA34	RPS PV1	L	2	DG removed 31/7/2020
0000565212NR8D6	RPS PV1	L	2	DG removed 4/9/2020

69 ICPs had their generation information recorded late. It was identified as not compliance in **section 4.1**. Northpower was never notified by traders. Northpower proactively monitors meter changes to Import/export by analysing NMR files.

- **Accuracy of Initial Electrical Connection Date**

ICP Identifier	Metering Installation Certification Date	Initial Electrically Connected Date	Status Event Date	Northpower Comment
0000572321NR66B	11/12/2020	11/01/2021	11/01/2021	Paperwork shows livened 11/1/2021
0000572164NR386	05/10/2020	03/10/2020	05/10/2020	Paperwork shows livened 3/10/2020
0000572160NR28C	30/09/2020	29/09/2020	30/09/2020	Paperwork shows livened 29/9/2020
0000572059NR221	21/09/2020	21/09/2020	25/09/2020	Paperwork shows livened 21/9/2020
0000571558NR981	27/08/2020	26/08/2020	26/08/2020	Paperwork shows livened 26/8/2020
0000572080NR132	07/09/2020	07/09/2020	08/09/2020	Paperwork shows livened 7/9/2020
0000571851NR2D8	25/08/2020	06/07/2020	25/08/2020	Unauthorized meter installed by contractor
0000571854NRF97	12/07/2020	12/06/2020	12/06/2020	Paperwork shows livened 12/6/2020
0000571781NR095	04/06/2020	03/06/2020	04/06/2020	Paperwork shows livened 3/6/2020
0000571660NRF6E	11/03/2020	10/03/2020	11/03/2020	Paperwork shows livened 10/3/2020

There is a discrepancy between dates recorded by MEP, a trader, and Northpower. Northpower provided the evidence that showing that the Initial Electrical Connection dates recorded by them was correct.

- **Blank Initial Electrical Connection Date**

2 ICPs had no IECD populated in the registry (0000571962NR0E4, 0000572290NR198). It was discussed with Northpower. For the 2 ICPs, the files containing the date of electrical connection date were rejected and it was not noticed by the Network Commercial team.

- **NSP discrepancies**

7 ICPs listed – it was checked and confirm all of them have correct information recorded in the registry

Considerable effort is put into the input of correct ICP information and error checking, resulting in relatively low levels of non-compliance in this area during the audit period. For example, registry NOT and NMR files are checked daily to confirm IECD dates, monthly run discrepancy reports identify ICPs not set to “active” in the registry despite being initially electrically connected.

Northpower has robust processes in place to validate data stored in the registry. There are a number of queries designed by Northpower which check the registry data and Gentrack data and compares the two.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: 7(1)(p) of Schedule 11.1 From: 01-Mar-20 To: 28-Feb-21	Missing information in the registry for Initial Electrical Connection Date (2 ICPs) 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	The controls are recorded as strong. During the audit evidence was produced showing exception reporting in place and correction of any errors discovered. Minor impact on settlement outcomes. Audit risk rating recorded as low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Refer to comment in previous non-compliances regarding the issues with enforcing Warranted Persons to meet deadlines with the return of information in a timely manner that will allow Northpower to update the Registry within the Code time frames. However there are some areas, for example connection of generation to existing ICPs, where Northpower has no contractual relationship and therefore no control over the third parties completing this work so little can be done in these cases.		31/3/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

<p>Refer to comments in previous non-compliances regarding the planned changes to the relationship and management of those parties who are Warranted Persons to work on the network.</p> <p>In addition further reporting, including use of the Audit Compliance Report files, will be implemented to help highlight and investigate areas of non-compliance</p>	<p>31/3/2022</p>	
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4.7. Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1)

Code reference

Clause 7(3) Schedule 11.1

Code related audit information

The distributor must provide the following information to the registry manager no later than 10 business days after the trading of electricity at the ICP commences:

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

Audit observation

The new connections process was reviewed and discussed with Northpower. The Audit Compliance report and the registry were checked along with Northpower Gentrack.

20 randomly selected new connection ICPs from the audit period were checked.

Audit commentary

Northpower assigns the actual price category code to the ICP according to the installation metering configuration at the initial electrical connection date. The living contractors return ICP metering configuration information following the physical network connection.

Northpower staff validate the information, populate Gentrack with all relevant information including the price category code. The information is automatically uploaded to the registry at night.

The original documentation is stored in the document management system.

