ELECTRICITY INDUSTRY PARTICIPATION CODE DISTRIBUTOR AUDIT REPORT

For

Orion New Zealand Limited



Prepared by: Rebecca Elliot

Date audit commenced: 22 May 2020

Date audit report completed: 18 August 2020

Audit report due date: 22-Aug-20

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EXECUTIVE SUMMARY

This Distributor audit was performed at the request of Orion New Zealand Limited (Orion), to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11.

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

Orion have continued their strong focus on compliance with further reporting put in place to monitor and manage performance.

The historic ICPs at the "ready to decommission" status found in the last audit have been resolved.

The two challenging areas of electrical connection dates and the notification of the connection of distributed generation information reported in the last audit remain. Orion makes all possible endeavours to ensure that the information is provided to them in a timely manner and is accurate. They have added further checks during the audit period but getting distributed generation installation details in particular is proving difficult.

The audit found eight non-compliances and makes one recommendation. Orion has robust well documented processes in place and a high level of compliance was found in this audit. The indicative audit frequency table indicates that the next audit be in 18 months. I have considered this in conjunction with the fact that controls were rated as strong and audit risk rating is low for all non-compliances found and recommend that the next audit be in 24 months time.

The matters raised are shown in the table below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Complete and accurate information	2.1	11.2(1)	Incorrect event date applied to for the initial electrical connection date update.	Strong	Low	1	Investigating
Ready updates	3.4	Clause 7(2) of Schedule 11.1	9 ICPs changed to "ready" after electrical connection.	Strong	Low	1	Identified
Provision of the initial electrical connection date	3.5	7(2A) of Schedule 11.1	144 late updates of the initial electrical connection date.	Strong	Low	1	Investigating
Connection of an ICP that not an NSP	3.6	11.17	9 ICPs electrically connected prior to a trader being recorded as having accepted responsibility.	Strong	Low	1	Identified
Registry updates	4.1	8 Schedule 11.1	Updates to registry backdated greater than 3 business days of the event.	Strong	Low	1	Identified
Notice of NSP for each ICP	4.2	7 (1)(b) Schedule 11.1	One ICP assigned to the incorrect NSP.	Strong	Low	1	Investigating
Registry accuracy	4.6	7(1) Schedule 11.1	Three initial electrical connection dates incorrect.	Strong	Low	1	Identified
Shared unmetered load	and (4) recorded as share unmetered load when it should be recorded as standard unmetered load and the SI ICPs be		recorded as shared unmetered load when it should be recorded as standard	Strong	Low	1	Identified
				Future	Risk Rating	8	

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	Recommendation
Change to registry	4.1	8 Schedule 11.1	I recommend that Orion send notifications for NSP changes to the registry after ten business days have elapsed.

ISSUES

Subject Section		Recommendation	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

Orion has one exemption in place (204), which allows for an interconnection point to be unmetered.

This exemption expires when one of the following occurs:

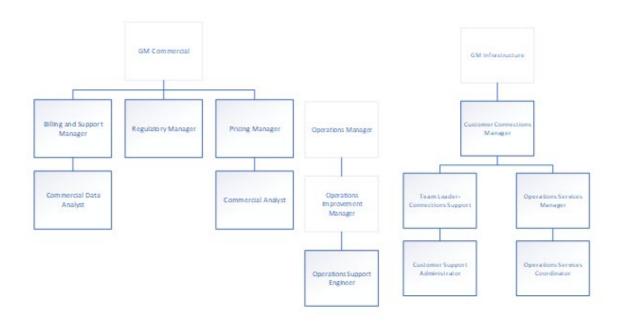
- a. "the close of 1 September 2022
- b. the number of installation control points ("ICPs") on Orion's local network (BRY0661) that can be backfed by MainPower's local network (KAI0111) exceeding 500
- c. the number of ICPs on MainPower's local network (KAI0111) that can be back-fed by Orion's local network (BRY0661) exceeding 500
- d. there having been more than six outages on the existing interconnection point between Orion's local network (BRY0661) and MainPower's local network (KAI0111) in the period starting on 07/07/17 and ending on 31/08/18, and for every subsequent year, the period of 12 months starting on 1 September and ending on 31 August of the following year."

Audit commentary

This exemption is still current because the date of 01/09/22 has not been met, the number of ICPs is not over 500; there are 43 Orion ICPs that can potentially be fed from the Mainpower network and 273 Mainpower ICPs that can potentially be fed from the Orion network. In the 18-month period since the last audit the interconnection point was operated on 18/10/17, 12/1/18 and 26/07/18.

1.2. Structure of Organisation

Orion provided an organisation chart and the relevant parts are shown below.



1.3. Persons involved in this audit

Auditor:

Rebecca Elliot

Veritek Limited

Electricity Authority Approved Auditor

Orion personnel assisting in this audit were:

Name	Title
Alex Nisbet	Pricing Manager
Dayle Parris	Regulatory Manager
Gavin Bonnett	Operations Services Manager
Kane Tamou	Team Leader Connections Support
Penny Lawrence	Operations Services Co-ordinator
John Deed	Operations Support Engineer
Rachel Southall	Customer Support Administrator
Uma Chatterjee	Commercial Data 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

Orion approves field contractors to conduct connection related activities. I checked Orion's approach to the management of contractors.

Audit commentary

Only a small number of contractors are engaged, and they are all deemed competent by Orion. The contractors are:

- Delta,
- SafePower,
- Telpower, and
- Southern Network Services.

1.5. Supplier list

As mentioned above, the field contractors are as follows:

- Delta,
- SafePower,
- Telpower, and
- Southern Network Services.

1.6. Hardware and Software

Orion uses the following systems:

- PowerOn Fusion / GE Real time high voltage network connectivity model, and
- Microsoft tools Connection management and registry interface.

Orion's backup and security measures are in accordance with standard industry protocols.

1.7. Breaches or Breach Allegations

The Electricity Authority confirmed that there have been no alleged breaches related to this audit scope for Orion for the audit period.

1.8. ICP and NSP Data

Orion has responsibility for the Orion local network. There have been no changes during the audit period. The table below sets out the details.

Distributor	NSP POC	Description	Balancing Area	Network Type	Start Date	No of ICPs
ORON	APS0111	ARTHURS PASS	RNBAL03ORONG	G	01-05-08	159
ORON	BRY0661	BROMLEY	RNBAL01ORONG	G	01-05-14	54,947
ORON	CLH0111	CASTLE HILL	RNBAL05ORONG	G	01-05-08	224
ORON	COL0111	COLERIDGE	RNBAL06ORONG	G	01-05-08	120
ORON	HOR0331	HORORATA	RNBAL01ORONG	G	14-04-14	3,234
ORON	HOR0661	HORORATA	RNBAL01ORONG	G	14-04-14	777
ORON	ISL0331	ISLINGTON	RNBAL01ORONG	G	01-05-08	14,783
ORON	ISL0661	ISLINGTON	RNBAL01ORONG	G	01-05-14	129,773
ORON	KBY0661	KIMBERLEY	RNBAL01ORONG	G	14-04-14	918
ORON	KBY0662	KIMBERLEY	RNBAL01ORONG	G	14-04-14	0

There are 22 embedded networks connected to the Orion network. The details are shown in the table below.

