

ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

The logo for Veritek, featuring the word "VERITEK" in a serif font, with a vertical line to its left and a horizontal line below it.

For

PIONEER ENERGY LTD

Prepared by: Tara Gannon

Date audit commenced: 15 October 2020

Date audit report completed: 6 November 2020

Audit report due date: 30 November 2020

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EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Pioneer Energy Limited (Pioneer)**, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.2.

Pioneer supplies 1,555 active HHR and NHH ICPs.

HHR and DUML submission is completed by EMS, and compliance is recorded in their audit report, apart from a technical non-compliance relating to the HHR aggregates submission.

NHH submission, registry information management and switching is completed by Pioneer.

During the audit period, Pioneer has put considerable effort into adopting recommendations from the previous audit and resolving non-compliance. In particular:

1. Customer and customer photo readings are consistently treated correctly for submission and switching.
2. Switching file accuracy for critical fields, including the switch event reading, has improved.
3. Corrections have been processed for most registry and reconciliation data which was found to require correction during the previous audit, and the outstanding corrections are in progress and expected to be completed prior to revision 14 for the affected ICPs.
4. The accuracy of meter read frequency reporting, and compliance with the meter reading frequency requirements has improved.
5. Meter condition information provided by Wells is consistently reviewed.
6. The most recently published PR030 (seasonal adjusted daily shape values) files for each period are recorded in Orion and used to calculate historic estimates.
7. Unmetered load details have been confirmed, and corrections have been processed where required.
8. A process to ensure that aggregation lines present in an earlier revision but not the current revision are zeroed has been implemented.

Issues relating to AV110 and AV080 report content produced by Orion have been investigated and testing of system changes is underway. Improved validation processes have been implemented for submission until changes to Orion are tested and deployed. They key issues are:

1. The historic estimate process is not consistently treating opening and closing readings as validated readings or permanent estimates when calculating historic estimate.
2. ICPs which are decommissioned are excluded from revision submissions for periods before they were decommissioned.
3. ICPs which switch in with inactive status, are reported from their active date, rather than their reconnection date.
4. Unmetered load is reported as forward estimate, instead of historic estimate.
5. Orion calculates forward estimate based on invoice estimate reads. Due to timing, invoice estimates are usually created after initial reconciliation submissions are completed. This means that ICPs requiring forward estimate will have a zero estimated by Orion for the initial submission. By revision one, invoice estimates will be created and included in submission information where necessary.

To improve future compliance, I recommend:

1. Completing a full reconciliation between Orion and the registry at least monthly, to ensure that data is accurate and consistent. The likelihood of discrepancies is increased because registry and Orion updates are processed manually and separately.
2. Further improvements to the accuracy of switch file information, including checking application of the "CO" (contracted customer) AN response code, and ensuring that the last actual read

date is consistently updated where AMI readings are manually added to CS files before they are sent.

3. Improvement of the billing correction process to ensure that the agreed switch reading is always correctly recorded in Orion.
4. Continuing to work towards resolving the AV080 and AV110 report issues, and thoroughly validating submission information in the meantime to identify and correct data prior to submission.

The improvements have resulted in a significant reduction to the audit risk rating from 69 in the January 2020 audit to 52 this audit. As I noted in the January 2020 audit, the total risk rating is inflated because some very minor non-compliances affecting a short period or small number of ICPs with little to no impact may be recorded as non-compliance in many report sections. For example, a billing correction which resulted in a change to the agreed switch read for ICP 0000507601DEF19 was recorded as non-compliance in **sections 4.10, 4.11, 6.7 and 12.7**.

Based on my analysis and Pioneer's comments, progress during the audit period and expected continued progress, I recommend that the next audit is due in 12 months.

The matters raised are shown in the tables below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	15.2	<p>The registry validation is not sufficient to identify all discrepancies between Orion and the registry, including discrepancies which could impact the accuracy of reconciliation submissions.</p> <p>Four ICPs had incorrect status event dates recorded on the registry. One was corrected during the audit.</p> <p>Four ICPs had incorrect profiles recorded on the registry, but correct profiles were applied for submission.</p> <p>One trader update had an incorrect event date applied; and was corrected during the audit.</p> <p>Six ICPs have some incorrect reading information, which Pioneer intends to update prior to r14.</p>	Moderate	Low	2	Identified
Electrical Connection of Point of Connection	2.11	10.33A	17 metered ICPs did not have meter certification provided within five business days of the change to active status.	Strong	Low	1	Identified
Changes to registry information	3.3	10 Schedule 11.1	<p>49 late status updates to active.</p> <p>Four late status updates to inactive.</p> <p>15 late trader updates.</p> <p>Two late ANZSIC code updates.</p>	Moderate	Low	2	Identified
Provision of information to the registry manager	3.5	9 Schedule 11.1	<p>15 late status updates to active for new connections.</p> <p>ICP 0000814358WP62F had an incorrect active status date; and was corrected during the audit.</p> <p>ICP 1002080190LCC09 has active status recorded from 09/06/20 but was not active until 25/06/20.</p>	Moderate	Low	2	Identified
ANZSIC codes	3.6	9 (1(k) of Schedule 11.1	Incorrect ANZSIC codes were applied for four ICP; and were corrected during the audit.	Moderate	Low	2	Cleared
Management of "active" status	3.8	17 Schedule 11.1	<p>ICP 0000814358WP62F had an incorrect active status date; and was corrected during the audit.</p> <p>ICP 1002080190LCC09 has active status recorded from 09/06/20 but was not active until 25/06/20.</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			ICP 0000007765TED75 has active status recorded from 06/09/19 but was active from 05/09/19.				
Management of "inactive" status	3.9	19 Schedule 11.1	ICP 0000033661DEA96 has an incorrect disconnection date applied but cannot be easily corrected because the ICP is now decommissioned.	Moderate	Low	2	Identified
Inform registry of switch request for ICPs - standard switch	4.1	2 Schedule 11.3	Transfer switches were requested for ICPs 0000033072CPC61 (20/05/20), 0000489550CE5C5 (30/04/20), and 0000567442TP9E5 (04/02/20) when the customer had confirmed that they were moving into the address.	Strong	Low	1	Identified
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	The "CO" AN response code was incorrectly applied for ICPs 0000510111CE82C (01/04/20) and 0008448484NVAC2 (20/07/20).	Moderate	Low	2	Identified
Losing trader must provide final information - standard switch	4.3	5 Schedule 11.3	Two late TR CS files. At least eight CS average daily consumption values were not consistent with the average consumption for the last read to read period in transfer CS files, because the Orion EDC is applied instead of consumption for the last read to read period. At least three transfer CS files contained incorrect last actual read dates.	Moderate	Low	2	Identified
Gaining trader informs registry of switch request - switch move	4.7	Clause 9 Schedule 11.3	The switch move NTs for 0000501294CEA6B (04/02/20) and 0006632640ALE93 (06/02/20) were raised more than two business days after pre-conditions were cleared.	Strong	Low	1	Identified
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	Three late MI CS files.	Strong	Low	1	Identified
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	At least 13 CS average daily consumption values were not consistent with the average consumption for the last read to read period in transfer CS files, because the Orion EDC is applied instead of consumption for the last read to read period. At least three switch move CS files contained incorrect last actual read dates. The CS file 0000507601DEF19 (14/02/20) contained readings which did not match the AMI data, or readings recorded in Orion.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			Eight switch move CS files did not have CSMETERCHANNEL, CSMETERCOMP and CSMETERINSTALL lines supplied.				
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	The agreed switch reading was not applied in Orion for 0001425261UN6BF (01/06/20) resulting in forward estimate being created instead of historic estimate. The agreed switch reading was not applied in Orion for ICP 0000507601DEF19 (14/02/20) resulting in 71 kWh of under submission.	Moderate	Low	2	Identified
Gaining trader to advise the registry manager - gaining trader switch	4.14	16 Schedule 11.3	One late HH CS file.	Strong	Low	1	Identified
Metering information	4.16	21 Schedule 11.3	For one switch move CS file issued by Pioneer, the switch event readings did not reflect the actual reading or estimated reading on the event date.	Moderate	Low	2	Identified
Distributed unmetred load	5.4	11 Schedule 15.3, Clause 15.37B	The Grey and Gore DC DUMML databases are not accurate.	Moderate	Medium	4	Identified
Electricity conveyed & notification by embedded generators	6.1	10.13 and 15.13	ICPs 0000033279CE035, 0000101696DE14B, 0000500005CE26E and 0000204054DEBB3 have submission against the RPS and PV1 profiles, but only RPS profile is recorded on the registry.	Strong	Low	1	Cleared
NHH meter reading application	6.7	6 Schedule 15.2	The agreed switch reading was not applied in Orion for ICP 0000507601DEF19 (14/02/20) resulting in 71 kWh of under submission.	Moderate	Low	2	Identified
NHH meters 90% read rate	6.10	9(1) and (2) Schedule 15.2	An inaccurate four month read ICP total was provided in the April 2020 meter read attainment report for CYD0331-DUNE.	Strong	Low	1	Identified
Meter data used to derive volume information	9.3	3(3) Schedule 15.2	AMI meter reading data is rounded on import into the Orion.	Moderate	Low	2	Identified
Calculation of ICP days	11.2	3(5) of schedule 15.2	The AV110 report excludes ICPs from revision submissions for periods where they were active if the ICP's current status is decommissioned and includes inactive ICP days where an ICP has switched in with inactive status.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Electricity supplied information provision to the reconciliation manager	11.3	15.8	The AV120 report included information on ICPs which were billed by Pioneer but reconciled by another trader. They should have been excluded from Pioneer's billed submission.	Strong	Low	1	Identified
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates file does not contain electricity supplied information.	Strong	Low	1	Identified
Accuracy of submission information	12.7	15.12	The agreed switch reading was not applied in Orion for ICP 0000507601DEF19 (14/02/20) resulting in 71 kWh of under submission. The agreed switch reading was not applied in Orion for 0001425261UN6BF (01/06/20) resulting in forward estimate being created instead of historic estimate. Six ICPs have some incorrect reading information, which Pioneer intends to update prior to r14.	Moderate	Low	2	Identified
Permanence of meter readings for reconciliation	12.8	4 Schedule 15.2	Some estimates were not replaced by revision 14.	Moderate	Low	2	Identified
Historical estimate process	12.11	3 Schedule 15.3	Historic estimate is not calculated as expected for some tests which used opening and/or closing reads to calculate historic estimate.	Weak	Low	3	Identified
Forward estimate process	12.12	6 Schedule 15.3	Some balancing area differences between revisions were over the threshold because of inaccurate forward estimates.	Moderate	Low	2	Identified
Historical estimate reporting to RM	13.3	10 Schedule 15.3	Historic estimate thresholds were not met for some revisions.	Moderate	Low	2	Identified
Future Risk Rating						52	

Future risk rating	0	1-3	4-14	16-40	41-55	55+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Description	Recommendation
Relevant Information	2.1	Data validation	<p>At least monthly, Orion and registry data should be reconciled. As a minimum this should include all fields which impact on reconciliation submissions:</p> <ul style="list-style-type: none"> • Status • Network • NSP code • Dedicated NSP • Reconciliation type • Profile • Loss category code • Flow direction (which can be cross checked against installation type at ICP level) • Unmetered daily kWh. <p>In addition, the following data should be checked for consistency (preferably monthly):</p> <ul style="list-style-type: none"> • Pioneer's earliest active date, the distributor's initial electrical connection date and the MEP's meter certification date for newly connected ICPs. • ICPs with installation type B or G, generation capacity, a generation fuel type and/or injection flow metering which do not have a profile consistent with distributed generation details (EG1, PV1 or HHR) recorded. • ICPs with a profile consistent with generation (EG1 or PV1) which do not have installation type B or G, generation capacity, a generation fuel type and injection flow metering.
Losing trader response to switch request and event dates - standard switch	4.2	Application of the "CO" (contracted customer) AN response code	Investigate when and why the "CO" AN response code is applied in Orion. Update processes as necessary to ensure that AN codes are correctly applied.
Losing trader must provide final information - standard switch	4.3	Manual review and update of CS files	Where CS files are updated to include AMI readings received after the file is generated, ensure that the last actual read date field is also updated to reflect the last actual reading during Pioneer's period of supply.
Gaining trader changes to switch meter reading - switch move	4.11	Agreed switch readings	Update processes to ensure that when processing billing corrections after switch completion, the agreed switch reading is recorded in Orion with a read type consistent with the CS information.
Historical estimate process	12.11	Requirements to complete material change audits	<p>When making changes to systems and/or processes, consider whether a material change audit is required. If in doubt, the Authority should be consulted.</p> <p>Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a "material" change to any certified facilities, processes, or procedures then the changes must be subject to an audit prior to the change taking place.</p>

ISSUES

Subject	Section	Description	Issue
		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

Current code exemptions were reviewed on the Electricity Authority website.

Audit commentary

There are no exemptions in place that are relevant to the scope of this audit.

1.2. Structure of Organisation

Pioneer provided a copy of their structure:



1.3. Persons involved in this audit

Auditor:

Tara Gannon

Veritek Limited

Electricity Authority Approved Auditor

Pioneer personnel assisting with this audit:

Name	Title
Glenda Bonham	Retail Customer Service Team Leader
Jennifer McGregor	Customer Services and Billing Analyst
Shelley Dodds	Customer Service and Billing Analyst

EMS personnel assisting with this audit:

Name	Title
Sunny Feng	Data Analyst

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

- *remains responsible for the contractor's fulfilment of the participant's Code obligations*
- *cannot assert that it is not responsible or liable for the obligation due to something the agent has or has not done.*

Audit observation

Use of agents was discussed with Pioneer.

Audit commentary

Pioneer uses Wells to conduct NHH manual data collection, AMS to conduct HHR data collection and EMS to conduct HHR reconciliation. The agent audits were completed within seven months of this audit being undertaken.

AMS (for Arc, AMS and Smartco meters), Intellihub (for Metrix and AMS meters), and FCLM provide data as MEPs and are subject to a separate audit regime.

All other functions are conducted in-house.

1.5. Hardware and Software

Pioneer uses the Orion system for functions included in the scope of the audit. Access to Orion is restricted using logins and passwords. Orion is backed up to Acronis cloud servers 3 times per day.

Agent systems are discussed in their agent audit reports.

1.6. Breaches or Breach Allegations

The EA confirmed that one alleged breach occurred during the audit period:

Breach no	Breach of	Description	Outcome
2001PION1	Part 15 clause 15.2	<p>Pioneer failed to submit accurate data to the reconciliation manager on 18 December 2019 in breach of Part 15.4(2) of the Code. The washup submission information for September 2019 revision 3 for HWB0332 was incorrect due to a typing error when processing a correction.</p> <p>Pioneer raised a volume dispute for this reconciliation period, which was not accepted due to timing. Revised data was provided for September 2019 revision 7.</p> <p>Processes have been updated to check any manual corrections, and large variances between revisions to prevent recurrence.</p>	Early closure

1.7. ICP Data

All active ICPs are summarised by metering category in the table below. All 19 active ICPs with a metering category of 9 or blank have unmetered load recorded.

Metering Category	(20/08/20)	(29/11/19)	(07/03/2019)	(22/03/18)	(25/05/17)	(11/01/17)
1	1,283	1,266	1,664	1,143	1,205	1,664
2	153	177	240	285	298	240
3	62	69	98	124	117	98
4	27	41	49	56	46	49
5	11	11	10	11	17	10
9	9	9	11	6	10	11
Blank	10	16	-	-	-	-

All ICPs on the list file are summarised on the table below.

Status	Number of ICPs (20/08/20)	Number of ICPs (29/11/19)	Number of ICPs (07/03/19)	Number of ICPs (22/03/18)	Number of ICPs (25/05/17)
Active (2,0)	1,555	1,589	1,906	1,349	1,428
Inactive – new connection in progress (1,12)	4	9	15	1	-
Inactive – electrically disconnected vacant property (1,4)	18	15	19	10	5
Inactive – electrically disconnected remotely by AMI meter (1,7)	2	2	1	1	0
Inactive – electrically disconnected at pole fuse (1,8)	3	2	2	2	2
Inactive – electrically disconnected due to meter disconnected (1,9)	1	1	1	1	1
Inactive – electrically disconnected at meter box fuse (1,10)	-	-	-	-	-
Inactive – electrically disconnected at meter box switch (1,11)	-	-	1	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	5	6	6	7	2
Inactive – reconciled elsewhere (1,5)	-	91	159	258	270
Decommissioned (3)	77	52	5	0	5

1.8. Authorisation Received

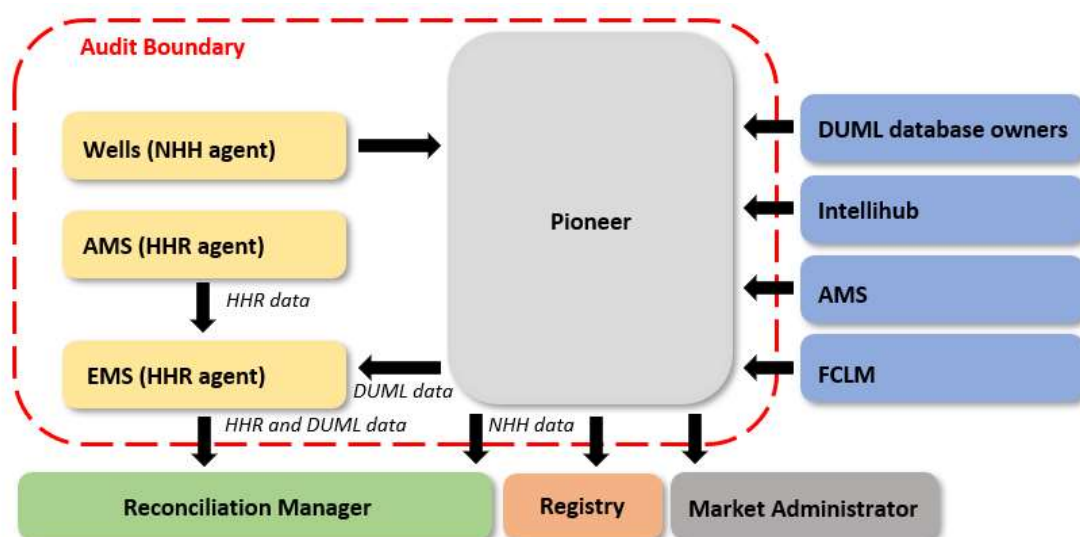
Pioneer provided a letter of authorisation.

1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Pioneer, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1.

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.2, at Pioneer's premises in Alexandra on 15 October 2020, and remotely using Zoom meetings on 28 October 2020.

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



Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing Data
(a) - Maintaining registry information and performing customer and embedded generator switching		
(b) – Gathering and storing raw meter data	Wells – NHH EMS – HHR AMS – HHR	AMS (for Arc, AMS and Smartco) Intellihub (for Intellihub and Metrix) FCLM
(c)(iii) - Creation and management of volume information	EMS – HHR and DUML	
(d) (i) – Calculation of ICP days	EMS – HHR	
(d)(ii) - delivery of electricity supplied information under clause 15.7		
(d)(iii) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8	EMS – HHR	
(e) – Provision of submission information for reconciliation	EMS – HHR	
(f) - Provision of metering information to the Grid Owner	EMS	

Pioneer uses Wells to conduct NHH manual data collection, AMS to conduct HHR data collection and EMS to conduct HHR reconciliation. The agent audits were completed within seven months of this audit being undertaken.

AMS (for Arc, AMS and Smartco meters), Intellihub (for Metrix and AMS meters), and FCLM provide data as MEPs and are subject to a separate audit regime.

1.10. Summary of previous audit

Pioneer's previous audit was conducted in January 2020 by Tara Gannon of Veritek Limited. The summary tables below show the statuses of the non-compliances, recommendations and issues raised in the previous audit. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-compliance	Status
Relevant information	2.1	15.2	<p>The registry validation is not sufficient to identify all discrepancies between Orion and the registry, including discrepancies which could impact on the accuracy of reconciliation submissions.</p> <p>Nine ICPs had incorrect statuses or status event dates recorded on the registry.</p> <p>Three ICPs had incorrect profiles recorded on the registry, but correct profiles were applied for submission.</p> <p>Two ICPs had incorrect unmetered load recorded in Orion.</p> <p>Two trader updates had incorrect event dates applied.</p>	Still existing
Electrical Connection of Point of Connection	2.11	10.33A	<p>Three metered ICPs did not have meter certification provided within five business days of the change to active status.</p> <p>One new ICP was allegedly livened by Pioneer without WEL Network's approval. An alleged breach has been raised by WEL Networks (1910PION3) and is currently being investigated.</p>	Still existing
Changes to registry information	3.3	10 Schedule 11.1	<p>57 late status updates to active.</p> <p>Seven late status updates to inactive</p> <p>Seven late trader updates.</p> <p>One late ANZSIC code update.</p>	Still existing
Provision of information to the registry manager	3.5	9 Schedule 11.1	<p>Eight late status updates to active for new connections.</p> <p>ICPs 0000508872CE7F4, 0000509962CE5FD and 0000509722CE153 have incorrect new connection active status event dates applied.</p>	Still existing
ANZSIC codes	3.6	9 (1(k) of Schedule 11.1	<p>Incorrect ANZSIC codes were applied for six ICPs; and were corrected during the audit.</p>	Still existing

Subject	Section	Clause	Non-compliance	Status
Changes to unmetered load	3.7	9(1)(f) of Schedule 11.1	Incorrect unmetered load is recorded in Orion for 0000794436NV646, 0000075272CE0B4, and 0000479017CEA33.	Cleared
Management of “active” status	3.8	17 Schedule 11.1	ICPs 0000406213WPA35 and 0000007765TED75 have incorrect reconnection status event dates applied. ICPs 0000508872CE7F4, 0000509962CE5FD and 0000509722CE153 have incorrect new connection active status event dates applied.	Still existing
Management of “inactive” status	3.9	19 Schedule 11.1	ICP 0000003526CE9CD has an incorrect disconnection date applied. Three ICPs incorrectly had “inactive reconciled elsewhere” status recorded on the registry and were corrected during the audit.	Still existing
Inform registry of switch request for ICPs - standard switch	4.1	2 Schedule 11.3	Transfer switches were requested for ICPs 0000021975CEB84, 0000508488CE97E, and 0004557770TC6E7 when the customer had confirmed that they were moving into the address.	Still existing
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	The “CO” AN response code was incorrectly applied for 0000001636DED38 and 0000492001CE38C. The “OC” AN response code was incorrectly applied for 0000030576DEC12.	Still existing
Losing trader must provide final information - standard switch	4.3	5 Schedule 11.3	At least 12 CS average daily consumption values were not consistent with the average consumption for the last read to read period in transfer CS files, because the Orion EDC is applied instead of consumption for the last read to read period. Eight transfer CS files contained some incorrect read, read type and/or last actual read information.	Still existing
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	For ICP 0000001074ED314 an incorrect read type was applied in Orion. Estimate was used instead of actual. For ICPs 0000483126CE356 and 0000500468CEEC4. RR files issued by other traders were invalidly rejected. This occurred because the read in the original CS file had been amended and did not match Orion. For ICPs 0000508237CE214 and 0000509672CE05F Orion did not reflect the outcome of the RR process.	Cleared
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	One late MI CS file.	Still existing

Subject	Section	Clause	Non-compliance	Status
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	At least ten CS average daily consumption values were not consistent with the average consumption for the last read to read period in transfer CS files, because the Orion EDC is applied instead of consumption for the last read to read period. Three CS files contained some incorrect read, read type and/or last actual read information. 31 switch move CS files did not have CSMETERCHANNEL, CSMETERCOMP and CSMETERINSTALL lines supplied.	Still existing
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	The RRs for ICPs 0110135020AP9D1 and 0000504770CE3FE used unvalidated customer reads as supporting readings, and a RR read type of "A" was incorrectly applied because a customer reading was received on the switch event date. ICP 0000491652CE3A2 did not have the agreed switch reading applied in Orion, because the difference was less than 50 kWh and Pioneer elected to use their own AMI read without informing the losing trader.	Still existing
Losing trader provision of information - gaining trader switch	4.13	15 Schedule 11.3	One late HH AN file. Three HH AN files had an incorrect AN response code applied.	Cleared
Gaining trader to advise the registry manager - gaining trader switch	4.14	16 Schedule 11.3	One late HH CS file.	Still existing
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	The NW for ICP 0000650410WPE9F was rejected in error.	Cleared
Metering information	4.16	21 Schedule 11.3	For seven CS files issued by Pioneer, switch event reads did not reflect the actual reading or best estimate of an actual reading on the event date.	Still existing
Distributed unmetered load	5.4	11 Schedule 15.3, Clause 15.37B	The Grey and Gore DC DUMML databases are not accurate.	Still existing
Electricity conveyed & notification by embedded generators	6.1	10.13 and 15.13	Load for ICP 1002050361LC60D is determined by subtraction. ICPs 0000033279CE035, 0000101696DE14B, and 0000500005CE26E have submission against the RPS and PV1 profiles, but only RPS profile is recorded on the registry.	Still existing

Subject	Section	Clause	Non-compliance	Status
Derivation of meter readings	6.6	3(1), 3(2) and 5 Schedule 15.2	Photo readings are consistently entered as actual readings, including where they are not validated against a set of actual readings from another source. An unvalidated customer reading was entered with an actual read type for ICP 0000489139CE865 on 30/10/19.	Cleared
NHH meter reading application	6.7	6 Schedule 15.2	Some switch event readings did not relate to 11.59pm on Pioneer's last day of responsibility. NHH meter readings applied to the end of the day before the meter change for NHH to HHR changes.	Still existing
NHH meters interrogated annually	6.9	8(1) and (2) Schedule 15.2	The meter reading frequency report contains some incorrect information. The 4-month values include ICPs which have been unread for three months or more as unread 12-month values include ICPs which have been unread for four months or more. There was only one genuine ICP which was unread for 12 months or more.	Cleared
NHH meters 90% read rate	6.10	9(1) and (2) Schedule 15.2	ICP 0000044886WEB7A was unread for more than four months and was connected to an NSP where compliance with Clause 9(1) Schedule 15.2 was not achieved, and the best endeavours requirement was not met.	Still existing
Identification of readings	9.1	3(3) Schedule 15.2	For eight RR and CS files issued by Pioneer, switch event reads were recorded with an incorrect read type. Photo readings are consistently entered as actual readings, including where they are not validated against a set of actual readings from another source. An unvalidated customer reading was entered with an actual read type for ICP 0000489139CE865 on 30/10/19.	Cleared
Calculation of ICP days	11.2	15.7	The AV110 report excludes ICPs from revision submissions for periods where they were active if the ICP's current status is decommissioned.	Still existing
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates file does not contain electricity supplied information. An incorrect version of the volumes file was submitted for the September 2019 initial submission. Corrected data was washed up for revision 1.	Still existing
Creation of submission information	12.2	15.4	Breach 1910PION1 recorded that some reconciliation submission information was provided five minutes late.	Cleared

Subject	Section	Clause	Non-compliance	Status
Accuracy of submission information	12.7	15.12	<p>Breach 1910PION1 recorded that some reconciliation submission information was provided five minutes late.</p> <p>Seasonal adjusted shape value files produced by the RM after r1 are not used.</p> <p>Incorrect unmetered load submissions were provided for two ICPs.</p> <p>The agreed switch readings were not used to produce submission data for three ICPs.</p> <p>One ICP did not have vacant consumption reported.</p> <p>One unvalidated photo reading was recorded as an actual reading in Orion and used to calculate historic estimate.</p>	Still existing
Permanence of meter readings for reconciliation	12.8	4 Schedule 15.2	Some estimates were not replaced by revision 14.	Still existing
Historical estimate process	12.11	3 Schedule 15.3	Historic estimate is not calculated as expected for submission months where a change of NSP has occurred.	Still existing
Forward estimate process	12.12	6 Schedule 15.3	For at least 13 ICPs on the November 2019 AV080 submission, forward estimate was provided for a period where historic estimate could be calculated.	Still existing
Historical estimate reporting to RM	13.3	10 Schedule 15.3	Historic estimate thresholds were not met for some revisions.	Still existing

Subject	Section	Description	Recommendation	Status
Relevant Information	2.1	Data validation	<p>At least monthly, Orion and registry data should be reconciled. As a minimum this should include all fields which impact on reconciliation submissions:</p> <ul style="list-style-type: none"> • Status • Network • NSP code • Dedicated NSP • Reconciliation type • Profile • Loss category code • Flow direction (which can be cross checked against installation type at ICP level) • Unmetered daily kWh. <p>In addition, the following data should be checked for consistency (preferably monthly):</p>	Investigated during the audit period, and further investigation is to be completed following this audit.