The Audit Compliance report identified no discrepancies and the analysis of the sample of new ICP connections all met code requirements.

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 file dated 05/03/2021 was reviewed

Audit commentary

All ICPs with the status “active” or “de-energised” have the GPS coordinated fields populated. ICPs with the status of “new” or “ready” do not initially have GPS coordinates downloaded. We confirm that GPS coordinates meet the NZTM2000 standard as per registry specification.

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 new connection process was discussed with Northpower.

LIS and EDA files were examined along with Gentrack, Salesforce CRM and Registry records.

28 randomly selected new connection ICPs, taken from the 346 newly connected ICPs where Northpower did not hold a “blanket” acceptance/approval to liven agreement with the retailer, from the audit period were checked.

Audit commentary

Customers or their agents apply directly to Northpower for a new connection to the network. A network capacity/GIS check is performed. Network connection and application details are recorded in Salesforce.

Once the application is approved and the customer has paid the network capacity charge (if applicable, or deposit where works need to be completed by Northpower Contracting to enable the connection), the Customer Care Team will create the ICP in Gentrack which automatically updates the registry.

The ICP is supplied to the customer and an email sent to notify the proposed retailer with the ICP details. Northpower has a blanket acceptance and approval to connect with Contact, Genesis, Meridian Energy, Pioneer, and Powershop. It means that for such ICPs a proposed trader is uploaded to the registry and Northpower does not expect to receive the ICP’s acceptance from traders. For the ICPs with a “blanket” acceptance, the following business day Northpower enters a special holding price category code NEWICP and the registry changes ICP status to “Ready”.

As mentioned in the previous the section, Northpower has a “blanket” ICP acceptance and connection approval with Genesis, Powershop, Meridian, Pioneer, and Contact. There are many other traders who are chosen by customers as a proposed retailer such as Mercury Energy, Pulse Energy, Trustpower etc for which Northpower must have an individual ICP’s acceptance to be compliant with above clause.

New connections are handled by two teams, the Customer Care team and the Network Commercial team. The Customer Care team is responsible for creating ICPs and sending notification emails to proposed traders using SalesForce. The process works well for new connections which are automatically accepted by 5 traders. The process does not work well for new connections for which Northpower must have a confirmation of taking responsibility for an ICP by a nominated trader. The Network Commercial Team is responsible for making sure that an ICP status is not changed to “Ready” until a trader’s acceptance is received. We sampled 28 new connections and identified that on some occasions the ICPs status is changed to “Ready” before an acceptance is received.

The table below is a summary of the sample analysis. 11 ICPs out of the sample of 28 ICPs (8% of all new connections where Northpower does not have a “blanket” acceptance/approval to live agreement with a retailer, or 3% of total new connections) are not compliant. 39% of the sample does not comply with the Code requirements because the ICP is given the “ready” status in the registry before the trader has taken responsibility for the ICP. Whilst the registry status of “Inactive –New connection in progress” may be considered retailer acceptance of responsibility, it is not applicable in this case because Mercury does not use this status.

Registry ready status vs Retailer Acceptance Sample

ICP	Trader	Trader notified	Register status “Ready”	Trader ICP acceptance date	Comment	Compliant
0000572592NRE1F	MEEN	22/01/2021	04/02/2021	26/01/2021		Y
0000572544NR2D2	TRUS	23/12/2020	19/01/2021	24/12/2020		Y
0000572382NR2B4	MEEN	12/11/2020	30/11/2020	no acceptance received		N
0000572310NRDD6	GENE	30/10/2020	16/11/2020	not required because a customer changed to GENE	MEEN rejected on 3/11/20	Y
0000572232NR902	TRUS	16/10/2020	28/10/2020	Reg set to 1,12 on 12/11/2020 22/02/2021 - email	made “ready” before acceptance received	N
0000572146NRE56	TRUS	17/09/2020	22/09/2020	18/09/20		Y
0000571947NR0FE	TRUS	09/07/2020	04/08/2020	20/07/2020		Y
0000571754NR098	MEEN	09/07/2020	08/04/2020	no acceptance received	urgent medical dependent	N