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network Type	Start Date
AJML	DSH0011	DRESS-SMART HORNBY	ISL0331	ORON	DSH0011AJMLE	E	1/03/2020
AMPC	TPS0011	THE PALMS	BRY066 1	ORON	TPS0011AMPCE	E	1/04/2019
CIAL	CIA0041	CHRISTCHURC H INTL AIRPORT	ISL0661	ORON	CIA0041CIALE	Е	1/04/2019
CIAL	CIA0111	CHRISTCHURC H INTL AIRPORT	ISL0661	ORON	CIA0111CIALE	Е	1/04/2019
CIAL	CIA0112	CHRISTCHURC H INTL AIRPORT	ISL0661	ORON	CIA0112CIALE	Е	1/04/2019

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network Type	Start Date
EASH	URK0111	UPPER RAKAIA	COL011	ORON	UPPERAKEASHE	E	1/05/2008
KIPT	NTL0011	Northland Shopping Mall	ISL0661	ORON	NTL0011KIPTE	E	1/11/2012
SABL	SAC0011	ANZ CNR COLOMBO & CASHEL ST CHC	ISL0661	ORON	SAC0011SABLE	E	13/05/2018
TENC	CLN0011	351 LINCOLN ROAD ADDINGTON	ISL0661	ORON	CLN0011TENCE	Е	1/01/2016
TENC	MXS0011	South City Centre	ISL0661	ORON	MXS0011TENCE	E	10/10/2019
TENC	TBC0011	BNZ CENTRE CHRISTCHURC H	ISL0661	ORON	TBC0011TENCE	Е	21/05/2018
TENC	TDS0011	AWLY BUILDING 80 ARMAGH ST CHCH	ISL0661	ORON	TDS0011TENCE	Е	13/05/2018
TENC	TGR0011	141 CASHEL ST CHRISTCHURC H 8011	ISL0661	ORON	TGR0011TENCE	E	13/05/2018
TENC	THD0011	Hazeldean Business Park	ISL0661	ORON	THD0011TENCE	Е	1/10/2019
TENC	THS0011	THE HSBC TOWER	ISL0661	ORON	THS0011TENCE	E	1/04/2015
TENC	TOX0011	32 Oxford Terrace	ISL0661	ORON	TOX0011TENCE	Е	1/05/2019
TENC	TTH0011	THE HUB 398 MAIN SOUTH ROAD	ISL0331	ORON	TTH0011TENCE	Е	1/08/2014
TNPT	ASC0011	AVONHEAD	ISL0661	ORON	ASC0011TNPTE	E	1/05/2008
TNPT	ESC0011	EASTGATE	BRY066 1	ORON	ESC0011TNPTE	Е	1/04/2014
WFNZ	WRN0011	WESTFIELD RICCARTON	ISL0661	ORON	WRN0011WFNZE	Е	1/04/2015
WFNZ	WRN0012	Westfield Riccarton	ISL0661	ORON	WRN0012WFNZE	E	1/04/2015

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network Type	Start Date
WFNZ	WRN0111	WESTFIELD RICCARTON	ISL0661	ORON	WRN0111WFNZE	Е	1/04/2015

Orion provided a list of all ICPs as at 31/05/20 by way of a registry "list file". A summary of this data by "ICP status" is as follows:

Status	Number of ICPs 2020	Number of ICPs 2019
New (999,0)	37	26
Ready (0,0)	347	195
Active (2,0)	204,935	200,255
Distributor (888,0)	168	156
Inactive – new connection in progress (1,12)	447	230
Inactive – electrically disconnected vacant property (1,4)	2,228	2,603
Inactive – electrically disconnected remotely by AMI meter (1,7)	595	666
Inactive – electrically disconnected at pole fuse (1,8)	20	11
Inactive – electrically disconnected due to meter disconnected (1,9)	27	26
Inactive – electrically disconnected at meter box fuse (1,10)	9	7
Inactive – electrically disconnected at meter box switch (1,11)	3	2
Inactive – electrically disconnected ready for decommissioning (1,6)	38	140
Inactive – reconciled elsewhere (1,5)	6	-
Decommissioned (3)	49,743	47,219

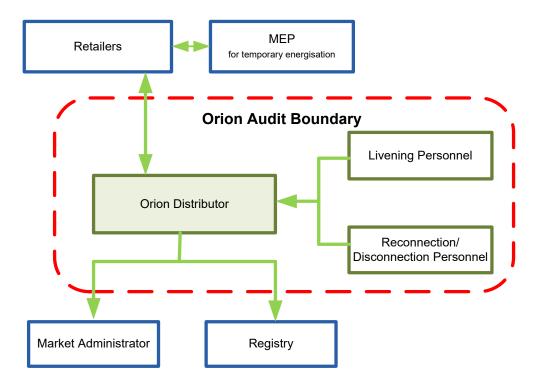
1.9. Authorisation Received

An authorisation email was provided.

1.10. Scope of Audit

This Distributor audit was performed at the request of Orion, 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 Orion's premises in Christchurch, on 11th August 2020.

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



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

The previous audit conducted in February 2019 by Steve Woods of Veritek Limited was reviewed. The table below shows the status of the findings from the audit.

Table of non-compliance

Subject	Section	Clause	Non-compliance	Status
Ready updates	3.4	Clause 7(2) of Schedule 11.1	3 ICPs changed to "ready" after electrical connection.	Still existing
Registry updates	4.1	8 Schedule 11.1	Updates to registry backdated greater than 3 business days of the event. 20 incorrect event dates for DG updates.	Still existing Cleared
Registry accuracy	4.6	7(1) Schedule 11.1	Three initial electrical connection dates incorrect. Eight ICPs have a blank IECD. Seven ICPs don't have DG recorded.	Still existing Cleared Cleared
Price code updates	4.7	7(3) Schedule 11.1	12 late price category code updates.	Cleared
Shared unmetered load	7.1	11.14(2) and (4)	Shared unmetered load removed for ICP 0005558387RNC8B.	Still existing

Recommendations

Subject	Section	Clause	Recommendation	Status
Decommissioning	4.11	Clause 20 Schedule 11.1	Check 140 ICPs at ready for decommissioning to confirm whether they can be decommissioned. Prioritise those with meters removed.	Cleared

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 11.2(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 Part 11 is:

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

Audit observation

Orion's data management processes were examined. The list file as at 31/05/20 and the combined registry compliance audit reports covering the period from 1/01/19 to 31/05/20 were examined to confirm compliance.