Subject	Section	Description	Recommendation	Status
			<ul style="list-style-type: none"> Pioneer's earliest active date, the distributor's initial electrical connection date and the MEP's meter certification date for newly connected ICPs. ICPs with installation type B or G, generation capacity, a generation fuel type and/or injection flow metering which do not have a profile consistent with distributed generation details (EG1, PV1 or HHR) recorded. ICPs with a profile consistent with generation (EG1 or PV1) which do not have installation type B or G, generation capacity, a generation fuel type and injection flow metering. 	
Changes to unmetered load	3.7	Confirm unmetered load details	Confirm unmetered load and on hours for 0018081024HB16E and 0000794436NV646, so the correct daily unmetered kWh can be calculated. Update the Orion and registry daily unmetered kWh as necessary.	Adopted, and the issue is cleared.
ICPs at new or ready status for 24 months	3.10	ICPs with incorrect proposed trader recorded	Advise Aurora Energy Limited (DUNE) of the correct proposed trader for ICPs 0000506120CEE80, 0000506122CEE35 and 0000506123CE270.	Adopted. The affected ICPs have now been decommissioned or have the correct proposed trader recorded on the registry.
Losing trader must provide final information - switch move	4.10	Switch move CS files with missing lines	Investigate to determine why CSMETERCHANNEL, CSMETERCOMP and CSMETERINSTALL lines were missing for 31 switch moves.	Investigation is complete, but the issue is still present.
Unmetered threshold	5.2	Unmetered load over 3,000 kWh per annum	Determine the wattage and type of unmetered load connected to ICP 0000075272CE0B4 and whether it is predictable and of a type approved by the Authority. If the load is not an approved type, it is required to be metered.	Adopted, and the issue is cleared.
Derivation of meter readings	6.6	Review of meter condition information provided by Wells	Review all meter condition information provided by Wells and investigate and resolve any issues identified.	Adopted.

Subject	Section	Description	Recommendation	Status
Derivation of meter readings	6.6	Treatment of customer and photo readings	Treat customer and photo readings as actual readings only if they have been validated against a set of readings from another source. Unvalidated customer and customer photo readings should be entered with the "customer" read type.	Adopted.
Correction of NHH meter readings	8.1	Bridged meter corrections	Develop a correction process to add unmetered bridged consumption to reconciliation submissions where the bridged meter is not replaced.	Adopted.
HHR aggregates information provision to the reconciliation manager	11.4	HHR submission review	Reconcile the HHR aggregates and volumes information, prior to completing the rest of the HHR submission review. Only very small rounding differences are expected. Refer any discrepancies to EMS.	Adopted.
Allocation of submission information	12.3	Zeroing process for AV080 submissions	Develop a process to identify instances where an AV080 aggregation line is present in a submission and not included in a later revision. Where this occurs insert an extra line into the AV080 report with the missing aggregation line values and zero total and historic estimate, to replace the previous record in the reconciliation manager's database.	Adopted.

2. OPERATIONAL INFRASTRUCTURE

2.1. Relevant information (Clause 10.6, 11.2, 15.2)

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide is:

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

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

Audit observation

The process to find and correct incorrect information was examined. The registry list file as at 20/08/20 and AC020 trader compliance report for 01/01/20 to 20/08/20 were examined to confirm that information was correct and not misleading. The registry validation process was examined in detail in relation to the achievement of this requirement.

Audit commentary

Registry and static data accuracy

Status and trader updates are completed manually using the registry web interface, and data is updated in Orion at the same time. As part of this process, the user checks that the registry update is successful, and that the data recorded in Orion's history and on the registry matches.

Registry acknowledgement and notification files are reviewed manually and acted upon.

Notification files are also imported into Orion. Where a field maintained by the distributor which is recorded in Orion changes, such as the NSP, dedicated NSP, reconciliation type or loss factor, Orion's history is automatically updated from the event date. Some distributor fields, such as installation type, generation details and distributor unmetered load are not recorded in Orion, and changes to this information is identified through the manual review of the notification files.

Some data validation is in place:

- when information is added or updated, it is validated at the time of processing,
- as part of the pre reconciliation submission checks, Pioneer checks that all active ICPs are included in reconciliation submissions, and
- trader unmetered load details are reconciled to distributor unmetered load details annually, to identify any changes or discrepancies.

A recommendation was raised in the previous audit to complete regular database wide reconciliations between Orion and the registry. Pioneer investigated this during the audit period and found Orion did not contain a report which could be used for this purpose. Following discussion during this audit, Pioneer intends to investigate further to determine whether any of the existing Orion reports can be modified so that regular reconciliations against a registry list can be completed.

Description	Recommendation	Audited party comment	Remedial action
Data validation	<p>At least monthly, Orion and registry data should be reconciled. As a minimum this should include all fields which impact on reconciliation submissions:</p> <ul style="list-style-type: none"> • Status • Network • NSP code • Dedicated NSP • Reconciliation type • Profile • Loss category code • Flow direction (which can be cross checked against installation type at ICP level) • Unmetered daily kWh. <p>In addition, the following data should be checked for consistency (preferably monthly):</p> <ul style="list-style-type: none"> • Pioneer's earliest active date, the distributor's initial electrical connection date and the MEP's meter certification date for newly connected ICPs. • ICPs with installation type B or G, generation capacity, a generation fuel type and/or injection flow metering which do not have a profile consistent with distributed generation details (EG1, PV1 or HHR) recorded. • ICPs with a profile consistent with generation (EG1 or PV1) which do not have installation type B or G, generation capacity, a generation fuel type and injection flow metering. 	New report approved to go ahead and is getting developed by our IT Orion provider Agility (#PGL-984). This will give us the ability to complete a reconciliation between Orion and the Registry. Once the report is rolled out this task will be completed on a monthly basis.	Identified

The analysis of the list file and AC020 returned the following findings:

Item No.	Issue	Aug 2020	Nov 2019	Mar 2019	Comments
1	Status or status date mismatch between registry and Pioneer	4	9	-	<p>Status event dates are applied manually on the registry. I identified four ICPs with incorrect status event dates recorded on the registry:</p> <ul style="list-style-type: none"> • ICP 0000814358WP62F had an incorrect active status date; and was corrected during the audit. See section 3.8. • ICP 1002080190LCC09 has active status recorded from 09/06/20 but was not active until 25/06/20. See section 3.8.

Item No.	Issue	Aug 2020	Nov 2019	Mar 2019	Comments
					<ul style="list-style-type: none"> ICP 0000007765TED75 has active status recorded from 06/09/19 but was active from 05/09/19. See section 3.8. ICP 0000033661DEA96 has an incorrect disconnection date applied but cannot be easily corrected because the ICP is now decommissioned. See section 3.9.
2	Active ICPs with blank MEP and no MEP nominated and UML = N		-	1	Compliant.
3	Incorrect submission flag	-	-	-	Compliant.
4	Active with blank ANZSIC codes	-	-	-	Compliant.
5	Active with ANZSIC "T999" not stated	-	-	-	Compliant.
6	Active with ANZSIC "T994" don't know	-	-	-	Compliant.
7	Active ICP with cat 9 and UML= N	-	-	-	Compliant.
8	ICPs with Distributor unmetered load populated but retail unmetered load is blank	-	-	-	Compliant.
9	ICPs with unmetered load flag Y but load is recorded as zero	6	5	-	These are all DUML ICPs. See section 3.7 .
10	ICPs with incorrect shared unmetered load	-	-	-	Compliant for shared unmetered load. All exceptions for standard unmetered load were identified and corrected through Pioneer's validation processes prior to the audit. See section 3.7 .
11	ICPs with Distributed Generation indicated but no DG profile	4	3	2	All of the ICPs were confirmed to have distributed generation, and metered injection volumes were submitted against the PV1 profile for reconciliation. The profile is incorrectly recorded as RPS only on the registry, and was updated during the audit. See section 6.1 .
12	ICP at status "new connection in progress" (1,12) or "ready" (0,0) with an initial energisation date	1	1	-	Compliant, this was a timing difference. See sections 3.5 and 3.8 .

Item No.	Issue	Aug 2020	Nov 2019	Mar 2019	Comments
	populated by the Distributor				
13	Active date variance with initial electrical connection date	16	10	-	All 16 discrepancies were checked. Eight active status dates were confirmed to be correct, and seven were timing differences and the records were updated prior to the audit. ICP 0000814358WP62F had an incorrect active status date; and was corrected during the audit. See section 3.8 .
15	Meter cat 3 or known commercial site with residential ANZSIC code	-	-	1	Compliant.

ICP 1002080192LCC8C had an incorrect trader event date applied due to confusion about the correct connection date. The date was corrected during the audit.

Read and volume data accuracy

Read and volume accuracy issues are identified in the validation processes described in detail in **sections 9.5 and 9.6**. I checked a sample of NHH corrections as described in the table below:

Defective meters	<p>Faulty meter corrections are processed by either updating the removal read to an estimated closing read to include any missing consumption or adding a manual amendment for reconciliation submissions.</p> <p>No defective or faulty meters were identified during the audit period.</p> <p>The previous audit found ICP 0000033279CE035 had a faulty meter, and a closing reading which was lower than previous estimates was provided by the MEP. Further analysis following the audit confirmed that the closing reading appeared accurate, and no corrections were required.</p>
Bridged meters	<p>Where a meter is bridged, it will not record consumption during the bridged period and a correction for missing consumption is required on unbridging. Pioneer has a bridged meter correction process:</p> <ul style="list-style-type: none"> Where the meter is replaced, the meter will be removed on an estimated closing read which is equal to the removal read + unmetered consumption during the bridged period. Where the meter is not replaced, a line will be manually added to the submission information containing consumption for the bridged period. <p>No bridged meters were identified during the audit period.</p>
Consumption while inactive	<p>Inactive ICPs with consumption are identified through the NHH read validation process discussed in section 9.5. Where inactive consumption is identified, the ICP will be moved to active status.</p> <p>No inactive ICPs with consumption were identified during the audit period. This appears reasonable because Pioneer currently only has 28 inactive ICPs excluding ICPs at “inactive new connection in progress” status.</p>

Incorrect multipliers	No incorrect multipliers were identified during the audit period, and there have been no multiplier corrections. Multipliers are stored on the meters tab in Orion, and any corrections to this field will flow through to all reconciliation submissions for the affected meter.
Unmetered load corrections	<p>The daily unmetered kWh for unmetered load is recorded on the meters tab in Orion. This value is multiplied by the number of active days in the reconciliation period and included in reconciliation submissions. Any changes to the daily unmetered kWh apply to all submissions for the meter including revisions. If unmetered load is to change from a certain date, a meter change is processed in Orion.</p> <p>The previous audit identified four ICPs with incorrect unmetered daily kWh recorded in Orion and/or the registry, and I confirmed corrections were processed for all the affected ICPs.</p>

One alleged breach was recorded in relation to submission data accuracy.

Breach no	Breach of	Description	Outcome
2001PION1	Part 15 clause 15.2	<p>Pioneer failed to submit accurate data to the reconciliation manager on 18 December 2019 in breach of Part 15.4(2) of the Code. The washup submission information for September 2019 revision 3 for HWB0332 was incorrect due to a typing error when processing a correction.</p> <p>Pioneer raised a volume dispute for this reconciliation period, which was not accepted due to timing. Revised data was provided for September 2019 revision 7.</p> <p>Processes have been updated to check any manual corrections, and large variances between revisions to prevent recurrence.</p>	Early closure

Exceptions from the January 2020 audit

ICP data discrepancies identified during the January 2020 audit were re-checked and found to be corrected, except where the ICP had switched or been decommissioned before the record could be corrected.

The following reading data discrepancies identified during the January 2020 audit had not been resolved by the time this audit was completed. Pioneer intends to process corrections by revision 14:

ICP	Orion reading differs from agreed switch reading	kWh difference	Report section
0000001074ED314 19/07/19	Orion read type differs from agreed switch reading	-	4.4
0000483126CE356 01/11/19	Orion reading differs from agreed switch reading	39	4.4
0000500468CEEC4 01/11/19	Orion reading differs from agreed switch reading	16	4.4
0000508237CE214 04/11/19	Orion reading differs from agreed switch reading	99	4.4
0000509672CE05F 04/11/19	Orion reading differs from agreed switch reading	-73	4.4
0000491652CE3A2 31/08/19	The difference between the CS reading and AMI readings was less than 50 kWh and Pioneer elected to use their own reading as the gaining	<50 kWh	4.11

ICP	Orion reading differs from agreed switch reading	kWh difference	Report section
	trader. No corrections have been processed, and no further action has been taken.		

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 2.1</p> <p>With: Clause 10.6, 11.2, 15.2</p> <p>From: 01-Jan-20</p> <p>To: 28-Oct-20</p>	<p>The registry validation is not sufficient to identify all discrepancies between Orion and the registry, including discrepancies which could impact the accuracy of reconciliation submissions.</p> <p>Four ICPs had incorrect status event dates recorded on the registry. One was corrected during the audit.</p> <p>Four ICPs had incorrect profiles recorded on the registry, but correct profiles were applied for submission.</p> <p>One trader update had an incorrect event date applied and was corrected during the audit.</p> <p>Six ICPs have some incorrect reading information, which Pioneer intends to update prior to r14.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate as they are sufficient to ensure that data is recorded correctly most of the time. The current validation processes are focussed on data which had changed.</p> <p>The impact on submission is minimal and will wash out when the records are corrected.</p> <ul style="list-style-type: none"> For the event date discrepancies, a small number of exceptions were identified and the difference between the applied dates and correct dates was small. The impact of the trader event date update is low. Corrected submission information will be provided through the revision process. 		
Actions taken to resolve the issue		Completion date	Remedial action status
Corrected submission information will be checked and updated through the revision process		01.11.2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
New report is getting developed by our IT Orion provider Agility (#PGL-984). This will give us the ability to complete a reconciliation between Orion and the Registry on a monthly basis.	01.03.2021	
Until this report is in place we will complete checks using the LIS file on a monthly basis to ensure we are reconciled between Orion and the Registry for fields that are mentioned in Section 2.1.	01.11.2020	

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

If an obligation exists to provide information in accordance with Part 15, a participant must deliver that information to the required person within the timeframe specified in the Code, or, in the absence of any such timeframe, within any timeframe notified by the Authority. Such information must be delivered in the format determined from time to time by the Authority.

Audit observation

Processes to provide information were reviewed and observed throughout the audit.

Audit commentary

This area is discussed in several sections in this report. I saw evidence during the audit that discrepancies identified were promptly investigated and updated.

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

Transmissions and transfers of data related to metering information between reconciliation participants or their agents, for the purposes of the Code, must be carried out electronically using systems that ensure the security and integrity of the data transmitted and received.

Audit observation

HHR

HHR data for all HHR settled ICPs is collected by EMS and AMS, and data transmission was reviewed as part of their agent audits.

NHH

Pioneer receives meter readings from AMS (for Arc, AMS and Smartco meters), Intellihub (for Metrix and AMS meters), and FCLM as MEPs, and Wells as an agent.

I reviewed the method to receive meter reading data from each MEP and agent. I traced a diverse sample of readings for 13 ICPs from the source files to Orion, including at least two ICPs for each data provider.

Generation

Pioneer has operated the Aniwhenua Hydro Power Station since ownership of the station changed from Nova Energy to Southern Generation Limited Partnership on 29/07/16. ANI0331BOPDNP is connected to MAT1101BOPDGN, and there is an indirect connection to EDG0331HEDLGN. Pulse Energy is currently listed as the reconciliation participant on the NSP table.

The Authority investigated which parties were responsible for ANI0331BOPDNP in 2019 and found that Pioneer is responsible for collection of generation data and provision of that information to the grid owner daily under clauses 13.136 to 13.140. EMS confirmed that they provide this daily information to the grid owner according to their normal procedures, and compliance was assessed during EMS' agent audit.

Audit commentary

HHR

HHR data transmission was reviewed as part of AMS and EMS' agent audits and found to be compliant.

NHH

All data transmissions to Pioneer are via SFTP, which ensures the security and integrity of the data. Upon receipt, reading files are archived to a folder on the network.

Wells readings are imported directly into Orion using the read import interface. AMI readings are imported into the data warehouse. Readings for the scheduled read date are extracted and imported into Orion. Where ICPs with AMI metering switch out, staff check the data warehouse for actual readings and update Orion and the CS file if AMI readings are available.

I traced a sample of readings for 13 NHH ICPs from the source files to Orion, and confirmed that the readings, read dates, and read types were recorded correctly. One Wells reading for ICP 0006635008ALC44 (19/05/20) was imported but made a misread because it failed validation based on a previous high reading. A later AMI reading confirmed that the misread was correct. Because end of month readings were loaded in Orion, there was no impact on reconciliation.

Generation

Data transmission was reviewed during EMS' agent audit, and compliance is recorded.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

Each reconciliation participant must ensure that a complete audit trail exists for all data gathering, validation, and processing functions of the reconciliation participant.

The audit trail must include details of information:

- *provided to and received from the registry manager*
- *provided to and received from the reconciliation manager*

- *provided and received from other reconciliation participants and their agents.*

The audit trail must cover all archived data in accordance with clause 18.

The logs of communications and processing activities must form part of the audit trail, including if automated processes are in operation.

Logs must be printed and filed as hard copy or maintained as data files in a secure form, along with other archived information.

The logs must include (at a minimum) the following:

- *an activity identifier (clause 21(4)(a))*
- *the date and time of the activity (clause 21(4)(b))*
- *the operator identifier for the person who performed the activity (clause 21(4)(c)).*

Audit observation

For NHH data, I viewed audit trails in Orion for a small sample of events.

For HHR and generation data, the agent audit reports were reviewed.

Audit commentary

Orion audit trails include the activity identifier, date and time, and an operator identifier.

Compliance is recorded in the EMS and AMS audit reports.

Audit outcome

Compliant

2.5. Retailer responsibility for electricity conveyed - participant obligations (Clause 10.4)

Code reference

Clause 10.4

Code related audit information

If a participant must obtain a consumer's consent, approval, or authorisation, the participant must ensure it:

- *extends to the full term of the arrangement*
- *covers any participants who may need to rely on that consent.*

Audit observation

I reviewed Pioneer's standard terms and conditions for the supply of energy.

Audit commentary

Pioneer's standard terms and conditions with their customers includes consent to access for authorised parties for the duration of the contract.

Audit outcome

Compliant

2.6. Retailer responsibility for electricity conveyed - access to metering installations (Clause 10.7(2),(4),(5) and (6))

Code reference

Clause 10.7(2),(4),(5) and (6)

Code related audit information

The responsible reconciliation participant must, if requested, arrange access for the metering installation to the following parties:

- *the Authority*
- *an ATH*
- *an auditor*
- *an MEP*
- *a gaining metering equipment provider.*

The trader must use its best endeavours to provide access:

- *in accordance with any agreements in place*
- *in a manner and timeframe which is appropriate in the circumstances.*

If the trader has a consumer, the trader must obtain authorisation from the customer for access to the metering installation, otherwise it must arrange access to the metering installation.

The reconciliation participant must provide any necessary facilities, codes, keys or other means to enable the party to obtain access to the metering installation by the most practicable means.

Audit observation

I reviewed Pioneer's standard terms and conditions for the supply of energy; and discussed compliance with these clauses.

Audit commentary

Pioneer's current terms and conditions with their customers includes consent to access for authorised parties for the duration of the contract. Pioneer confirmed that there have been no instances where access could not be arranged for other parties during the audit period.

Audit outcome

Compliant

2.7. Physical location of metering installations (Clause 10.35(1)&(2))

Code reference

Clause 10.35(1)&(2)

Code related audit information

A reconciliation participant responsible for ensuring there is a category 1 metering installation or category 2 metering installation must ensure that the metering installation is located as physically close to a point of connection as practical in the circumstances.

A reconciliation participant responsible for ensuring there is a category 3 or higher metering installation must:

- a) *if practical in the circumstances, ensure that the metering installation is located at a point of connection; or*

- b) *if it is not practical in the circumstances to locate the metering installation at the point of connection, calculate the quantity of electricity conveyed through the point of connection using a loss compensation process approved by the certifying ATH.*

Audit observation

The physical meter location point is not specifically mentioned in Pioneer's terms and conditions, but the existing practices in the electrical industry achieve compliance. The registry list as at 20/08/20 was reviewed.

Audit commentary

Pioneer supplies 100 ICPs with metering category 3 or above, and EMS confirmed that none require error or loss compensation.

Audit outcome

Compliant

2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B)

Code reference

Clause 11.15B

Code related audit information

A trader must at all times ensure that the terms of each contract between a customer and a trader permit:

- *the Authority to assign the rights and obligations of the trader under the contract to another trader if the trader commits an event of default under paragraph (a) or (b) or (f) or (h) of clause 14.41 (clause 11.15B(1)(a)); and*
- *the terms of the assigned contract to be amended on such an assignment to—*
- *the standard terms that the recipient trader would normally have offered to the customer immediately before the event of default occurred (clause 11.15B(1)(b)(i)); or*
- *such other terms that are more advantageous to the customer than the standard terms, as the recipient trader and the Authority agree (clause 11.15B(1)(b)(ii); and*
- *the terms of the assigned contract to be amended on such an assignment to include a minimum term in respect of which the customer must pay an amount for cancelling the contract before the expiry of the minimum term (clause 11.15B(1)(c)); and*
- *the trader to provide information about the customer to the Authority and for the Authority to provide the information to another trader if required under Schedule 11.5 (clause 11.15B(1)(d)); and*
- *the trader to assign the rights and obligations of the trader to another trader (clause 11.15B(1)(e)).*

The terms specified in subclause (1) must be expressed to be for the benefit of the Authority for the purposes of the Contracts (Privacy) Act 1982, and not be able to be amended without the consent of the Authority (clause 11.15B(2)).

Audit observation

I reviewed Pioneer's standard terms and conditions for the supply of energy.

Audit commentary

Pioneer's terms and conditions have specific clauses covering this requirement.

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

A reconciliation participant must only request the connection of a point of connection if they:

- *accept responsibility for their obligations in Parts 10, 11 and 15 for the point of connection; and*
- *have an arrangement with an MEP to provide 1 or more metering installations for the point of connection.*

Audit observation

The new connection process was examined in detail to evaluate the strength of controls.

The registry list file as at 20/08/20 and the AC020 report for 01/01/20 to 20/08/20 were analysed to confirm process compliance and that controls are functioning as expected.

Audit commentary

Pioneer's new connection process requires all ICPs to be taken to the "new connection in progress" status in the registry and the MEP is nominated at the same time. Review of a sample of eight new connections confirmed that "new connection in progress" status was applied except where the distributor moved the ICP to "ready" status after the initial electrical connection date.

The design of the new connections process does not allow ICPs to be connected without authorisation by Pioneer, or an arrangement with an MEP.

Trader acceptance for new connections is normally provided on a case by case basis via email. Pioneer is investigating a blanket acceptance agreement with one network which is expected to be implemented next year.

New connections are monitored using a spreadsheet, which tracks progress with the new connections and any actions taken. Progress is checked weekly, and Pioneer follows up with contractors close to the expected livening date if confirmation of connection is not received.

Review of the AC020 report confirmed that all new connections had an MEP nominated, and no ICPs had a blank MEP.

Audit outcome

Compliant

2.10. Temporary Electrical Connection of an ICP (Clause 10.33)

Code reference

Clause 10.33(1)

Code related audit information

A reconciliation participant may temporarily electrically connect a point of connection, or authorise a MEP to temporarily electrically connect a point of connection, only if:

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*

- *for a point of connection that is an ICP, but is not as NSP:*
- *the reconciliation participant is recorded in the registry as the trader responsible for the ICP*
- *if the ICP has metered load, 1 or more certified metering installations are in place*
- *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*

Audit observation

The new connection process was examined in detail.

Audit commentary

Pioneer claims ICPs at 1,12 (“inactive new connection in progress”) status which helps to ensure that the trader is recorded on the registry if an ICP is temporarily electrically connected. No temporary electrical connections were identified.

Audit outcome

Compliant

2.11. Electrical Connection of Point of Connection (Clause 10.33A)

Code reference

Clause 10.33A(1)

Code related audit information

A reconciliation participant may electrically connect or authorise the electrical connection of a point of connection only if:

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
- *the reconciliation participant is recorded in the registry as the trader responsible for the ICP*
- *if the ICP has metered load, 1 or more certified metering installations are in place*
- *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*

Audit observation

The new connection and reconnection processes were examined in detail to evaluate the strength of controls.

The registry list file as at 20/08/20 and the AC020 report for 01/01/20 to 20/08/20 were analysed to confirm process compliance and that controls are functioning as expected.

Audit commentary

MEP information for active ICPs

All ICPs recorded as active with metering installed have an MEP recorded.

Certification on connection

Active ICPs are required to have full metering certification recorded within five business days of the date they become “active”.

Review of the AC020 audit compliance report found:

- two late certifications for new connections of metered ICPs, and

- 15 late certifications for ICPs which moved from “inactive” to “active” status.

New ICP 1002080190LCC09 was certified late due to paperwork issues, where several ICPs were connected at one address and there was initially some confusion as to which meter belonged with which ICP. New ICP 0000509722CE153's certification was delayed by a transformer issue.

The late recertifications for reconnections were updates from 1,5 (inactive reconciled elsewhere) status to 2,0 (active) status for former embedded network ICPs. Pioneer had not noticed that the meter certifications had expired at the time of reconnection and have contacted the MEPs to arrange recertification.

Certification on unbridging

No bridged meters were identified during the audit period.

Network approval for connection

The previous audit recorded a breach for connection of an ICP prior to the network being notified.

Breach no	Breach of	Description
1910PION3	Part 10 clause 10.33A (1) (a) (iii)	Pioneer allegedly connected a rest home village to WEL's network without notification.

An investigation was completed during the audit period. The breach was not referred to the ruling panel because Pioneer had not requested the work and had no knowledge of it being carried out. A warning letter was issued to Pioneer in relation to accuracy of documentation and oversight of contractors, and Pioneer agreed to adopt the recommendations.

No new non-compliances were identified in relation to approval of network connections.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 2.11</p> <p>With: Clause 10.33A</p> <p>From: 21-Oct-19</p> <p>To: 01-Jul-20</p>	<p>17 metered ICPs did not have meter certification provided within five business days of the change to active status.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Once</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>
Audit risk rating	Rationale for audit risk rating
Low	<p>Controls are rated as strong, because meter certification is an MEP responsibility and Pioneer sometimes cannot achieve compliance.</p> <p>The impact is assessed to be low because a small number and proportion of meters were not certified within the timeframes. Uncertified metering installations are likely to be less accurate than certified metering installations, so there could be a minor impact on settlement.</p>

Actions taken to resolve the issue	Completion date	Remedial action status
PION sending service requests to the MEP's for recertification of the meters	01.03.2021 for all MEP's to complete work	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
At the switching in process we will complete a check on the ICP to make sure the meter has a current certificate Also PION will complete a second check on a monthly basis which will be from our LIS file for any new switched in ICP's to check on the certification date of the meter/s to make sure this is valid.	01.11.2020	

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

Before providing the registry manager with any information in accordance with clause 11.7(2) or clause 11.18(4), a trader must ensure that it, or its customer, has made any necessary arrangements for the provision of line function services in relation to the relevant ICP

Before providing the registry manager with any information in accordance with clause 11.7(2) or clause 11.18(4), a trader must have entered into an arrangement with an MEP for each metering installation at the ICP.

Audit observation

The process to ensure an arrangement is in place before trading commences on a network was examined.

The registry list for 01/01/20 to 20/08/20 was reviewed to identify all networks Pioneer has traded on during the audit period.

Audit commentary

Pioneer has use of system agreements or arrangements in place with all the networks they trade on and did not begin trading on any new networks during the audit period.

Networks which Pioneer has arrangements with are loaded in Orion. ICPs cannot be loaded if the network they are connected to is not available in Orion.

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

A reconciliation participant must ensure it has an arrangement with the relevant MEP prior to accepting responsibility for an installation.

Audit observation

The process to ensure an arrangement is in place with the metering equipment provider before an ICP can be created or switched in was checked.

The registry list for 01/01/20 to 20/08/20 was reviewed to identify the MEPs for Pioneer ICPs during the audit period.

Audit commentary

Pioneer has arrangements in place with the MEPs for all their ICPs and did not begin using any new MEPs during the audit period.

MEPs which Pioneer has arrangements with are loaded in Orion. ICPs cannot be loaded if the MEP is not available in Orion.

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

The following participants must, before assuming responsibility for certain points of connection on a local network or embedded network, obtain an ICP identifier for the point of connection:

- a) a trader who has agreed to purchase electricity from an embedded generator or sell electricity to a consumer*
- b) an embedded generator who sells electricity directly to the clearing manager*
- c) a direct purchaser connected to a local network or an embedded network*
- d) an embedded network owner in relation to a point of connection on an embedded network that is settled by differencing*
- e) a network owner in relation to a shared unmetered load point of connection to the network owner's network*
- f) a network owner in relation to a point of connection between the network owner's network and an embedded network.*

ICP identifiers must be obtained for points of connection at which any of the following occur:

- a consumer purchases electricity from a trader 11.3(3)(a)*
- a trader purchases electricity from an embedded generator 11.3(3)(b)*
- a direct purchaser purchases electricity from the clearing manager 11.3(3)(c)*
- an embedded generator sells electricity directly to the clearing manager 11.3(3)(d)*
- a network is settled by differencing 11.3(3)(e)*
- there is a distributor status ICP on the parent network point of connection of an embedded network or at the point of connection of shared unmetered load. 11.3(3)(f)*

Audit observation

The new connection process was examined in detail to confirm compliance with the requirement to obtain ICP identifiers for points of connection to local or embedded networks.