0000571660NRF6E	MEEN	21/02/2021	24/02/2021	21/02/2021		Y
0000571667NR2A4	TRUS	24/02/2020	25/02/2020	25/02/2020		Y
0000571668NRD7A	MEEN	24/02/2020	25/02/2020	26/02/2020	wrong date on approval	N
0000571688NR7C0	MEEN	27/02/2020	28/02/2020	no acceptance received		N
0000571773NR007	MEEN	04/05/2020	5/05/2020	4/05/2020		Y
0000571833NRDAD	TRUS	27/05/2020	28/05/2020	no acceptance received Reg set to 1,12 on 29/05/2020		N
0000571854NRF97	MEEN	08/06/2020	9/06/2020	no acceptance received		N
0000571880NR3DF	MEEN	16/06/2020	17/06/2020	19/06/2020	made "ready" before acceptance received	N
0000571896NR8FD	PUNZ	19/06/2020	22/06/2020	no acceptance received		N
0000572462NR70C	TRUS	26/11/2020	27/11/2020	27/11/2020		Y
0000572499NR9CF	MEEN	2020-12-09	10/12/2020	9/12/2020		Y
0000572512NRB55	MEEN	11/12/2020	14/12/2020	11/12/2020		Y
0000572533NRA45	MEEN	2020-12-16	17/12/2020	17/12/2020		Y
0000572558NRB61	MEEN	13/01/2021	14/01/2021	13/01/2021		Y
0000572582NR4B2	MEEN	20/01/2021	21/01/2021	21/01/2021		Y
0000572592NRE1F	MEEN	22/01/2021	26/01/2021	26/01/2021		Y
0000572616NR95C	MEEN	27/01/2021	29/01/2021	29/01/2021		Y
0000572620NRF2B	TODD	29/01/2021	18/02/2021	18/02/2021		Y
0000572626NREA4	TODD	03/02/2021	16/02/2021	no acceptance received Reg set to 1,12 on 18/02/2021		N

0000572642NR05E	MEEN	2021-02-05	9/02/2021	no acceptance		N
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The last audit identified that 75% of the sample did not comply with the code requirements because the ICP was given the “ready” status in the registry before the trader has taken responsibility for the ICP. During this audit period compliance improved because only 39% were non-compliant compared with 75% in last year’s audit.

It was discussed during the audit. Our observations are as follows:

1. New connections are handled by two teams. The Customer Care team creates the ICP and sends notification to traders and automatically accepts ICPs traded with 5 traders. The Network Commercial Team is responsible for dealing with new connections which require the trader’s acceptance which allows the registry to assign the “Ready” status
2. Traders are asked to send an ICP acceptance to two email addresses (the Customer Care Team and the Network Commercial Team). Quite frequently traders send their response to the Customer Care Team email only because they simply reply to the email address from which it was sent. The email address of the Network Commercial Team is listed in the body of email.
3. The Network Commercial Team solely relies on trader’s acceptance delivered to their inbox.
4. Trader’s acceptances loaded to Salesforce are not always checked by the Network Commercial Team.
5. The Network Commercial Team solely relies on their memory of which traders have “blank” agreement, and which do not have. This process is open to mistakes.

Our recommendation is to simplify the new connection process. It would be beneficial from a compliance point of view if new connections are solely handled by the Customer Care Team. The current process is too confusing and too open to human error. Consolidation of new connections within the customer Care Team will allow a more effective way to find “problems” and provide relevant/appropriate training.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.9 With: 14 of Schedule 11.1 From: 01-Mar-20 To: 28-Feb-21	39% of ICPs in the sample taken from first connected ICPs, where a “blanket” acceptance/approval to live is not held, had the registry status’ made “Ready” prior to retailer acceptance or confirmation of responsibility being received by Northpower Potential impact: Low Actual impact: Low Audit history: Many times Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	The controls are recorded as moderate. Process of handling new connections with traders which require individual acceptance lacks robustness, it need to be re-engineered. No impact on settlement outcomes. Audit risk rating low.

Actions taken to resolve the issue	Completion date	Remedial action status
Northpower has investigated the process and discovered that at the same time as requesting a retailer to accept an ICP and provide its approval to connect, the trader and its contractor is often advised it may electrically connect the ICP. Because this approval to electrically connect is being granted before the retailer provides its acceptance, often the retailer does not accept the ICP at all, or provides the acceptance after the ICP is electrically connected.	31/3/2021	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>To address this we will:</p> <ul style="list-style-type: none"> • change our process so that we do not authorise electrical connection of the ICP until the retailer accepts the ICP. • Create and run a report from Salesforce identifying Acceptance / Approvals that have not been received and do not have blanket approval, and follow up with retailers. • Re-approach retailers who have previously declined to provide a blanket acceptance and approval to connect to see, if they are now willing to provide one. 	31/3/2022	