Audit commentary

Orion has processes in place to ensure that information is complete and accurate and is not misleading or deceptive. Examination of the list file and audit compliance reports found no examples of misleading or deceptive information. Orion makes every effort to ensure data is complete and accurate.

As detailed in **sections 3.5**, the audit compliance report highlighted that the correct initial electrical connection date is being populated but all had the incorrect event date recorded in the registry. The data dictionary in the registry defines the event date as follows:

The Event Date defines the date from which the attribute values of the event should apply.

Therefore, the event date or effective date should be the same date as the initial electrical connection date. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description				
Audit Ref: 2.1 With: Clause 11.2(1)	Incorrect event date applied to registry for the initial electrical connection date update.				
	Potential impact: Low				
	Actual impact: None	Actual impact: None			
From: 01-Jan-19	Audit history: None				
To: 31-May-20	Controls: Strong				
, 25	Breach risk rating: 1				
Audit risk rating	Rationale for audit risk rating				
Low	The controls are recorded as strong because they mitigate risk to an acceptable level.				
	There is no impact to the market theref	There is no impact to the market therefore I have rated the audit risk rating as low.			
Actions ta	iken to resolve the issue	Completion date	Remedial action status		
Orion accepts this finding and will review the relevant automated registry update process to prevent the issue in future.		31/3/21	Investigating		
Preventative actions taken to ensure no further issues will occur		Completion date			
As above		31/3/21			

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

Code reference

Clause 11.2(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

Orion's data management processes were examined. The list file as at 31/05/20 and the combined registry compliance audit reports covering the period from 1/01/19 to 31/05/20 were examined to confirm compliance.

Audit commentary

Orion has a comprehensive suite of discrepancy reports in place. These are managed on a daily basis to ensure that information is complete and accurate and is not misleading or deceptive. Any incorrect data is corrected upon discovery. I consider that any discrepancies are corrected as soon as practicable. Orion intend to use the audit compliance reporting to supplement their existing reporting suite.

Audit outcome

3. CREATION OF ICPS

3.1. Distributors must create ICPs (Clause 11.4)

Code reference

Clause 11.4

Code related audit information

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

Audit observation

The new connection process was examined in detail and is described in **section 3.2** below. 20 new connection applications of the 7,192 created were checked from the point of application through to when the ICP was created. This included unmetered load ICPs and some with distributed generation associated.

Audit commentary

The process in place is robust and has good controls in place. The sample checked in **section 3.2** below confirms this.

Audit outcome

Compliant

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

Code reference

Clause 11.5(3)

Code related audit information

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

Audit observation

The new connection process was examined in detail. 20 new connection applications of the 7,192 created during the audit period were checked from the point of application through to when the ICP was created. These were selected using the typical characteristic methodology to confirm the process and controls worked in practice.

Audit commentary

The new connections process was reviewed and is set out below:

- 1. An application for a connection is made in Orion's portal by the customer's agent. The contractor is expected to nominate the retailer.
- 2. Orion has an engineering approval process at this point.
- 3. An application for an ICP is made closer to the time of livening. This application includes a proposed livening date and nomination of a livening agent.

- 4. The ICP is created and sent to the nominated retailer with a list of questions, including that they agree to be responsible for the ICP and that they agree to the electrical connection of the ICP.
- 5. The ICP must be accepted by the nominated trader before the ICP is made "ready".

The process above achieves compliance with the Code. As the customer applies to Orion in the first instance the 3-day rule does not apply, however Orion's process works to supply an ICP number within three days of an application or advise the applicant why this has not been done. I reviewed a typical sample of 20 ICPs including some new unmetered load supplies and found all were either created within three days or there was communication with the applicant to advise why the ICP has not been supplied.

Audit outcome

Compliant

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

Code reference

Clause 11.7

Code related audit information

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

Audit observation

The new connection process for populating all required registry fields was examined. The list file was examined for all ICPs created during the audit period.

Audit commentary

The process for updating the registry is automated for all fields, and the update occurs on a nightly basis. 7,192 ICPs were created during the audit period. All ICPs had the required information populated as required by this clause. The accuracy of this information is detailed in **section 4.6**. Compliance is confirmed for clause 11.7 because all required information is populated in the registry.

Audit outcome

Compliant

3.4. Timeliness of Provision of ICP Information to the registry (Clause 7(2) of Schedule 11.1)

Code reference

Clause 7(2) of Schedule 11.1

Code related audit information

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

Audit observation

The new connection process was examined. The registry list for 31/05/20 and the combined registry compliance audit reports covering the period from 1/01/19 to 31/05/20 were 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 a nightly basis. There were 6,284 new ICPs created and electrically connected.

The audit compliance report identified nine of the 6,284 ICPs (99.9% compliance) were made ready after electrical connection had occurred. Three of these were selected using the typical case methodology and found:

- two were due to human error when the incorrect ICP was pasted into the email sent to the trader for ICP acceptance therefore delaying acceptance and causing the ICP to be made "ready" after electrical connection had occurred, and
- ICP 0007193880RNDD2 was an urgent new connection notified late to Orion causing the ICP to be uploaded to the registry one day after it was electrically connected.

Overall, there is a very high accuracy rate and Orion's processes are robust.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 3.4	9 ICPs changed to "ready" after electrical connection.			
With: Clause 7(2) of	Potential impact: Low			
Schedule 11.1	Actual impact: Low			
	Audit history: Once			
From: 23-Nov-18	Controls: Strong			
To: 04-Apr-20	Breach risk rating: 1			
Audit risk rating	Rationale for audit risk rating			
Low	The controls are recorded as strong because they mitigate risk to an acceptable level.			
	The impact on settlement and participants is minor; therefore, the audit risk rating is low.			
Actions ta	iken to resolve the issue	Completion date	Remedial action status	
Orion has a strong process in place with immaterial errors often as a result of human error that is quickly corrected once identified.			Identified	
Preventative actions taken to ensure no further issues will Completion date				
No further preventative actions intended 19/8/20				

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 no later than 10 business days after the date on which the ICP is initially electrically connected.

Audit observation

The new connection process for populating all required registry fields was examined. The registry list for 31/05/20 and the combined registry compliance audit reports covering the period from 1/01/19 to 11/06/20 were examined to determine the timeliness of the provision of the initial electrical connection date. A diverse characteristics sample of 20 late updates were examined.

Audit commentary

The process for updating the registry is automated for all fields, and the update occurs on a nightly basis.