Audit commentary

This requirement is well understood and managed by Pioneer. The new connection process is detailed in **section 2.9**.

Audit outcome

Compliant

3.2. Providing registry information (Clause 11.7(2))

Code reference

Clause 11.7(2)

Code related audit information

Each trader must provide information to the registry manager about each ICP at which it trades electricity in accordance with Schedule 11.1.

Audit observation

The new connection, MEP nomination, and switching processes were examined in detail.

The registry list file as at 20/08/20 and the AC020 report for 01/01/20 to 20/08/20 were analysed to confirm process compliance and that controls are functioning as expected.

This clause links directly to **sections 3.3** and **3.5** below, where findings on the timeliness of updates are recorded.

Audit commentary

The new connection process is detailed in **sections 2.9** and **3.5**. The process in place ensures that trader information is populated as required by this clause.

Audit outcome

Compliant

3.3. Changes to registry information (Clause 10 Schedule 11.1)

Code reference

Clause 10 Schedule 11.1

Code related audit information

If information provided by a trader to the registry manager about an ICP changes, the trader must provide written notice to the registry manager of the change no later than five business days after the change.

Audit observation

The process to manage status changes is discussed in detail in **sections 3.8** and **3.9** below. The process to manage trader updates, including MEP nominations was reviewed.

The AC020 trader compliance report for 01/01/20 to 20/08/20 was reviewed. A sample of late updates were checked, including:

- all 49 late active status updates,
- all four late inactive status updates, and
- ten late trader updates.

Audit commentary

The AC020 trader compliance report was reviewed to determine the timeliness of registry updates.

Status updates

Status updates are completed manually using the registry web interface, and data is updated in Orion at the same time. As part of this process, the user checks that the registry update is successful, and that the data recorded in Orion's history and on the registry matches. The status is only updated once paperwork confirming the correct status and date has been received.

The timeliness of status updates to active (for reconnections) is set out on the table below.

Review period end	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
07/03/19	23	65.7%	Up to 257 business days
29/11/19	8	38.46%	75.54
20/08/20	49	51.00%	9.01

Three of the late updates were within 10 business days of the event date, and 48 were within 16 business days of the event date. The latest update was 132 business days after the event date.

I checked all 49 late updates to active status.

- 45 were updates from 1,5 (inactive reconciled elsewhere) status to 2,0 (active) status for former embedded networks. The backdated status updates were made at the request of the embedded network owner, so that ICPs were able to switch independently. All were processed within 16 business days of the event date.
- ICP 0000007765TED75 had a status update processed in error. It is believed that the user selected the wrong ICP and attempted to exit the registry record but accidentally processed an update to the user reference field. There was no change to the status date or status.
- Two late updates were delayed by up to five business days due to workloads, miscommunications, and staff absences early in the new year, or during COVID-19 lockdown.
- One late update was a reconnection on switch in; and this was delayed by a backdated CS file.

All of the late updates recorded the correct status and event date. I rechecked active status event date discrepancies identified in the previous audit for reconnections, and found 0000406213WPA35 had switched out and was unable to be corrected, and ICP 0000007765TED75 had the correct status recorded for all days in Pioneer's period of supply.

The timeliness of status updates to inactive is set out on the table below.

Review period end	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
07/03/19	54	85.4%	Up to 365 business days
29/11/19	7	84.09%	7.27
20/08/20	4	90.00%	2.15

One of the late updates was within 10 business days of the event date, and three were within 30 business days of the event date. The latest update was 39 business days after the event date.

I checked all four late updates to inactive status, and found they were delayed while Pioneer obtained confirmation of the correct status and date, or there was a delay in processing the update once the required information was confirmed. All of the late updates recorded the correct status and event date.

Trader updates

Trader updates are completed manually using the registry web interface, and data is updated in Orion at the same time. As part of this process, the user checks that the registry update is successful, and that the

data recorded in Orion's history and on the registry matches. Trader information is only updated once the correct values have been confirmed.

MEP nominations are made at the time the service request for a meter change is made. For new connections MEP nominations are made at the time the ICP is claimed at 1,12 ("new connection in progress") status.

The timeliness of trader updates is set out on the table below.

Review period end	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
29/11/19	7	84.44%	2.56
20/08/20	15	58.33%	16.83

Seven of the late updates were within 30 business days of the event date, and 13 were within 60 business days of the event date. The latest update was 169 business days after the event date. The late updates related to corrections to data, MEP nominations, movement from BTS to permanent connections and meter upgrades.

I checked the ten latest updates and found all related to corrections, delays in receiving paperwork to confirm the correct event attributes where metering changes occurred, or backdated MEP nominations made at the MEP's request.

Nine of the late trader updates were accurately processed from the correct event date, but ICP 1002080192LCC8C had an incorrect event date applied due to confusion about the correct connection date.

The AC020 also identified two newly connected ICPs where the ANZSIC code was not populated within 20 business days. Both late updates were caused by late receipt of information confirming the correct ANZSIC code.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 3.3</p> <p>With: Clause 10 Schedule 11.1</p> <p>From: 15-Jan-20 To: 23-Jul-20</p>	<p>49 late status updates to active.</p> <p>Four late status updates to inactive.</p> <p>15 late trader updates.</p> <p>Two late ANZSIC code updates.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate. I found late updates often related to data corrections, which improved overall data accuracy, with a smaller proportion caused by delays in receiving information to confirm the update attributes or delays in processing the updates. Processing delays were mainly isolated to holiday periods and COVID.</p> <p>The risk is low as most updates were completed on time or soon after they were due or related to corrections.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Continue to correct any inaccuracies to make sure data in the registry to correct		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Two staff now checking and backing up data and processes		01.11.2020	

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

A trader becomes responsible for an ICP when the trader is recorded in the registry as being responsible for the ICP.

A trader ceases to be responsible for an ICP if:

- *another trader is recorded in the registry as accepting responsibility for the ICP (clause 11.18(2)(a)); or*
- *the ICP is decommissioned in accordance with clause 20 of Schedule 11.1 (clause 11.18(2)(b)).*
- *if an ICP is to be decommissioned, the trader who is responsible for the ICP must (clause 11.18(3)):*
 - o *arrange for a final interrogation to take place prior to or upon meter removal (clause 11.18(3)(a)); and*
 - o *advise the MEP responsible for the metering installation of the decommissioning (clause 11.18(3)(b)).*

A trader who is responsible for an ICP (excluding UML) must ensure that an MEP is recorded in the registry for that ICP (clause 11.18(4)).

A trader must not trade at an ICP (excluding UML) unless an MEP is recorded in the registry for that ICP (clause 11.18(5)).

Audit observation

Retailers Responsibility to Nominate and Record MEP in the Registry

The registry list file as at 12/08/20 and the AC020 report for 01/01/20 to 20/08/20 were examined to confirm whether all active ICPs have an MEP recorded, and MEP nominations were accepted.

ICP decommissioning

The process for the decommissioning of ICPs was examined. The event detail report 01/01/20 to 20/08/20 was reviewed to identify all ICPs decommissioned during the period. A diverse sample of ten decommissioned ICPs were checked to prove the process, and confirm controls are in place.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

The new connection process is discussed in detail in **sections 2.9 and 3.5**. Pioneer nominates the MEP at the same time as taking the ICP to the “inactive - new connection in progress” status. All new connections have an MEP nominated.

Review of the AC020 report confirmed that all active metered ICPs have an MEP recorded. All 19 active ICPs with a metering category of 9 or blank have unmetered load recorded.

Pioneer identifies and actions rejected MEP nominations through their review of registry notification files. The event detail report recorded 67 MEP nominations which had a corresponding MN record. Two of the MEP nominations were rejected by the MEP in error; and accepted on reissue to the same MEP.

ICP Decommissioning

When an ICP becomes vacant, the customer account is closed, and responsibility for the ICP is transferred to a vacant “occupier” account. When an ICP is disconnected, responsibility for the ICP is transferred to a disconnected “occupier” account. Reads continue to be loaded against these accounts, and any consumption will be detected through Pioneer’s read validation processes.

When an ICP is to be decommissioned, an attempt to read the meter is made at the time of meter removal. If it is not possible to obtain an actual reading on meter removal, the last actual reading (normally the disconnection read) is used. Pioneer also advises the MEP responsible that the site is to be decommissioned, or has been decommissioned, dependent on the distributor’s process. Usually a service request is raised for the network and MEP at the same time.

23 ICPs were decommissioned during the audit period, 22 were dismantled and one was set up in error. I checked a diverse sample of ten ICPs including different networks. I confirmed that Pioneer had met their obligation to attempt to obtain an actual reading and the MEP was notified.

Audit outcome

Compliant

3.5. Provision of information to the registry manager (Clause 9 Schedule 11.1)

Code reference

Clause 9 Schedule 11.1

Code related audit information

Each trader must provide the following information to the registry manager for each ICP for which it is recorded in the registry as having responsibility:

- a) the participant identifier of the trader, as approved by the Authority (clause 9(1)(a))*

- b) the profile code for each profile at that ICP, as approved by the Authority (clause 9(1)(b))
- c) the metering equipment provider for each category 1 metering or higher (clause 9(1)(c))
- d) the type of submission information the trader will provide to the RM for the ICP (clause 9(1)(ea))
- e) if a settlement type of UNM is assigned to that ICP, either:
 - the code ENG if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or
 - in all other cases, the daily average kWh of unmetered load at the ICP (clause 9(1)(f)(ii)).
 - the type and capacity of any unmetered load at each ICP (clause 9(1)(g))
 - the status of the ICP, as defined in clauses 12 to 20 (clause 9(1)(j))
 - except if the ICP exists for the purposes of reconciling an embedded network or the ICP has distributor status, the trader must provide the relevant business classification code applicable to the customer (clause 9(1)(k)).

The trader must provide information specified in (a) to (j) above within five business days of trading (clause 9(2)).

The trader must provide information specified in 9(1)(k) no later than 20 business days of trading (clause 9(3)).

Audit observation

The new connection process was examined in detail. The registry list and event detail reports for 01/01/20 to 20/08/20 were reviewed to determine compliance, and a sample of ten late updates were checked.

Audit commentary

New connection information timeliness

The new connection process is described in detail in **section 2.9**. MEP nomination occurs when the ICP is at 1,12 (“inactive new connection in progress”) status as part of the service request process.

The timeliness of status updates to active (for new connections) is set out on the table below.

Review period end	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
29/11/19	57	32.14%	123.76
20/08/20	15	59.46%	18.35

Five of the late updates were within 10 business days of the event date, and ten were within 30 business days of the event date. The latest update was 225 business days after the event date. 11 of the late updates were corrections to initial electrical connection dates which had initially been populated on time.

I checked the ten latest updates. Three were corrections to active status event dates following the previous audit, and four were delayed by late receipt of connection paperwork or late confirmation of the correct connection details. All of the late updates checked had the correct status and event date applied.

New connection information accuracy

Active dates for new connections were compared to the distributor’s initial electrical connection date and MEP’s certification date using the AC020 report. The AC020 report identified 16 ICPs with date discrepancies:

- eight active status dates were confirmed to be correct,

- seven were timing differences relating to missing initial electrical connection dates, which were updated prior to the audit, and
- ICP 0000814358WP62F had an incorrect active status date and was corrected during the audit.

The AC020 report identified one ICP with an initial electrical connection date populated which had not been made active. The difference related to timing, and the status was updated on the registry by 21/08/20.

I checked the accuracy of a further ten initial electrical connection date updates, and found they were accurately processed from the correct event date apart from ICP 1002080190LCC09 which has active status from 09/06/20 but should be active from 25/06/20. The error occurred because several ICPs were connected at a property on different dates, and there was some confusion on when they were livened.

I rechecked new connection active status event date discrepancies identified in the previous audit and found all were appropriately corrected.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 9 Schedule 11.1 From: 17-Feb-20 To: 28-Oct-20	15 late status updates to active for new connections. ICP 0000814358WP62F had an incorrect active status date; and was corrected during the audit. ICP 1002080190LCC09 has active status recorded from 09/06/20 but was not active until 25/06/20. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate, because they are sufficient to ensure that the registry is updated on time, and that active dates are accurately recorded most of the time. The risk rating is low. The date discrepancies were small. Excluding the corrections following the previous audit the updates were made within 35 business days of the event date. The impact on submission is minimal and will wash out when the records are corrected.		
Actions taken to resolve the issue		Completion date	Remedial action status
Continue to correct any inaccuracies to make sure data in the registry to correct		In Place already So completed	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
New report is getting developed by our IT Orion provider Agility (#PGL-984). This will give us the ability to complete a reconciliation between Orion and the Registry on a monthly basis.	01.03.2020	
Until this report is in place we will complete checks using the LIS file on a monthly basis to ensure we are reconciled between Orion and the Registry for fields that are mentioned in Section 2.1.	01.11.2020	

3.6. ANZSIC codes (Clause 9 (1(k) of Schedule 11.1)

Code reference

Clause 9 (1(k) of Schedule 11.1

Code related audit information

Traders are responsible to populate the relevant ANZSIC code for all ICPs for which they are responsible.

Audit observation

The process to capture and manage ANZSIC codes was examined.

The registry list file as at 20/08/20 and AC020 trader compliance report for 01/01/20 to 20/08/20 were examined to check ANZSIC codes, including active ICPs with T99 series or blank ANZSIC codes.

To confirm the validity of the ANZSIC codes selected, I checked a diverse sample of 40 active ICPs across ten different ANZSIC codes which were assigned to ten ICPs or more.

Audit commentary

ANZSIC codes are checked on switch in, and ANZSIC codes for all ICPs are periodically checked for reasonableness.

The validity of ANZSIC codes was checked using the AC020 report:

- no ICPs had blank or unknown (T99 series) ANZSIC codes,
- no ICPs have meter category three, and
- ICP 1001138197UN779 has meter category two with a valid residential ANZSIC code, because it is an apartment block.

I checked a diverse sample of 40 active ICPs across ten different ANZSIC codes which were assigned to ten ICPs or more. 36 were correct, and four were incorrect. The incorrect codes were corrected during the audit.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 9 (1(k)) of Schedule 11.1 From: 20-Aug-20 To: 16-Oct-20	Incorrect ANZSIC codes were applied for four ICPs; and were corrected during the audit. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	There are preventative controls are in place to ensure that ANZSIC codes are initially recorded accurately, and monitoring controls are periodically used to check and correct ANZSIC codes. Because four (9.8%) of the sample of 41 ICPs individually checked were found to be incorrect, I have rated the controls as moderate. The audit risk rating is low, because this has no direct impact on submission accuracy and the incorrect codes have been corrected.		
Actions taken to resolve the issue		Completion date	Remedial action status
Continue to correct any inaccuracies to make sure data in the registry to correct ANZSIC codes updated during audit		In Place already So completed	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
New report is getting developed by our IT Orion provider Agility (#PGL-984). This will give us the ability to complete a reconciliation between Orion and the Registry on a monthly basis. Until this report is in place we will complete checks using the LIS file on a monthly basis to ensure we are reconciled between Orion and the Registry for fields that are mentioned in Section 2.1		01.03.2020 01.11.2020	

3.7. Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1)

Code reference Clause 9(1)(f) of Schedule 11.1

Clause 9(1)(f) of Schedule 11.1

Code related audit information

if a settlement type of UNM is assigned to that ICP, the trader must populate:

the code ENG - if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or

the daily average kWh of unmetered load at the ICP - in all other cases (clause 9(1)(f)(ii)).

Audit observation

The process to manage unmetered load was examined. The registry list file as at 20/08/20 and AC020 trader compliance report for 1/01/20 to 20/08/20 were examined to identify any ICPs where:

- unmetered load is identified by the Distributor and none is recorded by Pioneer; and
- Pioneer's unmetered load figure does not match with the Distributor's figure (where it is possible to calculate this if the Distributor is using the recommended format) and the variance is greater than 0.1 kWh per day (0.1 kWh per day was chosen as a sample only; this does not indicate compliance is achieved if an error is found that is less than 0.1 kWh per day).

Audit commentary

Changes to unmetered load are identified through Pioneer's review of notification files, a monthly comparison between the daily unmetered kWh recorded in Orion and the registry, and an annual reconciliation between distributor and trader unmetered load details. A quarterly meeting is held to discuss unmetered load and determine whether any details need to be confirmed with customers.

Pioneer supplies 19 ICPs with unmetered load indicated. 13 ICPs have standard unmetered load and six ICPs have distributed unmetered load. No ICPs have shared unmetered load.

Review of the AC020 report found:

- all unmetered ICPs have daily unmetered kWh recorded apart the six DUML ICPs, which have "ENG" in the daily unmetered kWh field, and.
- There were no ICPs where the distributor had unmetered load recorded, but Pioneer did not.

I checked the daily unmetered kWh for the other 11 ICPs:

- eight matched the unmetered load recalculated based on the distributor information within ± 0.1 kWh, or Pioneer had verified the unmetered load and confirmed that their daily unmetered kWh was correct, and
- three ICPs had incorrect daily unmetered kWh recorded, and were corrected in Orion and the registry prior to the audit through Pioneer's validation processes; corrected information will be provided through the revision submission process.

ICP	Original registry value	Original Orion value	Correct value
0000504155WPD30	7 kWh	7.2 kWh	7.2 kWh
0000402126WP501	0.024 kWh	0.024 kWh	0.24 kWh
0018081024HB16E	0.59 kWh	0.59 kWh	0.45 kWh

I followed up exceptions identified in the previous audit and confirmed that the unmetered load had been confirmed and corrections had been processed in Orion and the registry prior to the audit.

Compliance is recorded in this section, because the incorrect information was detected and corrected prior to the audit.

Audit outcome

Compliant

3.8. Management of "active" status (Clause 17 Schedule 11.1)

Code reference

Clause 17 Schedule 11.1

Code related audit information

The ICP status of “active” is managed by the relevant trader and indicates that:

- the associated electrical installations are electrically connected (clause 17(1)(a))
- the trader must provide information related to the ICP in accordance with Part 15, to the reconciliation manager for the purpose of compiling reconciliation information (clause 17(1)(b)).

Before an ICP is given the “active” status, the trader must ensure that:

- the ICP has only one customer, embedded generator, or direct purchaser (clause 17(2)(a))
- the electricity consumed is quantified by a metering installation or a method of calculation approved by the Authority (clause 17(2)(b)).

Audit observation

New connections

The new connection process was examined in detail as discussed in **sections 2.9** and **3.5** above. The registry list file as at 20/08/20 and AC020 trader compliance report for 1/01/20 to 20/08/20 were reviewed to determine compliance.

Reconnections

The ICP reconnection process was examined. The timeliness of data for reconnections is assessed in **section 3.3**, and 49 updates were checked for accuracy.

Audit commentary

Pioneer’s policy is to only allow one active customer per ICP. It is possible to create overlapping customer accounts for an ICP in Orion. Preventative controls and detective controls are in place to prevent this from occurring.

1. An Orion system wizard is used to transfer ICPs between customer accounts, and dates are automatically populated to ensure that there is no overlap between customers.
2. If an error occurred and more than one active account was open for an ICP, Orion’s read validations described in **section 9.5** would create an exception where there was more than one open account for an ICP meter register combination.

Orion requires all ICPs to have an MEP and meter recorded. Unmetered ICPs have a dummy meter with an unmetered daily kWh recorded against it.

New connection information accuracy

Active dates for new connections were compared to the distributor’s initial electrical connection date, and MEP’s certification date using the AC020 report. The AC020 report identified 16 ICPs with date discrepancies:

- eight active status dates were confirmed to be correct,
- ICP 0000814358WP62F had an incorrect active status date; and was corrected during the audit, and
- seven were timing differences relating to missing initial electrical connection dates, which were updated prior to the audit.

The AC020 report identified one ICP with an initial electrical connection date populated which had not been made active. The difference related to timing, and the status was updated on the registry by 21/08/20.

I checked the accuracy of a further ten initial electrical connection date updates, and found they were accurately processed from the correct event date apart from ICP 1002080190LCC09 which has active status from 09/06/20 but should be active from 25/06/20. The error occurred because several ICPs

were connected at a property on different dates, and there was some confusion on when they were livened.

I rechecked new connection active status event date discrepancies identified in the previous audit, and found they were appropriately corrected.

Reconnection information accuracy

A sample of 49 status updates to active were checked, and all had the correct status and status date applied.

I rechecked reconnection active status event date discrepancies identified in the previous audit, and found 0000406213WPA35 had switched out and was unable to be corrected, and ICP 0000007765TED75 has the correct status for all days in Pioneer's period of supply.

Some late status changes to active are recorded as non-compliance in **sections 3.3** and **3.5**.

Status of ICP 0800539060LCBFF

Following creation of the new ICP 1002050361LC60D on 30/09/18, ICP 0800539060LCBFF was not disconnected or decommissioned due to a metering issue. All consumption on ICP 1002050361LC60D is recorded by its metering, but part of the consumption is also recorded on ICP 0800539060LCBFF's metering because of the location of the CTs, resulting in duplication. Pioneer intends to resolve the metering issue as part of a substation upgrade by January 2023, and/or arrange for the old ICP 0800539060LCBFF to be disconnected and decommissioned. In the meantime, to prevent double submission for the duplicated load recorded on ICP 0800539060LCBFF submission data for this ICP is zeroed.

I checked the status of ICP 0800539060LCBFF, which has active status, but submission is usually zeroed and settled under ICP 1002050361LC60D. I found that the status with the best fit was applied; in the event of an outage for ICP 1002050361LC60D, the installation could be supplied from ICP 0800539060LCBFF.

ICP 0800539060LCBFF is discussed further in **section 12.2**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.8 With: Clause 17 Schedule 11.1 From: 17-Feb-20 To: 28-Oct-20	ICP 0000814358WP62F had an incorrect active status date; and was corrected during the audit. ICP 1002080190LCC09 has active status recorded from 09/06/20 but was not active until 25/06/20. ICP 0000007765TED75 has active status recorded from 06/09/19 but was active from 05/09/19. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate, because the process to update the registry is manual, increasing the likelihood of data processing errors. There are some monitoring controls in place to check that details are recorded correctly at the time the update is processed.</p> <p>The impact is low, because a small number of exceptions were identified and the difference between the applied dates and correct dates was small. The impact on submission is minimal and will wash out when the records are corrected.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Continue to correct any inaccuracies to make sure data in the registry to correct		In Place already So completed	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>New report is getting developed by our IT Orion provider Agility (#PGL-984). This will give us the ability to complete a reconciliation between Orion and the Registry on a monthly basis.</p> <p>Until this report is in place we will complete checks using the LIS file on a monthly basis to ensure we are reconciled between Orion and the Registry for fields that are mentioned in Section 2.1</p>		01.03.2020 01.11.2020	

3.9. Management of “inactive” status (Clause 19 Schedule 11.1)

Code reference

Clause 19 Schedule 11.1

Code related audit information

The ICP status of “inactive” must be managed by the relevant trader and indicates that:

- electricity cannot flow at that ICP (clause 19(a)); or
- submission information related to the ICP is not required by the reconciliation manager for the purpose of compiling reconciliation information (clause 19(b)).

Audit observation

The registry list file as at 20/08/20 and AC020 trader compliance report for 01/01/20 to 20/08/20 were reviewed to determine compliance.

A typical sample of five ICPs at each inactive status (or all ICPs if less than five were available) were checked. The findings in relation to the timeliness of updates to registry are recorded in **section 3.3**.

ICPs at “inactive - new connection in progress” status were examined.

Audit commentary

Disconnection information accuracy

Pioneer processes all status updates manually on the registry once paperwork is received. When an ICP is disconnected, responsibility for the ICP is transferred to a disconnected “occupier” account. Consumption on disconnected accounts is expected to be zero, and any consumption on disconnected accounts will appear on the read exception reports.

I reviewed a sample of 15 updates to inactive status, including at least five updates to each inactive status. I confirmed the status reason codes and event dates were correctly applied based on the paperwork provided at the time of the update except ICP 0000033661DEA96, which was updated effective from 29/06/20 but should have been updated effective 25/06/20. Pioneer is unable to correct the record because the ICP is now decommissioned.

I rechecked disconnection active status event date discrepancies identified in the previous audit and found 0000003526CE9CD still had inactive status recorded from 04/05/19 instead of 04/07/19; but could not be updated because the ICP is now decommissioned.

No ICPs had inactive status reason “Electrically disconnected remotely by AMI meter” which did not have AMI metering.

The AC020 report identified one ICP with an initial electrical connection date populated which had not been made active. The difference related to timing, and the status was updated on the registry by 21/08/20. No ICPs currently at “inactive new connection in progress” status have an initial electrical connection date populated or have been at the status for over two years.

Some late status updates to inactive are recorded as non-compliance in **section 3.3**.

Inactive ICPs with consumption

No inactive ICPs with consumption were identified during the audit period.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 3.9 With: Clause 19 Schedule 11.1 From: 25-Jun-20 To: 29-Jun-20	ICP 0000033661DEA96 has an incorrect disconnection date applied but cannot be easily corrected because the ICP is now decommissioned. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are rated as moderate, because the process to update the registry is manual, increasing the likelihood of data processing errors. There are some monitoring controls in place to check that details are recorded correctly at the time the update is processed. The impact is low.	
Actions taken to resolve the issue		Remedial action status
Continue to correct any inaccuracies to make sure data in the registry to correct		Identified In Place already So completed

Preventative actions taken to ensure no further issues will occur	Completion date	
New report is getting developed by our IT Orion provider Agility (#PGL-984). This will give us the ability to complete a reconciliation between Orion and the Registry on a monthly basis.	01.03.2020	
Until this report is in place we will complete checks using the LIS file on a monthly basis to ensure we are reconciled between Orion and the Registry for fields that become inactive	01.11.2020	

3.10. ICPs at new or ready status for 24 months (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 "Ready" for 24 calendar months or more, the distributor must ask the trader whether it should continue to have that status, and must decommission the ICP if the trader advises the ICP should not continue to have that status.

Audit observation

Whilst this is a Distributor's code obligation, I investigated whether any queries had been received from Distributors in relation to ICPs at the "new" or "ready" status for more than 24 months, and I checked the process to manage these requests.

I analysed the registry list of ICPs with "new" or "ready" status.

Audit commentary

A relatively small number of new connections are completed annually. New connections are monitored using a spreadsheet, which tracks progress with the new connections and any actions taken. Progress is checked weekly, and Pioneer follows up with contractors close to the expected livening date if confirmation of connection is not received.

Pioneer applies the "inactive new connection in progress" status once the ICP is made "ready" by the distributor if a customer application has been received.

Analysis of the registry list found five ICPs had "new" or "ready" status for more than two years:

ICP	ICP created	Status	Findings
0000505068CE5E5	4/11/2016	999	No application for a new connection has been received, and Pioneer intends to follow up this ICP with the network.
0000508465DE284	7/11/2018	0	An application has been received and the new connection has been followed up with the electrician. Work is expected to proceed once consent for the subdivision is received.
0000508551CE369	20/11/2018	999	These ICPs are vacant tenancies in a new building. They were followed up with the building owner and are expected to become active in approximately nine months.
0000508553CE3EC	20/11/2018	999	
0000508554CEE26	20/11/2018	999	

The previous audit recommended Pioneer advise Aurora Energy Limited (DUNE) of the correct proposed trader for ICPs 0000506120CEEBO, 0000506122CEE35 and 0000506123CE270. The affected ICPs have now been decommissioned or have the correct proposed trader recorded on the registry.

Any requests from distributors on ICPs which have been at “new” or “ready” status for more than two years are investigated and responded to when they are received.

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

4.1. Inform registry of switch request for ICPs - standard switch (Clause 2 Schedule 11.3)

Code reference

Clause 2 Schedule 11.3

Code related audit information

The standard switch process applies where a trader and a customer or embedded generator enters into an arrangement in which the trader commences trading electricity with the customer or embedded generator at a non-half hour or unmetered ICP at which another trader supplies electricity, or the trader assumes responsibility for such an ICP.

If the uninvited direct sale agreement applies to an arrangement described above, the gaining trader must identify the period within which the customer or embedded generator may cancel the arrangement in accordance with section 36M of the Fair Trading Act 1986. The arrangement is deemed to come into effect on the day after the expiry of that period.

A gaining trader must advise the registry manager of a switch no later than two business days after the arrangement comes into effect and include in its advice to the registry manager that the switch type is TR and one or more profile codes associated with that ICP.

Audit observation

The switch gain process was examined to determine when Pioneer deem all conditions to be met. A typical sample of five ICPs were checked to confirm that these were notified to the registry within two business days, and that the correct switch type was selected.

Audit commentary

Pioneer's processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

All switching files are produced directly from Orion, after being manually triggered. NT files are issued once staff responsible for the customer account advise that an agreement is in place with the customer and the switch can be requested. Transfer switch type is applied where a customer is transferring between retailers at an address.

Review of the event detail report found 19 transfer switch NTs were issued. I confirmed that none had a metering category of three or above.