Recommendation	Description	Audited party comment	Remedial action
<p>1.Consolidate new connection process within the Customer Care Team</p> <p>2.Seek a “blanket” acceptance from MEEN and TRUS</p>	<p>Presently new connection process is split between the Customer Care Team and the Network Commercial Team, which in some situations leads to non-compliance</p>	<p>Our investigation has identified that the main issue is traders are being advised they can electrically connect <i>before</i> they have accepted, resulting in them either accepting after electrical connection or not providing their acceptance at all.</p> <p>We have not identified acceptances being received (by the Customer Services team) but updated late to the Registry (by the Commercial team) as being a material driver in the late or missing acceptances.</p>	<p>See above</p>

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 LIS and EDA files dated 05/03/2021 were reviewed to identify shared unmetered load connected to the network. This was also discussed with Northpower staff.

Audit commentary

Northpower does not allow any new shared unmetered load to be connected on the network.

Northpower maintains information for 9 historic “distributor status” ICPs representing shared unmetered load on its network. The load descriptions are:

Shared ICP	Load Description	No of Connected load ICPs
0000557088NRDCB	Under Veranda & Security	6
0000557089NR18E	Under Veranda & Security	5
0000557079NR199	Private Streetlights	7
0000557078NRDDC	Private Lighting	6
0000557077NR202	Private Streetlights	7
0000557076NRE47	Private Streetlights	6
0000557086NRE50	Private Streetlights	6
0000557087NR215	Private Streetlights	7
0000557075NR287	Private Lighting	7
Total		57

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 Report, the LIS, and EDA files for the audit period were reviewed. Data from Northpower Gentrack (Velocity) and the registry were checked. The decommissioning process was also checked with Northpower along with 20 decommissioned ICPs.

Audit commentary

Customers arrange ICP permanent disconnections (ICP decommissions) through their trader who will engage a Network Approved Contractor to carry out the physical work. The trader dispatches a Network Approved Contractor to disconnect the customer service cables/lines from the network and remove them from the installation point on the customer’s buildings. Final meter readings are taken and with all other information returned to the trader and Northpower where Gentrack is updated. Once the trader changes the registry status to “inactive - ready for decommissioning (1,6)” Northpower update the registry status of the ICP to “decommissioned”. Northpower closely monitors the ICP status on the registry. If there is a delay on the traders’ side, Northpower contacts them by email. According to clause 8(2)(ab) of Schedule 11.1 the distributor has to change the ICP status to “decommissioned” by the later of 3 business days after the registry manager has advised the distributor under clause 11.29 that the ICP is ready to be decommissioned.

There is one exception from this process where ICPs need to be permanently disconnected for safety reasons such as a building fire or storm damage. In these situations, authorisation to decommission will be retrospectively requested from traders having followed a similar procedure to the trader requested process.

The 20 ICPs checked followed the established process with appropriate information recorded in Gentrack, field reports scanned and stored in the Northpower “scanned documents” server.

We noted there were 58 ICPs with a status of “inactive – ready for decommissioning” recorded in the registry. They are the same ICPs (except 2) which were recorded in the previous audit, 54 of these ICPs have the price code ND13 assigned, which are called the “long term de-energised” ICPs. These are ICPs that have been de-energised for a long period of time but Northpower cannot decommission them under the Electricity Act 2010 (section 105 to 108) as the owner will not give permission (say they may need the supply in the future) for a permanent disconnection from the network.

39 ICPs have MEP recorded as MNON indicating that meters have been removed. 15 ICPs still have meters recorded in the registry as per the table below.

ICP	MEP
0000511038NR12C	NGCM
0000517962NR77C	NPOW

0000527586NR1EC	NPOW
0000530478NR7E5	NPOW
0000543265NRC4C	NGCM
0000544608NR486	NGCM
0000552571NR1A8	NPOW
0000554280NR738	NPOW
0000554525NRD6A	NPOW
0000556684NR973	NPOW
0000557098NR766	NPOW
0000559332NR62B	NPOW
0000559992NR43E	NPOW
0000560681NR0D0	NPOW
0000560717NR7BC	NPOW

Since the last audit 2 ICP (0000536833NR258 and 0000568698NR92C) were decommissioned.

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 Codes table in the registry was checked and this was discussed with Northpower staff.

Audit commentary

The Price Category Code table in the registry was checked and 8 new price category codes were created in the registry during this audit period. The new Price Category Codes were notified to the registry on 14/01/2020, which means that compliance to give 2 months' notice was met.

