

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**



For

MAINPOWER NEW ZEALAND LIMITED

Prepared by: Rebecca Elliot, Veritek Limited

Date audit commenced: 7 April 2020

Date audit report completed: 17 June 2020

Audit report due date: 21-Jun-20

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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 remotely during the COVID 19 pandemic over May 21st-22nd, 2020.

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

The audit found 12 non-compliances and makes eight recommendations. This is an increase of four non-compliances from the last audit and has resulted in the next indicative audit frequency to be in six months. This is largely caused by the ADMS network integration project which has caused the GPS co-ordinates to be changed from the NZTM format to the WSG format and has caused an increase in ICPs with duplicated addresses. A fix is expected to be in place by mid July 2020 to correct this. Overall MainPower's processes are robust and the number of discrepancies found were small in relation to the overall number of ICPs. I have made eight recommendations that will assist with addressing these. I thank Sarah and her team for their assistance to complete the audit remotely and recommend that the next audit be in 12 months time.

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 4.4, 4.6 and 4.8.	Moderate	Low	2	Identified
Distributors must create ICPs	3.1	11.4	ICP identifier not created for streetlights connected to ASY0111 for Hurunui DC.	Strong	Low	1	Identified
Ready updates	3.4	7(2) of Schedule 11.1	Late update to Ready for five ICPs electrically connected during the audit period.	Strong	Low	1	Identified
Initial electrical connection date population	3.5	7(2A) of Schedule 11.1	60 initial electrical connection dates updated late to the registry.	Moderate	Low	2	Identified
Connection of ICP that is not an NSP	3.6	11.17	Four ICPs where the trader not recorded in the registry as having accepted responsibility prior to electrical connection.	Strong	Low	1	Identified
Monitoring of New and Ready	3.14	15 Schedule 11.1	Five ICPs not monitored during the audit period.	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 one ICP.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
ICP location address	4.4	2 Schedule 11.1	1,555 ICPs with addresses that are not readily locatable.	Weak	Low	3	Identified
Registry accuracy	4.6	7(1) (o) & (p) Schedule 11.1	Two DG discrepancies. Two IECD discrepancies.	Moderate	Low	2	Identified
Provision of information to registry after the trading of electricity at the ICP commence	4.7	7(3) Schedule 11.1	Six late pricing changes to provide the actual price category code.	Moderate	Low	2	Identified
GPS coordinates	4.8	7(8) & (9) Schedule 11.1	WSG GPS coordinates populated to the registry rather than the expected NZTM format.	Weak	Low	3	Identified
Future Risk Rating						22	
Indicative Next Audit Frequency						6 months	

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

RECOMMENDATIONS

Subject	Section	Description	Action
New and Ready checks	3.14	Include details of new and ready checks in MACK to ensure better visibility.	Identified
Electrical connection of a point of connection	3.16	Put in place a connection process for streetlights to ensure that a trader has accepted responsibility for these prior to electrical connection.	Identified
ICP location address	4.4	Replace lot number with street number where possible.	Identified
Registry accuracy	4.6	COC details to be used to update the database of the installed distributed generation.	Identified
		Monitor EIEP files to ensure DG records are accurately populated.	Identified
		Liaise with trader to confirm the correct unmetered load details for the three ICPs where the loads vary.	Identified
Management of "Decommissioned" status	4.11	Make the "ready for decommissioning" status update visible in MACK to remove the manual checks of the registry to find this.	Considering
Shared unmetered load	7.1	Populate the shared ICP list field for child ICPs with the parent ICP identifier.	Cleared

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

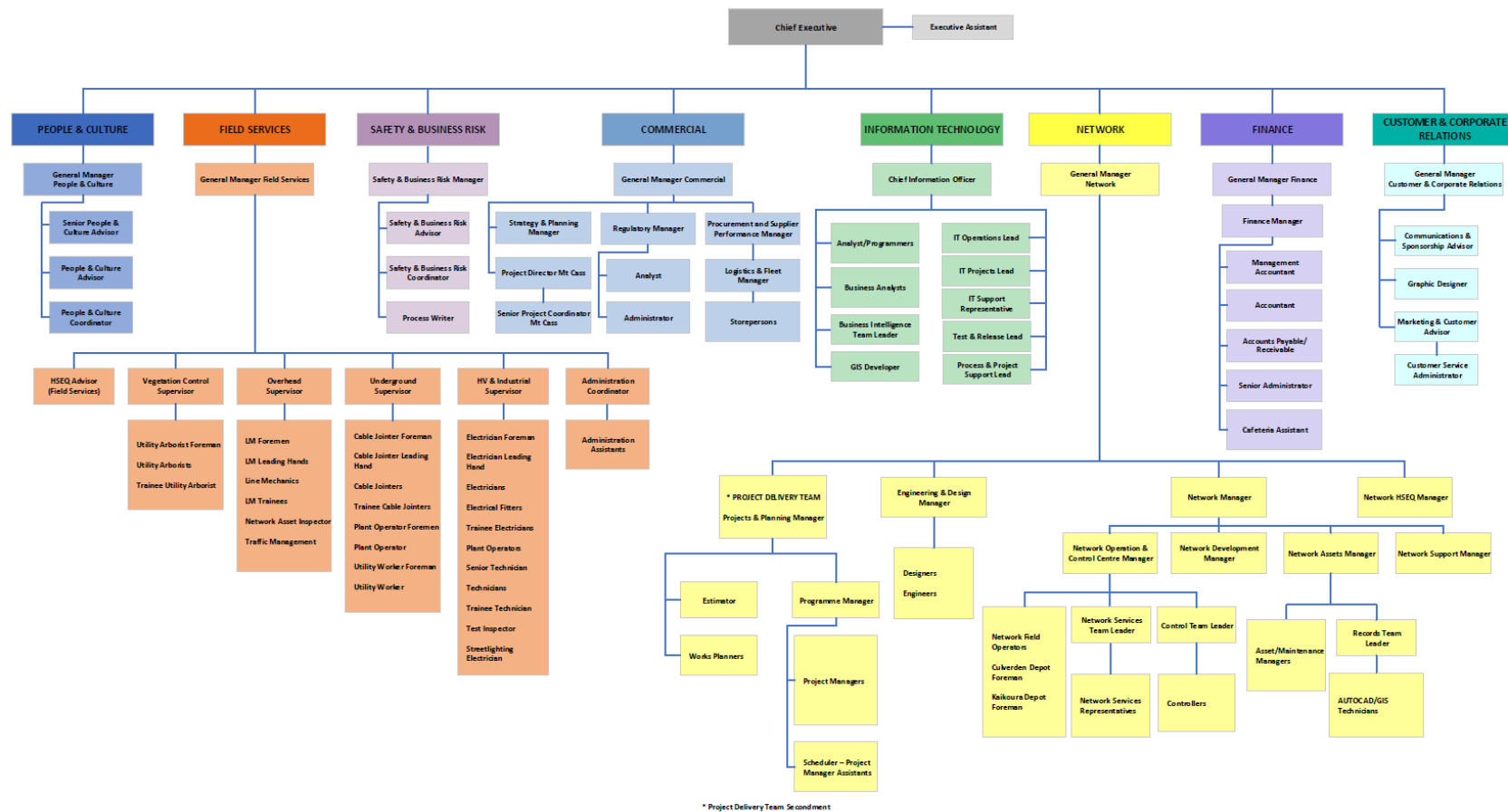
Review of exemptions on the Authority website confirmed that there are no exemptions in place relevant to the scope of this audit.