The five NT files checked were sent within two business days of pre-conditions being cleared. Transfer switches were incorrectly requested for customers who were moving into the address for ICPs 000033072CPC61 (20/05/20), 0000489550CE5C5 (30/04/20), and 0000567442TP9E5 (04/02/20). The incorrect switch type was applied because there was confusion about whether the customer was moving in, and/or different team members were assisting with the process during COVID-19 lockdown and accidentally applied an incorrect switch type. The other NT files checked contained the correct switch type.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: Clause 2 Schedule 11.3 From: 4-Feb-20 To: 20-May-20	Transfer switches were requested for ICPs 0000033072CPC61 (20/05/20), 0000489550CE5C5 (30/04/20), and 0000567442TP9E5 (04/02/20) when the customer had confirmed that they were moving into the address. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because information is obtained to support the switch type selected. The incorrect switch types were applied because of confusion regarding whether the customer was moving in or transferring, and other team members temporarily assisting with the process during COVID-19 lockdown. The impact is assessed to be low, because there was a minimal impact for the customer, other trader and the Authority who use the switch type in their statistics.		
Actions taken to resolve the issue		Completion date	Remedial action status
Promapp (process) updated		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Staff trained		01.11.2020	

4.2. Losing trader response to switch request and event dates - standard switch (Clauses 3 and 4 Schedule 11.3)

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

Within three business days after receiving notice of a switch from the registry manager, the losing trader must establish a proposed event date. The event date must be no more than 10 business days after the date of receipt of such notification, and in any 12-month period, at least 50% of the event dates must be no more than five business days after the date of notification. The losing trader must then:

- *provide acknowledgement of the switch request by (clause 3(a) of Schedule 11.3):*
- *providing the proposed event date to the registry manager and a valid switch response code (clause 3(a)(i) and (ii) of Schedule 11.3); or*
- *providing a request for withdrawal of the switch in accordance with clause 17 (clause 3(c) of Schedule 11.3).*

When establishing an event date for clause 4, the losing trader may disregard every event date established by the losing trader for an ICP for which when the losing trader received notice from the registry manager under clause 22(a) the losing trader had been responsible for less than two months.

Audit observation

The event detail report for 01/01/20 to 20/08/20 was reviewed to:

- identify AN files issued by Pioneer during the audit period,
- assess compliance with the requirement to meet the setting of event dates requirement, and
- a sample of two (or all) ANs per response code were reviewed to determine whether the codes had been correctly applied.

The switch breach report was examined for the audit period.

Audit commentary

AN files are produced directly from Orion after being manually triggered. A hierarchy is used to determine the code which should be applied. AN files are checked by the Customer Service and Billing Analyst before they are sent to the registry. If any information in the file is found to be incorrect, such as an incorrect AN response code or proposed event date, it is manually edited before being transferred to the registry SFTP.

A sample of four ANs were checked for accuracy. Two ANs did not have the correct response code applied. ICPs 0000510111CE82C (01/04/20) and 0008448484NVAC2 (20/07/20) had the "CO" (contracted customer) AN response code applied although they were not contracted. Application of the "CO" response code was also non-compliant in the previous audit, and I recommend this is investigated:

Description	Recommendation	Audited party comment	Remedial action
Application of the "CO" (contracted customer) AN response code	Investigate when and why the "CO" AN response code is applied in Orion. Update processes as necessary to ensure that AN codes are correctly applied.	Promapp (process) to be updated so we are checking the correct response code is being applied.	Identified

Event dates set by losing trader must be no more than 10 business days after receipt of an NT file. Over a 12-month period 50% of event dates must be within five business days.

The event detail report was reviewed for all 31 transfer ANs to assess compliance with the setting of event dates requirements. 29 ANs (93.5%) had proposed event dates within five business days of the NT receipt date, and all ANs had had proposed event dates within ten business days of the NT receipt date.

The switch breach report is monitored daily to identify ICPs which require AN files. The switch breach report for the audit period confirmed all transfer AN files were sent within the allowable timeframes.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.2</p> <p>With: Clauses 3 and 4 Schedule 11.3</p> <p>From: 01-Apr-20</p> <p>To: 20-Jul-20</p>	<p>The "CO" AN response code was incorrectly applied for ICPs 0000510111CE82C (01/04/20) and 0008448484NVAC2 (20/07/20).</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Twice</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate. Both preventative and detective controls are in place for AN codes but did not operate as intended because 1) Orion applied an incorrect code and 2) the incorrect code was not detected through the manual review.</p> <p>The impact is assessed to be low because the switches were completed as expected.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Staff aware of issue and manually checking AN files before they are transferred to the Registry.		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Training and Promapp (Processes) will be updated		01.12.2020	

4.3. Losing trader must provide final information - standard switch (Clause 5 Schedule 11.3)

Code reference

Clause 5 Schedule 11.3

Code related audit information

If the losing trader provides information to the registry manager in accordance with clause 3(a) of Schedule 11.3 with the required information, no later than five business days after the event date, the losing trader must complete the switch by:

- *providing event date to the registry manager (clause 5(a)); and*
- *provide to the gaining trader a switch event meter reading as at the event date, for each meter or data storage device that is recorded in the registry with accumulator of C and a settlement indicator of Y (clause 5(b)); and*
- *if a switch event meter reading is not a validated reading, provide the date of the last meter reading (clause 5(c)).*

Audit observation

The event detail report for 01/01/20 to 20/08/20 was reviewed to identify CS files issued by Pioneer during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

- correct identification of meter readings and correct date of last meter reading,
- accuracy of meter readings, and
- accuracy of average daily consumption.

CS files with average daily kWh that was negative, zero, or over 200 kWh were identified. All eight of these CS files were checked to determine whether the average daily consumption was correct.

The process to manage the sending of the CS file within five business days of the event date was examined, and the switch breach history report for the audit period was reviewed to identify late CS files.

Audit commentary

CS timeliness

Pioneer uses the switch breach report to identify files which are due and aims to process all files as soon as possible. The switch breach report recorded two late CS files for transfer switches, caused by the registry rejecting the initial CS file because some content was incorrect, or Orion being unable to generate the CS file at all. In both cases the issues were resolved, and the CS files were successfully uploaded within three business days of the required date.

CS content

CS files are produced directly from Orion after being manually triggered, using reading and meter information stored in Orion. CS files are checked by the Customer Service and Billing Analyst before they are sent to the registry. If any information in the file is found to be incorrect or the CS reading is estimated and an AMI reading is available for Pioneer's last day of supply, the files are manually edited before being transferred to the registry SFTP. If a reading is replaced, the new reading is also recorded in Orion.

The Registry Functional Specification v22.21 states that average daily consumption within the CS file should be the average kWh per day for the last read period. Orion's EDC (estimated daily consumption) is applied as the average daily consumption. The EDC is stored on the meters tab at meter register level and is updated when readings are added to Orion. The total is aggregated to installation level for inclusion in the CS file. While this is not technically consumption for the last read to read period, it provides a reasonable indication of the average daily consumption.

Analysis estimated daily kWh provided in CS files on the event detail report identified:

Average daily kWh	Count of transfer CS files	Findings
Negative	-	Compliant.
Zero	4	All four CS files were checked, and the average daily kWh was confirmed to be consistent with the last read to read period.
More than 200 kWh	4	All four CS files were checked and found not to be consistent with the last read to read period daily average consumption because Orion's EDC was applied. The differences ranged from +27 kWh to +78.5 kWh.

The content of a sample of five transfer CS files were checked, focussing on CS files where there were inconsistencies between the event read type recorded and last actual read date.

- Four ICPs had an incorrect average daily kWh, because Orion applied the EDC value instead of consumption for the last read to read period.
- Three ICPs had incorrect last actual read dates which appeared to be caused by manually adding AMI readings to the CS files without also updating the last actual read date. I recommend that the last actual read date field is updated where estimated CS readings are replaced with AMI readings.

ICP	Correct last actual read date	Correct average daily kWh
0000038366DEDB9 (15/06/20)	No 14/06/20 but should be 17/03/20.	Yes

ICP	Correct last actual read date	Correct average daily kWh
0000014720DE0DF (10/06/20)	No 31/05/20 but should be 09/06/20.	No 44 based on Orion EDC but should be 43.
0002760592TGCF (07/07/20)	No 05/07/20 but should be 06/07/20.	No 12 based on Orion EDC but should be 21.
0000015367DE211 (13/05/20)	Yes	No 36 based on Orion EDC but should be 38.
0000014894DEC68 (02/07/20)	Yes	No 23 based on Orion EDC but should be 51.

Description	Recommendation	Audited party comment	Remedial action
Manual review and update of CS files	Where CS files are updated to include AMI readings received after the file is generated, ensure that the last actual read date field is also updated to reflect the last actual reading during Pioneer's period of supply.	Staff learning and are aware of the issue and will need to double check this going forward.	Identified

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.3</p> <p>With: Clause 5 Schedule 11.3</p> <p>From: 23-Jan-20 To: 07-Jul-20</p>	<p>Two late TR CS files.</p> <p>At least eight CS average daily consumption values were not consistent with the average consumption for the last read to read period in transfer CS files, because the Orion EDC is applied instead of consumption for the last read to read period.</p> <p>At least three transfer CS files contained incorrect last actual read dates.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
Audit risk rating	Rationale for audit risk rating
Low	Controls over CS files have improved since the previous audit, and I saw evidence that the training issues which previously caused incorrect CS content have been resolved. The issues were isolated to the estimated daily consumption and last actual read date fields.

The audit risk rating is low because the average daily kWh information provided reflects the EDC on the meters tab at the time the switch was completed and is a reasonable estimate of the ICP's consumption. The last actual read date field is used to help assess the accuracy of any estimates provided and has no impact on submission.		
Actions taken to resolve the issue	Completion date	Remedial action status
Staff aware	01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Check at time of sending CS files	Ongoing	

4.4. Retailers must use same reading - standard switch (Clause 6(1) and 6A Schedule 11.3)

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

The losing trader and the gaining trader must both use the same switch event meter reading as determined by the following procedure:

- *if the switch event meter reading provided by the losing trader differs by less than 200 kWh from a value established by the gaining trader, the gaining trader must use the losing trader's validated meter reading or permanent estimate (clause 6(a)); or*
- *the gaining trader may dispute the switch meter reading if the validated meter reading or permanent estimate provided by the losing trader differs by 200 kWh or more. (clause 6(b)).*

If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within 4 calendar months of the registry manager giving the gaining trader written notice of having received information about the switch completion, provide to the losing trader a changed switch event meter reading supported by two validated meter readings.

- *the losing trader can choose not to accept the reading however must advise the gaining trader no later than five business days after receiving the switch event meter reading from the gaining trader (clause 6A(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader (clause 6A(b)).*

Audit observation

The process for the management of read change requests was examined.

The event detail report for 01/01/20 to 20/08/20 was analysed to identify all read change requests and acknowledgements during the audit period. All were reviewed.

I also checked all CS files with estimated readings provided by other traders where no RR was issued, to determine whether the correct readings were recorded.

The switch breach report for the audit period was reviewed.

Audit commentary

When a high or low read is identified through the read validation process for a new switch in, the ICP is investigated to determine whether a read change is required. Pioneer will issue an RR file once they have obtained readings which confirm that the difference between the event reading and expected reading on the event date is more than ± 200 kWh. Orion is manually updated to reflect the outcome of the RR process once it is complete.

No RR files were issued for transfer switches.

Pioneer issued four AC files for transfer switches. Two were rejected and two were accepted. The two rejected files related to ICP 0110139100AP600, and third file for this ICP was accepted. I reviewed the AC files and confirmed that Orion reflected the outcome of the RR process, and that any rejected files were validly rejected.

Two transfer CS files with estimated reads where no RR was issued were reviewed, and I confirmed the correct readings were applied in Orion.

Pioneer uses the switch breach report to identify files when AC files are due and aims to process all files as soon as possible. The switch breach report did not record any late RR or AC files for transfer switches.

The previous audit found that the agreed switch reading was not applied for five ICPs. I rechecked these and found corrections had not been processed, and Pioneer intends to process corrections by revision 14. The delay in processing corrections is recorded as non-compliance in **section 2.1**.

ICP and event date	AC outcome	Agreed switch event read and type	Orion switch event read and type	kWh difference
0000001074ED314 19/07/19	A	40276 (A)	40276 (E)	-
0000483126CE356 01/11/19	R	88825 (A)	88786 (A)	39
0000500468CEEC4 01/11/19	R	21314 (A)	21298 (E)	16
0000508237CE214 04/11/19	R	789 (A) 366 (A)	714 (A) 342 (A)	99
0000509672CE05F 04/11/19	R	714 (A) 342 (A)	789 (A) 340 (A)	-73

Audit outcome

Compliant

4.5. Non-half hour switch event meter reading - standard switch (Clause 6(2) and (3) Schedule 11.3)

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

If the losing trader trades electricity from a non-half hour meter, with a switch event meter reading that is not from an AMI certified meter flagged Y in the registry: and

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 6(2)(b));*

- *the gaining trader within five business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading.*

Audit observation

The event detail report for the period from 01/01/20 to 20/08/20 was reviewed to identify all read change requests and acknowledgements where clause 6(2) and (3) of schedule 11.3 applied.

Audit commentary

Pioneer did not issue or receive any read change requests where clause 6(2) and (3) of schedule 11.3 applied.

Audit outcome

Compliant

4.6. Disputes - standard switch (Clause 7 Schedule 11.3)

Code reference

Clause 7 Schedule 11.3

Code related audit information

A losing trader or gaining trader may give written notice to the other that it disputes a switch event meter reading provided under clauses 1 to 6. Such a dispute must be resolved in accordance with clause 15.29 (with all necessary amendments).

Audit observation

Disputes were discussed with Pioneer.

Audit commentary

Pioneer confirmed that no disputes have needed to be resolved in accordance with this clause.

Audit outcome

Compliant

4.7. Gaining trader informs registry of switch request - switch move (Clause 9 Schedule 11.3)

Code reference

Clause 9 Schedule 11.3

Code related audit information

The switch move process applies where a gaining trader has an arrangement with a customer or embedded generator to trade electricity at an ICP using non half-hour metering or an unmetered ICP, or to assume responsibility for such an ICP, and no other trader has an agreement to trade electricity at that ICP, this is referred to as a switch move and the following provisions apply:

If the “uninvited direct sale agreement” applies, the gaining trader must identify the period within which the customer or embedded generator may cancel the arrangement in accordance with section 36M of the Fair Trading Act 1986. The arrangement is deemed to come into effect on the day after the expiry of that period.

In the event of a switch move, the gaining trader must advise the registry manager of a switch and the proposed event date no later than two business days after the arrangement comes into effect.

In its advice to the registry manager the gaining trader must include:

- *a proposed event date (clause 9(2)(a)); and*
- *that the switch type is "MI" (clause 9(2)(b); and*
- *one or more profile codes of a profile at the ICP. (clause 9(2)(c))*

Audit observation

The switch gain process was examined to determine when Pioneer deem all conditions to be met. A typical sample of five ICPs were checked to confirm that these were notified to the registry within two business days, and that the correct switch type was selected.

Audit commentary

Pioneer's processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

All switching files are produced directly from Orion, after being manually triggered. NT files are issued once staff responsible for the customer account advise that an agreement is in place with the customer and the switch can be requested. A switch move is selected where a customer has moved into an address.

Review of the event detail report found 76 switch move NTs were issued. I confirmed that none had a metering category of three or above.

The five NT files checked had the correct switch type selected. Two NTs were raised more than two business days after pre-conditions were cleared.

- The NT for 0000501294CEA6B (04/02/20) was 40 business days late because a system issue prevented the NT from being raised, and Pioneer waited for the issue to be resolved before raising the NT instead of processing it manually on the registry.
- The NT for 0006632640ALE93 (06/02/20) was one business day late, because Pioneer was trying to coordinate the switching and reconnection process for the ICP.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.7 With: Clause 9 Schedule 11.3 From: 4-Feb-20 To: 06-Feb-20	The switch move NTs for 0000501294CEA6B (04/02/20) and 0006632640ALE93 (06/02/20) were raised more than two business days after pre-conditions were cleared. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	Rationale for audit risk rating
Low	The controls are rated as strong because processes have improved during the audit period. NTs are not expected to be delayed by system issues, because manual files will be issued where necessary. The impact is assessed to be low.

Actions taken to resolve the issue	Completion date	Remedial action status
PION switching team will manually process the switch on the Registry in future rather than waiting for IT Support	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Switching team aware and trained	01.11.2020	

4.8. Losing trader provides information - switch move (Clause 10(1) Schedule 11.3)

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

10(1) Within 5 business days after receiving notice of a switch move request from the registry manager—

- *10(1)(a) If the losing trader accepts the event date proposed by the gaining trader, the losing trader must complete the switch by providing to the registry manager:

 - o *confirmation of the switch event date; and*
 - o *a valid switch response code; and*
 - o *final information as required under clause 11; or**
- *10(1)(b) If the losing trader does not accept the event date proposed by the gaining trader, the losing trader must acknowledge the switch request to the registry manager and determine a different event date that—

 - o *is not earlier than the gaining trader's proposed event date, and*
 - o *is no later than 10 business days after the date the losing trader receives notice; or**
- *10(1)(c) request that the switch be withdrawn in accordance with clause 17.*

Audit observation

The event detail report for 01/01/20 to 20/08/20 was reviewed to:

- identify AN files issued by Pioneer during the audit period,
- assess compliance with the requirement to meet the setting of event dates requirement, and
- a sample of two (or all) ANs per response code were reviewed to determine whether the codes had been correctly applied.

The switch breach report was examined for the audit period.

Audit commentary

AN files are produced directly from Orion after being manually triggered. A hierarchy is used to determine the code which should be applied. AN files are checked by the Customer Service and Billing Analyst before they are sent to the registry. If any information in the file is found to be incorrect, such as an incorrect AN response code or proposed event date, it is manually edited before being transferred to the registry SFTP.

A sample of four ANs were checked for accuracy and contained the correct AN response codes.

The event detail report was reviewed for all 51 switch move ANs to assess compliance with the setting of event dates requirements:

- all ANs had proposed event dates within ten business days of NT receipt, and
- no AN proposed event dates were before the gaining trader's proposed event date.

The switch breach report was reviewed to determine whether switch move AN and CS files were issued on time. No late AN files and eight late CS files were recorded for switch moves, but only three late CS files were genuine breaches. The delays were caused by the registry rejecting the initial CS files because some content was incorrect. The issues were resolved, and the CS files were successfully uploaded within two business days after the required date.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.8 With: Clauses 10(1) Schedule 11.3 From: 27-Mar-20 To: 08-Jun-20	Three late MI CS files. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong. CS files are normally accepted by the registry, and failed files are normally promptly identified through monitoring of the switch breach report. The impact is assessed to be low because the files were sent within two business days of the due date.		
Actions taken to resolve the issue		Completion date	Remedial action status
Issue resolved and CS files eventually uploaded correctly		As above, already resolved	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Switching staff aware of rejecting by Registry of CS file and will continue to monitor before deadlines going forward		Ongoing	

4.9. Losing trader determines a different date - switch move (Clause 10(2) Schedule 11.3)

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

If the losing trader determines a different date, then within 10 business days of receiving notice the losing trader must also complete the switch by providing to the registry manager as described in subclause (1)(a):

- *the event date proposed by the losing trader; and*
- *a valid switch response code; and*
- *final information as required under clause 1.*

Audit observation

An event detail report for 01/01/20 to 20/08/20 was reviewed to identify AN files issued by Pioneer during the audit period, and assess compliance with the setting of event dates requirements.

Audit commentary

Analysis found all 51 switch move ANs had a valid switch response code and compliant proposed event dates. No ANs had proposed event dates earlier than the gaining trader's proposed date.

Switches were completed as required by this clause.

Audit outcome

Compliant

4.10. Losing trader must provide final information - switch move (Clause 11 Schedule 11.3)

Code reference

Clause 11 Schedule 11.3

Code related audit information

The losing trader must provide final information to the registry manager for the purposes of clause 10(1)(a)(ii), including—

- *the event date (clause 11(a)); and*
- *a switch event meter reading as at the event date for each meter or data storage device that is recorded in the registry with an accumulator type of C and a settlement indicator of Y (clause 11(b)); and*
- *if the switch event meter reading is not a validated meter reading, the date of the last meter reading of the meter or storage device. (clause (11(c)).*

Audit observation

The event detail report for 01/01/20 to 20/08/20 was reviewed to reviewed to identify CS files issued by Pioneer during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

- correct identification of meter readings and correct date of last meter reading,
- accuracy of meter readings, and
- accuracy of average daily consumption.

CS files with average daily kWh that was negative, zero, or over 200 kWh were identified. A sample of ten of these CS files were checked to determine whether the average daily consumption was correct.

Audit commentary

CS files are produced directly from Orion after being manually triggered, using reading and meter information stored in Orion. CS files are checked by the Customer Service and Billing Analyst before they are sent to the registry. If any information in the file is found to be incorrect or the CS reading is estimated and an AMI reading is available for Pioneer's last day of supply, the files are manually edited before being transferred to the registry SFTP. If a reading is replaced, the new reading is also recorded in Orion.

The Registry Functional Specification v22.21 states that average daily consumption within the CS file should be the average kWh per day for the last read period. Orion's EDC (estimated daily consumption) is applied as the average daily consumption. The EDC is stored on the meters tab at meter register level and is updated when readings are added to Orion. The total is aggregated to installation level for

inclusion in the CS file. While this is not technically consumption for the last read to read period, it provides a reasonable indication of the average daily consumption.

Analysis estimated daily kWh provided in CS files on the event detail report identified:

Average daily kWh	Count of switch move CS files	Findings
Negative	-	Compliant.
Zero	9	A sample of five files were checked. Two were found to be consistent with the read to read period daily average consumption. The other three ICPs had differences ranging from +1.4 kWh to +7.2 kWh.
More than 200 kWh	7	The five highest values were checked and found not to be consistent with the last read to read period daily average consumption. The differences ranged from -391 kWh to +57kWh.

The content of a sample of five switch move CS files were checked, focussing on CS files where there were inconsistencies between the event read type recorded and last actual read date.

- ICP 0000507601DEF19 had a switch event reading and last actual read date inconsistent with the details recorded in Orion and AMI information. It appears that the reads were updated as part of a billing correction after the switch was completed.
- ICPs 0000030308TR405 and 0006593730AL936 had incorrect last actual read dates which appeared to be caused by manually adding AMI readings to the CS files without also updating the last actual read date. In **section 4.3** I recommended that the last actual read date field is updated where estimated CS readings are replaced with AMI readings.
- All five ICPs had an incorrect average daily kWh, because Orion applied the EDC value instead of consumption for the last read to read period.

ICP	Correct read and type	Correct last actual read date	Correct average daily kWh
0000507601DEF19 (14/02/20)	No CS file readings: 211654753,1,2095,A 211654753,2,474,A Actual AMI readings: 211654753,1,2016,A 211654753,2,450,A Orion event readings: 211654753,1,2024,E 211654753,2,474,E It is believed that billing was corrected after the switch	No 19/02/20 is recorded, but the last actual reading recorded in Orion is on 31/01/20, and the last actual AMI reading received during the period of supply is on 13/02/20.	No 6 based on Orion EDC but should be 4.

ICP	Correct read and type	Correct last actual read date	Correct average daily kWh
	file was issued, affecting the reads recorded in Orion.		
0000030308TR405 (18/05/20)	Yes	No 29/04/20 but should be 17/05/20.	No 88 based on Orion EDC but should be 1.2.
0006593730AL936 (28/05/20)	Yes	No 27/05/20 but should be 28/05/20.	No 32 based on Orion EDC but should be 47.
0006177190RN332 (14/08/20)	Yes	Yes	No 57 based on Orion EDC but should be 0.
0000501294CEA6B (12/06/20)	Yes	Yes	No 8 based on Orion ED but should be 2.

Eight switch move CS files only had a CSPREMISES line provided to the registry, when CSMETERCHANNEL, CSMETERCOMP and CSMETERINSTALL were also expected. All of the affected ICPs had the HHR flag set to "Y", and I note that HH switches are normally completed with a CSPREMISES line only if the HH switch type is applied. The same issue was raised in the previous audit, and Pioneer confirmed that Orion will provide only a CSPREMISES row where an ICP is settled as TOU, regardless of the switch type requested.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.10</p> <p>With: Clause 11 Schedule 11.3</p> <p>From: 15-Jan-20 To: 14-Aug-20</p>	<p>At least 13 CS average daily consumption values were not consistent with the average consumption for the last read to read period in transfer CS files, because the Orion EDC is applied instead of consumption for the last read to read period.</p> <p>At least three switch move CS files contained incorrect last actual read dates.</p> <p>The CS file 0000507601DEF19 (14/02/20) did contained readings which did not match the AMI data, or readings recorded in Orion.</p> <p>Eight switch move CS files did not have CSMETERCHANNEL, CSMETERCOMP and CSMETERINSTALL lines supplied.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Once</p>

	Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls over CS files have improved since the previous audit, and I saw evidence that the training issues which previously caused incorrect CS content have been resolved. The issues were isolated to the estimated daily consumption and last actual read date fields, apart from one ICP affected by a post switch billing correction.</p> <p>The audit risk rating is low because the average daily kWh information provided reflects the EDC on the meters tab at the time the switch was completed and is a reasonable estimate of the ICP's consumption. The last actual read date field is used to help assess the accuracy of any estimates provided and has no impact on submission.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Switching team aware and Promapp (process) updated		01.12.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Switching staff trained		01.12.2020	

4.11. Gaining trader changes to switch meter reading - switch move (Clause 12 Schedule 11.3)

Code reference

Clause 12 Schedule 11.3

Code related audit information

The gaining trader may use the switch event meter reading supplied by the losing trader or may, at its own cost, obtain its own switch event meter reading. If the gaining trader elects to use this new switch event meter reading, the gaining trader must advise the losing trader of the switch event meter reading and the actual event date to which it refers as follows:

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within 4 calendar months of the date the registry manager gives the gaining trader written notice of having received information about the switch completion, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*
- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 12(3)(b)).*

12(2A) If the losing trader trades electricity from a non-half hour meter, with a switch event meter reading that is not from an AMI certified meter flagged Y in the registry,

- the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 12(2A)(b));
- the gaining trader no later than 5 business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading. (clause 12(2B)).

Audit observation

The process for the management of read change requests was examined.

The event detail report for 01/01/20 to 20/08/20 was analysed to identify all read change requests and acknowledgements during the audit period. All were checked.

I also checked a sample of five CS files with estimated readings provided by other traders where no RR was issued, to determine whether the correct readings were recorded.

The switch breach report for the audit period was reviewed.

Audit commentary

When a high or low read is identified through the read validation process for a new switch in, the ICP is investigated to determine whether a read change is required. Pioneer will issue an RR file once they have obtained readings which confirm that the difference between the event reading and expected reading on the event date is more than ± 200 kWh. Orion is manually updated to reflect the outcome of the RR process once it is complete.

Pioneer issued one RR file for a switch move, which was accepted. There was a genuine reason for the RR to be issued, it was based on reads confirmed by the other trader, and Orion reflected the correct outcome of the RR process.

Eight AC files were issued by Pioneer. Three were rejected and five were accepted. I reviewed the AC files and confirmed that any rejected files were validly rejected. Orion reflected the outcome of the RR process, apart from for ICP 0001425261UN6BF (01/06/20), which had the agreed switch reading made a misread to prevent the reading being billed to the customer. Misreads are ignored by the historic estimate process, and non-compliance is recorded in this section because the agreed switch reading was not applied.

Five switch move CS files with estimated reads where no RR was issued were reviewed, and I confirmed the correct readings were applied in Orion.

Pioneer uses the switch breach report to identify files when AC files are due and aims to process all files as soon as possible. The switch breach report did not record any late RR or AC files for switch moves.

In **section 4.10** I checked that outgoing CS files were consistent with Orion's reading information. For ICP 0000507601DEF19 (14/02/20), the switch event reading applied in the CS file was not the actual reading on the switch event date, and also did not match the estimated closing reading recorded in Orion. It appears that the reads in Orion were updated as part of a billing correction after the switch was completed, and I was unable to determine the origin of the CS file readings. Non-compliance is recorded in this section because the agreed switch reading was not applied.