Northpower entered to the registry new Price Category Codes shown in the table below

Price Category Code	Description	Start Date
DM1-TOU	Domestic ToU Low User	1/04/2020
DM3-TOU	Non-Principal Residence ToU	1/04/2020
DM7	Principal Residence Standard	1/04/2020
DM7-TOU	Principal Residence ToU	1/04/2020
ND1-TOU	General ToU 100A or Less	1/04/2020
ND10	HHR Metered Consumption Based	1/06/2000
ND2-TOU	General ToU CT Metered	1/04/2020
ND9	HHR Metered Demand Based	1/04/2020

Northpower will end date DM4 (Domestic City) and DM6 (ToU Principal Residence) on 31/03/3021.

The new pricing is published on the Northpower website.

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 Code table held by the registry was checked during this audit and discussed with Northpower Staff.

Audit commentary

Northpower has 9 Loss Factor Codes in the registry, no new entries were added in the audit period.

Audit outcome

Compliant

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

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

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

Audit observation

The Loss Code table held by the registry was checked during this audit and discussed with Northpower Staff.

Audit commentary

Northpower updated 6 loss factors in the registry during the audit period. New loss factors are applicable from 01/06/2020. Loss factors have a single value for all trading periods for a year. There are no seasonal loss factor codes for summer or winter.

The table below shows a comparison between new and old loss factors.

Loss Category Code	Metering voltage	Description	Loss Factor as of 31/05/2020	New Loss Factor as of 01/06/2020
L0	33kV	Metered adjacent to NSP (GXP)	1.0000	1.0000
L1	33kV	ICP 0000546037NR9E6	1.0150	1.0170
L2	11kV	Metered at 11kV	1.0500	1.0250

L3	400V	150kVA and above, metered near the distribution transformer	1.0580	1.0360
L4	400V	Not used	1.0730	1.0500
L5	230/400V	Less than 150kVA, metered on the LV distribution network	1.0730	1.0500
L6	33kV	ICP 0000546038NR638	1.0040	1.0050
G1	33kV	Wairua generation	1.0250 Gen 1.0160 Cons	1.0250 Gen 1.0160 Cons
G2	11kV	Bream Bay generation	1.0040 Gen 1.0010 Cons	1.0040 Gen 1.0010 Cons

Northpower notified the registry manager of new loss factors 2 months in advance.

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

We examined the NSP mapping table in the registry. Since the last audit Northpower did not create a new, or decommission, an NSP.

Audit commentary

Based on examination of the NSP mapping table in the registry it was confirmed that no new NSP was created and no NSP was decommissioned since the last audit.

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

Northpower has not created a new NSP, as described in the previous section, therefore the reconciliation manager was not asked to create a unique NSP identifier.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

If a participant has notified the creation of an NSP on the distributor's network, the distributor must 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

Northpower has not created any new NSP in the audit period.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 26(4) Schedule 11.1

Code related audit information

If a participant notifies the creation of an NSP, or the transfer of an ICP to an NSP that is a point of connection between a network and an embedded network owned by the distributor, the distributor must 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

During the audit period Northpower did not create any new NSPs or transfer an ICP to an NSP that is a point of connection between a network and an embedded network owned by the distributor.

Audit commentary

Northpower has not established any embedded network since the last audit and there are no plans to do it in the future. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 24(2) and (3) Schedule 11.1

Code related audit information

The distributor must 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

We examined the NSP mapping table in the registry.

Audit commentary

Northpower has one balancing area (ALLGXPSNPOWG) according to the NSP mapping table in the registry. Examination of the NSP mapping table in the registry showed that there were no changes to the balancing area in audit period.

Audit outcome

Compliant

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

Code reference

Clause 27 Schedule 11.1

Code related audit information

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

Audit observation

During this audit period Northpower did not transfer any ICPs that became an NSP for an embedded network.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 1 to 4 Schedule 11.2

Code related audit information

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

Audit observation

During this audit period Northpower did not transfer any ICPs.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 10.25(1) and 10.25(3)

Code related audit information

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

- *there is 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

During this audit period Northpower did not have any NSPs which they are responsible for that are not connections to the grid.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 10.25(2)

Code related audit information

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

- assume responsibility for being the metering equipment provider (Clause 10.25(2)(a)(i)); or
- contract with a metering equipment provider to be the MEP (Clause 10.25(2)(a)(ii)); and
- no later than 20 business days after identifying the MEP advise the reconciliation manager in the prescribed form of 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