1.2. Structure of Organisation

MainPower provided their organisational structure:



Organisation Chart



1.3. Persons involved in this audit

Auditor:

Rebecca Elliot

Veritek Limited

Electricity Authority Approved Auditor

MainPower Networks personnel assisting in this audit were:

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

1.4. Use of contractors (Clause 11.2A)

Code reference

Clause 11.2A

Code related audit information

A participant who uses a contractor

- *remains responsible for the contractor's 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

MainPower subcontracts Vircom and Safepower to conduct some field activities. The management and control areas covered by this audit are conducted by MainPower employees. This matter was discussed during the audit to ensure MainPower understands their responsibilities under this clause.

Audit commentary

MainPower has maintained responsibility for all of their obligations during the audit period.

1.5. Supplier list

MainPower engages Vircom and Safepower to conduct some field activities.

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	No of ICPs
MPOW	ASY0111	ASHLEY			ASYAREAMPOWG	G	01-10-16	2,740
MPOW	CUL0331	CULVERDEN			SWCKMPOWG	G	01-08-16	3,526
MPOW	CUL0661	CULVERDEN			SWCKMPOWG	G	01-08-16	2,761
MPOW	KAI0111	KAIAPOI			KAI0111MPOWG	G	01-05-08	10,753
MPOW	SBK0331	SOUTHBROOK			SWCKMPOWG	G	01-05-08	8,965
MPOW	SBK0661	SOUTHBROOK			KAI0111MPOWG	G	01-10-16	6,046
MPOW	WPR0331	WAIPARA			SWCKMPOWG	G	01-08-16	3,638
MPOW	WPR0661	WAIPARA			SWCKMPOWG	G	01-01-16	2,463

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

The following ICP information is from a March 2020 list file.

Status	Number of ICPs 2020	Number of ICPs 2019
New (999,0)	20	-
Ready (0,0)	46	-
Active (2,0)	40,892	40,080
Distributor (888,0)	7	-
Inactive – new connection in progress (1,12)	30	47
Inactive – electrically disconnected vacant property (1,4)	726	763
Inactive – electrically disconnected remotely by AMI meter (1,7)	79	81
Inactive – electrically disconnected at pole fuse (1,8)	13	20
Inactive – electrically disconnected due to meter disconnected (1,9)	6	6

Status	Number of ICPs 2020	Number of ICPs 2019
Inactive – electrically disconnected at meter box fuse (1,10)	1	0
Inactive – electrically disconnected at meter box switch (1,11)	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	7	8
Inactive – reconciled elsewhere (1,5)	0	0
Decommissioned (3)	4,078	3,942