Meter and register	CS file reading	Actual AMI reading	Orion estimated closing reading
211654753,1	2095 (A)	2016 (A)	2024 (E)

Meter and register	CS file reading	Actual AMI reading	Orion estimated closing reading
211654753,2	474 (A)	450 (A)	474 (E)
Difference to CS reading		-103 kWh	-71 kWh

Description	Recommendation	Audited party comment	Remedial action
Agreed switch readings	Update processes to ensure that when processing billing corrections after switch completion, the agreed switch reading is recorded in Orion with a read type consistent with the CS information.	Billing team will update Promapp (processes)	Identified

The previous audit found that the agreed switch reading was not applied for 0000491652CE3A2 did not have the agreed switch readings applied. The difference between the CS reading and AMI readings was less than 50 kWh and Pioneer elected to use their own reading as the gaining trader. No corrections have been processed, and no further action has been taken. This is recorded as non-compliance in **section 2.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.11 With: Clause 12 Schedule 11.3 From: 14-Feb-20 To: 01-Jun-20	The agreed switch reading was not applied in Orion for 0001425261UN6BF (01/06/20) resulting in forward estimate being created instead of historic estimate. The agreed switch reading was not applied in Orion for ICP 0000507601DEF19 (14/02/20) resulting in 71 kWh of under submission. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate, I found that the agreed switch reading was applied except where they had been adjusted post switch due to a billing correction. The audit risk rating is low based on the kWh differences identified.		
Actions taken to resolve the issue		Completion date	Remedial action status
Switching and Billing team aware of issue. 0000507601DEF19 is corrected		01.11.2020 12.11.2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Switching and Billing team notified of issue and trained going forward	01.11.2020	

4.12. Gaining trader informs registry of switch request - gaining trader switch (Clause 14 Schedule 11.3)

Code reference

Clause 14 Schedule 11.3

Code related audit information

The gaining trader switch process applies when a trader has an arrangement with a customer or embedded generator to trade electricity at an ICP at which the losing trader trades electricity with the customer or embedded generator, and one of the following applies at the ICP:

- *the gaining trader will trade electricity through a half hour metering installation that is a category 3 or higher metering installation; or*
- *the gaining trader will trade electricity through a non-AMI half hour metering installation and the losing trader trades electricity through a non-AMI non half hour metering installation; or*
- *the gaining trader will trade electricity through a non-AMI non half hour metering installation and the losing trader trades electricity through a non-AMI half hour metering installation*

If the uninvited direct sale agreement applies to an arrangement described above, the gaining trader must identify the period within which the customer or embedded generator may cancel the arrangement in accordance with section 36M of the Fair Trading Act 1986. The arrangement is deemed to come into effect on the day after the expiry of that period.

A gaining trader must advise the registry manager of the switch and expected event date no later than 3 business days after the arrangement comes into effect.

14(2) The gaining trader must include in its advice to the registry manager:

- a) a proposed event date; and*
- b) that the switch type is HH.*

14(3) The proposed event date must be a date that is after the date on which the gaining trader advises the registry manager, unless clause 14(4) applies.

14(4) The proposed event date is a date before the date on which the gaining trader advised the registry manager, if:

14(4)(a) – the proposed event date is in the same month as the date on which the gaining trader advised the registry manager; or

14(4)(b) – the proposed event date is no more than 90 days before the date on which the gaining trader advises the registry manager, and this date is agreed between the losing and gaining traders.

Audit observation

The switch gain process was examined to determine when Pioneer deem all conditions to be met. The event detail report for 01/01/20 to 20/08/20 was reviewed to identify any HH NTs and confirm whether any ICPs with meter categories above 3 were requested as TR or MI switches.

Audit commentary

All switching files are produced directly from Orion, after being manually triggered. NT files are issued once staff responsible for the customer account advise that an agreement is in place with the customer and the HH switch can be requested.

Pioneer did not issue any HH NTs during the audit period. Review of switch move and transfer NTs confirmed that none of the 95 NTs checked had a metering category of 3 or higher.

Audit outcome

Compliant

4.13. Losing trader provision of information - gaining trader switch (Clause 15 Schedule 11.3)

Code reference

Clause 15 Schedule 11.3

Code related audit information

Within 3 business days after the losing trader is informed about the switch by the registry manager, the losing trader must:

15(a) - provide to the registry manager a valid switch response code as approved by the Authority; or

15(b) - provide a request for withdrawal of the switch in accordance with clause 17.

Audit observation

The event detail report for 01/01/20 to 20/08/20 was analysed to:

- identify AN files issued by Pioneer during the audit period,
- all AN response codes were reviewed to determine whether they had been correctly applied, and
- assess compliance with the timeliness requirements.

The switch breach report was examined.

Audit commentary

HH AN files are produced directly from Orion after being manually triggered. A hierarchy is used to determine the code which should be applied. AN files are opened by the Customer Service and Billing Analyst and reviewed before they are sent to the registry. If any information in the file is found to be incorrect, such as an incorrect AN response code, it is manually edited before being transferred to the registry SFTP.

All six HH ANs recorded on the event detail report were reviewed, and I found all had the AA response code correctly applied.

The switch breach report is monitored daily to identify ICPs which require AN files, and no late AN files were identified.

Audit outcome

Compliant

4.14. Gaining trader to advise the registry manager - gaining trader switch (Clause 16 Schedule 11.3)

Code reference

Clause 16 Schedule 11.3

Code related audit information

The gaining trader must complete the switch no later than three business days, after receiving the valid switch response code, by advising the registry manager of the event date.

If the ICP is being electrically disconnected, or if metering equipment is being removed, the gaining trader must either-

16(a)- give the losing trader or MEP for the ICP an opportunity to interrogate the metering installation immediately before the ICP is electrically disconnected or the metering equipment is removed; or

16(b)- carry out an interrogation and, no later than five business days after the metering installation is electrically disconnected or removed, advise the losing trader of the results and metering component numbers for each data channel in the metering installation.

Audit observation

The HH switching process was examined. The event detail report for 01/01/20 to 20/08/20 was reviewed to identify any HH CS files, and the switch breach history report was reviewed to identify late CS files.

Audit commentary

HH CS files are produced directly from Orion after being manually triggered, and the switch breach report is monitored to identify ICPs which require CS files. CS files are checked by the Customer Service and Billing Analyst before they are sent to the registry. If any information in the file is found to be incorrect, it is manually edited before being transferred to the registry SFTP.

One HH CS file was issued during the audit period, and the content was confirmed to be accurate. The NT file was issued prior to the audit period, in December 2019.

The switch breach report and registry acknowledgements are monitored daily to identify ICPs which require HH CS files. The switch breach report recorded a late CS file for ICP 0009804196ALF50, which did not appear on the switch breach report at the time that the switch was due. It was processed as soon as it was identified.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.14 With: Clause 16 Schedule 11.3 From: 23-Dec-19 To: 19-Feb-20	One late HH CS file. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as strong because both preventative and detective controls are in place for AN codes. The late file occurred because the switch was not identified on the switch breach report.</p> <p>The impact is assessed to be low; the switch was completed within 36 business days. Submission information was corrected through the revision process once the switch was complete.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Processed and corrected as soon as it was identified		Submission information corrected as per above	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Switching team to continue to monitor the Registry's switch breach report		Ongoing	

4.15. Withdrawal of switch requests (Clauses 17 and 18 Schedule 11.3)

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

A losing trader or gaining trader may request that a switch request be withdrawn at any time until the expiry of two calendar months after the event date of the switch.

If a trader requests the withdrawal of a switch, the following provisions apply:

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
 - o *the participant identifier of the trader making the withdrawal request (clause 18(c)(i));*
 - and*
 - o *the withdrawal advisory code published by the Authority. (clause 18(c)(ii))*
- *within five business days after receiving notice from the registry manager of a switch, the trader receiving the withdrawal must advise the registry manager that the switch withdrawal request is accepted or rejected. A switch withdrawal request must not become effective until accepted by the trader who received the withdrawal (clause 18(d))*
- *on receipt of a rejection notice from the registry manager, in accordance with clause 18(d), a trader may re-submit the switch withdrawal request for an ICP in accordance with clause 18(c). All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request (clause 18(e))*
- *if the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within two business days after receiving notice from the registry manager in accordance with clause 22(b), the losing trader must comply with clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16 (clause 18(f)).*

Audit observation

An event detail report for 01/01/20 to 20/08/20 was reviewed to:

- identify all switch withdrawal requests issued by Pioneer, and check the content of a sample of at least two ICPs from the event detail report for each withdrawal code,
- identify and check all switch withdrawal acknowledgements issued by Pioneer, and
- confirm timeliness of switch withdrawal requests, as this is not currently being identified in the switch breach report.

The switch breach reports were checked for any late switch withdrawal requests or acknowledgements.

Audit commentary

NW files are produced directly from Orion after being manually triggered, and Orion selects the NW code based on the information it has available. NW files are checked by the Customer Service and Billing Analyst before they are sent to the registry. If any information in the file is found to be incorrect, such as the NW advisory code, it is manually edited before being transferred to the registry SFTP.

None of the 20 NWs were issued more than 60 business days after the event date. A diverse sample of seven NWs were checked, including all response codes applied. The NW content was confirmed to be correct.

All 17 AWs issued by Pioneer were acceptances, and the switch breach report did not record any late AW or NW files.

Audit outcome

Compliant

4.16. Metering information (Clause 21 Schedule 11.3)

Code reference

Clause 21 Schedule 11.3

Code related audit information

For an interrogation or validated meter reading or permanent estimate carried out in accordance with Schedule 11.3:

21(a)- the trader who carries out the interrogation, switch event meter reading must ensure that the interrogation is as accurate as possible, or that the switch event meter reading is fair and reasonable.

21(b) and (c) - the cost of every interrogation or switch event meter reading carried out in accordance with clauses 5(b) or 11(b) or (c) must be met by the losing trader. The costs in every other case must be met by the gaining trader.

Audit observation

The meter reading process in relation to meter reads for switching purposes was examined.

Audit commentary

The reads applied in switching files were examined in **section 4.3** for standard switches, **section 4.10** for switch moves, and **sections 4.4** and **4.11** for read changes. The meter readings used in the switching process are validated meter readings or permanent estimates.

For ICP 0000507601DEF19 (14/02/20), the switch event reading applied in the CS file was not the actual reading on the switch event date, and also did not match the estimated closing reading recorded in Orion. It appears that the reads in Orion were updated as part of a billing correction after the switch

was completed, and I was unable to determine the origin of the CS file readings. Non-compliance is recorded in this section because the CS file reading did not match the actual or estimated reading for the effective date.

Meter and register	CS file reading	Actual AMI reading	Orion estimated closing reading
211654753,1	2095 (A)	2016 (A)	2024 (E)
211654753,2	474 (A)	450 (A)	474 (E)
Difference to CS reading		-103 kWh	-71 kWh

Pioneer's policy regarding the management of meter reading expenses is compliant.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.16 With: Clause 21 Schedule 11.3 From: 14-Feb-20 To: 14-Feb-20	For one switch move CS file issued by Pioneer, the switch event readings did not reflect the actual reading or estimated reading on the event date. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate, because I was unable to confirm the source of the original read in the CS file. The audit risk rating is low, based on the kWh difference.		
Actions taken to resolve the issue		Completion date	Remedial action status
Staff trained		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Switching and Billing team aware of this incident and trained		01.11.2020	

4.17. Switch saving protection (Clause 11.15AA to 11.15AB)

Code reference

Clause 11.15AA to 11.15AB

Code related audit information

A losing retailer (including any party acting on behalf of the retailer) must not initiate contact to save or win back any customer who is switching away or has switched away for 180 days from the date of the switch.

The losing retailer may contact the customer for certain administrative reasons and may make a counteroffer only if the customer initiated contact with the losing retailer and invited the losing retailer to make a counteroffer.

The losing retailer must not use the customer contact details to enable any other retailer (other than the gaining retailer) to contact the customer.

Audit observation

Win-back activity was discussed. The event detail report for 01/01/20 to 20/08/20 was analysed to identify all withdrawn switches with a CX code applied prior to the switch event date for any switch save protected retailer up to 31/03/20, or within 180 days of switch completion after 31/03/20.

Audit commentary

Pioneer was not a switch save protected retailer and does not complete win-backs. All NWs with the CX (customer cancellation) withdrawal reason code issued before 31/03/20 were requested after the switch was completed.

Three NWs with the CX (customer cancellation) withdrawal reason code were issued within 180 days of switch completion from 31/03/20 onwards. All were confirmed to be customer initiated and Pioneer did not make any offers or enticements.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

The trader must adhere to the process for maintaining shared unmetered load as outlined in clause 11.14:

11.14(2) - The distributor must give written notice to the traders responsible for the ICPs across which the unmetered load is shared, of the ICP identifiers of the ICPs.

11.14(3) - A trader who receives such a notification from a distributor must give written notice to the distributor if it wishes to add or omit any ICP from the ICPs across which unmetered load is to be shared.

11.14(4) - A distributor who receives such a notification of changes from the trader under (3) must give written notice to the registry manager and each trader responsible for any of the ICPs across which the unmetered load is shared.

11.14(5) - If a distributor becomes aware of any change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must give written notice to all traders affected by that change as soon as practicable after that change or decommissioning.

11.14(6) - Each trader who receives such a notification must, as soon as practicable after receiving the notification, adjust the unmetered load information for each ICP in the list for which it is responsible to ensure that the entire shared unmetered load is shared equally across each ICP.

11.14(7) - A trader must take responsibility for shared unmetered load assigned to an ICP for which the trader becomes responsible as a result of a switch in accordance with Part 11.

11.14(8) - A trader must not relinquish responsibility for shared unmetered load assigned to an ICP if there would then be no ICPs left across which that load could be shared.

11.14(9) - A trader can change the status of an ICP across which the unmetered load is shared to inactive status, as referred to in clause 19 of Schedule 11.1. In that case, the trader is not required to give written notice to the distributor of the change. The amount of electricity attributable to that ICP becomes UFE.

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list file as at 20/08/20 and AC020 trader compliance report for 01/01/20 to 20/08/20 were examined to identify any ICPs with shared unmetered load.

Audit commentary

Pioneer does not supply any ICPs with shared unmetered load. Processes to monitor new and existing ICPs for additions and changes to unmetered load are discussed in **section 3.7**.

Audit outcome

Compliant

5.2. Unmetered threshold (Clause 10.14 (2)(b))

Code reference

Clause 10.14 (2)(b)

Code related audit information

The reconciliation participant must ensure that unmetered load does not exceed 3,000 kWh per annum, or 6,000 kWh per annum if the load is predictable and of a type approved and published by the Authority.

Audit observation

The AC020 trader compliance report for 01/01/20 to 20/08/20 was examined to identify all unmetered load over 3,000 kWh per annum.

Audit commentary

Pioneer supplies 19 ICPs with standard unmetered load indicated.

- 12 ICPs have unmetered load under 3,000 kWh per annum.
- ICP 0000075272CE0B4 (Pioneer Generation Marslin Dam) had unmetered load of 4,584.4 kWh per annum recorded on the registry. Prior to the audit, Pioneer verified the correct load was 7.2 kWh per day (or 2,628 kWh per annum) and updated the registry and Orion accordingly. Corrected information will be provided through the revision submission process.
- Six ICPs have distributed unmetered load and are discussed in **section 5.4**.

Audit outcome

Compliant

5.3. Unmetered threshold exceeded (Clause 10.14 (5))

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

- *within 20 business days, commence corrective measure to ensure it complies with Part 10*
- *within 20 business days of commencing the corrective measure, complete the corrective measures*
- *no later than 10 business days after it becomes aware of the limit having been exceeded, advise each participant who is or would be expected to be affected of:*
 - *the date the limit was calculated or estimated to have been exceeded*
 - *the details of the corrective measures that the retailer proposes to take or is taking to reduce the unmetered load.*

Audit observation

The AC020 trader compliance report for 01/01/20 to 20/08/20 was examined to identify all unmetered load over 6,000 kWh per annum.

Audit commentary

All ICPs with unmetered kWh over 6000 kWh per annum have DUML databases and are discussed in **section 5.4**.

Audit outcome

Compliant

5.4. Distributed unmetered load (Clause 11 Schedule 15.3, Clause 15.37B)

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

An up-to-date database must be maintained for each type of distributed unmetered load for which the retailer is responsible. The information in the database must be maintained in a manner that the resulting submission information meets the accuracy requirements of clause 15.2.

A separate audit is required for distributed unmetered load data bases.

The database must satisfy the requirements of Schedule 15.5 with regard to the methodology for deriving submission information.

Audit observation

Pioneer supplies six ICPs with distributed unmetered load, recorded in two databases including 0000950092WP92B which does not appear on the DUML register. Both databases were audited by Veritek.

Audit commentary

EMS provides DUML submission information, and process compliance is recorded in their agent audit report.

The Electricity Authority issued a memo on 18 June 2019 confirming that the code requirement to calculate the correct monthly load must:

- take into account when each item of load was physically installed or removed, and
- wash up volumes must take into account where historical corrections have been made to the DUML load and volumes.

Currently Pioneer provides a snapshot of a DUML databases taken at the end of each month to EMS. EMS uses this information combined with data logger files to derive submission information. The use of a database snapshot to derive submission is recorded as non-compliance below.

Under the new audit DUML audit regime it is no longer possible to calculate an overall submission impact for the database inaccuracies found as the factors are not cumulative. Pioneer have been working with the database owners to resolve non-compliances identified through the audit process.

The DUML audit results are set out in the table below.

			Compliance Achieved (Yes/No)								
Database	Next audit due date	DUML Audit completed 16A.26 and 17.295F	Deriving submission information 11(1) of schedule 15.3	ICP identifier 11(2)(a) of schedule 15.3	Location of items of load 11(2)(b) of schedule 15.3	Description of load 11(2)(c)&(d) of schedule 15.3	All load recorded in database 11(2A) of schedule 15.3	Tracking of load changes 11(3) of schedule 15.3	Audit trail 11(4) of schedule 15.3	Database accuracy 15.2 and 15.37B(b)	Volume information accuracy 15.2 and 15.37B(c)
Grey DC	01/12/2021	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No
Gore DC	08/12/2020	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 5.4</p> <p>With: Clause 11 Schedule 15.3, Clause 15.37B & 16A.26</p> <p>From: 01-Mar-20</p> <p>To: 28-Oct-20</p>	<p>The Grey and Gore DC DUMML databases are not accurate.</p> <p>Potential impact: Medium</p> <p>Actual impact: Unknown</p> <p>Audit history: Twice</p> <p>Controls: Moderate</p> <p>Breach risk rating: 4</p>		
Audit risk rating	Rationale for audit risk rating		
Medium	<p>The effectiveness of the controls is recorded as moderate as Pioneer are working to resolve the issues found.</p> <p>The impact on settlement is medium because submission information is based on databases which contain some inaccurate information.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Grey DC – Audit completed 27.05.2020, Next audit 01.12.2021.</p> <p>At the time of the last audit the LED rollout was reported as being 85% complete. The remainder of the rollout has been completed during the audit period. The completion of the rollout has seen the correction of the discrepancies identified in the 2019 field audit. The only inaccuracy identified in this audit was one item of load with no wattage recorded.</p>		27.05.2020	Identified
<p>Gore DC – Next audit due 08.12.2020 - Working closely with Peter Standring at Gore DC they have carried out a complete review of the under canopy and Parks lighting, positioning of the full stock identifying the type and number and how they are presently powered. This is being loaded into the SLIMs database and have reviewed the other anomalies pointed out in the last audit.</p>		08.12.2020	
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Grey DC - Working closely with ElectroNet to ensure an ongoing accurate database is maintained. From the last audit 27.05.2020 the database is pretty accurate now.</p>		27.05.2020	
<p>Gore DC – Working closely with Gore DC to ensure an ongoing accurate database is maintained. The results of the audit due on 08.12.2020 should show this.</p>		08.12.2020	

6. GATHERING RAW METER DATA

6.1. Electricity conveyed & notification by embedded generators (Clause 10.13, Clause 10.24 and 15.13)

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

A participant must use the quantity of electricity measured by a metering installation as the raw meter data for the quantity of electricity conveyed through the point of connection.

This does not apply if data is estimated or gifted in the case of embedded generation under clause 15.13.

A trader must, for each electrically connected ICP that is not also an NSP, and for which it is recorded in the registry as being responsible, ensure that:

- *there is one or more metering installations*
- *all electricity conveyed is quantified in accordance with the Code*
- *it does not use subtraction to determine submission information for the purposes of Part 15.*

An embedded generator must give notification to the reconciliation manager for an embedded generating station, if the intention is that the embedded generator will not be receiving payment from the clearing manager or any other person through the point of connection to which the notification relates.

Audit observation

Processes for metering, submission, and distributed generation were reviewed. The registry list file and PR255 reports as at 20/08/20, and AC020 report for 01/01/20 to 20/08/20 were reviewed to determine compliance.

Audit commentary

Metering installations installed

All active, metered ICPs have an MEP, and at least one meter channel.

Pioneer's new connection process includes a check that metering is installed before electrical connection occurs, and that any unmetered load is quantified.

No load is submitted by subtraction. Part of ICP 1002050361LC60D's load is recorded in duplicate on ICP 0800539060LCBFF's metering and this duplicated load is zeroed for submission. This is discussed further in **section 12.2**.

Distributed generation

Pioneer receives notifications from customers and the networks that distributed generation is to be installed. Pioneer liaises with the customer to arrange for compliant metering to be installed and submits the generation volumes with an appropriate profile.

Pioneer reviews registry notification files, which should detect changes to installation types and addition of generation fuel types and capacities by distributors.

Pioneer supplies 24 active ICPs with distributed generation recorded by the distributor. Review of the AC020 report confirmed that there were four ICPs with generation recorded by the distributor and an import/export meter where Pioneer did not record a generation profile. I found that generation consumption was correctly submitted against PV1 profile, and the profile recorded on the registry was incorrect. This is recorded as non-compliance below, and in **section 2.1**. Where generation profiles were recorded, they were consistent with the generation fuel type.

Review of the registry list and PR255 report identified a further three ICPs with generation recorded by the distributor and no import/export meter with a settlement indicator of Y:

- energy generated by ICPs 0000654465WP00D and 0000492059CE990 is used within the installation and no energy is exported, and the ICPs are not required to have generation metering installed, and
- ICP 1001138684UNE16's I flow meter did not have its settlement indicator set to Y; Pioneer queried this with the MEP who have updated their records.

Bridged meters

No bridged meters were identified during the audit period.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.1 With: Clause 10.13 and Clause 15.13 From: 01-Jan-20 To: 28-Oct-20	ICPs 0000033279CE035, 0000101696DE14B, 0000500005CE26E and 0000204054DEBB3 have submission against the RPS and PV1 profiles, but only RPS profile is recorded on the registry. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong. Generation consumption is captured and reported where generation is present, and the non-compliance relates only to the accuracy of registry metering information. The incorrect profiles on the registry have no impact on settlement.		
Actions taken to resolve the issue		Completion date	Remedial action status
Registry updated		01.11.2020	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
New report is getting developed by our IT Orion provider Agility (#PGL-984). This will give us the ability to complete a reconciliation between Orion and the Registry on a monthly basis. Until this report is in place we will complete checks using the LIS file on a monthly basis to ensure we are reconciled between Orion and the Registry for fields RPS and PV1 profiles		01.03.2020 01.11.2020	

6.2. Responsibility for metering at GIP (Clause 10.26 (6), (7) and (8))

Code reference

Clause 10.26 (6), (7) and (8)

Code related audit information

For each proposed metering installation or change to a metering installation that is a connection to the grid, the participant, must:

- *provide to the grid owner a copy of the metering installation design (before ordering the equipment)*
- *provide at least three months for the grid owner to review and comment on the design*
- *respond within three business days of receipt to any request from the grid owner for additional details or changes to the design*
- *ensure any reasonable changes from the grid owner are carried out.*

The participant responsible for the metering installation must:

- *advise the reconciliation manager of the certification expiry date not later than 10 business days after certification of the metering installation*
- *become the MEP or contract with a person to be the MEP*
- *advise the reconciliation manager of the MEP identifier no later than 20 days after entering into a contract or assuming responsibility to be the MEP.*

Audit observation

The NSP table was reviewed.

Audit commentary

Review of the NSP table confirmed that Pioneer is not responsible for any GIPs.

Audit outcome

Not applicable

6.3. Certification of control devices (Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3)

Code reference

Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3

Code related audit information

The reconciliation participant must advise the metering equipment provider if a control device is used to control load or switch meter registers.

The reconciliation participant must ensure the control device is certified prior to using it for reconciliation purposes.

Audit observation

The registry list file as at 20/08/20 and AC020 trader compliance report for 01/01/20 to 20/08/20 were reviewed to determine compliance.

Audit commentary

Pioneer has only used the DFP, DST, HHR, PV1, RPS, and UML profiles, and control devices are not used for reconciliation purposes.

Audit outcome

Compliant

6.4. Reporting of defective metering installations (Clause 10.43(2) and (3))

Code reference

Clause 10.43(2) and (3)

Code related audit information

If a participant becomes aware of an event or circumstance that lead it to believe a metering installation could be inaccurate, defective, or not fit for purpose they must:

- *advise the MEP*
- *include in the advice all relevant details.*

Audit observation

Processes relating to defective metering were examined.

Reporting of defective metering installations was reviewed as part of the EMS and AMS audits. Information on inaccurate or defective meters since January 2020 was requested from EMS.

Audit commentary

Defective meters are typically identified through the meter reading validation process, or from information provided by the MEP or customer. Upon identifying a possible defective meter, Pioneer raises a field services job for the MEP to investigate.

EMS and AMS have processes to validate data, which are sufficient to identify defective meters. Where a possible meter defect is found, a field services job is raised to investigate and resolve the defect.

No defective NHH or HHR meters were identified during the audit period.

Audit outcome

Compliant

6.5. Collection of information by certified reconciliation participant (Clause 2 Schedule 15.2)

Code reference

Clause 2 Schedule 15.2

Code related audit information

Only a certified reconciliation participant may collect raw meter data, unless only the MEP can interrogate the meter, or the MEP has an arrangement which prevents the reconciliation participant from electronically interrogating the meter:

2(2) - The reconciliation participant must collect raw meter data used to determine volume information from the services interface or the metering installation or from the MEP.

2(3) - The reconciliation participant must ensure the interrogation cycle is such that it does not exceed the maximum interrogation cycle in the registry.

2(4) - The reconciliation participant must interrogate the meter at least once every maximum interrogation cycle.

2(5) - When electronically interrogating the meter the participant must:

- a) ensure the system is to within +/- 5 seconds of NZST or NZDST*
- b) compare the meter time to the system time*
- c) determine the time error of the metering installation*
- d) if the error is less than the maximum permitted error, correct the meter's clock*

- e) *if the time error is greater than the maximum permitted error then:*
 - i) *correct the metering installation's clock*
 - ii) *compare the metering installation's time with the system time*
 - iii) *correct any affected raw meter data.*
- f) *download the event log.*

2(6) – *The interrogation systems must record:*

- *the time*
- *the date*
- *the extent of any change made to the meter clock.*

Audit observation

HHR

HHR data is collected by EMS and AMS, and data transmission and clock synchronisation processes were reviewed as part of their agent audits. Examples of clock synchronisation events outside acceptable thresholds were requested.

NHH and AMI

Pioneer receives meter readings from AMS (for Arc, AMS and Smartco meters), Intellihub (for Metrix and AMS meters), and FCLM as MEPs, and Wells as an agent. Clock synchronisation processes for agents and MEPs were reviewed as part of their agent and MEP audits. Agents are required to advise Pioneer of clock synchronisation discrepancies and adjustments.

Audit commentary

HHR

HHR data transmission and clock synchronisation was reviewed as part of EMS and AMS' agent audits, and compliance is recorded. No defective HHR meters or clock synchronisation events outside the permissible thresholds have been identified since January 2020.

NHH and AMI

All information used to determine volume information is collected from the services interface or the metering installation by Pioneer, their agents, or the MEP. Fulfilment of the interrogation systems requirements, and clock synchronisation was examined as part of the MEP and agent audits.

MEPs advise Pioneer of clock synchronisation events via email, and action is taken as necessary. No events requiring action have been identified during the audit period.

Audit outcome

Compliant

6.6. Derivation of meter readings (Clause 3(1), 3(2) and 5 Schedule 15.2)

Code reference

Clause 3(1), 3(2) and 5 Schedule 15.2

Code related audit information

All meter readings must in accordance with the participants certified processes and procedures and using its certified facilities be sourced directly from raw meter data and, if appropriate, be derived and calculated from financial records.

All validated meter readings must be derived from meter readings.

A meter reading provided by a consumer may be used as a validated meter reading only if another set of validated meter readings not provided by the consumer are used during the validation process.

During the manual interrogation of each NHH metering installation the reconciliation participant must:

- a) obtain the meter register*
- b) ensure seals are present and intact*
- c) check for phase failure (if supported by the meter)*
- d) check for signs of tampering and damage*
- e) check for electrically unsafe situations.*

If the relevant parts of the metering installation are visible and it is safe to do so.

Audit observation

The data collection process was examined.

Processes to provide meter condition information were reviewed as part of Wells' agent audit.

Pioneer's processes to manage meter condition information were reviewed.

Processes for customer and photo reads were reviewed.

Audit commentary

Wells readings

Compliance is recorded in Wells' audit report.

During manual interrogation, the meter register value is collected and entered into a hand-held device. This reading enters Pioneer's systems and is labelled as a reading, which denotes that it is a meter reading collected and validated by a meter reader.

Wells monitors meter condition as required by schedule 15.2. Wells provides information on meter condition along with the daily reads, and monthly summary report containing missing seal and broken seal events. Wells also phones or emails Pioneer when they identify an issue which requires urgent resolution.

Wells notes (including supporting information on meter condition and reasons meters are unread) are imported into Orion and reviewed when investigating data validation and read attainment issues for individual ICPs. Daily, the Customer Services and Billing Analyst opens each Wells notes file and reviews it manually to identify any ICPs which require action. I reviewed a sample of these notes files and noted that read attainment issues were much more common than other meter condition events. The last meter condition event found occurred in August 2019, and related to a potential faulty meter, and Pioneer was working to resolve the issue before being notified by Wells.

