

ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

The Veritek logo consists of the word "VERITEK" in a blue, serif, all-caps font. To the left of the text is a thin vertical blue line. Below the text is a thin horizontal blue line.

For

WISE PRE PAY ENERGY LIMITED

Prepared by: Tara Gannon, Veritek Limited

Date audit commenced: 11 September 2018

Date audit report completed: 1 October 2018

Audit report due date: 23 November 2018

TABLE OF CONTENTS

Executive summary	5
Audit summary	6
Non-compliances	6
Recommendations	10
Issues	10
1. Administrative	11
1.1. Exemptions from Obligations to Comply with Code (Section 11)	11
1.2. Structure of Organisation	11
1.3. Persons involved in this audit	11
1.4. Use of Agents (Clause 15.34)	12
1.5. Hardware and Software	12
1.6. Breaches or Breach Allegations	12
1.7. ICP Data	12
1.8. Authorisation Received	13
1.9. Scope of Audit	13
1.10. Summary of previous audit	15
2. Operational Infrastructure	19
2.1. Relevant information (Clause 10.6, 11.2, 15.2)	19
2.2. Provision of information (Clause 15.35)	21
2.3. Data transmission (Clause 20 Schedule 15.2)	22
2.4. Audit trails (Clause 21 Schedule 15.2)	22
2.5. Retailer responsibility for electricity conveyed - participant obligations (Clause 10.4) ..	23
2.6. Retailer responsibility for electricity conveyed - access to metering installations (Clause 10.7(2),(4),(5) and (6))	23
2.7. Physical location of metering installations (Clause 10.35(1)&(2))	24
2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B)	25
2.9. Connection of an ICP (Clause 10.32)	25
2.10. Temporary Electrical Connection of an ICP (Clause 10.33(1))	26
2.11. Electrical Connection of Point of Connection (Clause 10.33A)	26
2.12. Arrangements for line function services (Clause 11.16)	28
2.13. Arrangements for metering equipment provision (Clause 10.36)	29
3. Maintaining registry information	31
3.1. Obtaining ICP identifiers (Clause 11.3)	31
3.2. Providing registry information (Clause 11.7(2))	32
3.3. Changes to registry information (Clause 10 Schedule 11.1)	32
3.4. Trader responsibility for an ICP (Clause 11.18)	35
3.5. Provision of information to the registry manager (Clause 9 Schedule 11.1)	36
3.6. ANZSIC codes (Clause 9 (1)(k) of Schedule 11.1)	38
3.7. Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1)	39
3.8. Management of “active” status (Clause 17 Schedule 11.1)	39
3.9. Management of “inactive” status (Clause 19 Schedule 11.1)	41
3.10. ICPs at new or ready status for 24 months (Clause 15 Schedule 11.1)	43
4. Performing customer and embedded generator switching	44
4.1. Inform registry of switch request for ICPs - standard switch (Clause 2 Schedule 11.3) ..	44