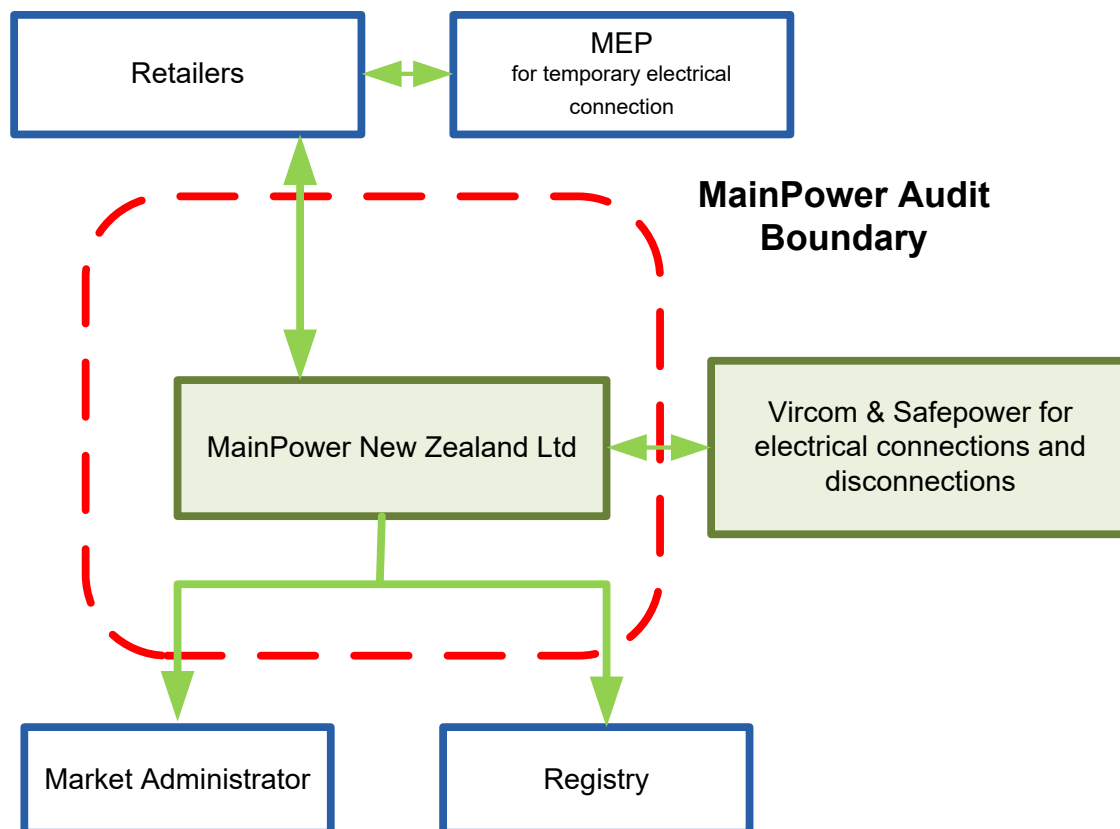
1.9. Authorisation Received

An authorisation letter was provided.

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 remotely during the COVID 19 pandemic over May 21st-22nd 2020.

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



All activities covered by this audit are conducted at MainPower's head office in Rangiora.

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

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 four recommendations. The current status of these matters is 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)	2 of 20 ICPs created one day or two days late.	Cleared
Ready updates	3.4	7(2) of Schedule 11.1	Late Ready updates for nine ICPs.	Still existing
Initial electrical connection date population	3.5	7(2A) of Schedule 11.1	80 initial energisation dates updated late to the registry.	Still existing
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
ICP location address	4.4	2 Schedule 11.1	Four ICPs with duplicate addresses.	Still existing
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.	Still existing

Recommendations

Subject	Section	Description	Status
New and Ready checks	3.14	Include details of new and ready checks in MACK to ensure better visibility.	Still to be adopted
Notice of NSP	4.2	Develop reporting of ICPs per transformer, including GXP to ensure all GXPs are correct.	Cleared
Registry accuracy	4.6	Monitor COC records and EIEP files to ensure DG records are accurately populated.	Still to be adopted
Shared unmetered load	7.1	Populate the shared ICP list field for child ICPs with the parent ICP identifier.	In progress

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

MainPower's data management processes were examined. The list file as at 31/03/20 and the audit compliance report for the audit period of 1/05/19 to 31/03/20 were examined to confirm compliance.

Audit commentary

MainPower has a good suite of discrepancy reporting that is run on a monthly basis. In this audit I identified that the GPS coordinates had been updated to the WSG format from the previously compliant NZTM format. This has created 1,502 addresses that are not complete and accurate. A fix for this is expected to be in place by mid-July 2020 to correct this. A small number of other incomplete or inaccurate information was identified. I have made recommendations in **sections 4.4, 4.6 and 4.8**, that will improve the accuracy of information. The relevant details are recorded in each of these sections.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 2.1</p> <p>With: Clause 11.2(1)</p> <p>From: 01-May-19</p> <p>To: 31-Mar-20</p>	<p>All practicable steps not taken to ensure information accuracy, as recorded in sections 4.4, 4.6 and 4.8.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate as overall they mitigate risk most of the time but there is room for improvement.</p> <p>The audit risk rating is low as the incidents identified either involved a small number of ICPs or has no direct impact on reconciliation.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>When correct GPS coordinates are available this will provide readily identifiable locations. Lot numbers will be updated for new connections going forward. The older lot numbers will be replaced progressively.</p> <p>We will work with the Network team to obtain correct details when COC received. We will also work with Network team to follow up late CoCs.</p>		16/6/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>When correct GPS coordinates are available this will provide readily identifiable locations. Lot numbers will be updated for new connections going forward. The older lot numbers will be replaced progressively.</p> <p>We will work with the Network team to obtain correct details when COC received. We will also work with Network team to follow up late CoCs.</p> <p>It has been decided to undertake a separate project to resolve this issue rather than rely on completing the ADMS project. The issue of GPS coordinates has been added as a potential risk for any project affecting the GIS system.</p>		GPS coordinates resolved by 15 July 2020 and other changes will be ongoing	

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

Code reference

Clause 11.2(2) and 10.6(2)

Code related audit information

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

Audit observation

MainPower's data management processes were examined. The list file as at 31/03/20 and the audit compliance report for the audit period of 1/05/19 to 31/03/20 were examined to confirm compliance.

Audit commentary

As noted above MainPower has good registry discrepancy processes in place. All incorrect data identified in this audit was corrected and any data that is potentially incorrect is being investigated, therefore I have recorded 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 2019 were checked from the point of application through to when the ICPs were created. The sample included ICPs with CT metering, unmetered load, distributed generation and connected to different NSPs.

The Hurunui DC DUML audit found a small number of lights connected to the ASY0111 GXP but there is no DUML ICP for these lights. This was examined.

