

**ELECTRICITY INDUSTRY PARTICIPATION CODE  
DISTRIBUTOR AUDIT REPORT**



For

**MAINPOWER NEW ZEALAND LIMITED**

Prepared by: Steve Woods, Veritek Limited

Date audit commenced: 21 May 2019

Date audit report completed: 21 June 2019

Audit report due date: 21-Jun-19

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## EXECUTIVE SUMMARY

This Distributor audit was performed at the request of **Mainpower New Zealand Limited (Mainpower)**, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11. The audit was carried out at the Mainpower's premises in Rangiora, on May 21<sup>st</sup>, 2019.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority.

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

Most of the issues raised relate to incorrect or late registry updates.

The controls are much stronger than they were at the beginning of the audit period, now that the new system is in place and fully operational. Some improvements to controls are still recommended and I have noted these in some sections. Other than further strengthening controls, there is still the issue of late updates from the field for new connections and changes to physical configuration. Mainpower is aware of this issue and is continuing to liaise with relevant parties,

The next audit frequency table indicates that the next audit be due in 12 months. This timeframe seems reasonable given the low breach risk ratings for most issues.

The matters raised are shown in the tables below:

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Provision of information	2.1	11.2(1)	All practicable steps not taken to ensure information accuracy, as recorded in sections 3.5, 4.2, 4.6 and 4.11.	Moderate	Low	2	Cleared
ICP creation	3.2	11.5(3)	2 of 20 ICPs created one day or two days late.	Strong	Low	1	Identified
Ready updates	3.4	7(2) of Schedule 11.1	Late Ready updates for nine ICPs.	Moderate	Low	2	Identified
Initial electrical connection date population	3.5	7(2A) of Schedule 11.1	80 initial energisation dates updated late to the registry.	Moderate	Low	2	Identified
Changes to registry information	4.1	8 Schedule 11.1	Some late registry updates.	Moderate	Low	2	Identified

Notice of NSP	4.2	7(1),(4) and (5) Schedule 11.1	Incorrect GXP recorded for 7 ICPs.	Moderate	Low	2	Cleared
ICP location address	4.4	2 Schedule 11.1	Four ICPs with duplicate addresses.	Strong	Low	1	Cleared
Registry accuracy	4.6	Clause 7(1)(k), (m),(o) & (p) Schedule 11.1	4 DG discrepancies. 1 unmetered load discrepancy. 5 IECD discrepancies. 1 status error.	Moderate	Low	2	Cleared
Future Risk Rating						14	
Indicative Next Audit Frequency						12 months	

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

## RECOMMENDATIONS

Subject	Section	Clause	Description
New and Ready checks	3.14	15 Schedule 11.1	Include details of new and ready checks in MACK to ensure better visibility.
Notice of NSP	4.2	Regarding clauses 7(1),(4) and (5) Schedule 11.1	Develop reporting of ICPs per transformer, including GXP to ensure all GXPs are correct.
Registry accuracy	4.6	7(1) of Schedule 11.1	Monitor COC records and EIEP files to ensure DG records are accurately populated.
Shared unmetered load	7.1	Regarding Clause 11.14(2) and (4)	Populate the shared ICP list field for child ICPs with the parent ICP identifier.