97.6% of all initial electrical connection dates were populated within ten business days. Orion has introduced reporting that identifies initial electrical connection date discrepancies.

There were 5,973 initial electrical connection date updates in the event detail report. The audit compliance report identified 144 (2.4%) late updates. The sample checked found:

- 11 were identified in the discrepancy reporting; this report is run weekly but this lapsed for a number of months hence these were corrected when the report was run,
- eight were late due to late notification from the field; Orion works with their field contractors to manage performance and enhanced reporting is being developed to assist with managing performance, and
- the initial electrical connection date was corrected in one instance after consultation with the trader.

The audit compliance report highlighted that the correct the initial electrical connection date is being populated but all had the incorrect event date recorded in the registry. The data dictionary in the registry defines the event date as follows:

The Event Date defines the date from which the attribute values of the event should apply.

Therefore, the event date or effective date should be the same date as the initial electrical connection date. This is recorded as non-compliance in **section 2.1**.

The accuracy of the initial electrical connection dates is discussed in section 4.6.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 3.5	144 late updates of the initial electrical connection date.			
With: Clause 7(2A) of	Potential impact: Low			
Schedule 11.1	Actual impact: Low			
	Audit history: None			
From: 01-Jan-19	Controls: Strong			
To: 29-May-20	Breach risk rating: 1			
Audit risk rating	Rationale for audit risk rating			
Low	The controls are recorded as strong because they mitigate risk to an acceptable level.			
	The audit risk rating is assessed to be low as this has no direct impact on reconciliation.			
Actions ta	Actions taken to resolve the issue Completion Remedial action statu			
	and will review the relevant automated prevent the issue in future.	31/3/21	Investigating	
Preventative actions t	Preventative actions taken to ensure no further issues will occur			
As above		31/3/21		

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 electrically connecting an ICP that is not also an NSP, follow the electrical connection process set out in Clause 10.31.

The distributor must not electrically 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 electrically 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. The registry list for 31/05/20 and the combined registry compliance audit reports covering the period from 1/01/19 to 11/06/20 were examined.

Audit commentary

As discussed in **section 3.2**, Orion 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.

In the last audit it was noted that Orion had changed their new connection process to eliminate issues with coordination of multiple parties to attend the site at the time of livening. This issue has been resolved with the metering agent and therefore the majority of the electrical connections occur in conjunction with the metering being installed removing the requirement for two visits to site.

The audit compliance report identified nine ICPs that were electrically connected prior to being made "ready" on the registry and therefore a trader was not recorded in the registry as accepting responsibility for the ICP. A sample of these are discussed in **section 3.4**. These are recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 3.6 With: Clause 11.17	9 ICPs electrically connected prior to a t responsibility.	rader being recor	ded as having accepted	
	Potential impact: Low			
	Actual impact: Low			
	Audit history: None			
From: 01-Jan-19	Controls: Strong			
To: 29-May-20	Breach risk rating: 1			
Audit risk rating	Rationale for audit risk rating			
Low	The controls are recorded as strong because they mitigate risk to an acceptable level.			
	The audit risk rating is assessed to be low as this affected only nine ICPs.			
Actions ta	Actions taken to resolve the issue Completion Remedial action status date			
Orion has a strong process in place with immaterial errors often as a result of human error that is quickly corrected once identified.			Identified	
Preventative actions taken to ensure no further issues will Completion date				
No further preventative actions intended 19/8/20				

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. The registry list for 31/05/20 and the combined registry compliance audit reports covering the period from 1/01/19 to 11/06/20 were examined.

Audit commentary

As discussed in **section 3.2**, Orion 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 nine late new connections, 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 report for 1/06/19 to 30/04/20 was examined.

Audit commentary

Orion'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.

Two ICPs (ICP 0007191883RN252 and 0007190652RN4FE) were identified that were certified prior to the initial electrical connection date and the active date. These were examined to determine if they were temporarily connected ICPs and found that Orion's electrical connection date was confirmed to be correct in both cases and it appears that metering certification is incorrect.

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 5 business days of connecting the NSP that is not a point of connection to the grid, advise the reconciliation manager of the following in the prescribed form:

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

Audit observation

Orion has not created any new NSPs during the audit period.

Audit commentary

Orion has not created any new NSPs during the audit period.

Audit outcome

Not applicable

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 Orion during the audit period.

Audit outcome

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:

yyyyyyyyyxxccc where:

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

Audit observation

The new connection process was examined, and a sample checked. This is detailed in section 3.2 above.

Audit commentary

All ICPs are created in the appropriate format. The sample checked confirmed compliance.

Audit outcome

Compliant

3.12. Loss category (Clause 6 Schedule 11.1)

Code reference

Clause 6 Schedule 11.1

Code related audit information

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

Audit observation

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

Audit commentary

Orion has four loss category codes assigned to ICPs. Each active ICP only has one loss category, which clearly identifies the relevant loss factor.

Audit outcome

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 management of ICPs in relation to the use of the "new" status was examined. The registry compliance audit report covering the period from 1/01/19 to 31/05/20 was examined to identify any ICPs that had been at "new" and "ready" for more than 24 months.

Audit commentary

All ICPs are created at the "new" status and they are changed to "ready" once they are ready for activation. Checks of the sample of 20 ICPs recorded in **section 3.2** confirmed compliance. There are no ICPs at the "new" status with an initial electrical connection date.

There were no ICPs at the "new" or "ready" for greater than 24 months.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

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

Audit observation

The registry compliance audit report covering the period from 1/01/19 to 31/05/20 was examined to identify any ICPs that had been at "new" and "ready" for more than 24 months.

Audit commentary

The process for notifying traders is automated and commences at 30 days. There are no "new" or "ready" ICPs for a period greater than 24 months.

Audit outcome

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

Code reference

Clause 7(6) Schedule 11.1

Code related audit information

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

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

Audit observation

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

Audit commentary

Orion Network has a good understanding of this requirement. Examination of the list file confirmed that they do not have any embedded generation stations with a capacity of 10MW or more that require an individual loss category code.

Audit outcome

Not applicable

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

Code reference

Clause 10.33A(4)

Code related audit information

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

Audit observation

The electrical connection of streetlight circuits, which are a point of connection, was examined.

Audit commentary

Upon receipt, paperwork is checked for completeness and accuracy and any issues are followed up with the contractor. The information is sent to the asset data team so that the GIS can be updated, and then returned to the connections team to update the Streetlighting/DUML database from the date the change or new connection was effective. Once data entry is complete, the values loaded are checked against the paperwork provided, and some spot checks in the field are completed. Paperwork is normally promptly provided electronically and processed within two to three business days of receipt.

All jobs are tracked using job numbers by the connections team as part of the works management process. Late paperwork from contractors, and late updates by the GIS team are followed up. A checklist is followed to ensure that all steps in the process are completed.