During this audit period Northpower did not have or create any NSPs which they are responsible for that are not connections to the grid.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 29 Schedule 11.1

Code related audit information

If a network owner acquires all or part of a network, the network owner must 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

During this audit period, Northpower did not acquire all or part of a new network.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Northpower does not have any and is not responsible for any embedded networks.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Northpower did not establish any embedded networks during this audit period.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Northpower did not establish any embedded networks during this audit period.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

7. MAINTENANCE OF SHARED UNMETERED LOAD

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

Code reference

Clause 11.14(2) and (4)

Code related audit information

The distributor must 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 and EDA files were reviewed to identify shared unmetered load connected to the network. This was also discussed with Northpower staff.

Audit commentary

Northpower only maintains historic information of shared unmetered load. Requests for new shared unmetered load are not accepted.

Northpower has 9 historic “distributor status” ICPs representing shared unmetered load on its network that it maintains information for. The load descriptions are:

Shared ICP	Load description	Number of connected ICPs
0000557088NRDCB	Under Veranda & Security	6
0000557089NR18E	Under Veranda & Security	5
0000557079NR199	Private Streetlights	7
0000557078NRDDC	Private Lighting	6
0000557077NR202	Private Streetlights	7
0000557076NRE47	Private Streetlights	6
0000557086NRE50	Private Streetlights	6
0000557087NR215	Private Streetlights	7
0000557075NR287	Private Lighting	7
		57

When the opportunity arises Northpower policy is to move the shared unmetered load ICPs to existing metered ICPs or create new ICPs as appropriate.

Audit outcome

Compliant

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

Code reference

Clause 11.14(5)

Code related audit information

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

Audit observation

The LIS and EDA files were reviewed to identify shared unmetered load connected to the network.

Audit commentary

There was no new shared unmetered load connected during the audit period and no changes made to the existing shared unmetered load information in the registry.

If Northpower becomes aware of a change to the capacity of a shared unmetered load, it will update the registry.

Audit outcome

Compliant

8. CALCULATION OF LOSS FACTORS

8.1. Creation of loss factors (Clause 11.2)

Code reference

Clause 11.2

Code related audit information

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

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

Audit observation

We reviewed Northpower's Commerce Commission Annual Regulatory Disclosure information, Asset Management Plan and checked the Loss Factor tables in the Registry. This was also discussed with Northpower staff.

Audit commentary

Last year Northpower recalculated loss factors using Sincal (Power System modelling software) to calculate 33 kV network losses. For 11 kV a sample of feeders on a typical day were chosen for calculation. Similar methodology was used for the 400V network.

As a result, loss factors for L1 and L6 loss category codes were increased and loss factors for Loss Codes L2, L3, L4 and L5 were decreased. The table below shows a comparison between the Loss Factors applied to each Loss Code in 2016 and 2020.

Loss Category Code	Metering voltage	Description	Loss Factor 01/04/2016	Loss Factor 01/06/2020
L0	33kV	Metered adjacent at GXP	1.0000	1.0000
L1	33kV	ICP 0000546037NR9E6 (Kauri Dairy Factory)	1.0150	1.0170
L2	11kV	Metered at 11kV	1.0500	1.0250
L3	400V	150kVA and above, metered near the distribution transformer	1.0580	1.0360
L4	400V	Not currently used	1.0730	1.0500
L5	230/400V	Less than 150kVA, metered on the LV distribution network	1.0730	1.0500
L6	33kV	ICP 0000546038NR638	1.0040	1.0050
G1	33kV	Wairua generation	1.0250 Gen 1.0160 Cons	1.0250 Gen 1.0160 Cons
G2	11kV	Bream Bay generation	1.0040 Gen 1.0010 Cons	1.0040 Gen 1.0010 Cons