## ISSUES

Subject	Section	Issue	Description
		Nil	

## 1. ADMINISTRATIVE

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

#### Code reference

*Section 11 of Electricity Industry Act 2010.*

#### Code related audit information

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

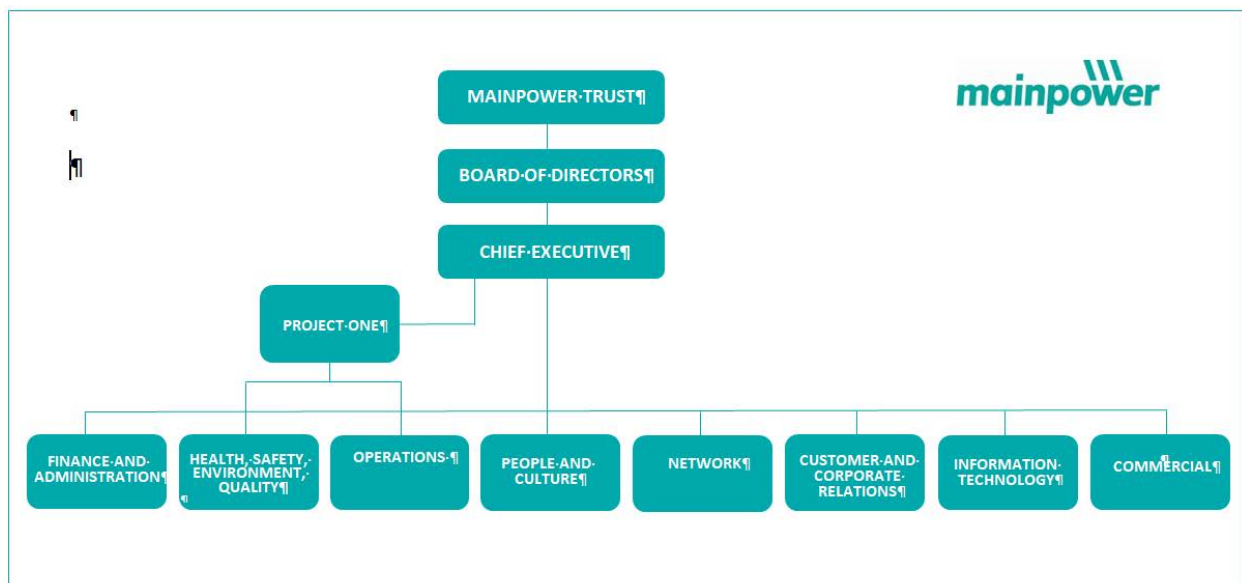
#### Audit observation

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

#### Audit commentary

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

### 1.2. Structure of Organisation



### 1.3. Persons involved in this audit

Auditor:

**Steve Woods**

**Veritek Limited**

**Electricity Authority Approved Auditor**

Mainpower Networks personnel assisting in this audit were:

Name	Title
Sarah Barnes	Regulatory Manager
Leigh Hancock	Commercial Administrator
Joel Hung	Commercial Analyst

### 1.4. Use of contractors (Clause 11.2A)

#### Code reference

*Clause 11.2A*

#### Code related audit information

*A participant who uses a contractor*

- *remains responsible for the contractor's 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

All activities are completed directly by Mainpower.

### 1.5. Supplier list

All activities are completed directly by Mainpower.

### 1.6. Hardware and Software

Mainpower uses the Salesforce system (known as MACK internally) to manage processes and data related to the scope of this audit.

Back-ups are carried out in accordance with industry standards.

## 1.7. Breaches or Breach Allegations

There are no breach allegations relevant to the scope of this audit.

## 1.8. ICP and NSP Data

Mainpower owns and operates the electricity network in the North Canterbury region.

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

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date
MPOW	ASY0111	ASHLEY			ASYAREAMPOWG	G	01-10-16
MPOW	CUL0331	CULVERDEN			SWCKMPOWG	G	01-08-16
MPOW	CUL0661	CULVERDEN			SWCKMPOWG	G	01-08-16
MPOW	KAI0111	KAIAPOI			KAI0111MPOWG	G	01-05-08
MPOW	SBK0331	SOUTHBROOK			SWCKMPOWG	G	01-05-08
MPOW	SBK0661	SOUTHBROOK			KAI0111MPOWG	G	01-10-16
MPOW	WPR0331	WAIPARA			SWCKMPOWG	G	01-08-16
MPOW	WPR0661	WAIPARA			SWCKMPOWG	G	01-01-16

Mainpower does not own any embedded networks and there are no embedded networks connected.

The following ICP information is from a May 2019 list file.

Status	Number of ICPs
Active (2,0)	40,080
Inactive – new connection in progress (1,12)	47
Inactive – electrically disconnected vacant property (1,4)	763
Inactive – electrically disconnected remotely by AMI meter (1,7)	81
Inactive – electrically disconnected at pole fuse (1,8)	20
Inactive – electrically disconnected due to meter disconnected (1,9)	6
Inactive – electrically disconnected at meter box fuse (1,10)	0
Inactive – electrically disconnected at meter box switch (1,11)	0
Inactive – electrically disconnected ready for decommissioning (1,6)	8
Inactive – reconciled elsewhere (1,5)	0
Decommissioned (3)	3,942



## 1.9. Authorisation Received

An authorisation letter was not required.

## 1.10. Scope of Audit

This Distributor audit was performed at the request of Mainpower, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11. The audit was carried out at the Mainpower's premises in Rangiora, on May 21<sup>st</sup>, 2019.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority.

The table below shows the tasks under clause 11.10(4) of Part 11, which Mainpower is responsible for. There are no other contractors who assist with these tasks:

Functions Requiring Audit Under Clause 11.10(4) of Part 11	Within audit scope	Contractors Involved in Performance of Tasks
The creation of ICP identifiers for ICPs.	✓	Nil
The provision of ICP information to the registry and the maintenance of that information.	✓	
The creation and maintenance of loss factors.	✓	

### 1.11. Summary of previous audit

Mainpower provided a copy of their previous audit, conducted in June 2018 by Steve Woods of Veritek. The audit found eight non-compliances and made three recommendations. The matters raised are detailed in the table below.