Orion's approved contractors have access to a web-based version of the Streetlighting/DUML database in the field and advise Orion's connections team if they notice any discrepancies in the data recorded. Orion's connections team acts on these notifications and checks and updates the data where necessary.

Audit outcome

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 provide notice to the registry 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 three business days after the registry manager has advised the distributor that the ICP is ready to be decommissioned, or three business days after the distributor has decommissioned the ICP.

Audit observation

The management of registry updates was reviewed.

The registry list for 31/05/20 and the registry compliance audit report covering the period from 1/01/19 to 31/05/20 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.

Audit commentary

The process for updating the registry is automated for all fields, and the update occurs on a nightly basis.

The audit compliance report highlighted that the correct initial electrical connection date is being populated but all had the incorrect event date recorded in the registry. The data dictionary in the registry defines the event date as follows:

The Event Date defines the date from which the attribute values of the event should apply.

Therefore, the event date or effective date should be the same date as the initial electrical connection date. This is recorded as non-compliance in **section 2.1**.

The table below details the quantity and compliance of registry updates.

Update	Date	Late	% Compliant	Average days
Address	2017	388	95%	2.7
	2019	429	97%	2.4
	2020	616	94.89%	1.46
Price codes	2017	37	97%	4.3
	2019	155	98%	2.4
	2020	122	97%	1.33
Status	2017	1,044	41%	14.8
	2019	1,048	53%	11
	2020	42	98.09%	1.68
Network (excl	2019	104	99.95	5
new connection & Distributed Generation)	2020	23	N/A	N/A
Distributed Generation	2020	2,028	36.76%	70.86
NSP changes	2020	995	N/A	N/A

Address events

The sample of late address updates checked found that these all related to ICPs that were set up in error. It is a function of the registry to backdate all initial events to the start date so the ICP can be decommissioned, based on this I am recording compliance in relation to the address updates reported as late.

Pricing events

Orion will backdate incorrect price category codes to ensure that complete and accurate information is provided. The sample of late pricing updates checked found the same issue as recorded in the address updates. These were all backdated events as part of the ICP being "Decommissioned - set up in error". As there were no valid backdated price category codes found I am recording compliance in relation to the pricing updates reported as late.

Status events

Orion has improved the cycle time for the decommissioning of ICPs. The improved result is also a result of the code change that came into effect 1/11/18 where the later of the event date or the trader's update to the status is used to assess compliance. The sample of late decommissioning updates checked found:

- five were not able to be updated until the MEP had updated the registry to remove their metering, causing Orion's update to be late,
- two were part of the data cleanse of the historic ICPs at the "inactive ready to decommission" status that were actioned as part of the last audit,
- two were due to incorrect information provided by traders that required investigation before the ICP could be decommissioned, and
- one was due to late notification from the field.

Overall Orion has greatly improved the management of ICPs to be decommissioned moving from 53% completed within three business days in the last audit to 98.09% completed within three business days in this audit.

Network events (other than NSP changes and Distributed Generation events)

The audit compliance report included a great many distributed generation updates which are measured separately below. With these excluded, there were 23 "other" late network events recorded. Examination of these found:

- 16 related to a change of proposed trader; I checked a sample of five of these and found that four
 were changed prior to electricity being traded and are therefore compliant, and no change was
 made to the network details for ICP 0007192030RNECD, therefore whilst the update was late it
 had no impact, and
- the remaining seven network changes related to unmetered load changes; these were examined
 and found that as the unmetered change was backdated across a period of NSP changes, multiple
 updates were required to be sent to ensure that all the time slices had the correct NSP recorded.

As the report included a large number of incorrect events in it, I am unable to determine the compliance percentage but given the small volume of genuine late network events, compliance is expected to be high.

Distributed Generation events

The sample of late distributed generation updates checked found that all were late due to late notification from the contractor. Orion make every effort to ensure that distributed generation is confirmed and recorded where possible, including:

- monitoring and checking with traders where profiles indicate distributed generation is present, but Orion has none,
- monitoring the EIEP1 file to identify generation where none is expected, and
- contacting applicants to request paperwork for any installations that have been pending for some time.

NSP changes

Orion makes frequent NSP changes on their network. All changes are held and only if the change is in place for more than five days is the file released to the registry to record the NSP changes. Any changes for less than this period are not notified to the registry. The code only requires notification after ten business days. I recommend in **section 4.1**, that Orion consider sending file notifications after ten business days. This will lessen the volume of notifications sent to the registry and for traders to process through their reconciliation systems.

Description	Recommendation	Audited party comment	Remedial action
Changes to registry information	I recommend that Orion send notifications for NSP changes to the registry after ten business days have elapsed.	The automated system that Orion has in place balances the previous feedback received from traders on frequency of updates, and the rules. Based on this we do not intend acting on this recommendation.	Not being progressed

The audit compliance reporting reported 995 late NSP notifications. A sample of ten ICPs (with a total of 42 backdated NSP changes recorded across the sample) were reviewed. These all related to backdated distributed generation updates which resulted in multiple network notifications to maintain the change of NSPs that have occurred in the intervening period. This process is a manual and detailed process. Orion has investigated whether this can be automated but concluded this was not practically possible. As these were not late NSP changes I have recorded compliance for NSP changes.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 4.1 With: Clause 8 Schedule 11.1 From: 01-Jan-19	Updates to registry backdated greater the Potential impact: Low Actual impact: Low Audit history: Twice previously	nan 3 business day	s of the event.	
To: 31-May-20	Controls: Strong Breach risk rating: 1			
Audit risk rating	Rationale for audit risk rating			
Low	Controls are rated as strong. Orion has robust checks and processes in place to ensure wherever possible events are updated to the registry as soon as possible. The audit risk rating is low as the volume of backdated events is small and those backdated have little to no impact on reconciliation.			
Actions to	Actions taken to resolve the issue Completion Remedial action state			
Orion has strong controls in place however some activities rely on timeliness by third parties that can decrease compliance by us. Our NSP update process is automatic so this means where backdating occurs a manual process to address NSP changes in the timeline needs to occur.		19/8/20	Identified	
Preventative actions taken to ensure no further issues will occur		Completion date		
We do not intend taking any further preventative actions		19/8/20		

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

Code reference

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

Code related audit information

The distributor must notify the registry of the NSP identifier of the NSP to which the ICP is usually connected under Clause 7(1)(b) of Schedule 11.1.

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 53 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. A sample of ICPs with typical characteristics were examined to determine if the correct NSP has been assigned.

Audit commentary

The controls in place to ensure new ICPs have the correct NSP are robust, with the NSP being assigned at the time the ICP is plotted in the GIS. Orion has robust controls in place to identify discrepancies on an ongoing basis.