I checked a sample of readings for five ICPs provided by Wells and confirmed that they are loaded into Orion as actual readings and are validated.

Customer and photo readings

Customer and customer provided photo readings are recorded as validated readings only if they pass validation against a set of actual validated readings from another source, otherwise they are recorded as customer readings. Customer readings are not treated as actual by the reconciliation process and are not used to support RR readings.

I checked five customer readings and five customer photo readings and confirmed that they all correctly recorded as customer or validated readings, depending on whether they had been validated against a set of actual readings from another source.

The previous audit recorded that an unvalidated customer reading was entered with an actual read type for ICP 0000489139CE865 on 30/10/19. Later actual readings from another source were received and used to validate the customer read, and the read type is now correct.

In the rare event that customer readings are obtained by Wells, a no read is recorded, and the customer reading is inserted in the notes. No examples of this were available during the audit period.

During Covid-19 lockdown, Wells developed a process to conduct outbound calling to customers to obtain customer readings. These readings were entered into the handheld and were validated in the same way as meter reader readings. Pioneer confirmed that none of these customer readings were provided to them during lockdown.

Audit outcome

Compliant

6.7. NHH meter reading application (Clause 6 Schedule 15.2)

Code reference

Clause 6 Schedule 15.2

Code related audit information

For NHH switch event meter reads, for the gaining trader the reading applies from 0000 hours on the day of the relevant event date and for the losing trader at 2400 hours at the end of the day before the relevant event date.

In all other cases, All NHH readings apply from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation.

Audit observation

The process of the application of meter readings was examined.

Audit commentary

NHH readings apply from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation except in the case of a switch event meter reading which applies to the end of the day prior to the event date for the losing trader and the start of the event date for the gaining trader as required by this clause.

All AMI systems have a clock synchronisation function, which ensures correct time-stamping. Manual readings taken by Wells are applied correctly.

Application of reads was reviewed as part of the historic estimate checks in **section 12.11** and found to be compliant.

The content of CS and RR files was examined in **sections 4.3, 4.4, 4.10 and 4.11**. The CS file readings were consistent with the readings up to 11.59pm on Pioneer's last day of responsibility apart from ICP 0000507601DEF19 (14/02/20), where the switch event reading applied in the CS file was not the actual reading on the switch event date, and also did not match the estimated closing reading recorded in Orion. It appears that the reads in Orion were updated as part of a billing correction after the switch was completed, and I was unable to determine the origin of the CS file readings. Non-compliance is recorded in this section because the switch reading does not reflect the reading read at 11.59pm on Pioneer's last day of responsibility.

Meter and register	CS file reading	Actual AMI reading	Orion estimated closing reading
211654753,1	2095 (A)	2016 (A)	2024 (E)
211654753,2	474 (A)	450 (A)	474 (E)
Difference to CS reading		-103 kWh	-71 kWh

I walked through the process for NHH to HHR and HHR to NHH meter changes. EMS is responsible for HHR submission and ensures that all HHR consumption is captured and reported for any day which HHR metering is present. Pioneer is responsible for the NHH consumption and ensures that all consumption is captured and reported.

- No downgrades occurred during the audit period.
- One upgrade occurred during the audit period. EMS recorded HHR consumption from the opening reading for the new meter on the day of the meter change, and Pioneer recorded NHH consumption up to the closing reading on the old meter on the day of the meter change. All consumption was captured and reported against the correct day, but the ICP was included in the HHR and NHH ICP days. ICPs cannot be recorded on the registry as having HHR and NHH metering on the same day, which resulted in an ICP days difference. Compliance is recorded in this section because the NHH readings were recorded against the correct date.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.7 With: Clause 6 Schedule 15.2 From: 14-Feb-20 To: 14-Feb-20	The agreed switch reading was not applied in Orion for ICP 0000507601DEF19 (14/02/20) resulting in 71 kWh of under submission. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate, I found that the correct switch event reading was applied for all other examples checked. The audit risk rating is low based on the kWh difference.		
Actions taken to resolve the issue		Completion date	Remedial action status
Switching team aware		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
All staff members are aware of this incident and will monitor and check going forward		Ongoing	

6.8. Interrogate meters once (Clause 7(1) and (2) Schedule 15.2)

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

Each reconciliation participant must ensure that a validated meter reading is obtained in respect of every meter register for every non half hour metered ICP for which the participant is responsible, at least once during the period of supply to the ICP by the reconciliation participant, and used to create volume information.

This may be a validated meter reading at the time the ICP is switched to, or from, the reconciliation participant.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 7(1).

Audit observation

The process to manage missed reads was reviewed, including viewing reports used in the process and Promapp documentation.

Reporting on ICPs not read during the period of supply was examined.

Audit commentary

A validated meter reading must be obtained in respect of every meter register for every NHH metered ICP for which the participant is responsible, at least once during the period of supply to the ICP by the reconciliation participant, unless exceptional circumstances prevent this from occurring. This may be a validated meter reading at the time the ICP is switched to, or from, the reconciliation participant.

The NHH meter reading frequency guidelines published by the Electricity Authority define “Exceptional circumstances” as meaning “circumstances in which access to the relevant meter is not achieved despite the reconciliation participant's best endeavours”. “Best endeavours” is defined as:

“Where a reconciliation participant failed to interrogate an ICP as a result of access issues, the reconciliation participant had made a minimum of three attempts to contact the customer, by using at least two methods of communication”.

The process for missed reads was examined. Unread ICPs are identified through review of the Wells notes discussed in **section 6.6**, and review of the ICP level supporting data for the meter read compliance reports submitted to the Authority. All ICPs with Wells notes, and ICPs unread for more than four months on the meter read compliance reports are reviewed by the Customer Services and Billing Analyst to determine whether action is required. The action taken varies depending on the issue preventing read attainment, and when action was last taken. For example:

- If an AMI meter is not receiving regular readings, the ICP will be added to a Wells meter reading route and a service request will be raised for the MEP to investigate and correct the issue. Orion will continue to load any AMI readings received while the meter is in a Wells reading route.
- If the meter is unable to be read due to access issues or the meter reader being unable to locate the meter, Pioneer will contact the customer to attempt to resolve the issue. Pioneer has changed their policy which allowed customer photo readings to be treated as actual readings by the read attainment, switching and reconciliation processes, and no longer requests photo readings to resolve read attainment issues.
- If the meter is unable to be read due to a fault or blank screen Pioneer will contact the customer to confirm the situation and raise a service request for the MEP where necessary.

Pioneer provided reporting on ICPs not read during the period of supply, where the period of supply ended between January and July 2020. Two ICPs had unread meters during their period of supply. One was supplied for 42 days and the other for 133 days. In both cases exceptional circumstances existed.

Audit outcome

Compliant

6.9. NHH meters interrogated annually (Clause 8(1) and (2) Schedule 15.2)

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

At least once every 12 months, each reconciliation participant must obtain a validated meter reading for every meter register for non half hour metered ICPs, at which the reconciliation participant trades continuously for each 12-month period.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 8(1).

Audit observation

The meter reading process was examined. Monthly reports for January to July 2020 were provided and reviewed to determine whether they met the requirements of clauses 8 and 9 of schedule 15.2.

Unread ICPs on the NSPs where less than 100% read attainment was achieved for February 2020 were reviewed to determine whether exceptional circumstances existed.

Audit commentary

The monthly meter reading reports provided were reviewed.

Month	Total NSPs where ICPs were supplied > 12 months	NSPs <100% read	ICPs unread for 12 months	Overall percentage read
Jan-20	62	2	4	99.61%
Feb-20	58	1	2	99.81%
Mar-20	57	1	2	99.81%
Apr-20	56	1	1	99.91%
May-20	56	1	2	99.82%
Jun-20	54	1	1	99.91%
Jul-20	55	1	1	99.92%

As discussed in **section 6.8**, there are processes in place to monitor read attainment, and attempt to resolve issues preventing read attainment.

ICPs on NSPs where less than 100% read attainment was achieved for February 2020 were reviewed, and I confirmed that the best endeavours requirements were met.

To check the accuracy of the reports, I matched the February 2020 summarised submission to the Authority to meter register level detail for 50 NSPs. I confirmed that the issues with incorrect timeframes being applied when identifying ICPs unread for four months and 12 months identified in the previous audit had been resolved. The reports are validated prior to submission and manual corrections are processed where necessary. A typing error resulted in inaccurate 4-month data being reported for one NSP in April 2020. This is recorded as non-compliance in **section 6.10**.

Audit outcome

Compliant

6.10. NHH meters 90% read rate (Clause 9(1) and (2) Schedule 15.2)

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

In relation to each NSP, each reconciliation participant must ensure that for each NHH ICP at which the reconciliation participant trades continuously for each 4 months, for which consumption information is required to be reported into the reconciliation process. A validated meter reading is obtained at least once every four months for 90% of the non half hour metered ICPs.

A report is to be sent to the Authority providing the percentage, in relation to each NSP, for which consumption information has been collected no later than 20 business days after the end of each month.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 9(1).

Audit observation

The meter reading process was examined. Monthly reports for January to July 2020 were reviewed.

Unread ICPs on the NSPs where less than 90% read attainment was achieved for February 2020 were reviewed to determine whether exceptional circumstances existed.

Audit commentary

The monthly meter reading reports provided were reviewed.

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	Total ICPs unread for 4 months	Overall percentage read
Jan-20	73	2	9	99.29%
Feb-20	63	1	10	99.19%
Mar-20	60	1	12	99.03%
Apr-20	59	1	-12 <i>Correct value = 18</i>	100.96% <i>Correct value = 98.56%</i>
May-20	60	1	28	97.78%
Jun-20	58	2	23	98.21%

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	Total ICPs unread for 4 months	Overall percentage read
Jul-20	59	-	16	98.78%

As discussed in **section 6.8**, there are processes in place to monitor read attainment, and attempt to resolve issues preventing read attainment.

I reviewed all ICPs connected to NSPs where less than 90% of ICPs were read in the previous four months for February 2020, and the best endeavours requirements were met for all unread ICPs.

An error was made in the 4-month totals in the meter read frequency report provided to the Authority. The reports are validated prior to submission and manual corrections are processed where necessary. The ICPs supplied for four months or more with actual readings for CYD0331-DUNE should have been updated to 140 but was updated to 170 due to a typing error. This resulted in the 4-month read count for the NSP (170) being higher than the number of ICPs continuously supplied for four months (145), the total four month unread ICPs being negative, and four month read attainment being over 100%

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 6.10 With: Clause 9(1) and (2) of Schedule 15.2 From: 01-Apr-20 To: 30-Apr-20	An inaccurate four month read ICP total was provided in the April 2020 meter read attainment report for CYD0331-DUNE. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Strong Breach risk rating: 1	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are recorded as strong. The reports are generated by Orion, and manually validated and corrected where actual readings have been received after the report was run. The error was isolated and caused by a typing error. There is no impact on submission, and a minor impact on the Authority, who use this report to monitor read attainment.	
Actions taken to resolve the issue		Completion date
Check put in place to make sure no further typing error		01.11.2020
Preventative actions taken to ensure no further issues will occur		Completion date
Control in place		01.11.2020
		Identified

6.11. NHH meter interrogation log (Clause 10 Schedule 15.2)

Code reference

Clause 10 Schedule 15.2

Code related audit information

The following information must be logged as the result of each interrogation of the NHH metering:

10(a) - the means to establish the identity of the individual meter reader

10(b) - the ICP identifier of the ICP, and the meter and register identification

10(c) - the method being used for the interrogation and the device ID of equipment being used for interrogation of the meter.

10(d) - the date and time of the meter interrogation.

Audit observation

NHH data is collected by MEPs and Wells. The data interrogation log requirements were reviewed as part of their agent and MEP audits.

Audit commentary

Compliance with this clause has been demonstrated by Pioneer's agents and MEPs as part of their own audits.

Audit outcome

Compliant

6.12. HHR data collection (Clause 11(1) Schedule 15.2)

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

Raw meter data from all electronically interrogated metering installations must be obtained via the services access interface.

This may be carried out by a portable device or remotely.

Audit observation

HHR data is collected by AMS and EMS. The data collection requirements were reviewed as part of their agent audits.

Audit commentary

Compliance with this clause has been demonstrated by the agents as part of their own audits.

Audit outcome

Compliant

6.13. HHR interrogation data requirement (Clause 11(2) Schedule 15.2)

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

11(2)(a) - the unique identifier of the data storage device

11(2)(b) - the time from the data storage device at the commencement of the download unless the time is within specification and the interrogation log automatically records the time of interrogation

11(2)(c) - the metering information, which represents the quantity of electricity conveyed at the point of connection, including the date and time stamp or index marker for each half hour period. This may be limited to the metering information accumulated since the last interrogation

11(2)(d) - the event log, which may be limited to the events information accumulated since the last interrogation

11(2)(e) - an interrogation log generated by the interrogation software to record details of all interrogations.

The interrogation log must be examined by the reconciliation participant responsible for collecting the data and appropriate action must be taken if problems are apparent or an automated software function flags exceptions.

Audit observation

HHR data is collected by AMS and EMS. The interrogation data requirements were reviewed as part of their agent audits.

Audit commentary

Compliance with this clause has been demonstrated by the agents as part of their own audits.

Audit outcome

Compliant

6.14. HHR interrogation log requirements (Clause 11(3) Schedule 15.2)

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

The interrogation log forms part of the interrogation audit trail and, as a minimum, must contain the following information:

11(3)(a)- the date of interrogation

11(3)(b)- the time of commencement of interrogation

11(3)(c)- the operator identification (if available)

11(3)(d)- the unique identifier of the meter or data storage device

11(3)(e)- the clock errors outside the range specified in Table 1 of clause 2

11(3)(f)- the method of interrogation

11(3)(g)- the identifier of the reading device used for interrogation (if applicable).

Audit observation

HHR data is collected by AMS and EMS. The data interrogation log requirements were reviewed as part of their agent audits.

Audit commentary

Compliance with this clause has been demonstrated by the agents as part of their own audits.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

The trading period duration, normally 30 minutes, must be within $\pm 0.1\%$ (± 2 seconds).

Audit observation

HHR data is collected by AMS and EMS. Trading period duration was reviewed as part of their agent audits.

Audit commentary

Compliance with this clause has been demonstrated by the agents as part of their own audits.

Audit outcome

Compliant

7.2. Archiving and storage of raw meter data (Clause 18 Schedule 15.2)

Code reference

Clause 18 Schedule 15.2

Code related audit information

A reconciliation participant who is responsible for interrogating a metering installation must archive all raw meter data and any changes to the raw meter data for at least 48 months, in accordance with clause 8(6) of Schedule 10.6.

Procedures must be in place to ensure that raw meter data cannot be accessed by unauthorised personnel.

Meter readings cannot be modified without an audit trail being created.

Audit observation

Processes to archive and store raw meter data were reviewed. The oldest raw meter data available was viewed, to confirm it is retained. Audit trails were reviewed in **section 2.4**.

Audit commentary

HHR

Compliance with this clause has been demonstrated by AMS and EMS as part of their own audits.

NHH

Compliance with this clause has been demonstrated by Wells as part of their own audit.

Data is retained for more than 48 months. I viewed raw meter reading information from when Pioneer began processing its own reading information in November 2016.

Review of audit trails in **section 2.4** confirmed that reads cannot be modified without an audit trail being created. Access to modify readings is restricted through log on privileges.

Audit outcome

Compliant

7.3. Non metering information collected / archived (Clause 21(5) Schedule 15.2)

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

All relevant non-metering information, such as external control equipment operation logs, used in the determination of profile data must be collected, and archived in accordance with clause 18.

Audit observation

Processes to record non-metering information were discussed, and non-metering information was viewed to determine whether the archiving requirements were met.

Streetlight on and off times are collected and archived by EMS, associated processes were reviewed as part of their agent audit.

Audit commentary

Pioneer collects unmetered data in relation to streetlights, which is appropriately archived.

Compliance with this clause has been demonstrated by EMS as part of their own audit.

Audit outcome

Compliant

8. CREATING AND MANAGING (INCLUDING VALIDATING, ESTIMATING, STORING, CORRECTING AND ARCHIVING) VOLUME INFORMATION

8.1. Correction of NHH meter readings (Clause 19(1) Schedule 15.2)

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

If a reconciliation participant detects errors while validating non-half hour meter readings, the reconciliation participant must:

19(1)(a) - confirm the original meter reading by carrying out another meter reading

19(1)(b) - replace the original meter reading the second meter reading (even if the second meter reading is at a different date)

19(1A) if a reconciliation participant detects errors while validating non half hour meter readings, but the reconciliation participant cannot confirm the original meter reading or replace it with a meter reading from another interrogation, the reconciliation participant must:

- *substitute the original meter reading with an estimated reading that is marked as an estimate;*
- and*
- *subsequently replace the estimated reading in accordance with clause 4(2)*

Audit observation

Processes for the correction of NHH meter readings were reviewed.

Audit commentary

Where errors are detected during read validation a check reading will be performed for manually read meters, or AMI readings for surrounding days will be checked in the data warehouse. If an original meter reading cannot be validated it will be made a misread, and an appropriately labelled estimated reading will be added. Misreads are excluded from billing and historic estimate processes in Orion.

Two examples of transposed meters were provided. I confirmed that the meter reader was informed, and a correction was processed to move the readings to the correct meter register.

Audit outcome

Compliant

8.2. Correction of HHR metering information (Clause 19(2) Schedule 15.2)

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

If a reconciliation participant detects errors while validating half hour meter readings, the reconciliation participant must correct the meter readings as follows:

19(2)(a) - if the relevant metering installation has a check meter or data storage device, substitute the original meter reading with data from the check meter or data storage device; or

19(2)(b) - if the relevant metering installation does not have a check meter or data storage device, substitute the original meter reading with data from another period provided:

- (i) *The total of all substituted intervals matches the total consumption recorded on a meter, if available; and*
- (ii) *The reconciliation participant considers the pattern of consumption to be materially similar to the period in error*

Audit observation

Processes for the correction of HHR meter readings were reviewed. Information on HHR corrections since January 2020 was requested from EMS.

Audit commentary

HHR corrections are processed by EMS, and compliance was recorded in their agent audit. No HHR corrections were required during the audit period.

Audit outcome

Compliant

8.3. Error and loss compensation arrangements (Clause 19(3) Schedule 15.2)

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

A reconciliation participant may use error compensation and loss compensation as part of the process of determining accurate data. Whichever methodology is used, the reconciliation participant must document the compensation process and comply with audit trail requirements set out in the Code.

Audit observation

The physical meter location point is not specifically mentioned in Pioneer's terms and conditions, but the existing practices in the electrical industry achieve compliance. The registry list as at 20/08/20 was reviewed.

Audit commentary

Pioneer supplies 100 ICPs with metering category 3 or above, and EMS confirmed that none require error or loss compensation.

Audit outcome

Compliant

8.4. Correction of HHR and NHH raw meter data (Clause 19(4) and (5) Schedule 15.2)

Code reference

Clause 19(4) and (5) Schedule 15.2

Code related audit information

In correcting a meter reading in accordance with clause 19, the raw meter data must not be overwritten. If the raw meter data and the meter readings are the same, an automatic secure backup of the affected data must be made and archived by the processing or data correction application.

If data is corrected or altered, a journal must be generated and archived with the raw meter data file. The journal must contain the following:

19(5)(a)- the date of the correction or alteration

19(5)(b)- the time of the correction or alteration

19(5)(c)- the operator identifier for the person within the reconciliation participant who made the correction or alteration

19(5)(d)- the half-hour metering data or the non half hour metering data corrected or altered, and the total difference in volume of such corrected or altered data

19(5)(e)- the technique used to arrive at the corrected data

19(5)(f)- the reason for the correction or alteration.

Audit observation

Corrections are discussed in **sections 2.1, 8.1 and 8.2**, which confirmed that raw meter data is not overwritten as part of the correction process. Audit trails are discussed in **section 2.4**.

Raw meter data retention for MEPs and agents was reviewed as part of their own audits.

Audit commentary

HHR corrections are processed by EMS, and compliance was recorded in their agent audit.

Raw NHH meter data is held by the MEPs and agents. Compliance was confirmed as part of their agent and MEP audits. Pioneer only corrects working data and keeps an appropriate audit trail within Orion.

Audit outcome

Compliant

9. ESTIMATING AND VALIDATING VOLUME INFORMATION

9.1. Identification of readings (Clause 3(3) Schedule 15.2)

Code reference

Clause 3(3) Schedule 15.2

Code related audit information

All estimated readings and permanent estimates must be clearly identified as an estimate at source and in any exchange of metering data or volume information between participants.

Audit observation

A sample of reads and volumes were traced from the source files to Pioneer's systems in **section 2.3**.

Provision of estimated reads to other participants during switching was reviewed in **sections 4.3, 4.4, 4.10** and **4.11**.

Correct identification of estimated reads, and review of the estimation process was completed in **sections 8.1, 8.2** and **9.4**.

Audit commentary

HHR

Compliance is recorded in the EMS agent report.

NHH

All estimated readings and validated readings are clearly identified as required by this clause. Opening switch event readings are marked as actuals, but reference information denotes the source of the read and read sub-type. Closing switch estimate reads are recorded as closing estimates.

I did not find any examples of incorrectly applied read classifications during the audit. The previous audit issues relating to incorrectly applied switch event readings and read types, and incorrect classification of customer photos as actual reading have been resolved.

Audit outcome

Compliant

9.2. Derivation of volume information (Clause 3(4) Schedule 15.2)

Code reference

Clause 3(4) Schedule 15.2

Code related audit information

Volume information must be directly derived, in accordance with Schedule 15.2, from:

3(4)(a) - validated meter readings

3(4)(b) - estimated readings

3(4)(c) - permanent estimates.

Audit observation

A sample of submission data was reviewed in **section 12**, to confirm that volume was based on readings as required.

Audit commentary

Review of submission data confirmed that it is based on readings as required by this clause.

Audit outcome

Compliant

9.3. Meter data used to derive volume information (Clause 3(5) Schedule 15.2)

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

All meter data that is used to derive volume information must not be rounded or truncated from the stored data from the metering installation.

Audit observation

A sample of submission data was reviewed in **section 12**, to confirm that volume was based on readings as required.

HHR data is collected by EMS and compliance was assessed as part of their agent audit.

NHH data is collected by MEPs and Wells as an agent, and compliance was assessed as part of their agent audits. I traced a sample of meter data from the source files to Pioneer's systems as discussed in **section 2.3**, to confirm whether readings were rounded or truncated on import.

Audit commentary

HHR

EMS' processes were reviewed as part of their agent audit and found to be compliant.

NHH

The MEP or agent retains raw, unrounded data. Compliance was demonstrated by Pioneer's MEPs and agents during their own audits.

A sample of readings for 13 NHH ICPs were traced from the source files to Orion in **section 2.3**. The source files contained the raw unrounded data. If decimal places are recorded in the raw file, the readings are rounded to zero decimal places on import into Orion.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 9.3 With: Clause 3(5) of schedule 15.2 From: 01-Jan-20 To: 28-Oct-20	AMI meter reading data is rounded on import into the Orion. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are moderate. Only AMI meters which are settled as NHH are affected.</p> <p>The impact is assessed to be low. Only NHH settled AMI readings provided with decimal places are affected, and the overall kWh difference is expected to be small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Noted		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Team will investigate decimal places on AMI meters. Orion issue which we will need to get our IT provider to investigate and fix.		31.05.2021	

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

If a reconciliation participant is unable to interrogate an electronically interrogated metering installation before the deadline for providing submission information, the submission to the reconciliation manager must be the reconciliation participant's best estimate of the quantity of electricity that was purchased or sold in each trading period during any applicable consumption period for that metering installation.

The reconciliation participant must use reasonable endeavours to ensure that estimated submission information is within the percentage specified by the Authority.

Audit observation

Processes for the estimation of HHR meter readings were reviewed. Information on HHR estimates since January 2020 was requested from EMS.

Audit commentary

HHR estimates are by EMS, and compliance was recorded in their agent audit.

HHR estimates are regularly created by EMS where data is missing for Pioneer ICPs. I checked a sample of five estimates, and confirmed they were created in accordance with their audited estimation procedures and the reasonable endeavours requirements were met.

Audit outcome

Compliant

9.5. NHH metering information data validation (Clause 16 Schedule 15.2)

Code reference

Clause 16 Schedule 15.2

Code related audit information

Each validity check of non half hour meter readings and estimated readings must include the following:

16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register

16(2)(b) - checks for invalid dates and times

16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend

16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected 0 values.

Audit observation

I reviewed and observed the NHH data validation process, including checking a sample of data validations and viewing system validation settings. I reviewed the “Add NHH (Wells Meter Reads) to Orion” process document.

Audit commentary

NHH data is validated by several processes.

Meter reader validation

Compliance is recorded in Wells’ agent audit report.

For meters read by Wells, a localised validation occurs at the hand-held device to ensure the reading is within expected high/low parameters. Readings which fail this validation are required to be re-entered, and if the two readings are the same the second reading will be accepted. If the second reading is different (potentially indicating the first reading was incorrect) then the second reading is required to be re-entered. Wells also provide meter condition information which is reviewed by Pioneer as discussed in **section 6.6**.

Orion validation

Read information is validated on upload into Orion. The read import process identifies the following exceptions, which appear on the read exceptions report:

1. meter read is exceptionally high,
2. meter read is exceptionally low,
3. cannot identify an open site for this read,
4. cannot identify an open meter for this read,
5. this read is already in the system,
6. more than one open account or more than one matching meter,
7. there is already a read for this meter this day (different),
8. you cannot enter a read for a future date,
9. attempted import of opening read from meter read file,
10. this read is earlier than previously billed reads,
11. unknown meter reader,
12. meter not found for this premise,
13. cannot enter a substitute read on an inactive meter, and
14. the meter could not be read.

Each ICP on the exception report is reviewed, and the reads are either validated and forced into Orion, or not validated and forced into Orion as misreads. For exceptions where there are metering discrepancies, such as an unknown meter or a meter which cannot be found, metering information will be checked and updated as necessary before processing the read.

Procedural documentation contains guidance on how to investigate and resolve discrepancies.

Vacant and disconnected ICPs

When an ICP becomes vacant, the customer account is closed, and responsibility for the ICP is transferred to a vacant “occupier” account. Pioneer attempts to sign up a new customer for the ICP, by sending a vacant form to the address and attempting to contact the landlord (if appropriate). If a new customer does not sign up, a vacant disconnection process is followed.

When a vacant ICP is disconnected, responsibility for the ICP is transferred to a disconnected “occupier” account. Consumption on disconnected accounts is expected to be zero, and any consumption on disconnected accounts will appear on the read exception reports.

Vacant and inactive occupier accounts continue to receive meter readings. Consumption for active vacant ICPs is submitted for reconciliation, and consumption for inactive vacant ICPs will be submitted if the ICP status is returned to active.

Pre submission checks

Reconciliation submissions are also reviewed prior to submission, this process is discussed in **section 12.3**.

Audit outcome

Compliant

9.6. Electronic meter readings and estimated readings (Clause 17 Schedule 15.2)

Code reference

Clause 17 Schedule 15.2

Code related audit information

Each validity check of electronically interrogated meter readings and estimate readings must be at a frequency that will allow a further interrogation of the data storage device before the data is overwritten within the data storage device and before this data can be used for any purpose under the Code.

Each validity check of a meter reading obtained by electronic interrogation or an estimated reading must include:

17(4)(a) - checks for missing data

17(4)(b) - checks for invalid dates and times

17(4)(c) - checks of unexpected zero values

17(4)(d) - comparison with expected or previous flow patterns

17(4)(e) - comparisons of meter readings with data on any data storage device registers that are available

17(4)(f) - a review of meter and data storage device event list. Any event that could have affected the integrity of metering data must be investigated.

Audit observation

I reviewed the HHR and AMI data validation processes, including meter event logs and validation checks.

Audit commentary

HHR

This function was examined as part of the agent audits and found to be compliant. No meter events which could affect meter accuracy have occurred since January 2020.

NHH

Pioneer receives meter readings from AMS (for Arc, AMS and Smartco meters), Intellihub (for Metrix and AMS meters), and FCLM as MEPs, and other NHH readings are provided by Wells as an agent.

Pioneer conducts validation for all AMI ICPs using the same processes as for NHH ICPs described in **section 9.5**. This achieves compliance with the requirement to conduct the following validations:

- checks of unexpected zero values (where a reading is exceptionally low), and
- comparison with expected or previous flow patterns.

Missing and invalid data will be identified when Pioneer attempts to import the data.

MEPs provide details of meter events which require action via SFTP or email, and these are reviewed and actioned if and when they are received. I saw examples of events provided by AMS and Arc during the audit, and action was taken as necessary.