#### Table of non-compliance

Subject	Section	Clause	Non-compliance	Status
Provision of information	2.1	11.2(1)	All practicable steps not taken to ensure information accuracy, as recorded in sections 3.5, 4.2, 4.6 and 4.11.	Still existing
ICP creation	3.2	11.5(3)	3 of 20 ICPs created one day or two days late.	Still existing
Initial electrical connection date population	3.5	7(2A) of Schedule 11.1	37 initial energisation dates updated late to the registry. 36 incorrect event dates.	Still existing for late updates
Changes to registry information	4.1	8 Schedule 11.1	Some late registry updates.	Still existing
Notice of NSP	4.2	7(1),(4) and (5) Schedule 11.1	Incorrect GXP recorded for 7 ICPs.	Still existing for different ICPs
ICP location address	4.4	2 Schedule 11.1	One ICP without sufficient detail to locate.	Still existing
Registry accuracy	4.6	7(1)(o) & (p) Schedule 11.1	One DG and several IECD discrepancies found.	Still existing
Decommissioned status	4.11	20 Schedule 11.1	At least three ICPs decommissioned without the registry being updated.	Cleared

#### Recommendations

Subject	Section	Clause	Description	Status
Notice of NSP	4.2	7(1),(4) and (5) Schedule 11.1	Develop reporting of ICPs per transformer, including GXP to ensure all GXPs are correct.	Still existing
Shared unmetered load	7.1	11.14(2) and (4)	Populate the shared ICP list field for child ICPs with the parent ICP identifier.	Still existing

## 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

I considered the issues reported in the body of this report to determine whether all practicable steps have been taken with regard to the provision of complete and accurate information.

#### Audit commentary

In **sections 3.5, 4.2, 4.6** and **4.11** I have recorded that additional steps can be taken to improve the accuracy of information. The relevant details are recorded in each of these sections.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 11.2(1)  From: 01-Sep-17 To: 30-Apr-18	All practicable steps not taken to ensure information accuracy, as recorded in sections 4.2 and 4.6.  Potential impact: Medium  Actual impact: Low  Audit history: Twice  Controls: Moderate  Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	The controls are rated as moderate in the relevant sections. In summary Mainpower's controls ensure information is accurate most of the time but improvements have been identified, therefore I have recorded the controls as moderate.  Several of the matters raised have a minor impact on settlement or other participants, leading to an audit risk rating of low.

Actions taken to resolve the issue	Completion date	Remedial action status
Information corrected	5 June 2019	Cleared
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	I confirmed all errors have been corrected
We will continue to work with the livening agent to make it aware of Code requirements. We understand that closer monitoring of connections completed, but not advised to MainPower may be enabled in the near future with new reporting options/ queries from the registry.	Q4 2019 for updated reporting from Registry. 1 July 2019 for livening agent discussions.	

## 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

I checked Mainpower's validation processes and the resolution of issues found during the previous audit to confirm compliance.

### Audit commentary

Mainpower has taken action with regard to the issues from the previous audit and they have taken immediate action to resolve any errors found during this audit. I therefore confirm compliance.

### Audit outcome

Compliant

### 3. CREATION OF ICPS

#### 3.1. Distributors must create ICPs (Clause 11.4)

##### Code reference

Clause 11.4

##### Code related audit information

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

##### Audit observation

The new connection process was examined in detail and is described in **section 3.2**. A diverse characteristics sample of 20 new connection applications of the 893 created since June 2018 were checked from the point of application through to when the ICPs were created. The sample included ICPs with CT metering, distributed generation and connected to different NSPs.

##### Audit commentary

Mainpower creates ICPs as required by clause 1 of schedule 11.1.

There were no examples found of points of connection without ICPs.

##### Audit outcome

Compliant

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

##### Code reference

Clause 11.5(3)

##### Code related audit information

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

##### Audit observation

As recorded in **Section 3.1**, I checked the records for 20 ICPs created during the audit period to confirm compliance with this clause.

##### Audit commentary

New connection requests are made directly to Mainpower by the customer, or more commonly their electrician. Requests are made on-line or sometimes by completing a hard copy form. The application is then subject to an engineering review (to confirm capacity and other technical issues) and then the approval is sent to another department for registry population where the ICP is created on the registry at "New". At this time the relevant retailer is asked for confirmation that they agree to take responsibility for the ICP. Once this confirmation is returned the status is changed to "Ready".

Whilst this clause discusses ICP applications by participants, I have determined that the customer or their electrician is acting as an agent for the participant and I have therefore measured the "3 day" requirement from the application by the customer to the creation of the ICP at "New".

17 of 20 ICPs were created within three business days, but three were created later than three days. One was created on the fourth day, one on the fifth day and one on the 15<sup>th</sup> day. The applicant was contacted regarding the ICP created on the 15<sup>th</sup> day and were informed that a “mini-sub” needed to be created. The other two late ICP creations were caused by resourcing issues, which are now resolved.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 With: Clause 11.5(3) From: 19-Sep-18 To: 17-Oct-18	2 of 20 ICPs created one day or two days late. Potential impact: Low Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because the resourcing issues have been resolved and recently created ICPs were within 3 business days. There is no impact on settlement. The only potential impact is where a trader may wish to compare their Active date to the IED, so the impact is considered minor, leading to an audit risk rating of low.		
Actions taken to resolve the issue		Completion date	Remedial action status
The problem was caused during the audit period due to resource constraints. We will work with the network team to ensure that they are aware of requirements.		5 June 2019 for resourcing. Training completed 1 August 2019.	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The problem was caused during the audit period due to resource constraints. We will work with the network team to ensure that they are aware of requirements.		5 June 2019 for resourcing. Training completed 1 August 2019.	