The audit compliance reporting identified 53 ICPs with less than five ICPs and 5% associated with an NSP. A sample of 25 ICPs were checked and found that:

- 23 ICPs were correct,
- ICP 0007144892RNFCB had the incorrect road name recorded as Dunsandel Road rather than Hororata-Dunsandel Road which has been corrected, and
- ICP 0007189815RN9DB was recorded as connected to ISL0331 but should have been connected to ISL0661. This was electrically connected on 30/09/19 and the trace process that checks the assignment of the NSP did not correct this as expected. The NSPs are in the same balancing area so there is no impact to the market.

Orion have checked all 53 ICPs detailed on the audit compliance reporting and they are confirmed to be correct.

Audit outcome

Non-compliant

Non-compliance	Desc	cription		
Audit Ref: 4.2				
	One ICP assigned to the incorrect NSP.			
With: Clause 7 (1)(b) Schedule 11.1	Potential impact: Low			
From: 30-Sep-19	Actual impact: None			
To: 31-May-20	Audit history: None			
10. 31 May 20	Controls: Strong			
	Breach risk rating: 1			
Audit risk rating	Rationale for	audit risk rating		
Low	Controls are rated as strong. Orion has reensure ICPs are mapped correctly.	robust checks and	processes in place to	
	The audit risk rating is low to none as the the one ICP that was found to be incorre		same balancing area for	
Actions to	aken to resolve the issue	Completion date	Remedial action status	
The NSP has been correctly linked to ISL0661 for ICP 0007189815RN9DB and backdated on the registry to the date of livening		19/8/20	Investigating	
Preventative actions take	en to ensure no further issues will occur	Completion date		
Explanation for ICP 0007189815RN9DB — When the new transformer at the site was introduced to the network, the HV circuit breakers of the transformer were open. Therefore the GIS would have been updated to include the new transformer, but with those CBs in the open state. When tracing runs in the GIS to update PowerOn, it stops at open points, in this case the transformer CBs. Therefore, although the ICP was correctly linked in the GIS, this information wasn't passed to PowerOn. The ICP for the transformer in question didn't seem to be in PowerOn at all, not even as an unlinked ICP.		31/3/21		
The CBs were closed some weeks after becoming part of the network, but there was nothing to flag to Mapping that this had happened. Therefore, the GIS wasn't updated to match.				
That meant that the trace that runs nightly in PowerOn to update the GXP information for the ICP in Connections couldn't correct the data. It would also have meant that the ICP wouldn't have been included in any outage statistics that affected it.				
Course of action: investigate this type of situation to see if it could be captured by a report. The situation is reasonably complex and we will need to identify the best way of highlighting such errors.				

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 discussed to confirm policy.

Audit commentary

Requests for ICP identifiers are not a common occurrence, however Orion provides this information if the requesting party has authorisation. This information is also provided on their website.

Audit outcome

Compliant

4.4. ICP location address (Clause 2 Schedule 11.1)

Code reference

Clause 2 Schedule 11.1

Code related audit information

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

Audit observation

The process to manage address accuracy was examined and the list file was analysed.

Audit commentary

All of Orion's address records on the registry are readily locatable. There is a rigorous process in place that ensures only meaningful information is populated into the "property name" field when addresses are similar. Lot numbers are replaced with street numbers and new street names are verified with council before they are accepted.

Audit outcome

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 de-energised without de-energisation of 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 difference between the total consumption for the embedded network and all other ICPs on the embedded network.

Audit observation

I checked the "Network Code" published on Orion's website to confirm the policy in relation to this clause.

Audit commentary

The Network Code is clear that each ICP must have its own isolation point. Electrical connection is conducted by a small number of approved contractors which assists with the application of this and other policies. No examples were identified where this policy had not been complied with.

Audit outcome

Compliant

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

Code reference

Clause 7(1) Schedule 11.1

Code related audit information

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

- 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)(I) 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 process for updating the registry is automated for all fields, and the update occurs on a nightly basis. Orion has a fully automated registry update process, which ensures all information listed in this clause is provided to the registry.

The registry list as at 31/05/20 and the audit compliance report for the audit period from 1/01/19 to 31/05/20 were reviewed to determine compliance. A sample using typical characteristics of data discrepancies were checked.

Audit commentary

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

Initial electrical connection date

The initial electrical connection date is populated based on information returned from the field. Orion have regular reporting in place to identify missing or initial electrical connection date discrepancies. As noted in **section 3.5**. The date discrepancy reporting was missed for a number of months causing a small number of backdated updates. This is now run weekly. Orion have robust controls in place to manage this.

6,284 new ICPs were created and electrically connected. The audit compliance reporting identified 60 ICPs with date inconsistencies between the initial electrical connection date, the active date and the meter certification date. The sample of ten ICPs checked found:

ICP	Earliest meter Certification date	Initial Electrical Connection date	Earliest retailer active date	Comments
0007193368RN672	07/05/2020	06/12/2019	07/05/2020	Incorrect date entered due to human error. This has been corrected.
0007193365RN929	07/05/2020	06/12/2019	07/05/2020	Incorrect date entered due to human error. This has been corrected.
0007194181RNCFE	12/03/2020	10/03/2020	12/03/2020	This is a central supply connection. Orion do not have visibility of these connection dates, so the connected date is recorded in this instance.
0007189816RN51B	24/01/2020	13/09/2019	24/01/2020	This is a central supply connection. Orion do not have visibility of these connection dates, so the connected date is recorded in this instance.
0007194514RN257	04/03/2020	03/03/2020	04/03/2020	Incorrect date entered due to human error. This has been corrected.
0007189815RN9DB	30/09/2019	13/09/2019	30/09/2019	This is a central supply connection. Orion do not have visibility of these connection dates, so the connected date is recorded in this instance.
0007193597RNFBD	03/02/2020	23/01/2020	03/02/2020	This is a central supply connection. Orion do not have visibility of these

ICP	Earliest meter Certification date	Initial Electrical Connection date	Earliest retailer active date	Comments
				connection dates, so the connected date is recorded in this instance.
0007192922RNDEC	07/01/2020	13/12/2019	07/01/2020	This is a central supply connection. Orion do not have visibility of these connection dates, so the connected date is recorded in this instance.
0007193039RN13C	07/01/2020	17/12/2019	06/01/2020	Orion's date was confirmed to be correct and the trader has updated their date.

The audit compliance report identified 97 active ICPs with no initial electrical connection date recorded. The sample of ten ICPs checked found that all were made prior to the registry being available and have been made active during the audit period making it appear that they are newly connected. Compliance is confirmed.