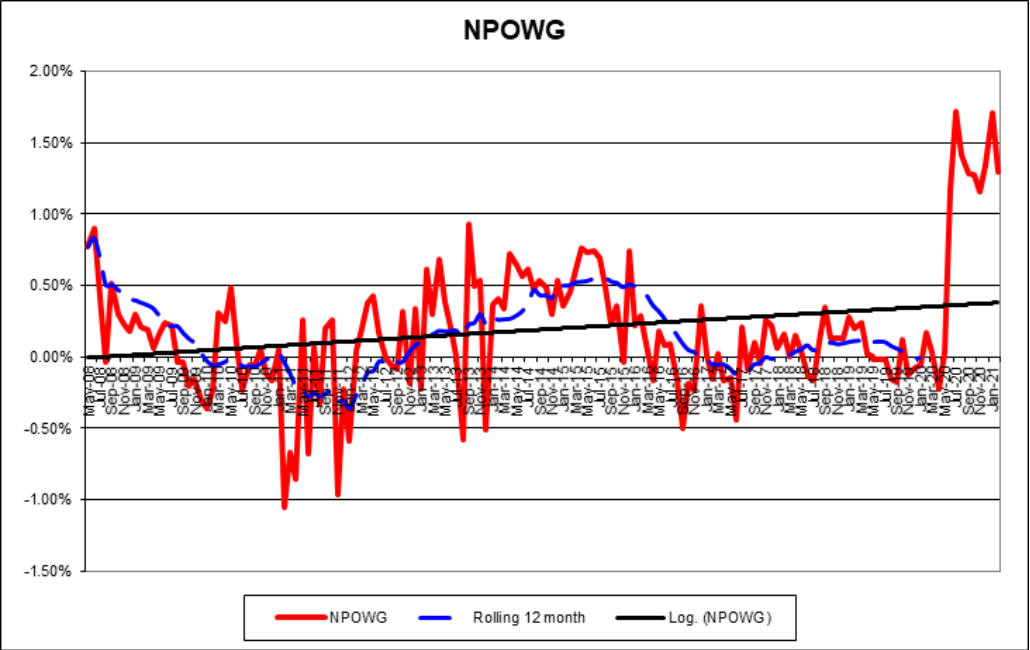
The local loss factors are an approximation of the technical losses on the network. Non- technical losses are derived by subtracting the total annual consumptions for all ICP's (with each multiplied by the appropriate local loss factor) from the total annual inputs to the network (supplied from the grid and from embedded generation).

During the audit we reviewed UFE on the Northpower network. UFE is influenced by many factors, not all of them could be controlled by Northpower.

UFE is defined in the Guidelines on the calculation and the use of loss factors for reconciliation purposes as

UFE is calculated from the difference between reported energy injected into a network and the reported energy extracted from the network after it has been adjusted for losses. Conceptually, it is the inevitable difference between distributors' predictions and reported reality (volumes as measured by meters). UFE accounts for the difference between actual and calculated technical losses, and actual and estimated non-technical losses.

Below is shown the UFE graph (rolling 12 month, provided by the Authority, on the Northpower network.



The table below shows numeric values of monthly UFE averages and 12 month rolling UFE average

Monthly UFE averages

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008					0.77%	0.90%	0.41%	-0.04%	0.52%	0.30%	0.22%	0.18%
2009	0.30%	0.21%	0.19%	0.06%	0.16%	0.24%	0.22%	-0.04%	-0.04%	-0.21%	-0.16%	-0.31%
2010	-0.36%	-0.24%	0.30%	0.25%	0.49%	0.09%	-0.23%	-0.06%	-0.06%	0.06%	-0.12%	-0.17%
2011	0.05%	-1.06%	-0.67%	-0.85%	0.26%	-0.68%	0.07%	-0.33%	0.20%	0.26%	-0.97%	-0.22%
2012	-0.59%	0.04%	0.20%	0.37%	0.43%	0.17%	-0.01%	-0.05%	-0.08%	0.32%	-0.19%	0.34%
2013	-0.23%	0.62%	0.29%	0.68%	0.39%	0.21%	0.00%	-0.58%	0.93%	0.49%	0.54%	-0.51%
2014	0.37%	0.41%	0.34%	0.73%	0.64%	0.57%	0.61%	0.47%	0.54%	0.48%	0.30%	0.53%
2015	0.36%	0.46%	0.61%	0.76%	0.73%	0.74%	0.69%	0.48%	0.22%	0.36%	-0.04%	0.74%
2016	0.22%	0.28%	0.04%	-0.16%	0.18%	0.08%	0.09%	-0.17%	-0.51%	-0.18%	-0.23%	0.35%
2017	0.01%	-0.15%	0.03%	-0.16%	-0.15%	-0.44%	0.21%	-0.09%	0.10%	-0.04%	0.26%	0.22%
2018	0.06%	0.16%	0.00%	0.15%	0.04%	-0.13%	-0.17%	0.11%	0.35%	0.13%	0.13%	0.13%
2019	0.27%	0.20%	0.23%	0.02%	0.01%	-0.02%	-0.02%	-0.15%	-0.18%	0.12%	-0.13%	-0.08%
2020	-0.06%	0.17%	0.03%	-0.22%	0.03%	1.16%	1.72%	1.41%	1.28%	1.27%	1.16%	1.34%
2021	1.70%	1.29%	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