### 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

A diverse characteristics sample of 20 new connection applications of the 893 created during the audit period were checked from the point of application through to when the ICP was created, to confirm the process and controls worked in practice.

#### Audit commentary

ICP information provided to the registry by Mainpower was correct.

#### 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

An event detail report was examined to determine the timeliness of the provision of ICP information for new connections.

#### Audit commentary

The distributor must provide to the registry the information listed in clause 7(1) of schedule 11.1 as soon as practicable, and before electricity is traded at the ICP.

893 new ICPs were created during the audit period. I reviewed these new connections in the event detail report to identify ICPs where information was provided late. There were nine examples of the registry being updated after electrical connection, or after trading had commenced. There were several reasons for the late updates, as follows:

- lack of clarity regarding the correct ICP in two cases;
- unauthorised electrical connection in two cases;
- Registry rejection of status change not identified in three cases; and
- processing issues for two examples.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.4 With: Clause 7(2) of Schedule 11.1  From: 18-Oct-18 To: 14-Jan-19	Late Ready updates for nine ICPs.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement.  The impact on settlement and participants is minor; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
The late ready updating was caused by a previously unidentified IT problem. While this is being resolved we have reverted to manually updating the registry.		26 May 2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
IT problem being resolved. Manual updating in the meantime		Q3 2019 for IT fix	

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

#### Code reference

*Clause 7(2A) of Schedule 11.1*

#### Code related audit information

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

#### Audit observation

The event detail report and the registry list were examined to determine the timeliness and accuracy of initial electrical connection dates for the 893 completed new connections.

#### Audit commentary

The analysis of the event detail report found 80 updates later than 10 business days (8.65%).

15 of the 80 late updates were checked in detail and in all cases, late updates by the electrical connection contractor (VCOM) was the cause.



During the previous audit, I recorded that event dates were incorrect for a large number of ICPs. This matter is now resolved, and I didn't identify any incorrect event dates.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1  From: 01-Jun-18 To: 30-Apr-19	80 initial energisation dates updated late to the registry.  Potential impact: Low  Actual impact: Low  Audit history: Once  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement.  There is no impact on settlement. The only potential impact is where a trader may wish to compare their Active date to the IECD, so the impact is considered minor, leading to an audit risk rating of low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We will monitor this more closely. We understand that the new reporting option/ queries from the Registry may help with this in the future.		Q4 for updated reporting, 5 June for monitoring	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will monitor this more closely. We understand that the new reporting option/ queries from the Registry may help with this in the future.		Q4 for updated reporting, 5 June for monitoring	

### 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.*

#### **Audit observation**

The new connection process was examined in **section 3.2**.

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

#### **Audit commentary**

The new connection process requires applications for new connections to be approved by traders before moving from the “New” status to the “Ready” status.

My review of the registry list confirmed that a trader is currently recorded for all active ICPs. No ICPs were connected or electrically connected without a proposed trader.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 10.31*

#### **Code related audit information**

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

#### **Audit observation**

The new connection process was examined in **section 3.2**. The event detail report for the period from June 2018 through to April 2019 was examined.

#### **Audit commentary**

The new connection process allows applications for new connections to be submitted by customers or their agents.

As discussed in **section 3.2**, Manpower has a step in the new connections process to ensure a trader accepts responsibility and is recorded in the registry. There are no ICPs without a proposed trader recorded in the registry.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 10.31A*

#### **Code related audit information**

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

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

### Audit observation

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

### Audit commentary

Mainpower's processes are robust in relation to this clause as an ICP will not be electrically connected without the agreement from the trader, who in turn has agreement with an MEP for the ICP. No temporarily connected ICPs were identified.

### Audit outcome

Compliant

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

### Code reference

*Clause 10.30*

### Code related audit information

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

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

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

### Audit observation

The NSP table was reviewed.

### Audit commentary

No new NSPs were created by Mainpower during the audit period.

### Audit outcome

Compliant

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

### Code reference

*Clause 10.30(A)*

### Code related audit information

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

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

### Audit observation

The NSP table was reviewed.

**Audit commentary**

No new NSPs were created by Mainpower during the audit period.

**Audit outcome**

Compliant

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

**Code reference**

*Clause 1(1) Schedule 11.1*

**Code related audit information**

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

*xxxxxxxxxxccc where:*

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

**Audit observation**

The process for the creation of ICPs was examined.

**Audit commentary**

ICP numbers are created in the appropriate format.

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

**Audit commentary**

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

**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 ICP creation process was reviewed. The event detail file and registry list were examined to determine compliance.

#### Audit commentary

Mainpower creates ICPs at the “New” status and changes the status to “Ready” once the relevant retailer has agreed to accept responsibility for the ICP. The “New” status is correctly used.