Audit commentary

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

The Hurunui DC DUML audit found eight streetlights connected in 2018 on GXP ASY0111 but there is no ICP associated with this GXP. The lights are being reconciled under the incorrect GXP but this is in the same balancing area so there is no impact on reconciliation. MainPower are working with Meridian to create an ICP. The connection of streetlights is discussed further in **section 3.16**. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.1 With: Clause 11.4 From: 01-Sep-18 To: 26-May-20	ICP identifier not created for streetlights connected to ASY0111 for Hurunui DC. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong overall as the ICP creation process is robust but the connection of streetlights to a new GXP identified a gap in this process. This is a not a common occurrence. The audit risk rating is low as the lights affected are settled in the same balancing area so there is no impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
This ICP 0000700980MP704 has been created and backdated to 01/08/2018 to allow Meridian Energy as the retailer to accept it using the actual liven date on 09/08/2018. As of 08/06/2020 Meridian had accepted responsibility for the ICP, and MainPower has set the ICP up ready for Meridian to take over, although the ICP is still sitting as Ready on the registry awaiting for the next stage of action from Meridian.		8/6/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We are drafting a new Streetlight Standard document and will require any connection of new Streetlights to provide confirmation from the trader that it accepts responsibility for the Streetlight. This process will also ensure that we consider the need for a new ICP identifier.		1/8/2020	

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. All requests are made on-line. The application is then subject to an engineering review (to confirm capacity and other technical issues). Once approved the application 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”.

The records for 20 ICPs covering across MainPower’s network (including some with unmetered load and distributed generation installed) were examined and confirmed all were requested by the electrician or customer.

Audit outcome

Compliant

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

Code reference

Clause 11.7

Code related audit information

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

Audit observation

A diverse characteristics sample of 20 new connection applications of the 846 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

The registry list for 31/03/20 and the registry compliance audit report covering the period from 1/05/19 to 31/03/20 was examined to determine the timeliness of the provision of ICP information for new connections.

Audit commentary

The process for updating the registry is automated for all fields, and the update occurs on an iterative process throughout the day. 846 ICPs were created during the audit period. 773 ICPs were electrically connected. The registry was populated later than the first active date for five (0.6%) ICPs. The five late updates were reviewed and found:

- three were due to the IT issue identified in the last audit where the events were being sent to the registry for the incorrect event date (this was resolved and there have been no further instances of this occurring since a fix was put in place in September 2019), and
- two were due to human error causing the update to reach the registry late.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.4 With: Clause 7(2) of Schedule 11.1 From: 02-Apr-19 To: 07-Feb-20	Late update to Ready for five ICPs electrically connected during the audit period. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong as they will eliminate risk to an acceptable level. The audit risk rating is low as this affected a very small number of new connections with all being resolved within 30 days.		
Actions taken to resolve the issue		Completion date	Remedial action status
4 of the ICP's were linked to issue with the IT system picking up incorrect effective date (3) and proposed retailer not integrating (1), this has been resolved with IT. Remaining ICP was a missed update		Date 16/6/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
IT issued resolved		Date 30 September 2019	

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 new connection process was examined.

The registry list for 31/03/20 and the registry compliance audit report covering the period from 1/05/19 to 31/03/20 were examined to determine the timeliness of the provision of the initial electrical connection date. A diverse characteristics sample of ten late updates were examined.

Audit commentary

The process for updating the registry is automated for all fields, and the update occurs on an iterative process throughout the day.

There were 900 initial electrical connection date updates in the event detail report. The audit compliance report identified 60 (6.6%) late updates. This is an improvement from the 8.65% of updates found to be late in the last audit. The sample of ten late updates examined found:

- seven were late due to slow notification from the field agent,
- two were due the date being missed when processing the paperwork, and
- one was due to the IT issue which was fixed in September 2019 and there have been no further occurrences.

MainPower are working with the field contractors to improve the return of paperwork. The late updates are recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1 From: 01-May-19 To: 31-Mar-20	60 initial electrical connection dates updated late to the registry. Potential impact: Low Actual impact: Low Audit history: Twice 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 audit risk rating is low as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
IECD's populated with correct information of livening dates		16/6/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
More regular/closer monitoring of results from livening agents		Date on going	

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

The registry list for 31/03/20 and the registry compliance audit report covering the period from 1/05/19 to 31/03/20 were examined to determine the timeliness of the provision of ICP information for new connections.

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.

Four of the five late new connections did not have a trader recorded in the registry as accepting responsibility prior to electrical connection:

ICP	First Active Status	Trader populated
0000293042MP190	07/02/20	12/02/20
0000233971MP549	16/07/2019	17/07/2020
0000700764MPABF	04/07/2019	09/07/2019
0000215108MP245	02/04/2019	03/04/2019

This is recorded as non-compliance.

This clause requires that a distributor must not connect an ICP across which unmetered load is shared unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load. MainPower does not allow or intend to allow any new shared unmetered load connections. There has been no new shared unmetered load added during the audit period. Shared unmetered load is discussed further in **section 7**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 11.17 From: 02-Apr-19 To: 12-Feb-20	Four ICPs where the trader not recorded in the registry as having accepted responsibility prior to electrical connection. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong as they will eliminate risk to an acceptable level. The audit risk rating is low as the late updates were all made within five days of being electrically connected.		
Actions taken to resolve the issue		Completion date	Remedial action status
Information has been corrected in registry		16/6/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
This issue was caused by an issue with the IT system and integrations these issues have been resolved.		28/2/2020	

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 new connection process was examined in **section 3.2**. The registry compliance audit report covering the period from 1/05/19 to 31/03/20 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**, MainPower 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. Permission had been received prior to electrical connection occurring for the five late new connections, it was the recording of this in the registry that was late for four of the five ICPs, therefore compliance was confirmed.

Audit outcome

Compliant

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

Code reference

Clause 10.31A

Code related audit information

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

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

If the ICP is only shared 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

The new connection process was examined in **section 3.2**. The registry compliance audit reports covering the period from 1/05/19 to 31/03/20 were examined.