Audit outcome

Compliant

10. PROVISION OF METERING INFORMATION TO THE GRID OWNER IN ACCORDANCE WITH SUBPART 4 OF PART 13 (CLAUSE 15.38(1)(F))

10.1. Generators to provide HHR metering information (Clause 13.136)

Code reference

Clause 13.136

Code related audit information

The generator (and/or embedded generator) must provide to the grid owner connected to the local network in which the embedded generator is located, half hour metering information in accordance with clause 13.138 in relation to generating plant that is subject to a dispatch instruction:

- *that injects electricity directly into a local network; or*
- *if the meter configuration is such that the electricity flows into a local network without first passing through a grid injection point or grid exit point metering installation.*

Audit observation

The NSP table on the registry was reviewed, and processes were discussed.

Audit commentary

Pioneer is not listed as being responsible for any NSPs on the NSP table.

Pioneer has operated the Aniwhenua Hydro Power Station since ownership of the station changed from Nova Energy to Southern Generation Limited Partnership on 29/07/16. ANI0331BOPDNP is connected to MAT1101BOPDGN, and there is an indirect connection to EDG0331HEDLGN. Pulse Energy is currently listed as the reconciliation participant for ANI0331BOPDNP on the NSP table.

The Authority investigated which parties were responsible for ANI0331BOPDNP in 2019 and found that Pioneer:

1. is the generator for ANI0331BOPDNP,
2. responds to dispatch instructions for ANI0331BOPDNP,
3. is responsible for collecting generation metering information, and
4. is responsible for providing of generation metering information to the grid owner on a daily basis under clauses 13.136 to 13.140.

Pulse Energy is responsible for meeting all other reconciliation participant obligations for ANI0331BOPDNP, including data collection, data validation, provision of monthly NSP volumes, and maintaining meter certification.

EMS obtains daily metering data and provides it to the grid owner. Information is provided to the grid owner in accordance with EMS' normal procedures, which were assessed and found to be compliant during their agent audit.

Audit outcome

Compliant

10.2. Unoffered & intermittent generation provision of metering information (Clause 13.137)

Code reference

Clause 13.137

Code related audit information

Each generator must provide the relevant grid owner half-hour metering information for:

- *any unoffered generation from a generating station with a point of connection to the grid 13.137(1)(a)*
- *any electricity supplied from an intermittent generating station with a point of connection to the grid. 13.137(1)(b)*

The generator must provide the relevant grid owner with the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of that generator's volume information. (clause 13.137(2))

If such half-hour metering information is not available, the generator must provide the pricing manager and the relevant grid owner a reasonable estimate of such data. (clause 13.137(3))

Audit observation

The NSP table on the registry was reviewed, and processes were discussed.

Audit commentary

As recorded in **section 10.1**, Pioneer responds to dispatch instructions for ANI0331BOPDNP and is required to provide generation metering information to the grid owner on a daily basis under clauses 13.136 and 13.140.

EMS obtains daily metering data and provides it to the grid owner. Information is provided to the grid owner in accordance with EMS' normal procedures, which were assessed and found to be compliant during their agent audit.

Audit outcome

Compliant

10.3. Loss adjustment of HHR metering information (Clause 13.138)

Code reference

Clause 13.138

Code related audit information

The generator must provide the information required by clauses 13.136 and 13.137,

13.138(1)(a)- adjusted for losses (if any) relative to the grid injection point or, for embedded generators the grid exit point, at which it offered the electricity

13.138(1)(b)- in the manner and form that the pricing manager stipulates

13.138(1)(c)- by 0500 hours on a trading day for each trading period of the previous trading day.

The generator must provide the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of the generator's volume information.

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

As recorded in **section 10.1**, Pioneer responds to dispatch instructions for ANI0331BOPDNP and is required to provide generation metering information to the grid owner on a daily basis under clauses 13.136 and 13.140.

EMS obtains daily metering data and provides it to the grid owner. Information is provided to the grid owner in accordance with EMS' normal procedures, which were assessed and found to be compliant during their agent audit.

Audit outcome

Compliant

10.4. Notification of the provision of HHR metering information (Clause 13.140)

Code reference

Clause 13.140

Code related audit information

If the generator provides half-hourly metering information to a grid owner under clauses 13.136 to 13.138, or 13.138A, it must also, by 0500 hours of that day, advise the relevant grid owner.

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

As recorded in **section 10.1**, Pioneer responds to dispatch instructions for ANI0331BOPDNP and is required to provide generation metering information to the grid owner on a daily basis under clauses 13.136 and 13.140.

EMS obtains daily metering data and provides it to the grid owner. Information is provided to the grid owner in accordance with EMS' normal procedures, which were assessed and found to be compliant during their agent audit.

Audit outcome

Compliant

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

Unless an embedded generator has given a notification in respect of the point of connection under clause 15.3, a trader must give notice to the reconciliation manager if it is to commence or cease trading electricity at a point of connection using a profile with a profile code other than HHR, RPS, UML, EG1, or PV1 at least five business days before commencing or ceasing trader.

The notification must comply with any procedures or requirements specified by the reconciliation manager.

Audit observation

The registry list for 20/08/20 was reviewed. I checked whether any breach allegations had been made in relation to buying and selling notifications.

Audit commentary

No trading notifications were required during the audit period, and no alleged breaches were recorded for late trading notifications.

Pioneer used the DFP and DST profiles, and ceased trading at BSC0011 using the DFP profile during the audit period. Because Pioneer continued to trade at the NSP using other profiles, no trading notification was issued.

Pioneer also used standard profiles RPS, PV1, HHR, and UML, and trading notifications are not required.

Audit outcome

Compliant

11.2. Calculation of ICP days (Clause 15.6)

Code reference

Clause 15.6

Code related audit information

Each retailer and direct purchaser (excluding direct consumers) must deliver a report to the reconciliation manager detailing the number of ICP days for each NSP for each submission file of submission information in respect of:

15.6(1)(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period

15.6(1)(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.

The ICP days information must be calculated using the data contained in the retailer or direct purchaser's reconciliation system when it aggregates volume information for ICPs into submission information.

Audit observation

The process for the calculation of ICP days was examined by checking 20 NSPs with a small number of ICPs to confirm the July 2020 NHH AV110 ICP days calculation was correct. HHR ICP days submission is completed by EMS and was examined during their agent audit.

I reviewed GR100 reports from February 2019 to July 2020 and investigated a diverse sample of ten NSP level ICP days differences, to determine why the difference had occurred.

Audit commentary

The process for the calculation of ICP days was examined by checking 20 NSPs with a small number of NHH ICPs each for July 2020. The ICP days calculation was confirmed to be correct. HHR ICP days submission is completed by EMS, and compliance is recorded in the agent audit.

The following table shows the ICP days difference between Pioneer's database and the RM return file (GR100) for 18 months.

Month	Ri	R1	R3	R7	R14
Feb 2019	-	-	-	-	-0.84%
Mar 2019	-	-	-	-	0.08%
Apr 2019	-	-	-	0.59%	0.10%
May 2019	-	-	-	1.03%	0.08%
Jun 2019	-	-	-	1.50%	-
Jul 2019	-	-	-	-0.02%	-
Aug 2019	-	-	0.42%	0.01%	-
Sep 2019	-	-	-	1.67%	-
Oct 2019	-	0.59%	1.21%	-0.02%	-
Nov 2019	0.51%	0.49%	0.11%	0.06%	-
Dec 2019	0.96%	0.26%	-0.08%	-0.08%	-
Jan 2020	0.29%	0.14%	0.56%	-	-
Feb 2020	0.13%	-0.16%	0.17%	-	-
Mar 2020	0.02%	0.07%	0.15%	-	-
Apr 2020	0.07%	0.09%	-0.05%	-	-

Month	Ri	R1	R3	R7	R14
May 2020	0.30%	0.18%	-	-	-
Jun 2020	0.15%	-0.09%	-	-	-
Jul 2020	-0.01%	-	-	-	-

I reviewed a diverse sample of ten NHH NSP level ICP days differences which remained for revision 7 or later and found they were caused by:

1. the timing of switch and status updates,
2. different treatment of residual load (SB) ICPs on the GR100 and AV110 reports,
3. the AV110 report's treatment of currently decommissioned ICPs - after an ICP's status becomes decommissioned it is excluded from the ICP days calculation for revision submissions for period when it was active (Pioneer have been working with Agility to resolve this issue, and the changes are currently being tested), and
4. the AV110 report's treatment of ICPs which switch in with inactive status and are reconnected at a later date - Orion reports ICP days from the switch in date, instead of the active date, and the reports are usually manually amended prior to submission to record the correct number of active ICP days.

As part of the pre-submission validation described in **section 12.2**, Pioneer checks the AV080 ICP detail reports against a date ranged registry list. ICPs missing from the submission information or registry are checked and corrections are processed as necessary. During the audit period Pioneer began checking the GR100 ICP comparison reports to identify any ICP days discrepancies which required investigation and correction prior to the next revision.

I reviewed all HHR NSP level ICP days differences which remained for R7 or later, and found they related to switch, status, or trader update timing.

Breach information provided by the Electricity Authority did not identify any late ICP days submissions.

Upgrades and downgrades

I walked through the process for NHH to HHR and HHR to NHH meter changes. EMS is responsible for HHR submission and ensures that all HHR consumption is captured and reported for any day which HHR metering is present. Pioneer is responsible for the NHH consumption and ensures that all consumption is captured and reported.

- No downgrades occurred during the audit period.
- One upgrade occurred during the audit period. EMS recorded HHR consumption from the opening reading for the new meter on the day of the meter change, and Pioneer recorded NHH consumption up to the closing reading on the old meter on the day of the meter change. All consumption was captured and reported against the correct day, but the ICP was included in the HHR and NHH ICP days. ICPs cannot be recorded on the registry as having HHR and NHH metering on the same day, which resulted in an ICP days difference. Compliance is recorded in this section because the ICP days data was consistent with what physically occurred for the ICP.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.2 With: Clause 15.6 From: 01-Jan-20 To: 28-Oct -20	The AV110 report excludes ICPs from revision submissions for periods where they were active if the ICP's current status is decommissioned and includes inactive ICP days where an ICP has switched in with inactive status. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate, because Orion does not calculate the correct number of ICP days where an ICP is decommissioned or switched in with inactive status. Monitoring controls are in place to identify ICPs with incorrect ICP days reported and adjust the submission information. The impact is assessed to be low, because a system change to resolve the issue is currently being tested, and revised submission data will be washed up.		
Actions taken to resolve the issue		Completion date	Remedial action status
Manual controls are in place and further check's against ICPCOMP report before submitting. R14 is double checked, manually updated if required before submitting		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
New control in place to check AV110 against ICPCOMP before sending. Agility have a fix in place which will be rolled out soon, so at the moment it is a manual process. All washups are double checked before submitting		Ongoing	

11.3. Electricity supplied information provision to the reconciliation manager (Clause 15.7)

Code reference

Clause 15.7

Code related audit information

A retailer must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each NSP, aggregated by invoice month, for which it has provided submission information to the reconciliation manager, including revised submission information for that period as non-loss adjusted values in respect of:

15.7(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period

15.7(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.

Audit observation

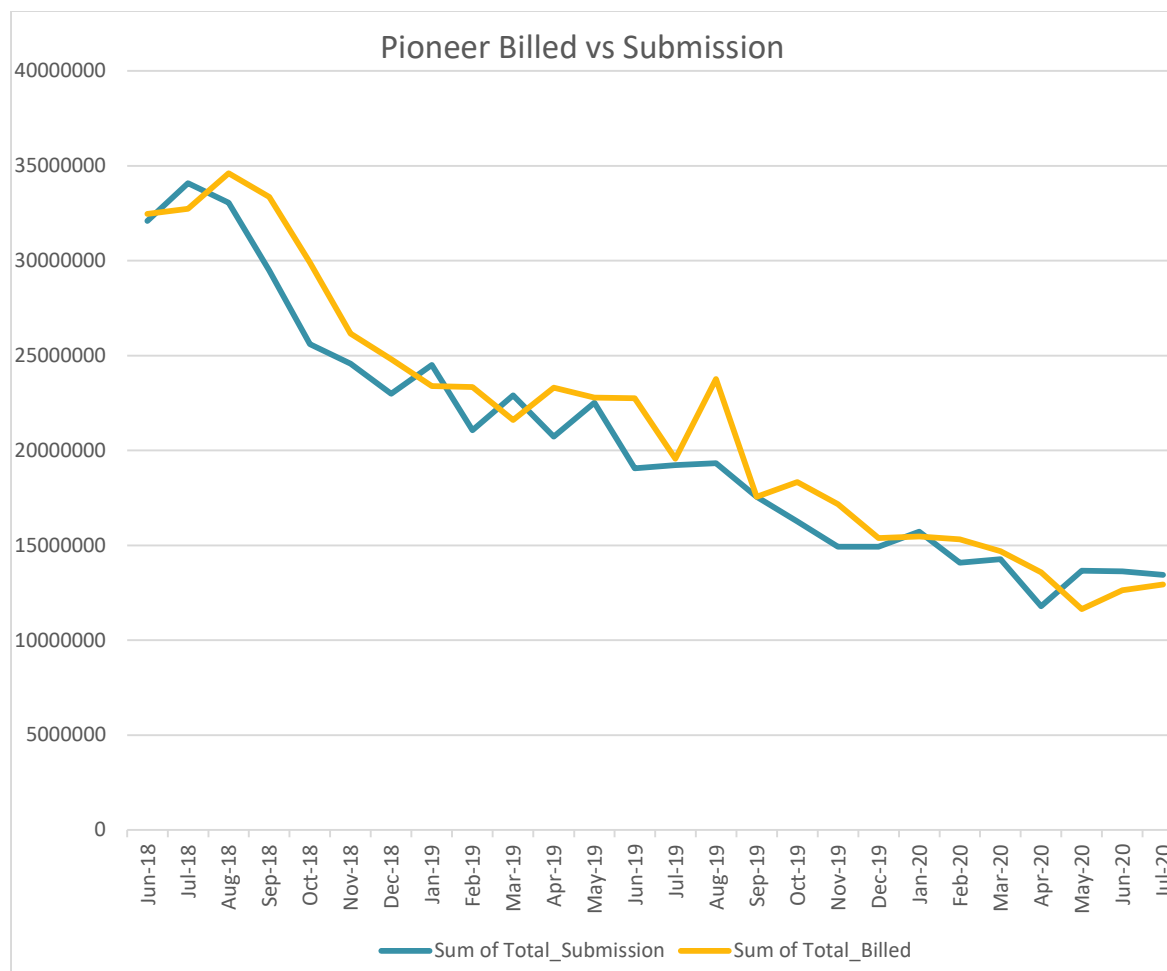
The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs to confirm the AV120 calculation was correct.

GR130 reports for June 2018 to July 2020 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Audit commentary

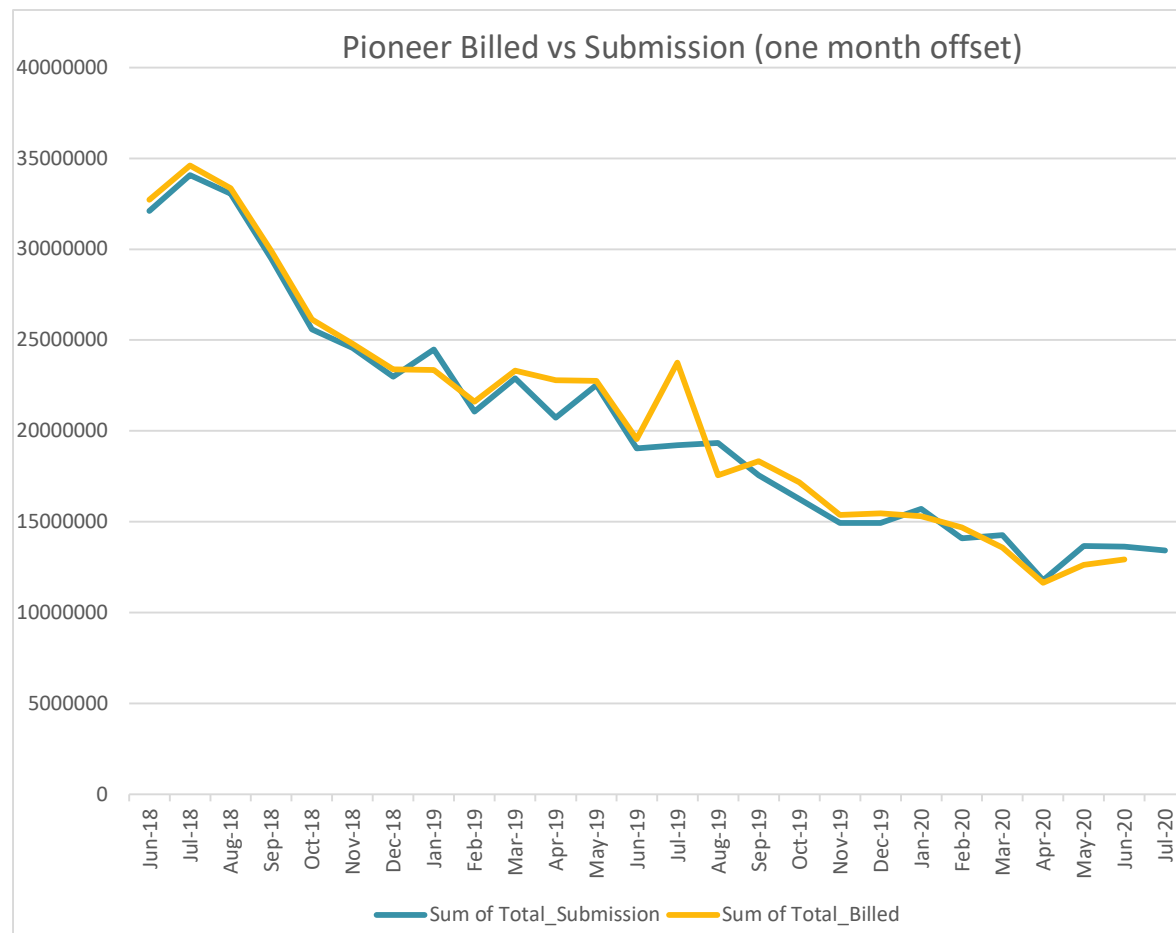
The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs against Pioneer's invoice information for July 2020. I found that the data was consistent with the invoicing data except where negative consumption was invoiced due to a correction, in which case zero was reported. This is compliant because the AV120 does not allow negative volumes to be supplied.

I also checked the difference between submission and electricity supplied information for a 26-month period, and the results are shown in the chart below. The total difference is 4.9% for the year ended July 2020 (billed higher than submission), and 6.2% for the two years ended July 2020 (billed higher than submission).



Due to Pioneer's billing cycle, there is a one month offset between billed and submitted consumption. Once the billing and submission periods are aligned, the close relationship between billed and submitted data is visible. Once aligned the total difference is 1.6% for the year ended June 2019 (billed higher than submission), and 1.7% for the two years ended June 2019 (billed higher than submission). The

difference appears reasonable, apart from a large difference in August 2019 which was primarily caused by embedded network ICPs billed to the customer by Pioneer being included in the AV120 submissions. This volume should have been excluded, because it is reconciled by TENCO not Pioneer.



Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 11.3</p> <p>With: Clause 15.7</p> <p>From: Aug-19</p>	<p>The AV120 report included information on ICPs which were billed by Pioneer but reconciled by another trader. They should have been excluded from Pioneer's billed submission.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>

Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong because the issue was isolated. Pioneer had invoiced the customer for the usage but was not responsible for settlement for the ICP. The impact is assessed to be low because there is no impact on settlement.		
Actions taken to resolve the issue		Completion date	Remedial action status
Corrected at R14 for Aug19		19.10.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Control in place with a new s/sheet to monitor large differences and investigate and manually fix before report is submitted		Ongoing	

11.4. HHR aggregates information provision to the reconciliation manager (Clause 15.8)

Code reference

Clause 15.8

Code related audit information

A retailer or direct purchaser (excluding direct consumers) must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each half hourly metered ICP for which it has provided submission information to the reconciliation manager, including:

15.8(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period

15.8(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.

Audit observation

EMS creates HHR aggregates and volumes information, and compliance was assessed as part of their audit.

I confirmed that the process for the calculation and aggregation of HHR data is correct, by matching HHR aggregates information with the HHR volumes data for eight submissions.

The GR090 ICP Missing files were examined for April 2019 to July 2020. An extreme case sample of 15 ICPs missing, including all missing from two or more revisions were checked.

Audit commentary

EMS' processes for provision of HHR aggregates information were assessed during their agent audit. Non-compliance was found because the HHR aggregates report contains submission information, not electricity supplied information as specified under clause 15.8. Although the reports EMS' produces are consistent with the Reconciliation Manager Functional Specification, this is recorded as technical non-compliance below.

I checked the process for aggregation of HHR data is correct, by matching HHR aggregates information to the volumes for eight submissions. All the submissions reconciled within ± 5 kWh.

Prior to approval, Pioneer checks graphs and tables of total aggregated submissions volumes to the previous month, previous revision and previous year submissions using the BI desktop and confirms the volumes are consistent with the aggregates.

The GR090 ICP Missing files were examined for all revisions for April 2019 to July 2020. An extreme case sample of 15 ICPs missing were checked, including all missing from two or more revisions. I found the differences were caused by:

- backdated switches,
- backdated status updates to inactive,
- backdated submission type changes, and
- delays in including HHR new connections in submission information (which were updated by revision three at the latest).

Late switching files and updates to the registry are discussed in **sections 3 and 4**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.4 With: Clause 15.8 From: 01-Jan-20 To: 28-Oct-20	HHR aggregates file does not contain electricity supplied information. Potential impact: None Actual impact: None Audit history: Twice Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The issue relating to content of the aggregates file is an error in the code, Pioneer is providing submission information as expected.		
Actions taken to resolve the issue		Completion date	Remedial action status
Noted		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Continue to check and confirm EMS files before they submit on our behalf		Ongoing	

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using one of the techniques set out in clause 15.36(3) specified by the Authority.

Audit observation

All HHR data is collected by EMS, and daylight savings adjustments were reviewed as part of their agent audit.

Audit commentary

Daylight savings adjustments were reviewed as part of EMS' agent audit and found to be compliant. EMS uses the trading period run on technique.

Review of submission information for the change to and from daylight savings time confirmed that the correct number of trading periods was recorded.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

By 1600 hours on the 4th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all NSPs for which the reconciliation participant is recorded in the registry as having traded electricity during the consumption period immediately before that reconciliation period (in accordance with Schedule 15.3).

By 1600 hours on the 13th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all points of connection for which the reconciliation participant is recorded in the registry as having traded electricity during any consumption period being reconciled in accordance with clauses 15.27 and 15.28, and in respect of which it has obtained revised submission information (in accordance with Schedule 15.3).

Audit observation

HHR submissions are created by EMS, and their processes were reviewed as part of their agent audit. Submissions were checked in **section 11.4**.

Pioneer prepares NHH submissions using Orion. Processes to ensure that submissions are accurate were reviewed.

Alleged breaches during the audit period were reviewed to determine whether any reconciliation submissions were late.

Audit commentary

HHR

Submission of HHR information was reviewed as part of EMS' agent audit and found to be compliant.

ICP 1002050361LC60D was connected on 30/09/18 at 5.30am and records the load formerly associated with ICP 0800539060LCBFF. ICP 0800539060LCBFF has installation type B, but 1002050361LC60D has installation type L because all generation is used internally by the installation.

Following creation of the new ICP 1002050361LC60D, ICP 0800539060LCBFF was not disconnected or decommissioned due to a metering issue. All consumption on ICP 1002050361LC60D is recorded by its metering, but part of the consumption is also recorded on ICP 0800539060LCBFF's metering because of the location of the CTs, resulting in duplication. EMS provided information showing that the gross load on old ICP 0800539060LCBFF and new ICP 1002050361LC60D is consistent.

Pioneer intends to resolve the metering issue as part of a substation upgrade project, expected to be completed in January 2023, and/or arrange for the old ICP 0800539060LCBFF to be disconnected and decommissioned.

In the meantime, to prevent double submission for the duplicated load recorded on ICP 0800539060LCBFF submission data for this ICP is zeroed, and I confirmed this by reviewing submission data for all revisions for three months. There have been no changes to this process during the audit period.

Given that submission is currently zeroed for ICP 0800539060LCBFF and settled under ICP 1002050361LC60D, whether the ICP should have reconciled elsewhere status was considered. I was informed that in the event of an outage for ICP 1002050361LC60D, the installation could be supplied from ICP 0800539060LCBFF and the status was correct.

NHH

Pioneer prepares reconciliation submissions using reconciliation consumption generated by Orion. Further information on calculation of historic estimate is recorded in **section 12.11**, and aggregation of the AV080 report is checked in **section 12.3**.

A sample of NHH ICPs were checked to make sure they are handled correctly, including vacant, disconnected, unmetered, and distributed generation ICPs.

Vacant consumption

Active vacant ICPs remain active in Orion and continue to be read and have volumes submitted. ICPs are transferred to an "occupier" customer in Orion for any vacant periods.

The previous audit found ICP 0004557746TC090 had 316 kWh of unrecorded vacant consumption between 09/11/19 and 30/11/19, because an "occupier" account was not created after the customer account closed on 09/11/19. Following the audit, Pioneer created an "occupier" account, but because a valid price plan was not assigned the volume was excluded from submission information. A valid price plan has now been assigned and the volume will be washed up by r14.

Inactive consumption

When an ICP is disconnected, responsibility for the ICP is transferred to a disconnected "occupier" account. The ICPs continue to be read, and inactive consumption is identified through the read validation process, with corrections to "active" status completed as necessary. No inactive ICPs with consumption were identified during the audit period.

Unmetered consumption

Submission information for five ICPs with unmetered volumes were reviewed, and I confirmed that the calculation process was correct and used the daily unmetered kWh on the meters tab multiplied by the

number of active days in the submission period. I checked submission information for five ICPs with unmetered load and confirmed it was correct.

The previous audit identified four ICPs with incorrect unmetered daily kWh recorded in Orion and/or the registry, and I confirmed corrections were processed for all the affected ICPs.

Distributed generation

Submission information for five NHH ICPs with distributed generation was reviewed, and correct consumption was submitted.

I checked generation consumption was submitted for a sample of ten HHR ICPs with generation indicated by the distributor and confirmed that generation volumes were submitted.

Audit outcome

Compliant

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

In preparing and submitting submission information, the reconciliation participant must allocate volume information for each ICP to the NSP indicated by the data held in the registry for the relevant consumption period at the time the reconciliation participant assembles the submission information. Volume information must be derived in accordance with Schedule 15.2.

However, if, in relation to a point of connection at which the reconciliation participant trades electricity, a notification given by an embedded generator under clause 15.13 for an embedded generating station is in force, the reconciliation participant is not required to comply with the above in relation to electricity generated by the embedded generating station.

Audit observation

Processes to ensure that information used to aggregate the reconciliation reports is consistent with the registry were reviewed in **section 2.1**.

The process to ensure that AV080 submissions are accurate was discussed, and reports used in the process were viewed.

The process for aggregating the AV080 was examined by checking the total submitted against detailed ICP level information for the same period for ten aggregation rows with a small number of ICPs.

The GR170 to AV080 files for six revision submissions were compared, to confirm zeroing occurs.

Audit commentary

The process for the calculation of NHH volumes was examined by checking the total submitted against detailed ICP level information for the same period for ten aggregation rows with a small number of ICPs. NHH volume calculation was confirmed to be correct.

The reconciliation manager's database uses the replacement method when new submission information is received. This means that if an aggregation row is included in the previous revision, but not included in the current revision due to a backdated withdrawal, status change, or switch, the previously submitted data for the row will remain in the reconciliation manager's database resulting in over submission.

During the audit period, Pioneer implemented a process to ensure that aggregation lines present in an earlier revision but not the current revision are zeroed. I compared the GR170 to AV080 files for six revision submissions. For some submissions prior to the new process being implemented zeroing was not conducted. I confirmed that the zeroing process is now in place and revised data will be provided through the revision process.

AV080 submissions are reviewed by Pioneer prior to being submitted, including:

- An ICP level check between the detailed submission data and a registry list with history for the reconciliation period to confirm that all active ICPs are included in the AV080 and AV110 submission information, and inactive ICPs are excluded.
- Graphs and tables of total aggregated submissions volumes are checked to the previous month, previous revision and previous year submissions.
- The AV080 submission data is checked for reasonableness, including review of any highs and lows.
- ICP level submission data is filtered to check that high and low (including negative) volumes are valid, and any ICPs reporting less ICP days than the total days for the month are checked.
- Forward estimates are checked and manually updated where necessary. Forward estimates are based on billing estimates, which are normally entered after the initial submission is complete. If forward estimate is required and no billing estimate is available, zero will be estimated by Orion. By revision one, invoice estimates will be created and included in submission information where necessary. Pioneer are working with Agility to ensure that reasonable forward estimates are calculated by Orion for the initial submission, and in the meantime forward estimates are manually calculated and added.
- Unmetered load is manually amended to become historic estimate because Orion classifies it as forward estimate.

Due to time constraints and workloads, not all exceptions are reviewed every submission. The Customer Services and Billing Analyst completes as many checks as time allows.