#### 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 ICP creation process was reviewed. The event detail file and registry list were examined to determine compliance.

#### Audit commentary

The list file contains 21 “Ready” and three “New” ICPs created more than 24 months ago. I checked the process for notifying traders and it is compliant. On a monthly basis Mainpower sends a list to retailers with their ICPs and requests confirmation that they still want to retain the ICP in its current status. The reporting and responses were demonstrated. The reporting is separate to MACK and is in a spreadsheet. I recommend Mainpower checks whether the retailer queries and responses can be included in MACK to ensure better visibility.

Clause	Description	Audited party comment	Remedial action
15 Schedule 11.1	Include details of new and ready checks in MACK to ensure better visibility.	To be discussed with IT team and included in work programme if possible	Investigating

### **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**

The list file was examined to identify relevant ICPs.

#### **Audit commentary**

There are no ICPs with a generation capacity greater than 10MW. There is one ICP with an individual loss category, but it is rated at 2MW not more than 10MW.

### **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 three business days after the change takes effect, unless the change is to the NSP identifier of the NSP to which the ICP is usually connected (other than a change that is the result of the commissioning or decommissioning of an NSP).*

*In those cases, notification must be given no later than eight business days after the change takes effect.*

*If the change to the NSP identifier is for more than 14 days, the time within which notification must be effected in accordance with Clause 8(3) of Schedule 11.1 begins on the 15th day after the change.*

#### Audit observation

The management of registry updates was reviewed.

The event detail file from June 2018 to April 2019 was reviewed to determine compliance. An extreme case sample of 10 backdated events (or less if there were not more than ten) by type were reviewed to determine the reasons for the late updates. This included address, network, NSP change, pricing, and status events.

#### Audit commentary

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

#### Address events

1,822 address updates were identified. 130 of these were updated greater than three business days of the event.

#### Network events

1,957 network events not relating to population of initial electrical connection dates for new connections completed during the audit period were identified. The timeliness of initial electrical connection updates is discussed in **section 3.5**.

50 of these were updated more than three business days after the event (2.6%). I checked a sample of 17 late updates and found the following:

1. six were due to late updates from the field or late processing due to resourcing;
2. five were due to correction of errors in the initial loading; and
3. six were due to incorrect effective dates being populated by MACK.

#### Pricing events

4,287 pricing updates were identified. 282 of these were updated more than three business days after the event. The 15 latest updates were reviewed, and I found:

1. nine were due to system issues leading to the incorrect effective date being populated in the registry; and

2. six were due to late or incorrect information from the field

### Status events

118 status updates to decommissioned were identified and 95 of these were over three business days. I removed 46 records because they related to late updates by the retailer, leaving 59 which were late. I checked 12 in detail and they were late due to the manual process for checking retailer updates.

### Audit outcome

#### Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: Clause 8 Schedule 11.1  From: 01-Jun-18 To: 30-Apr-19	Some late registry updates. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement.  The impact on settlement and participants is minor; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We will monitor this more closely. We understand that the new reporting option/ queries from the Registry may help with this in the future.		5 June 2019 for closer monitoring. Q4 2019 for improved reporting	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will monitor this more closely. We understand that the new reporting option/ queries from the Registry may help with this in the future.		5 June 2019 for closer monitoring. Q4 2019 for improved reporting	



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

##### Code reference

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

##### Code related audit information

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

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

##### Audit observation

The process to determine the correct NSP was examined. The registry list and event detail report were reviewed to determine compliance.

##### Audit commentary

New connections have a check against surrounding ICPs and a check of the transformer to ensure the correct GXP is used. This process appears sound, but I suggest periodic reporting of ICPs per transformer to ensure they all have the same GXP.

Clause	Description	Audited party comment	Remedial action
Regarding clauses 7(1),(4) and (5) Schedule 11.1	Develop reporting of ICPs per transformer, including GXP to ensure all GXPs are correct.	We will be running a query on ICPs looking at combinations of ICP street name, town name, and the associated GXP/NSP to identify which ICPs are to be investigated using the GIS for having incorrect GXP. As a short term measure this will be performed on BI report using data already available from the customer relationship management system. In the longer term, based on conversation between the auditor and IT staff, there will be a customised query set up and run directly from the customer relationship management system to enable ICPs to be extracted. This report and check will be carried out regularly, every 3 months.	Identified

I conducted further analysis to check GXP accuracy. The registry list was reviewed to determine whether all active ICPs with the same physical address street, suburb, and town combination had the same GXP recorded. I found 36 rows where there were up to three ICPs on a different combination to 50% or more other ICPs. Further analysis by Mainpower confirmed that six rows (7 ICPs in total) appear to have the incorrect GXP. Six of the seven were newly created ICPs and one was historic.

##### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.2 With: Clauses 7(1),(4) and (5) Schedule 11.1 From: 01-Jun-18 To: 30-Apr-19	Incorrect GXP recorded for 7 ICPs. Potential impact: Medium 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 they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor for the small number of discrepancies identified; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Inaccuracies corrected		5 June 2019	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We will be running a query on ICPs looking at combinations of ICP street name, town name, and the associated GXP/NSP to identify which ICPs are to be investigated using the GIS for having incorrect GXP. As a short term measure this will be performed on BI report using data already available from the customer relationship management system. In the longer term, based on conversation between the auditor and IT staff, there will be a customised query set up and run directly from the customer relationship management system to enable ICPs to be extracted. This report and check will be carried out regularly, every 3 months.		Short term 5 June 2019, Q4 2019 for longer term fix	

#### 4.3. Customer queries about ICP (Clause 11.31)

##### Code reference

Clause 11.31

##### Code related audit information

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

##### Audit observation

The management of customer queries was examined.

##### Audit commentary

Mainpower seldom receives direct requests for ICP identifiers. ICP identifiers can be provided immediately on request once the address has been confirmed.

#### Audit outcome

Compliant

#### 4.4. ICP location address (Clause 2 Schedule 11.1)

#### Code reference

Clause 2 Schedule 11.1

#### Code related audit information

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

#### Audit observation

The process to determine correct and unique addresses was examined.

I checked the list file for addresses without sufficient information.

#### Audit commentary

The list file contains 236 ICPs without GPS co-ordinates. Of those 236, 21 do not have a street number but do have a property name. Four ICPs were identified as duplicates.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: Clause 2 Schedule 11.1  From: 01-Jun-18 To: 30-Apr-19	Four ICPs with duplicate addresses. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are recorded as strong and only four ICPs are non-compliant. The impact on settlement and participants is minor; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Inaccuracies corrected		5 June 2019	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We will work with the network team to ensure that they are aware of requirements.		1 August 2019	

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

##### Code reference

Clause 3 Schedule 11.1

##### Code related audit information

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

##### Audit observation

I checked Mainpower's "Network Connection Standards" to assess compliance.

##### Audit commentary

Section 2.3.6 of the Network Connection Standard contains the following statement:

*"Connection for entry to and exit from the Network shall incorporate a means of disconnection of the User Network by MainPower."*

I have therefore concluded that Mainpower has a compliant policy. Further to this, the new connection notification forms have fields for "tail connection type" and capacity, which would alert to any shared service mains without individual isolation.

##### Audit outcome

Compliant

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

##### Code reference

Clause 7(1) Schedule 11.1

##### Code related audit information

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

- *the location address of the ICP identifier (Clause 7(1)(a) of Schedule 11.1)*
- *the NSP identifier of the NSP to which the ICP is usually connected (Clause 7(1)(b) of Schedule 11.1)*
- *the installation type code assigned to the ICP (Clause 7(1)(c) of Schedule 11.1)*
- *the reconciliation type code assigned to the ICP (Clause 7(1)(d) of Schedule 11.1)*
- *the loss category code and loss factors for each loss category code assigned to the ICP (Clause 7(1)(e) of Schedule 11.1)*
- *if the ICP connects the distributor's network to an embedded generating station that has a capacity of 10MW or more (Clause 7(1)(f) of Schedule 11.1):*
  - a) *the unique loss category code assigned to the ICP*
  - b) *the ICP identifier of the ICP*
  - c) *the NSP identifier of the NSP to which the ICP is connected*
  - d) *the plant name of the embedded generating station*
- *the price category code assigned to the ICP, which may be a placeholder price category code only if the distributor is unable to assign the actual price category code because the capacity or*

*volume information required to assign the actual price category code cannot be determined before electricity is traded at the ICP (Clause 7(1)(g) of Schedule 11.1)*

- *if the price category code requires a value for the capacity of the ICP, the chargeable capacity of the ICP as follows (Clause 7(1)(h) of Schedule 11.1):*
  - a) *a placeholder chargeable capacity if the distributor is unable to determine the actual chargeable capacity*
  - b) *a blank chargeable capacity if the capacity value can be determined from metering information*
  - c) *the actual chargeable capacity of the ICP in any other case*
- *the distributor installation details for the ICP determined by the price category code assigned to the ICP (if any), which may be placeholder distributor installation details only if the distributor is unable to assign the actual distributor installation details because the capacity or volume information required to assign the actual distributor installation details cannot be determined before electricity is traded at the ICP (Clause 7(1)(i) of Schedule 11.1)*
- *the participant identifier of the first trader who has entered into an arrangement to sell or purchase electricity at the ICP (only if the information is provided by the first trader) (Clause 7(1)(j) of Schedule 11.1)*
- *the status of the ICP (Clause 7(1)(k) of Schedule 11.1)*
- *designation of the ICP as "Dedicated" if the ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)*
- *if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)*
- *if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)*
- *if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):*
  - a) *the nameplate capacity of the generator; and*
  - b) *the fuel type*
- *the initial electrical connection date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

#### **Audit observation**

The management of registry information was reviewed. The registry list and event detail reports were reviewed to determine compliance.

A typical sample of data discrepancies were checked.