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 registry list for 31/03/20 was 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.

Examination of the list file found 20 ICPs at the “New” status. There were no ICPs at “New” with initial electrical connection dates populated. The monitoring of ICPs at this status is discussed in **section 3.14**.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

I checked the list file for ICPs at “New” or “Ready” for longer than 24 months to confirm that traders had been notified.

Audit commentary

The list file contains no “New” and 11 ICPs “Ready” created more than 24 months ago. These were checked and found five ICPs that had not been checked in over 12 months. This process is managed in a spreadsheet and I repeat the last audit’s recommendation that this be incorporated into MACK to improve 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.	We will be running reports from the Registry to monitor this as part of our monthly checks.	Identified

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.14 With: Clause 15 of schedule 11.1 From: 01-May-19 To: 31-Mar-20	Five ICPs not monitored during the audit period. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The audit risk rating is low the volume of ICPs were small.		
Actions taken to resolve the issue		Completion date	Remedial action status
The ICPs being mentioned are being checked again with the relevant Proposed Trader concerned. The network team are also reviewing these ICPs as a result of pricing changes.		16/6/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will monitor ICPs using reports from the Registry as part of our monthly checks and continue to revert to the retailer for instructions.		Ongoing	

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.

Audit outcome

Compliant

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

Code reference

Clause 10.33A(4)

Code related audit information

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

Audit observation

Sub-clause (4) states that no participant may electrically connect a point of connection without the permission of the Reconciliation Participant. The electrical connection of streetlight circuits which are a point of connection was examined.

Audit commentary

The process to connect streetlights was discussed. Until recently MainPower were the contractor for the streetlights on their network and maintained the associated streetlight databases and had managed the process of new streetlight connections. The councils will now be using their RAMM databases, therefore I recommend that MainPower put a process in place to ensure that a trader has accepted responsibility for any new streetlight connections especially where new streetlights are being added to an existing bucket DUMML ICP.

Clause	Description	Audited party comment	Remedial action
10.33A	Put in place a connection process for streetlights to ensure that a trader has accepted responsibility for these prior to electrical connection.	The new streetlight connection process will require acceptance of new streetlights by the trader prior to livening of the streetlights.	Identified

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

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

Audit observation

The management of registry updates was reviewed.

The registry list for 31/03/20 and the combined registry compliance audit reports covering the period from 1/05/19 to 31/03/20 were examined. A diverse sample of a minimum of ten (or all if there were less than ten examples) backdated events by event type were reviewed to determine the reasons for the late updates.

The management of NSP changes was examined.

Audit commentary

The process for updating the registry is automated for all fields, and the update occurs on an iterative process throughout the day.

Address events

99.65% were made on time with an average time to update the registry of one day. There were 143 late address updates. The sample checked of these found that all related the IT issue that was causing the last event date to be incorrectly repopulated and therefore made these appear to be backdated. This issue was resolved in September 2019.

Network 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.

The network event compliance report was examined and recorded 367 late network updates. This was reviewed and found only one genuine late update which related to the repopulation of the proposed trader post being made active for ICP 0000394649MP94E. As the report included the incorrect events in it, I am unable to determine the compliance percentage but given that only one late genuine network event compliance it is expected to be high.

Distributed Generation

The distributed generation process is described in **section 4.6**. 64% of all distributed generation network updates were made on time with an average time to update the registry of 22.38 days. There were 36 late distributed generation updates. The sample checked found they were all late due to late notification from the field. MainPower are running more regular reporting to improve compliance.

NSP Changes

The control room notifies the commercial team of all NSP changes. For those with a large number of ICPs affected, these are updated using a bulk upload. For those with only a few ICPs affected are updated manually.

There was one late NSP change notified for ICP 0000620761MPA51. This was examined and found this related to a correction and therefore was correctly backdated.

Pricing events

387 pricing updates were identified. 231 (60%) of these were updated more than three business days after the event. The 15 latest updates were reviewed, and I found:

- nine were due to IT issue leading to the incorrect effective date being populated in the registry, which was corrected in September 2019, and
- six were due to late or incorrect information from the field which related to new connections and are recorded as non-compliance in **section 4.7**.

Decommissioning Status Events

The decommissioning process is discussed in **section 4.11**. The code changed on 1/11/18 in relation to the Distributor updating an ICP to decommissioned. The event detail report was assessed according to the code at the time of the decommissioning occurring.

- There were four ICPs decommissioned prior to 1/11/18, all of these were updated late with an average of 821 days after the event to update these.
- There were 92 ICPs decommissioned after 1/11/18, 62 (67%) were updated late with an average of 18 business days to update. The sample of ten of these were examined and found they were late due to the manual process in place to manage the decommissioning process. I recommend in **section 4.11** that the trader's update to "ready to decommission" status is visible in MACK to remove the manual checks in the registry to find this.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: Clause 8 Schedule 11.1 From: 01-May-19 To: 31-Mar-20	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		
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; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Correct information populated into registry to show accurate details of connection		16/6/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Numbers should reduce with IT issue resolved last year, and closer monitoring of ICP's through registry reporting. We will also incorporate additional checks utilizing the EIEP1 billing files monthly to see where retailers are reporting generation		On going	

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 audit compliance reporting identified 20 active ICPs where 10% or fewer ICPs on a street have a different NSP and there are fewer than three ICPs with a different NSP. All were examined to determine if the correct NSP has been assigned.

Audit commentary

New connections have a check against surrounding ICPs and a check of the transformer to ensure the correct GXP is used. MainPower have conducted extensive analysis of ICPs during the audit period and found a very minor number of incorrect NSPs.