The audit compliance reporting found 122 ICP at the "ready" or "inactive - new connection in progress" status with an initial electrical connection date recorded. 118 were due to timing and the sample across the days affected confirmed that the ICPs had since been made active for the same date as Orion's electrical connection date. The four ICPs that were indicated as being electrically connected prior to April 2020 were checked and found:

- two of these were TOU sites so the connected date is recorded in this instance,
- ICP 0007192847RN657 was electrically connected on 31/1019 but the trader has yet to make it active; and
- ICP 0007194442RN2D4 was electrically connected on 20/03/2020 but the trader has yet to make it active.

Distributed Generation

Applications for distributed generation are entered via the Orion website. The application form requires the details of the inverter and any batteries if being installed. All applications are reviewed to ensure that the proposed inverter complies with the list of approved inverters. Orion aim to approve all applications within in two business days of receipt. Orion expect the applicant to provide the appropriate documentation once the installation is complete. The details are then loaded to the registry once this been received.

Analysis of the registry list confirmed there are 3,373 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 37 active ICPs where the trader's profile indicates distributed generation. The sample of ten ICPs checked found:

- Orion has confirmed that there is no distributed generation for four of the ICPs; Orion actively
 check such sites (including conducting site visits) therefore the trader has the incorrect profile
 assigned to these ICPs,
- completion documentation has been provided for three ICPs since receiving the audit compliance reports and the registry has been updated,
- two ICPs had distributed generation installed but Orion have confirmed that this has been removed therefore the trader's profile is incorrect in these instances, and

• an application has been received for ICP 0005007542RN7EA, but completion documents have not been received; Orion have requested these from the applicant.

Unmetered Load

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

Orion requires that the unmetered load is detailed as part of the online application form detailing the wattage, hours of usage per day and the type of unmetered load.

There have been 665 new unmetered load connections during the audit period. Orion had no unmetered load recorded for 65 ICPs. In all cases these were BTS supplies. I checked a sample of ten of these and found that Orion had removed the unmetered details as these were being metered.

For the remaining 600 ICPs, Orion's load matched that of the traders in all but four ICPs. These were checked and found:

- two were due to timing where the unmetered BTS has been replaced with a permanent metered supply and Orion has since removed the unmetered details,
- ICP 0007193294RNC7F was applied for as an unmetered BTS supply but the customer changed their mind and had a metered supply; the trader has since corrected the registry to reflect this, and
- the application details were checked and confirmed that unmetered load applied for is 500W and not 480W as detailed by the trader.

Audit outcome

Non-compliant

Non-compliance	Description				
Audit Ref: 4.6	Three incorrect initial electrical connection dates.				
With: Clause 7(1)	Potential impact: Low				
Schedule 11.1	Actual impact: Low				
	Audit history: Twice				
From: 06-Dec-19	Controls: Strong				
To: 31-May-20	Breach risk rating: 1				
Audit risk rating	Rationale for audit risk rating				
Low	The controls are rated as strong as Orion have robust reporting and processes in place to identify potential discrepancies and any found are corrected.				
	There is no impact on settlement in relation to incorrect initial electrical connection dates therefore I have recorded the audit risk rating as low.				
Actions taken to resolve the issue		Completion date	Remedial action status		
Orion will correct our registry data as information comes to hand		19/8/20	Identified		
Preventative actions taken to ensure no further issues will occur		Completion date			
Orion contacts and discusses these matters with third parties in an attempt to align registry data. This is an ongoing activity. We may consider whether unmetered BTS should continue.		19/8/20			

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 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 audit compliance reporting and the registry list were reviewed to determine compliance.

Audit commentary

Orion do not use placeholder values; the price category is applied based on the application details.

There were no backdated pricing changes found that related to new connections.

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 list file for ICPs with GPS coordinates and entered them into the "Mobile Roads" application to confirm they were in NZTM format.

Audit commentary

There are 224 ICPs with GPS coordinates 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 registry list for 31/05/20 and the combined registry compliance audit reports covering the period from 1/01/19 to 31/05/20 were examined.

All ICPs at "ready" status had a single price category assigned and proposed trader identified.

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.

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

I checked the list file to confirm compliance.

Audit commentary

The list file contained 40 embedded network (LE) ICPs and 128 shared unmetered load (SI) ICPs. The details are recorded correctly on the registry.

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

I examined the physical process for decommissioning ICPs along with the timeliness and accuracy of registry updates.

Audit commentary

The decommissioning process starts with a service request from a retailer. Any calls received from customers are directed to their retailer. The retailer is expected to have made arrangements for meter removal. Once the service request has been received, a job is booked with a contractor to physically remove the connection to the network. On completion of this work, the status is changed within the connection management system, which then updates the registry overnight. The decommissioned status is only used once there is confirmation from a field visit that the ICP is definitely physically removed. In situations where the ICP is not physically connected to the network, Orion may be notified through various methods that the ICP is gone. They will then conduct an inspection before decommissioning the ICP.

I checked the accuracy of the decommissioning date for a sample of ten ICPs and found the correct date is recorded except in instances where the MEP's meter removal date is later than that of the decommissioning date. In these instances, Orion have no choice but to use the meter removal date as the decommissioning date as the registry will not allow the decommission date to predate the meter removal date which in some instances will be after the site has been decommissioned.

There are 38 ICPs with a status of "ready for decommissioning". This is an excellent reduction from the 140 ICPs that were at this status in the last audit. Orion adopted the last audit's recommendation and have cleaned up the historic ICPs by conducting site visits to confirm these were decommissioned.

A sample of ten ICPs with the status of "ready for decommissioning" were examined (including all six ICPs with the meters removed) and found:

- five ICPs have not been able to be completed due to site access issues; all are in progress,
- three ICPs are ARC unmetered mesh sites; Orion has requested that the trader provide service requests to progress these, and
- the remaining two ICPs relate to the Christchurch Cathedral and the Central Police building; both of these are earthquake damaged sites which cannot be accessed.

The timeliness of status 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 for any new or changed codes during the audit period.

Audit commentary

There were no changes during the audit period.

Audit outcome

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

I checked the loss category code table for any new or changed codes during the audit period.

Audit commentary

There were no changes 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 on the registry, the distributor must enter the replaced loss factor on the table in the registry.

Audit observation

I checked the loss category code table for any new or changed factors during the audit period.

Audit commentary

There were no changes during the audit period.

Audit outcome

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 notify 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 notify 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 notify 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:

- notify the reconciliation manager
- notify the market administrator
- notify each affected reconciliation participant
- comply with Schedule 11.2.

Audit observation

The NSP table on the registry was examined.

Audit commentary

The NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period.

Audit outcome

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 calendar month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table on the registry was examined.

Audit commentary

No NSPs were created or decommissioned during the audit period.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

If a participant has notified the creation of an NSP on the distributor's network, the distributor must notify 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 on the registry was examined.