#### **Audit commentary**

Registry data validation processes are discussed in **section 2.1**.

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

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

#### **Generation**

Mainpower requires an application from any customers wanting to connect distributed generation. Once installed, Mainpower receive paperwork back from the field and the database is then updated. As noted in **section 4.1**, paperwork can be slow in being returned.

Analysis of the registry list confirmed there are 837 ICPs with generation capacity recorded. All ICPs with generation capacity have a fuel type and installation type of "B" or "G" recorded on the registry.

My analysis found six ICPs where the retailer had the PV1 profile recorded in the registry, but the installation type was not “B”. In three cases, MACK had generation recorded but the registry had not updated. These are now corrected. One ICP was not updated in MACK or the registry, this is also now corrected. Mainpower investigated the other two ICPs and there is no record of generation being installed and there is no record in the EIEP1 file either. It appears the retailer may be incorrect.

There are 62 ICPs where Mainpower had generation recorded but the trader does not have the PV1 profile recorded. All of these updates were based in receipt of the meter change records when the import/export meter was installed. There is no indication that these updates are incorrect, but I recommend Mainpower also checks the COC and connection details before updating the registry, just to be completely sure of the connection details. I also recommend the EIEP files are monitored for generation kWh where generation details are not recorded in the registry.

Clause	Description	Audited party comment	Remedial action
7(1) of Schedule 11.1	Monitor COC records and EIEP files to ensure DG records are accurately populated.	We will monitor this more closely.	Identified

### Unmetered load

Part 11 states the distributors must provide unmetered load type and capacity of the unmetered load to the registry “if known”. There were no new unmetered load connections during the audit period. One ICP had unmetered load recorded when it had been physically removed. This has been corrected.

### Initial Electrical Connection date

Four ICPs in the list file had a blank initial electrical connection date. These have now all been obtained and populated.

I also checked the accuracy of IECDs and found 13 ICPs where the IECD was different to either the Active or certification dates. Further analysis showed that Mainpower was correct in ten cases and incorrect in three cases. It appears that processing issues caused the errors.

Two ICPs had the IECD populated but electrical connection had not occurred.

### Status fields

One ICP was incorrectly still at “New” and should have been at “Ready”.

No other incorrect registry fields were identified.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: Clause 7(1)(k), (m),(o) & (p) Schedule 11.1 From: 01-Jun-18 To: 31-May-19	4 DG discrepancies. 1 unmetered load discrepancy. 5 IECD discrepancies. 1 status error. Potential impact: Medium Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The audit risk rating is recorded as low because the overall number of variances is low, and the impact is negligible.		
Actions taken to resolve the issue		Completion date	Remedial action status
Inaccuracies corrected		5 June 2019	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We will monitor this more closely		1 July 2019	

#### 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 management of registry information was reviewed. The event detail report and registry list were reviewed to determine compliance.

##### Audit commentary

I checked the registry update timeframes for all new connections and did not find any late updates in relation to this clause.

#### **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**

I checked the format of GPS coordinates in the registry.

#### **Audit commentary**

GPS coordinates are populated in the registry and they are in NZTM format.

#### **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**

Processes to manage the “Ready” status were reviewed.

The event detail report and registry list were reviewed to identify and check ICPs at the “Ready” status.

#### **Audit commentary**

All “Ready” ICPs have a single price category code and a trader is recorded.

#### **Audit outcome**

Compliant



#### 4.10. Management of “distributor” status (Clause 16 Schedule 11.1)

##### Code reference

Clause 16 Schedule 11.1

##### Code related audit information

*The ICP status of “distributor” must be managed by the distributor and indicates that the ICP record represents a shared unmetered load installation or the point of connection between an embedded network and its parent network.*

##### Audit observation

The event detail report and registry list were reviewed to identify ICPs at “distributor” status.

##### Audit commentary

There are seven “SI” ICPs and they all have the shared unmetered load details recorded correctly.

##### 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 ICP decommissioning process was examined by a walk through. I also examined all eight ICPs at “ready for decommissioning”.

##### Audit commentary

Examination of the list file found eight ICPs are at “ready for decommissioning” status. It is expected that retailers will provide a service order to Mainpower and once the necessary fieldwork had been conducted the registry will be updated to decommissioned. These ICPs are all now 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 two months after the date the code is entered in the table.*

*A price category code takes effect on the specified date.*

##### **Audit observation**

I checked the Price Category Code table on the registry to confirm compliance.

##### **Audit commentary**

No price category codes were created or changed during the audit period.

##### **Audit outcome**

Compliant

## 5. CREATION AND MAINTENANCE OF LOSS FACTORS

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

#### Code reference

*Clause 21 Schedule 11.1*

#### Code related audit information

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

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

*A loss category code takes effect on the specified date.*

#### Audit observation

The loss category code table on the registry was examined.

#### Audit commentary

No new loss factors have been created during the audit period.