The 20 active ICPs identified in the audit compliance report were examined and found:

- 17 were correct,
- two are being investigated to confirm the correct NSP, and
- ICP 0000370007MP58B was corrected as it was recorded as being in Oxford Road, Oxford but was confirmed to be in Rangiora.

MainPower intend to use the audit compliance reporting going forward to monitor this.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.2 With: Clauses 7(1),(4) and (5) Schedule 11.1 From: 26-Jun-18 To: 20-May-20	Incorrect GXP recorded for one ICP. 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 as the processes in place are robust. The audit risk rating is low as only one incorrect NSP was identified.		
Actions taken to resolve the issue		Completion date	Remedial action status
The GXP checks are carried on 3-monthly basis and the last check carried out was based on the data as on 19/02/2020. NSP updated		28/5/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Moving forward, we will be monitoring the GXP information using the Non-Compliance reports produced by the registry. We have just completed the latest check as of today (11/06/2020)		Ongoing	

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.

The list file as at 31/03/20 and the audit compliance report were examined.

Audit commentary

The physical address is requested as part of the new connection process and these are checked in GIS as part of the new connection process. MainPower record GPS co-ordinates as part of this process.

The audit compliance report found 502 ICPs with duplicate addresses, including the GPS coordinates. This is an increase from the 236 ICPs reported in the last audit. MainPower are in the process of an ADMS network integration project and as a part of that the GPS coordinate format has changed from NZTM to WSG. The registry is set to the NZTM format. The WSG format requires more decimal places than NZTM and therefore the GPS coordinates appear to be duplicated. A fix is expected to be in place by mid July 2020 to correct this. Therefore, the duplications are expected to decrease. A typical sample of 20 ICPs were checked and found that with NZTM GPS coordinates these are expected to be readily locatable.

A check of the list file identified 1,053 active ICPs that had no street number and potentially insufficient details to readily locate these ICPs as they had only the lot number to locate them and duplicated GPS coordinates. A typical sample of 20 ICPs were checked and found that, as above, that with NZTM GPS coordinates these are expected to be readily locatable, however I recommend that lot number be updated to street number as part of the new connection process as traders generally rely on the street address and not GPS location.

Clause	Description	Audited party comment	Remedial action
Clause 2 Schedule 11.1	Replace lot number with street number where possible.	When correct GPS coordinates are available this will provide readily identifiable locations. Lot numbers will be updated for new connections going forward. The older lot numbers will be replaced progressively.	Identified

The 1,555 addresses that are not readily locatable are recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: Clause 2 Schedule 11.1 From: 25-Feb-20 To: 31-Mar-19	1,555 ICPs with addresses that are not readily locatable. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as weak due to the population of the WSG GPS co-ordinates to the registry and the subsequent effect on address accuracy was not identified as a risk in the ADMS project. This has no direct impact on reconciliation therefore the audit risk is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
This risk was not identified as part of the ADMS project. Steps are underway to resolve the issue and restore the coordinates on the Registry.		15 July 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
It has been decided to undertake a separate project to resolve this issue rather than rely on completing the ADMS project. The issue of GPS coordinates has been added as a potential risk for any project affecting the GIS system.		15 July 2020	

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 for a billing period from metering information collected for that billing period*
 - c) *if there is more than one capacity value at the ICP, and at least one, but not all, of those capacity values can be determined for a billing period from the metering information collected for that billing period-*
 - (i) no capacity value recorded in the registry field for the chargeable capacity; and*
 - (ii) either the term "POA" or all other capacity values, recorded in the registry field in which the distributor installation details are also recorded*
 - d) *if there is more than one capacity value at the ICP, and none of those capacity values can be determined for a billing period from the metering information collected for that billing period-*
 - (i) the annual capacity value recorded in the registry field for the chargeable capacity; and*
 - (ii) either the term "POA" or all other capacity values, recorded in the registry field in which the distributor installation details are also recorded*
 - e) *the actual chargeable capacity of the ICP in any other case*
- *the distributor installation details for the ICP determined by the price category code assigned to the ICP (if any), which may be placeholder distributor installation details only if the distributor is unable to assign the actual distributor installation details because the capacity or volume information required to assign the actual distributor installation details cannot be determined before electricity is traded at the ICP (Clause 7(1)(i) of Schedule 11.1)*
- *the participant identifier of the first trader who has entered into an arrangement to sell or purchase electricity at the ICP (only if the information is provided by the first trader) (Clause 7(1)(j) of Schedule 11.1)*
- *the status of the ICP (Clause 7(1)(k) of Schedule 11.1)*
- *designation of the ICP as "Dedicated" if the ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)*
- *if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)*
- *if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)*
- *if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):*
 - a) *the nameplate capacity of the generator; and*
 - b) *the fuel type*
- *the initial electrical connection date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

Audit observation

The management of registry information was reviewed. The registry list as at 31/03/20 and the audit compliance report for the audit period from 1/05/19 to 31/03/20 were reviewed to determine compliance. A sample using typical characteristics of data discrepancies were checked.

Audit commentary

The process for updating the registry is automated for all fields, and the update occurs on an iterative process throughout the day.

Registry data validation processes are discussed in **section 2.1**. All ICP information was checked and confirmed compliant unless discussed below:

Distributed Generation

MainPower requires an application from any customers wanting to connect distributed generation. Once they are installed, the commercial administrator is advised, and the database is updated based on the application details. I checked the distributed generation information populated on the registry against the paperwork provided for a sample with typical characteristics of ten ICPs and found:

- the COC has not been received back so the generation capacity and fuel type couldn't be confirmed for five ICPs, but MainPower are requesting these be provided,
- two were found to have the incorrect generation capacity recorded as this varied from the application form,
- two were unable to be determined from the paperwork provided as the distributed generation capacity wasn't detailed, and
- one was confirmed to be correct.

I recommend that the COC details be used to update the registry with the installed generation capacity.