Audit commentary

The NSP table on the registry was examined. No new balancing areas were created during the audit period.

Audit outcome

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 notify the reconciliation manager at least one calendar 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

Orion has not created any embedded networks.

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 notify 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 on the registry was examined.

Audit commentary

No balancing areas were changed during the audit period.

Audit outcome

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 notify any trader trading at the ICP of the transfer at least one calendar month before the transfer.

Audit observation

The NSP table was reviewed.

Audit commentary

No existing ICPs became NSPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 1 to 4 Schedule 11.2

Code related audit information

If the distributor wishes to transfer an ICP, the distributor must notify the market administrator in the prescribed form, no later than three business days before the transfer takes effect.

Audit observation

The NSP table was reviewed.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10.25(1)

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)).

Audit observation

The NSP supply point table was examined.

Audit commentary

There is one interconnection point relevant to this clause and an exemption has been granted to allow for this to be unmetered.

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

The NSP table on the registry was examined.

Audit commentary

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

Audit outcome

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

Code reference

Clause 29 Schedule 11.1

Code related audit information

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

- the previous network owner (Clause 29(1)(a) of Schedule 11.1)
- the reconciliation manager (Clause 29(1)(b) of Schedule 11.1)
- the market administrator (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 calendar month notification is required before the acquisition (Clause 29(2) of Schedule 11.1).

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

Audit observation

The NSP supply point table was reviewed.

Audit commentary

Orion have not initiated any changes of network owner.

Audit outcome

Compliant

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

Code reference

Clause 10.22(1)(b)

Code related audit information

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

Audit observation

The NSP supply point table was reviewed.

Audit commentary

Orion is not an embedded network owner and has not requested the connection of any NSPs.

Audit outcome

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 market administrator 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

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

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 11.2

Code related audit information

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

Audit observation

The NSP supply point table was reviewed.

Audit commentary

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

Audit outcome

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 notify the registry 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 notify the registry 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

I checked the list file and the event detail report to confirm the accuracy and compliance of shared unmetered load information.

Audit commentary

The registry population and the relationship between parent and child ICPs is correct.

There are 553 ICPs with shared unmetered load, related to 128 parent ICPs.

Two SI ICPs had only one ICP listed as the child ICPs. This was checked and found:

- ICP 0007173740RN84F was reported in the last audit as the shared unmetered load was
 incorrectly removed from ICP 0005558387RNC8B leaving only ICP 0005313236RNE6A associated
 with the parent ICP; Orion are contacting the remaining trader to determine if the customer is
 happy to pay for the light or have it decommissioned, and
- The unmetered load for SI ICP 0007162429RN3AC should be assigned as standard unmetered load for ICP 0005961211RN4A5 and the SI ICP be decommissioned; Orion are correcting this.

Audit outcome

Non-compliant

Non-compliance	Description			
Audit Ref: 7.1 With: Clause 11.14(2) and (4)	Unmetered load recorded as shared unmetered load when it should be recorded as standard unmetered load and the SI ICPs be decommissioned. Potential impact: Low Actual impact: Low			
From: 14-Oct-14	Audit history: Once			
To: 31-May-20	Controls: Strong			
	Breach risk rating: 1			
Audit risk rating	Rationale for audit risk rating			
Low	The controls are recorded as strong as Orion has robust checks in place. Both of these instances are exceptions. 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	
Orion will make corrections/updates as identified following liaison with relevant traders and customers		19/10/20	Identified	
Preventative actions taken to ensure no further issues will occur		Completion date		
No additional preventative actions are planned. We no longer allow new installations of shared unmetered load.		19/8/20		

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 notify all traders affected by that change or decommissioning as soon as practicable after the change or decommissioning.

Audit observation

I checked the list file for decommissioned shared unmetered load ICPs, and I checked Orion's notification processes.

Audit commentary

Orion has a separate communication format for shared unmetered load, which was used for all of the examples examined and which achieves compliance with this clause.

Audit outcome

8. CALCULATION OF LOSS FACTORS

8.1. Creation of loss factors (Clause 11.2)

Code reference

Clause 11.2

Code related audit information

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

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

Audit observation

The calculation of loss factors was reviewed in relation to Clause 11.2, which relates to information accuracy.

I have recorded the information from Part 1 of the Code to support my approach to the evaluation of this area.

The definition of losses is:

losses means the difference between the delivered electricity at a point of connection and the electricity required to be injected into an other point of connection in order to supply the delivered electricity.

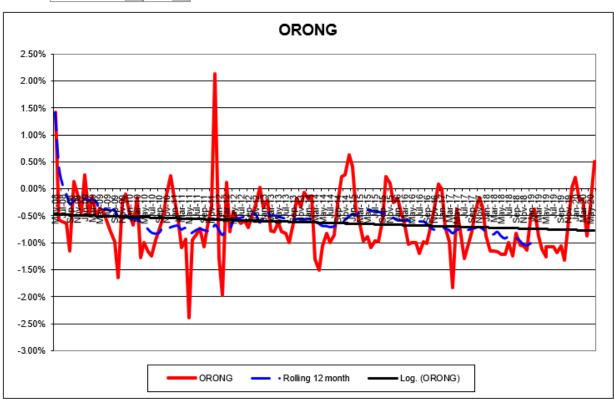
This definition indicates that reconciliation losses should be published, not technical losses. I have therefore compared reconciliation losses to published loss factors.

Audit commentary

Orion has a low voltage and a high voltage loss factor, plus two specific factors. The factors are reviewed each year and have not changed for some time. UFE on a 12-month rolling basis is at approx. near -1%.

UFE% by Network calculator





Audit outcome

CONCLUSION

Orion have continued their strong focus on compliance with further reporting put in place to monitor and manage performance.

The historic ICPs at the "ready to decommission" status found in the last audit have been resolved.

The two challenging areas of electrical connection dates and the notification of the connection of distributed generation information reported in the last audit remain. Orion makes all possible endeavours to ensure that the information is provided to them in a timely manner and is accurate. They have added further checks during the audit period but getting distributed generation installation details in particular is proving difficult.

The audit found eight non-compliances and makes one recommendation. Orion has robust well documented processes in place and a high level of compliance was found in this audit. The indicative audit frequency table indicates that the next audit be in 18 months. I have considered this in conjunction with the fact that controls were rated as strong and audit risk rating is low for all non-compliances found and recommend that the next audit be in 24 months time.

PARTICIPANT RESPONSE

Orion takes its responsibilities under the Code seriously. We have a robust system of automation, quality control, exception reporting, ongoing monitoring and resolution processes achieved through relationships with other relevant participants and third parties. We have a culture of continuous improvement that supports maintainance of a positive audit outcome. Thank you to Veritek who run a very smooth and orderly audit process.