Other consumption validation checks are discussed in **section 9.5**.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

The participant (if a grid owner) must deliver to the reconciliation manager for each point of connection for all of its GXPs, the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.9(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period. (clause 15.9(b))*

Audit observation

Review of the NSP table confirmed that Pioneer is not a grid owner.

Audit commentary

Pioneer is not a grid owner.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

The participant (if a local or embedded network owner) must provide to the reconciliation manager for each NSP for which the participant has given a notification under clause 25(1) Schedule 11.1 (which relates to the creation, decommissioning, and transfer of NSPs) the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.10(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period. (clause 15.10(b))*

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

Pioneer does not own any local or embedded networks and is not required to provide NSP submission information.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

The participant (if a grid connected generator) must deliver to the reconciliation manager for each of its points of connection, the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.11(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period. (clause 15.11(b))*

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

Pioneer is not a grid connected generator.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

If the reconciliation participant has submitted information and then subsequently obtained more accurate information, the participant must provide the most accurate information available to the reconciliation manager or participant, as the case may be, at the next available opportunity for submission (in accordance with clauses 15.20A, 15.27, and 15.28).

Audit observation

Alleged breaches during the audit period were reviewed to determine whether any reconciliation submissions were late. Corrections were reviewed in **sections 8.1 and 8.2**.

Audit commentary

Late provision of submission information

No alleged breaches were recorded for late submission data during the audit period.

Accuracy of submission data

Accuracy issues identified in the previous audit have largely been resolved:

1. Pioneer ensures that the most recently published PR030 (seasonal adjusted daily shape values) files for each period are recorded in Orion and used to calculate historic estimates.
2. Unmetered load details have been confirmed, and corrections have been processed where required.
3. ICP 0004557746TC090 had 316 kWh of unrecorded vacant consumption between 09/11/19 and 30/11/19, because an “occupier” account was not created after the customer account closed on 09/11/19. Following the audit, Pioneer created an “occupier” account, but because a valid price plan was not assigned the volume was excluded from submission information. A valid price plan has now been assigned and the volume will be provided in revision 14.
4. Customer and customer provided photo readings are recorded as validated readings only if they pass validation against a set of actual validated readings from another source, otherwise they are recorded as customer readings. Customer readings are not treated as actual by the reconciliation process.

Issues relating to AV110 and AV080 report content produced by Orion have been investigated and testing of system changes is underway. In the meantime, additional monitoring and correction controls have been put in place as part of the pre-submission validation checks discussed in **section 12.3**. They key issues are:

1. The historic estimate process is not consistently treating opening and closing readings as validated readings or permanent estimates when calculating historic estimate. This is discussed further in **section 12.11**.
2. ICPs which are decommissioned are excluded from revision submissions for periods before they were decommissioned. This is discussed further in **section 11.2**.
3. ICPs which switch in with inactive status, are reported from their active date, rather than their reconnection date. This is discussed further in **section 11.2**.
4. Unmetered load is reported as forward estimate, instead of historic estimate. This is discussed further in **section 12.11**.
5. Orion calculates forward estimate based on invoice estimate reads. Due to timing, invoice estimates are usually created after initial reconciliation submissions are completed. This means that ICPs requiring forward estimate will have a zero estimated by Orion for the initial

submission. By revision one, invoice estimates will be created and included in submission information where necessary. This is discussed further in **section 12.12**.

Corrections were mostly processed as required and are discussed in **sections 2.1, 8.1** and **8.2**. As discussed in **section 4.11**, two ICPs had billing corrections completed after they switched out, which resulted in their agreed switch readings not being applied:

- ICP 0000507601DEF19 (14/02/20) had its agreed switch readings replaced with new estimated closing readings, resulting in under submission of 71 kWh, and
- ICP 0001425261UN6BF (01/06/20) had the agreed switch reading made a misread to prevent the reading being billed to the customer; misreads are ignored by the historic estimate process, and non-compliance is recorded in this section because the agreed switch reading was not applied.

A recommendation is made in **section 4.11** to update processes to ensure that when processing billing corrections after switch completion, the agreed switch reading is recorded in Orion with a read type consistent with the CS information.

The following reading data discrepancies identified during the January 2020 audit had not been resolved by the time this audit was completed. Pioneer intends to process corrections by revision 14:

ICP	Orion reading differs from agreed switch reading	kWh difference	Report section
0000001074ED314 19/07/19	Orion read type differs from agreed switch reading	-	4.4
0000483126CE356 01/11/19	Orion reading differs from agreed switch reading	39	4.4
0000500468CEEC4 01/11/19	Orion reading differs from agreed switch reading	16	4.4
0000508237CE214 04/11/19	Orion reading differs from agreed switch reading	99	4.4
0000509672CE05F 04/11/19	Orion reading differs from agreed switch reading	-73	4.4
0000491652CE3A2 31/08/19	The difference between the CS reading and AMI readings was less than 50 kWh and Pioneer elected to use their own reading as the gaining trader. No corrections have been processed, and no further action has been taken.	<50 kWh	4.11

The EA confirmed that one alleged breach occurred during the audit period, relating to a typing error in the September 2019 r3 submission. This is recorded as non-compliance in **section 2.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 12.7</p> <p>With: Clause 15.12</p> <p>From: 01-Jan-20</p> <p>To: 28-Oct-20</p>	<p>The agreed switch reading was not applied in Orion for ICP 0000507601DEF19 (14/02/20) resulting in 71 kWh of under submission.</p> <p>The agreed switch reading was not applied in Orion for 0001425261UN6BF (01/06/20) resulting in forward estimate being created instead of historic estimate.</p> <p>Six ICPs have some incorrect reading information, which Pioneer intends to update prior to r14.</p> <p>Potential impact: None</p> <p>Actual impact: None</p> <p>Audit history: Once</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate, because the submission process itself is operating as intended, the incorrect submissions were caused by inputs manually entered into those processes.</p> <p>The impact is assessed to be low, based on the kWh differences identified. Corrected submission information will be provided through the revision process.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Will be corrected at R14.		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
All staff aware		01.12.2020	

12.8. Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2)

Code reference

Clause 4 Schedule 15.2

Code related audit information

Only volume information created using validated meter readings, or if such values are unavailable, permanent estimates, has permanence within the reconciliation processes (unless subsequently found to be in error).

The relevant reconciliation participant must, at the earliest opportunity, and no later than the month 14 revision cycle, replace volume information created using estimated readings with volume information created using validated meter readings.

If, despite having used reasonable endeavours for at least 12 months, a reconciliation participant has been unable to obtain a validated meter reading, the reconciliation participant must replace volume information created using an estimated reading with volume information created using a permanent estimate in place of a validated meter reading.

Audit observation

NHH volumes 14-month revisions were reviewed for July to September 2018 to identify any forward estimate still existing.

Audit commentary

Review of the 14-month revisions for July to September 2018 showed that not all estimated meter readings had been replaced with validated meter readings. This is recorded as non-compliance below.

Month	Forward estimate
Jan-19	10,543.2
Feb-19	3,817.49
Mar-19	6,299.7
Grand Total	20,660.39

To determine the reasons that forward estimate remained, I checked 15 NSPs and months with forward estimate remaining and reviewed historic and total estimate calculations. For the sample of ICPs reviewed, I found that forward estimate was caused by:

- **Not entering permanent estimate reads for revision 14, where reads had not been attained.** Pioneer does not have a process to enter permanent estimate reads, where actual reads have not been attained by revision 14.
- **Manual amendments to reclassify unmetered load as historic estimate are not being processed consistently.** Orion records unmetered load submissions as forward estimate, but these should be classified as historic estimate because the load is known. There is a manual process to detect unmetered load ICPs and correct the historic estimate values, but this has not consistently occurred.
- **Forward estimate is calculated for some ICPs with opening and closing readings.** Opening and closing readings are not always treated as validated actual readings or permanent estimates by the historic estimate process, as discussed in **section 12.11**. Pioneer have been working with Agility to resolve this issue, and the changes are currently being tested.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.8 With: Clause 4 of Schedule 15.2 From: Jul-18, Aug-18, and Sep-18 r14	Some estimates were not replaced by revision 14. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate as they were sufficient to ensure that most NSPs had 100% historic estimate by revision 14, but there was room for improvement.</p> <p>The impact is low. Total forward estimate for the three months reviewed was 20,660.39 kWh. Some of this relates to unmetered load which is true historic estimate, but is incorrectly classified, and some relates to invalid forward estimate.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
New process in place especially at R14 to check the historic estimates and amend if necessary before submitting		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Manual process in place until Agility fix in place		31.01.2021	

12.9. Reconciliation participants to prepare information (Clause 2 Schedule 15.3)

Code reference

Clause 2 Schedule 15.3

Code related audit information

If a reconciliation participant prepares submission information for each NSP for the relevant consumption periods in accordance with the Code, such submission information for each ICP must comprise the following:

- half hour volume information for the total metered quantity of electricity for each ICP notified in accordance with clause 11.7(2) for which there is a category 3 or higher metering installation (clause 2(1)(a)) for each ICP about which information is provided under clause 11.7(2) for which there is a category 1 or category 2 metering installation (clause 2(1)(b)):
 - a) any half hour volume information for the ICP; or
 - b) any non half hour volumes information calculated under clauses 4 to 6 (as applicable).
 - c) unmetered load quantities for each ICP that has unmetered load associated with it derived from the quantity recorded in the registry against the relevant ICP and the number of days in the period, the distributed unmetered load database, or other sources of relevant information. (clause 2(1)(c))
- to create non half hour submission information a reconciliation participant must only use information that is dependent on a control device if (clause 2(2)):
 - a) the certification of the control device is recorded in the registry; or
 - b) the metering installation in which the control device is location has interim certification.
- to create submission information for a point of connection the reconciliation participant must apply to the raw meter data (clause 2(3)):
 - a) for each ICP, the compensation factor that is recorded in the registry (clause 2(3)(a))
 - b) for each NSP the compensation factor that is recorded in the metering installations most recent certification report. (clause 2(3)(b))

Audit observation

Aggregation and content of reconciliation submissions was reviewed.

Audit commentary

Compliance with this clause was assessed:

- all ICPs with metering category 3 or above are submitted as NHH,
- unmetered load submissions were checked in **section 12.2** and found to be compliant,
- no profiles requiring a certified control device are used,
- no loss or compensation arrangements are required, and
- aggregation of the AV080, AV090 and AV140 reports is compliant.

Audit outcome

Compliant

12.10. Historical estimates and forward estimates (Clause 3 Schedule 15.3)

Code reference

Clause 3 Schedule 15.3

Code related audit information

For each ICP that has a non-half hour metering installation, volume information derived from validated meter readings, estimated readings, or permanent estimates must be allocated to consumption periods using the following techniques to create historical estimates and forward estimates. (clause 3(1))

Each estimate that is a forward estimate or a historical estimate must clearly be identified as such. (clause 3(2))

If validated meter readings are not available for the purpose of clauses 4 and 5, permanent estimates may be used in place of validated meter readings. (clause 3(3))

Audit observation

Review nine AV080 submissions for revisions 3 to 14, to confirm that historic estimates are included and identified.

Permanence of meter readings is reviewed in **section 12.8**. The methodology to create forward estimates is reviewed in **section 12.12**.

Audit commentary

I reviewed nine AV080 submissions for a diverse sample of months and revisions and confirm that forward and historic estimates are included and identified as such.

Some inaccurate forward estimate was identified and is recorded as non-compliance in **section 12.12**.

Audit outcome

Compliant

12.11. Historical estimate process (Clause 4 and 5 Schedule 15.3)

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

The methodology outlined in clause 4 of Schedule 15.3 must be used when preparing historic estimates of volume information for each ICP when the relevant seasonal adjustment shape is available.

If a seasonal adjustment shape is not available, the methodology for preparing an historical estimate of volume information for each ICP must be the same as in clause 4, except that the relevant quantities kWh_{Px} must be prorated as determined by the reconciliation participant using its own methodology or on a flat shape basis using the relevant number of days that are within the consumption period and within the period covered by kWh_{Px}.

Audit observation

To assist with determining compliance of the Historical Estimate (HE) processes, Pioneer were supplied with a list of scenarios, and for some individual ICPs a manual HE calculation was conducted and compared to the result from Orion.

Audit commentary

The previous audit found PR030 (seasonal adjusted daily shape values) were only loaded into Orion when the initial allocation results are received. This issue has been resolved, and Pioneer's process ensures that the most recently published PR030 files for each period are recorded in Orion.

In most cases, historic estimate was calculated as expected. The following exceptions were identified:

1. Opening and closing readings are not always treated as validated actual readings or permanent estimates by the historic estimate process. Based on the historic estimate scenarios I reviewed, the opening and closing reads appear more likely to be treated correctly where month end readings are also recorded regardless of whether they are estimated or actual (i.e. when the process is calculating the actual consumption between the month end reading and switch loss read, or the switch gain read and the month end reading). Pioneer have been working with Agility to resolve this issue, and the changes are currently being tested.
Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a "material" change to any certified facilities, processes, or procedures then the changes must be subject to an audit prior to the change taking place. I recommend that prior to implementing the changes to the historic estimate logic, Pioneer completes a material change audit.
2. Unmetered load is classified as forward rather than historic estimate. Pioneer manually corrects this to historic estimate before submissions is completed.

Description	Recommendation	Audited party comment	Remedial action
Requirements to complete material change audits	<p>When making changes to systems and/or processes, consider whether a material change audit is required. If in doubt, the Authority should be consulted.</p> <p>Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a "material" change to any certified facilities, processes, or procedures then the changes must be subject to an audit prior to the change taking place.</p>	<p>These issues were raised on 23.04.2019 and worked on by Agility, testing is now in progress.</p> <p>Thorough testing will take place and we believe a material change audit is not required.</p> <p>We have been manually correcting the files and Agility fix will now complete it without manual intervention.</p>	Identified

Test	Scenario	Test Expectation	Result
a	ICP becomes Active part way through a month	Consumption is only calculated for the Active portion of the month.	Not compliant.
b	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Compliant, but I note that the historic estimate was zero in this case.
c	ICP become Inactive then Active again within a month.	Consumption is only calculated for the Active portion of the month.	Has not occurred
d	ICP switches in part way through a month on an estimated switch reading	Consumption is calculated to include the 1st day of responsibility.	Not compliant for a switch in with estimated gain and loss readings. No historic estimate was calculated. Compliant for a switch out an actual loss reading.
e	ICP switches out part way through a month on an estimated switch reading	Consumption is calculated to include the last day of responsibility.	Compliant for a switch out with an estimated loss reading. Compliant for a switch out an actual loss reading.
f	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	Has not occurred
g	Continuous ICP with a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
h	Continuous ICP without a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
i	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Compliant
j	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Compliant, but unmetered load is recorded as forward estimate by Orion and is manually updated to be historic estimate pre-submission.
k	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Has not occurred

Test	Scenario	Test Expectation	Result
l	Network/GXP/Connection (POC) alters partway through a month.	Consumption is separated and calculated for the separate portions of where it is to be reconciled to.	Compliant
m	ICP with a customer read during the month	Customer reads are not used to calculate historic estimate, unless they are validated against a set of actual reads not provided by the customer.	Compliant, customer reads are not treated as validated reads
n	ICP with a photo read during the month	Photo reads are not used to calculate historic estimate, unless they are validated against a set of actual reads not provided by the customer.	Compliant, customer reads are not treated as validated reads
o	ICP has a meter with a multiplier greater than 1	The multiplier is applied correctly	Compliant

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 12.11</p> <p>With: Clause 4 and 5</p> <p>Schedule 15.3</p> <p>From: tests a and d</p>	<p>Historic estimate is not calculated as expected for some tests which used opening and/or closing reads to calculate historic estimate.</p> <p>Potential impact: None</p> <p>Actual impact: None</p> <p>Audit history: Twice</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as weak, because the calculation is not operating as expected for some ICPs with opening and closing readings.</p> <p>The impact is assessed to be low because a system change to resolve the issue is currently being tested, and revised submission data will be washed up. Small numbers of ICPs have switched in and out during the audit period.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Aware of issue and checking manually and correcting if required		01.12.2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Controls in place and the fix from Agility will help resolve this issue	01.02.2021	

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 Schedule 15.3

Code related audit information

Forward estimates may be used only in respect of any period for which an historical estimate cannot be calculated.

The methodology used for calculating a forward estimate may be determined by the reconciliation participant, only if it ensures that the accuracy is within the percentage of error specified by the Authority.

Audit observation

The process to create forward estimates was reviewed.

Forward estimates were checked for accuracy by analysing the GR170 file for variances between revisions for 14 months.

Audit commentary

Forward estimate is created where historic estimate cannot be calculated because actual or permanent estimate reads do not cover the entire reconciliation period. Orion calculates forward estimate based on invoice estimate reads, and the invoice estimate reads are based on the estimated daily kWh for each meter stored in Orion and the number of days to be estimated. If no estimated daily consumption is available, zero is estimated.

Due to timing, invoice estimates are usually created after initial reconciliation submissions are completed. This means that ICPs requiring forward estimate will have a zero estimated by Orion for the initial submission. By revision one, invoice estimates will be created and included in submission information where necessary.

Pioneer are working with Agility to ensure that reasonable forward estimates are calculated by Orion for the initial submission. In the meantime, Pioneer manually inserts forward estimates as part of the pre-submission validation processes described in **section 12.3**.

The accuracy of the initial submission, in comparison to each subsequent revision is required to be within $\pm 15\%$ and within $\pm 100,000\text{kWh}$. The target was met for most balancing areas and revisions reviewed.

Quantity of balancing areas with differences over 15% and 100,000 kWh

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Mar 2019	-	-	-	-	47
Apr 2019	-	1	1	1	47

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
May 2019	-	-	-		47
Jun 2019	-	-	-		47
Jul 2019	-	-	-		47
Aug 2019	3	2	2		47
Sep 2019	-	1	-		46
Oct 2019	1	-	-		48
Nov 2019	1	1	1		48
Dec 2019	2	2			47
Jan 2020	2	2			47
Feb 2020	-	-			45
Mar 2020	-	-			41
Apr 2020	-				39
May 2020	-				41

The total variation between revisions at an aggregate level is shown below.

Month	Revision 1	Revision 3	Revision 7	Revision 14
Mar 2019	-6.27%	2.50%	3.67%	-0.57%
Apr 2019	0.07%	-4.65%	-4.31%	-4.56%
May 2019	-7.67%	-2.14%	-0.98%	
Jun 2019	-7.67%	-6.34%	-5.89%	
Jul 2019	-10.30%	-5.24%	-5.39%	
Aug 2019	0.03%	10.56%	9.47%	

Month	Revision 1	Revision 3	Revision 7	Revision 14
Sep 2019	-4.47%	-21.01%	-1.63%	
Oct 2019	-11.65%	-6.25%	-6.19%	
Nov 2019	-14.90%	-11.69%	-9.99%	
Dec 2019	-23.31%	-13.45%		
Jan 2020	-16.43%	-11.81%		
Feb 2020	-8.23%	-2.00%		
Mar 2020	-19.95%	-12.70%		
Apr 2020	-10.58%			
May 2020	-1.80%			

I investigated the balancing area differences over the threshold, to confirm the reasons for the differences and found they were caused by:

- Orion creating forward estimates of zero for the initial submission, where billing estimates were unavailable prior to Pioneer's process change to manually add reasonable forward estimates,
- alleged breach 2001PION1 where the volume for HWB0331 for September 2019 r3 was recorded incorrectly because of a typing error; the difference washed out in r7,
- irrigation loads where the forward estimate provided was higher than the actual consumption once readings were received, and
- switch timing.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 12.12</p> <p>With: Clause 6 Schedule 15.3</p> <p>From: Apr-19, Aug-19, Nov-19, Dec-19, and Jan-20</p>	<p>Some balancing area differences between revisions were over the threshold because of inaccurate forward estimates.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Once</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
Audit risk rating	Rationale for audit risk rating

Low	The controls are rated as moderate. Pioneer now have processes in place to identify invalid zero forward estimate and update it prior to submission.		
	The audit risk rating is low because revised submission data will be washed up.		
Actions taken to resolve the issue		Completion date	Remedial action status
Aware of issue and control/check in place		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Processes in place to identify invalid zero forward estimate and update prior to submission if required		Ongoing	

12.13. Compulsory meter reading after profile change (Clause 7 Schedule 15.3)

Code reference

Clause 7 Schedule 15.3

Code related audit information

If the reconciliation participant changes the profile associated with a meter, it must, when determining the volume information for that meter and its respective ICP, use a validated meter reading or permanent estimate on the day on which the profile change is to take effect.

The reconciliation participant must use the volume information from that validated meter reading or permanent estimate in calculating the relevant historical estimates of each profile for that meter.

Audit observation

The registry list as at 20/08/20 and event detail report for 01/01/20 to 20/08/20 were reviewed to identify any ICPs which have had profile changes.

Audit commentary

One profile change relating to a meter upgrades was identified. An actual reading was recorded for the profile change.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

13.1. Provision of submission information to the RM (Clause 8 Schedule 15.3)

Code reference

Clause 8 Schedule 15.3

Code related audit information

For each category 3 of higher metering installation, a reconciliation participant must provide half hour submission information to the reconciliation manager.

For each category 1 or category 2 metering installation, a reconciliation participant must provide to the reconciliation manager:

- *Half hour submission information; or*
- *Non half hour submission information; or*
- *A combination of half hour submission information and non half hour submission information*

However, a reconciliation participant may instead use a profile if:

- *The reconciliation participant is using a profile approved in accordance with clause Schedule 15.5; and*
- *The approved profile allows the reconciliation participant to provide half hour submission information from a non half hour metering installation; and*
- *The reconciliation participant provides submission information that complies with the requirements set out in the approved profile.*

Half hour submission information provided to the reconciliation manager must be aggregated to the following levels:

- *NSP code*
- *reconciliation type*
- *profile*
- *loss category code*
- *flow direction*
- *dedicated NSP*
- *trading period*

The non half hour submission information that a reconciliation participant submits must be aggregated to the following levels:

- *NSP code*
- *reconciliation type*
- *profile*
- *loss category code*
- *flow direction*
- *dedicated NSP*
- *consumption period or day.*

Audit observation

Processes to ensure that information used to aggregate the reconciliation reports is consistent with the registry were reviewed in **section 2.1**.

Aggregation of NHH volumes is discussed in **section 12.3**, and aggregation of HHR volumes is discussed in **section 11.4**.

Audit commentary

Submission information is provided to the reconciliation manager in the appropriate format and is aggregated to the following level:

- NSP code,
- reconciliation type,
- profile,
- loss category code,
- flow direction,
- dedicated NSP, and
- trading period for half hour metered ICPs and consumption period or day for all other ICPs.

NHH volumes and HHR volumes aggregation was confirmed to be compliant. The submitted data was also compared to billed data in **section 11.3** and appeared reasonable.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

When reporting submission information, the number of decimal places must be rounded to not more than two decimal places.

If the unrounded digit to the right of the second decimal place is greater than or equal to five, the second digit is rounded up, and

If the digit to the right of the second decimal place is less than five, the second digit is unchanged.

Audit observation

I reviewed the rounding of data on the AV080, AV090 and AV140 reports as part of the aggregation checks.

Audit commentary

Review of nine AV080 and nine AV090 reports confirmed that submission information is appropriately rounded to two decimal places.

Review of nine AV140 reports confirmed that submission information is appropriately rounded to zero decimal places.

Audit outcome

Compliant

13.3. Historical estimate reporting to RM (Clause 10 Schedule 15.3)

Code reference

Clause 10 Schedule 15.3

Code related audit information

By 1600 hours on the 13th business day of each reconciliation period the reconciliation participant must report to the reconciliation manager the proportion of historical estimates per NSP contained within its non half hour submission information.

The proportion of submission information per NSP that is comprised of historical estimates must (unless exceptional circumstances exist) be:

- *at least 80% for revised data provided at the month 3 revision (clause 10(3)(a))*
- *at least 90% for revised data provided at the month 7 revision (clause 10(3)(b))*
- *100% for revised data provided at the month 14 revision (clause 10(3)(c)).*

Audit observation

The timeliness of submissions of historic estimate was reviewed in **section 12.2**.

I reviewed nine months of AV080 reports to determine whether historic estimate requirements were met.

Audit commentary

The quantity of historical estimates is contained in the submission file and is not a separate report. The proportion of HE in the revision files was checked for nine separate months, and the table below shows that compliance has not been achieved in all instances.

Quantity of NSPs where revision targets were met

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Jan 2019			60	70
Feb 2019			60	74
Mar 2019			56	72
Sep 2019		70		72
Oct 2019		70		71
Nov 2019		70		72
Jan 2020	72			73
Feb 2020	67			67
Mar 2020	59			64

The table below shows that the percentage HE at a summary level for all NSPs is at or above the required targets for revisions 3 and 7, and below the targets for revision 14.

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Jan 2019	-	-	99.75%
Feb 2019	-	-	99.89%
Mar 2019	-	-	99.82%
Sep 2019	-	99.49%	-
Oct 2019	-	99.73%	-
Nov 2019	-	99.77%	-
Jan 2020	98.65%	-	-
Feb 2020	95.28%	-	-
Mar 2020	91.63%	-	-

I checked ten NSPs with forward estimate remaining and found it was caused by:

- **Not entering permanent estimate reads for revision 14, where reads had not been attained.** Pioneer does not have a process to enter permanent estimate reads, where actual reads have not been attained by revision 14.
- **Manual amendments to reclassify unmetered load as historic estimate are not being processed consistently.** Orion records unmetered load submissions as forward estimate, but these should be classified as historic estimate because the load is known. There is a manual process to detect unmetered load ICPs and correct the historic estimate values, but this has not consistently occurred.
- **Forward estimate is calculated for some ICPs with opening and closing readings.** Opening and closing readings are not always treated as validated actual readings or permanent estimates by the historic estimate process, as discussed in **section 12.11**. Pioneer have been working with Agility to resolve this issue, and the changes are currently being tested.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 13.3</p> <p>With: Clause 10 of Schedule 15.3</p> <p>From: Jan-Mar 19 (r14), Sep-Nov 19 (r7), Jan 20 (r3) and Mar 20 (r3)</p>	<p>Historic estimate thresholds were not met for some revisions.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate as they were sufficient to ensure that most NSPs are close to the target values, but there was room for improvement.</p> <p>The impact is assessed to be low. Some of the forward estimate relates to unmetered load which is true historic estimate, but is incorrectly classified, and some relates to invalid forward estimate.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Aware of issue. Control/check in place for UML.		01.11.2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Aware of issue and manually updated if required		Ongoing	

CONCLUSION

Pioneer supplies 1,555 active HHR and NHH ICPs.

HHR and DUML submission is completed by EMS, and compliance is recorded in their audit report, apart from a technical non-compliance relating to the HHR aggregates submission.

NHH submission, registry information management and switching is completed by Pioneer.

During the audit period, Pioneer has put considerable effort into adopting recommendations from the previous audit and resolving non-compliance. In particular:

1. Customer and customer photo readings are consistently treated correctly for submission and switching.
2. Switching file accuracy for critical fields, including the switch event reading, has improved.
3. Corrections have been processed for most registry and reconciliation data which was found to require correction during the previous audit, and the outstanding corrections are in progress and expected to be completed prior to revision 14 for the affected ICPs.
4. The accuracy of meter read frequency reporting, and compliance with the meter reading frequency requirements has improved.
5. Meter condition information provided by Wells is consistently reviewed.
6. The most recently published PR030 (seasonal adjusted daily shape values) files for each period are recorded in Orion and used to calculate historic estimates.
7. Unmetered load details have been confirmed, and corrections have been processed where required.
8. A process to ensure that aggregation lines present in an earlier revision but not the current revision are zeroed has been implemented.

Issues relating to AV110 and AV080 report content produced by Orion have been investigated and testing of system changes is underway. Improved validation processes have been implemented for submission, until changes to Orion are tested and deployed.

To improve future compliance, I recommend:

1. Completing a full reconciliation between Orion and the registry at least monthly, to ensure that data is accurate and consistent. The likelihood of discrepancies is increased because registry and Orion updates are processed manually and separately.
2. Further improvements to the accuracy of switch file information, including checking application of the "CO" (contracted customer) AN response code, and ensuring that the last actual read date is consistently updated where AMI readings are manually added to CS files before they are sent.
3. Improvement of the billing correction process to ensure that the agreed switch reading is always correctly recorded in Orion.
4. Continuing to work towards resolving the AV080 and AV110 report issues, and thoroughly validating submission information in the meantime to identify and correct data prior to submission.

The improvements have resulted in a significant reduction to the audit risk rating from 69 in the January 2020 audit to 52 this audit. As I noted in the January 2020 audit, the total risk rating is inflated because some very minor non-compliances affecting a short period or small number of ICPs with little to no impact may be recorded as non-compliance in many report sections. For example, a billing correction which resulted in a change to the agreed switch read for ICP 0000507601DEF19 was recorded as non-compliance in **sections 4.10, 4.11, 6.7 and 12.7**.

Based on my analysis and Pioneer's comments, progress during the audit period and expected continued progress, I recommend that the next audit is due in 12 months.

PARTICIPANT RESPONSE

Pioneer have reviewed this report, and their comments are contained within its body.