Clause	Description	Audited party comment	Remedial action
7(1) of Schedule 11.1	COC details to be used to update the database of the installed distributed generation.	We will work with the Network team to obtain correct details when COC received. We will also work with Network team to follow up late CoCs.	Identified

The incorrect distributed generation details are recorded as non-compliance below.

Analysis of the registry list confirmed there are 941 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.

The audit compliance report identified four active ICPs where the trader's profile indicates distributed generation. These were examined and found:

- the distributed generation for two ICPs has been removed and the trader has since updated the ICP's profile,
- one has since been populated as part of BAU,
- no application for distributed generation has been received for ICP 0000331681MPD7D, MainPower have advised the retailer of this and are investigating this site.

I am repeating the last audit's recommendation that the EIEP1 file is 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 EIEP files to ensure DG records are accurately populated.	Checks of EIEP1 files for generation information has been incorporated into the process and process map for billing.	Identified

The timeliness of distributed generation updates is detailed in **section 4.1**.

Initial Electrical Connection date

The audit compliance report found four ICPs with no initial electrical connection date recorded. These were examined and found:

- ICP 0000429903MP757 has been on the registry since 2002 but was made active for the first time on 15/12/15, therefore an initial electrical connection date should be recorded,
- ICP 0000404703MP2B1 has since been decommissioned,
- ICP 0000292845MPDF7 was found to have been electrically connected prior to this requirement coming into effect but the trader's date is later and makes this appear to be since the requirement came into effect, and
- ICP 0000701047MP588 did have an initial electrical connection date populated but a subsequent network event removed this date (this has been repopulated).

The two ICPs with missing initial electrical connection dates are recorded as non-compliant.

I also checked the accuracy of IECDs and found 16 ICPs where the IECD was different to either the Active or certification dates. Livening paperwork was provided, and all the initial electrical connection dates were confirmed to be correct.

ICP 0000233807MP89F was at the "ready" status with an initial electrical connection date populated. Vircom/AMS had incorrectly advised MainPower that it had been electrically connected. This was subsequently reversed. The site was actually electrically connected on 6/05/20 and the initial electrical connection date was populated.

Unmetered Load

Part 11 states the distributors must provide unmetered load type and capacity of the unmetered load to the registry "if known".

New unmetered load connections are not encouraged but if connected MainPower require the applicant to provide the unmetered load details as part of the application form. There have been four new unmetered load connections made during the audit period. All were recorded correctly.

I checked that the unmetered load values matched for the 200 active ICPs where both the MainPower and the trader have values recorded and found all matched with the exception of five historic ICPs. These were checked and found:

- MainPower's load was correct and it appears that the trader's unmetered load values are incorrect for three ICPs,
- there is a burn hours variation between MainPower and the trader for ICP 0000280350MP2BA, and
- the lamp wattage appears to be incorrect for ICP 0000438053MPF17 and the trader's lamp wattage appears to be correct.

I recommend that the trader is contacted to confirm the two unmetered loads with a variance found.

Recommendation	Description	Audited party comment	Remedial action
Provide ICP information	Liaise with trader to confirm the correct unmetered load details for the three ICPs where the loads vary.	We will start carry out checks on the unmetered load details, and will liaise with retailers to verify whether the unmetered load details on our side are correct.	Identified

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: Clause 7(1) (o) & (p) Schedule 11.1 From: 01-Jun-19 To: 31-Mar-20	Two DG discrepancies. Two IECD discrepancies. 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 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
Errors corrected. Liaison with network team and livening agent to ensure all information received in a timely manner.		16/6/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
DG install information to be confirmed from CoC obtained by NSRs. IECDs populated using connection dates supplied by livening agents		On going	

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 registry list for 31/03/20 and the registry compliance audit report covering the period from 1/05/19 to 31/03/20 were reviewed to determine compliance.

Audit commentary

The price code is populated when the ICP is made “Ready” with what is expected to be the correct price category code and chargeable capacity if applicable. Examination of the late pricing updates identified six pricing changes that were backdated as a result of late electrical connection paperwork where the price category code was different to that applied at the “ready” status. MainPower are working to improve the return of paperwork from the field and this will reduce the incidence of this occurring.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.7 With: Clause 7(3) Schedule 11.1 From: 05-Jul-19 To: 09-Mar-20	Six late pricing changes to provide the actual price category code. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are 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 as the number of ICPs affected is small.		
Actions taken to resolve the issue		Completion date	Remedial action status
Registry populated with correct information back to time of installation		28/5/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Monitoring of changes by livening agents, and other updates to be made as at notification date		Ongoing	

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. As discussed in **section 4.4**, these have been changed to the WSG format (longitude and latitude) during the audit period as a result of the ADMS network integration project. A fix is expected to be in place by mid July 2020 to correct this. The incorrect GPS coordinates recorded on the registry is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.8 With: Clause 7(8) & (9) Schedule 11.1 From: 25-Feb-20 To: 31-Mar-19	WSG GPS coordinates populated to the registry rather than the expected NZTM format. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as weak as the population of the incorrect GPS co-ordinates to the registry and the subsequent effect on address accuracy was not identified as a risk in the ADMS project. This has no direct impact on reconciliation therefore the audit risk is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
This risk was not identified as part of the ADMS project. Steps are underway to resolve the issue and restore the coordinates on the Registry.		15 July 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
It has been decided to undertake a separate project to resolve this issue rather than rely on completing the ADMS project. The issue of GPS coordinates has been added as a potential risk for any project affecting the GIS system.		15 July 2020	

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 registry list for 31/03/20 and the combined registry compliance audit reports covering the period from 1/05/19 to 31/03/20 were examined.

Audit commentary

The status of “ready” is used once the ICP is ready for connection. The new connection process has a step to confirm the trader has taken responsibility. All ICPs only have one price category code.