#### Audit outcome

Compliant

### 5.2. Updating loss factors (Clause 22 Schedule 11.1)

#### Code reference

*Clause 22 Schedule 11.1*

#### Code related audit information

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

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

#### Audit observation

The loss category code table on the registry was examined.

#### Audit commentary

No loss factors were changed during the audit period.

#### 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 two local networks, the distributor must give written notice to the reconciliation manager of the creation or decommissioning.*

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

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

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

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

#### Audit observation

The NSP table was reviewed.

#### Audit commentary

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

#### Audit outcome

Compliant

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

#### Code reference

*Clause 26(1) and (2) Schedule 11.1*

#### Code related audit information

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

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

#### **Audit observation**

The NSP table was reviewed.

#### **Audit commentary**

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

#### **Audit outcome**

Compliant

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

#### **Code reference**

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

#### **Code related audit information**

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

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

#### **Audit observation**

The NSP table was reviewed.

#### **Audit commentary**

No balancing area changes have occurred during the audit period.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 26(4) Schedule 11.1*

#### **Code related audit information**

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

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

#### **Audit observation**

The NSP table was reviewed.

#### **Audit commentary**

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

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 24(2) and (3) Schedule 11.1*

#### **Code related audit information**

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

#### **Audit observation**

The NSP table was reviewed.

#### **Audit commentary**

No balancing area changes have occurred during the audit period.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 27 Schedule 11.1*

#### **Code related audit information**

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

#### **Audit observation**

No ICPs have become NSPs during the audit period.

#### **Audit commentary**

No ICPs have become NSPs during the audit period.

#### **Audit outcome**

Compliant

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

##### Code reference

*Clause 1 to 4 Schedule 11.2*

##### Code related audit information

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

##### Audit observation

No ICP transfers have occurred during the audit period.

##### Audit commentary

No ICP transfers have occurred during the audit period.

##### Audit outcome

Compliant

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

##### Code reference

*Clause 10.25(1) and 10.25(3)*

##### Code related audit information

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

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

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

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

##### Audit observation

Mainpower does not have any responsibility for NSP metering.

##### Audit commentary

Mainpower does not have any responsibility for NSP metering.

##### Audit outcome

Compliant

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

### Code reference

Clause 10.25(2)

### Code related audit information

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

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

### Audit observation

Mainpower does not have any responsibility for NSP metering.

### Audit commentary

Mainpower does not have any responsibility for NSP metering.

### Audit outcome

Compliant

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

### Code reference

Clause 29 Schedule 11.1

### Code related audit information

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

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

*at least one months' 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

Mainpower has not acquired any networks.

### Audit commentary

Mainpower has not acquired any networks.



#### **Audit outcome**

Compliant

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

##### **Code reference**

*Clause 10.22(1)(b)*

##### **Code related audit information**

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

##### **Audit observation**

The NSP supply point table was reviewed.

##### **Audit commentary**

Mainpower is not responsible for embedded network gate meters; 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**

The NSP supply point table was reviewed.

##### **Audit commentary**

Mainpower is not responsible for embedded network gate meters; 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**

The NSP supply point table was reviewed.

#### **Audit commentary**

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

#### **Audit outcome**

Not applicable

## 7. MAINTENANCE OF SHARED UNMETERED LOAD

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

#### Code reference

*Clause 11.14(2) and (4)*

#### Code related audit information

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

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

#### Audit observation

The list file contains seven shared unmetered load ICPs, which were all checked for accuracy.

#### Audit commentary

There were no changes during the audit period.

The “child” ICPs do not have any reference to the parent ICP and the registry data dictionary indicates that the “shared ICP list” field should contain the parent ICP. The data dictionary text is shown below:

*A list maintained by Distributors. For ICPs across which unmetered load is shared (Shared Unmetered ICPs see section 1.5), the list will contain the ICP identifiers of each ICP separated by a space. For Standard ICPs with a relationship to Shared Unmetered ICPs (across which unmetered load is shared), this will contain the ICP Identifier of the Shared Unmetered ICP.*

I recommend Mainpower populates the shared ICP list field for child ICPs with the parent ICP identifier.

Recommendation	Description	Audited party comment	Remedial action
Regarding Clause 11.14(2) and (4)	Populate the shared ICP list field for child ICPs with the parent ICP identifier.	We will resolve this issue based on the auditor’s recommendations	Identified

#### 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

There were no changes during the audit period.

**Audit commentary**

There were no changes during the audit period.

**Audit outcome**

Compliant



## CONCLUSION

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

Most of the issues raised relate to incorrect or late registry updates.

The controls are much stronger than they were at the beginning of the audit period, now that the new system is in place and fully operational. Some improvements to controls are still recommended and I have noted these in some sections. Other than further strengthening controls, there is still the issue of late updates from the field for new connections and changes to physical configuration. Mainpower is aware of this issue and is continuing to liaise with relevant parties,

The next audit frequency table indicates that the next audit be due in 12 months. This timeframe seems reasonable given the low breach risk ratings for most issues and that many of the items raised have been resolved.

## PARTICIPANT RESPONSE