12 month rolling UFE average

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008					0.77%	0.83%	0.69%	0.50%	0.51%	0.47%	0.44%	0.41%
2009	0.39%	0.38%	0.36%	0.34%	0.29%	0.23%	0.21%	0.21%	0.17%	0.12%	0.09%	0.02%
2010	-0.03%	-0.06%	-0.05%	-0.04%	-0.02%	-0.03%	-0.07%	-0.07%	-0.07%	-0.05%	-0.02%	-0.01%
2011	0.03%	-0.04%	-0.12%	-0.21%	-0.22%	-0.28%	-0.26%	-0.28%	-0.26%	-0.24%	-0.31%	-0.31%
2012	-0.37%	-0.28%	-0.21%	-0.12%	-0.10%	-0.03%	-0.04%	-0.02%	-0.04%	-0.03%	0.03%	0.08%
2013	0.11%	0.15%	0.16%	0.18%	0.18%	0.18%	0.18%	0.13%	0.22%	0.24%	0.30%	0.23%
2014	0.27%	0.26%	0.26%	0.27%	0.29%	0.32%	0.37%	0.47%	0.43%	0.43%	0.41%	0.50%
2015	0.50%	0.50%	0.52%	0.53%	0.53%	0.55%	0.55%	0.55%	0.53%	0.52%	0.49%	0.51%
2016	0.49%	0.48%	0.43%	0.36%	0.32%	0.27%	0.21%	0.16%	0.09%	0.05%	0.03%	0.00%
2017	-0.02%	-0.05%	-0.06%	-0.06%	-0.08%	-0.13%	-0.12%	-0.11%	-0.06%	-0.05%	0.00%	-0.02%
2018	-0.01%	0.01%	0.01%	0.04%	0.05%	0.08%	0.04%	0.06%	0.08%	0.10%	0.09%	0.09%
2019	0.10%	0.11%	0.11%	0.10%	0.09%	0.10%	0.10%	0.08%	0.06%	0.04%	0.02%	-0.01%
2020	-0.01%	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
2021	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

For the last two years, up to May 2020, UFE monthly averages was oscillating between “-0.22%” and “+0.35%”.

The Guidelines on the calculation and the use of loss factors for reconciliation purposes expects that that average UFE for the network study area is within +/- 1 % over the course of any 12 month period.”

We observed that from June 2020 UFE increased by 1.0 %, from “+0.35%” to +1.34% or even to 1.70% in Jan 2021. Positive UFE occurs when traders overstate volume purchased and/or distributor overestimate loss factors.

The increase in UFE was discussed with Northpower during the audit.

The Northpower Operational Team has looked at a slightly different mix of 11 kV feeders as well as run high and low load scenarios through the 11 kV feeder computer models. Loss factor values for L1,L2, L3, and L4/L5 Loss Codes were re-calculated, the results are shown below.

Loss Category Code	Metering Voltage	Description	1/04/2016 Loss Factors	1/6/2020 Loss Factors	Proposed LF 2021
L0	33kV	Metered adjacent at GXP	1.000	1.000	1.000
L1	33kV	ICP 0000546037NR9E6	1.015	1.017	1.0173
L2	11kV	Metered at 11kV	1.05	1.025	1.0500
L3	400V	150kVA and above, metered near the distribution transformer	1.058	1.036	1.0621
L4 / L5	400V	Less than 150kVA, metered on the LV distribution network	1.073	1.050	1.0780
L6	33kV	ICP 0000546038NR638	1.004	1.005	1.0050

At the time of finalising this audit report, the new loss factors were still under review and not uploaded to the registry.

Audit outcome

Compliant

CONCLUSION

PARTICIPANT RESPONSE

Northpower thanks TEG & Associates Limited for its audit and confirms that it will take action this year to improve its audit outcomes, including:

- new policies on Registry updates to reduce the number of non-compliances relating to backdating of events into the Registry beyond the time limits in the Code
- implement monthly reporting and review processes
- implement processes to manage non-provision of data by Warranted Persons
- cease to provide authorisation to traders (and their Warranted Persons) to electrically connect an ICP *before* acceptance is provided by the Trader.