The registry list showed 46 ICPs currently at “ready” status, 11 have been at “ready” status for more than two years. This is discussed further in **section 3.14**.

All of the “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 registry list was 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 seven ICPs at “ready for decommissioning”.

Audit commentary

Traders are expected to provide a service order to MainPower and once the necessary fieldwork had been conducted the registry will be updated to decommissioned. The commercial analyst manually checks the registry periodically to see when the trader has updated the ICP to “Ready to decommission”. This can cause the decommissioning events to be late to the registry. I recommend that the “ready for decommissioning” status update is visible in MACK to remove the manual checks of the registry to find this.

Clause	Description	Audited party comment	Remedial action
20 of Schedule 11.1	Make the “ready for decommissioning” status update visible in MACK to remove the manual checks of the registry to find this.	Process improvements are required to address issues we were having with the physical disconnection aspect of decommissions. The process improvements to address this issue will make it easier to track registry changes. We will monitor the success of the process change until 30 November 2020 and if this is still an issue we will change the IT system.	Considering

Examination of the list file found seven ICPs are at “ready for decommissioning” status. All have since been decommissioned. The timeliness of decommissioning updates is discussed in **section 4.1**.

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

Two loss factors were changed during the audit period. Both were notified within the correct time frame.

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.

As reported in the last audit, 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. This job has been logged with IT and I repeat the recommendation to maintain visibility:

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.	This is being implemented by updating MACK and the registry. The action was completed on 11/06/2020.	Cleared

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

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:

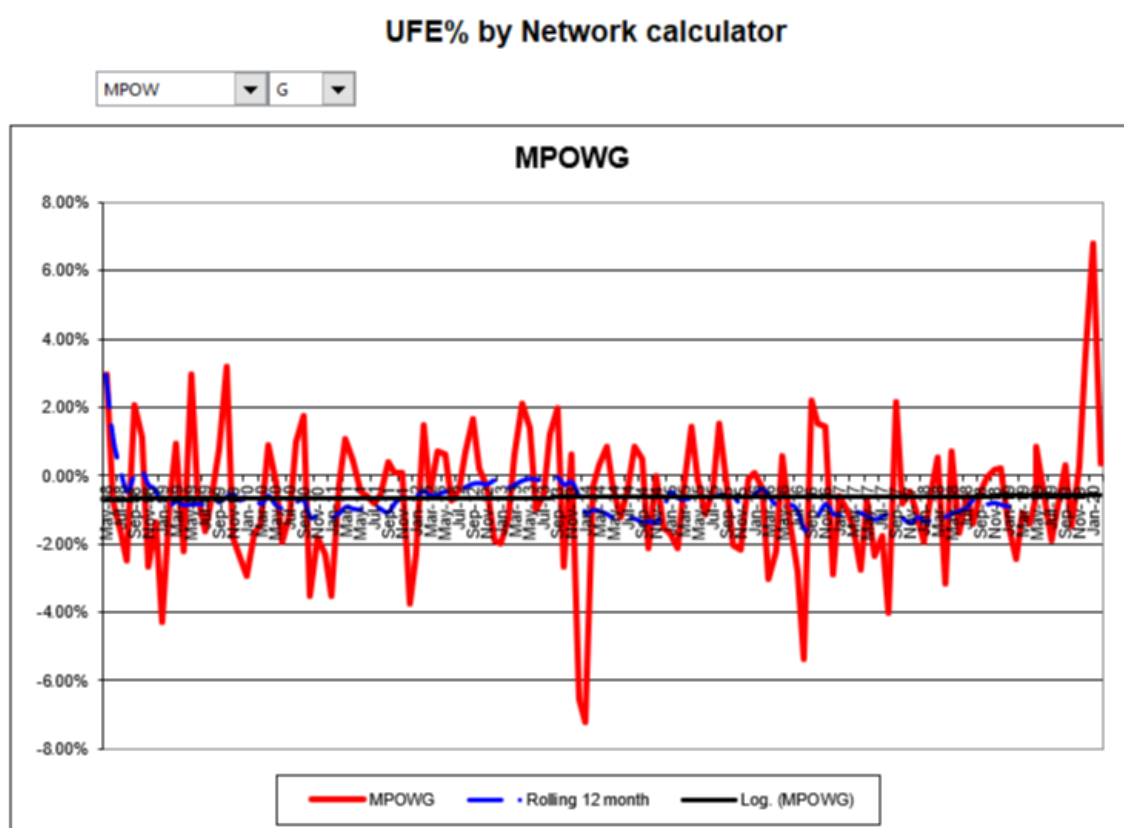
- a) complete and accurate
- b) not misleading or deceptive
- c) not likely to mislead or deceive.

Audit observation

MainPower conducts an annual review of loss factors. I checked the results of the most recent review.

Audit commentary

The annual review has resulted in two adjustments during the audit period. The review process and updating process is confirmed as compliant. The table below shows that UFE is less than -1%.



Audit outcome

Compliant

CONCLUSION

The audit found 12 non-compliances and makes eight recommendations. This is an increase of four non-compliances from the last audit and has resulted in the next indicative audit frequency to be in six months. This is largely caused by the ADMS network integration project which has caused the GPS co-ordinates to be changed from the NZTM format to the WSG format and has caused an increase in ICPs with duplicated addresses. A fix is expected to be in place by mid July 2020 to correct this. Overall MainPower's processes are robust and the number of discrepancies found were small in relation to the overall number of ICPs. I have made eight recommendations that will assist with addressing these. I thank Sarah and her team for their assistance to complete the audit remotely and recommend that the next audit be in 12 months time.

PARTICIPANT RESPONSE

Our responses are in the body of the document.

Thank you to Rebecca for her professional and helpful approach.