4.2.	Losing trader response to switch request and event dates - standard switch (Clauses 3 and 4 Schedule 11.3)	44
4.3.	Losing trader must provide final information - standard switch (Clause 5 Schedule 11.3).....	46
4.4.	Retailers must use same reading - standard switch (Clause 6(1) and 6A Schedule 11.3).....	49
4.5.	Non-half hour switch event meter reading - standard switch (Clause 6(2) and (3) Schedule 11.3)	50
4.6.	Disputes - standard switch (Clause 7 Schedule 11.3).....	50
4.7.	Gaining trader informs registry of switch request - switch move (Clause 9 Schedule 11.3)	51
4.8.	Losing trader provides information - switch move (Clause 10(1) Schedule 11.3)	51
4.9.	Losing trader determines a different date - switch move (Clause 10(2) Schedule 11.3)	53
4.10.	Losing trader must provide final information - switch move (Clause 11 Schedule 11.3).....	55
4.11.	Gaining trader changes to switch meter reading - switch move (Clause 12 Schedule 11.3)	57
4.12.	Gaining trader informs registry of switch request - gaining trader switch (Clause 14 Schedule 11.3)	59
4.13.	Losing trader provision of information - gaining trader switch (Clause 15 Schedule 11.3).....	60
4.14.	Gaining trader to advise the registry manager - gaining trader switch (Clause 16 Schedule 11.3)	61
4.15.	Withdrawal of switch requests (Clauses 17 and 18 Schedule 11.3).....	61
4.16.	Metering information (Clause 21 Schedule 11.3)	63
4.17.	Switch saving protection (Clause 11.15AA to 11.15AB).....	64
5.	Maintenance of unmetered load	66
5.1.	Maintaining shared unmetered load (Clause 11.14).....	66
5.2.	Unmetered threshold (Clause 10.14 (2)(b))	67
5.3.	Unmetered threshold exceeded (Clause 10.14 (5))	67
5.4.	Distributed unmetered load (Clause 11 Schedule 15.3, Clause 15.37B).....	67
6.	Gathering raw meter data	69
6.1.	Electricity conveyed & notification by embedded generators (Clause 10.13, Clause 10.24 and 15.13)	69
6.2.	Responsibility for metering at GIP (Clause 10.26 (6), (7) and (8)).....	71
6.3.	Certification of control devices (Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3).....	71
6.4.	Reporting of defective metering installations (Clause 10.43(2) and (3))	72
6.5.	Collection of information by certified reconciliation participant (Clause 2 Schedule 15.2).....	72
6.6.	Derivation of meter readings (Clause 3(1), 3(2) and 5 Schedule 15.2)	73
6.7.	NHH meter reading application (Clause 6 Schedule 15.2)	74
6.8.	Interrogate meters once (Clause 7(1) and (2) Schedule 15.2)	75
6.9.	NHH meters interrogated annually (Clause 8(1) and (2) Schedule 15.2)	76
6.10.	NHH meters 90% read rate (Clause 9(1) and (2) Schedule 15.2)	78
6.11.	NHH meter interrogation log (Clause 10 Schedule 15.2)	79
6.12.	HHR data collection (Clause 11(1) Schedule 15.2)	79
6.13.	HHR interrogation data requirement (Clause 11(2) Schedule 15.2)	80
6.14.	HHR interrogation log requirements (Clause 11(3) Schedule 15.2).....	80
7.	Storing raw meter data	82
7.1.	Trading period duration (Clause 13 Schedule 15.2)	82
7.2.	Archiving and storage of raw meter data (Clause 18 Schedule 15.2)	82
7.3.	Non-metering information collected / archived (Clause 21(5) Schedule 15.2)	83

8.	Creating and managing (including validating, estimating, storing, correcting and archiving) volume information.....	84
8.1.	Correction of NHH meter readings (Clause 19(1) Schedule 15.2).....	84
8.2.	Correction of HHR metering information (Clause 19(2) Schedule 15.2).....	86
8.3.	Error and loss compensation arrangements (Clause 19(3) Schedule 15.2).....	87
8.4.	Correction of HHR and NHH raw meter data (Clause 22(1) and (2) Schedule 15.2).....	87
9.	Estimating and validating volume information.....	89
9.1.	Identification of readings (Clause 3(3) Schedule 15.2).....	89
9.2.	Derivation of volume information (Clause 3(4) Schedule 15.2).....	89
9.3.	Meter data used to derive volume information (Clause 3(5) Schedule 15.2).....	90
9.4.	Half hour estimates (Clause 15 Schedule 15.2).....	90
9.5.	NHH metering information data validation (Clause 16 Schedule 15.2).....	91
9.6.	Electronic meter readings and estimated readings (Clause 17 Schedule 15.2).....	93
10.	Provision of metering information to the pricing manager in accordance with subpart 4 of Part 13 (clause 15.38(1)(f))	95
10.1.	Generators to provide HHR metering information (Clause 13.136)	95
10.2.	Unoffered & intermittent generation provision of metering information (Clause 13.137).....	95
10.3.	Loss adjustment of HHR metering information (Clause 13.138).....	96
10.4.	Notification of the provision of HHR metering information (Clause 13.140)	96
11.	Provision of submission information for reconciliation.....	98
11.1.	Buying and selling notifications (Clause 15.3)	98
11.2.	Calculation of ICP days (Clause 15.6)	98
11.3.	Electricity supplied information provision to the reconciliation manager (Clause 15.7).....	100
11.4.	HHR aggregates information provision to the reconciliation manager (Clause 15.8) ..	102
12.	Submission computation	103
12.1.	Daylight saving adjustment (Clause 15.36)	103
12.2.	Creation of submission information (Clause 15.4)	103
12.3.	Allocation of submission information (Clause 15.5)	104
12.4.	Grid owner volumes information (Clause 15.9)	105
12.5.	Provision of NSP submission information (Clause 15.10)	105
12.6.	Grid connected generation (Clause 15.11).....	106
12.7.	Accuracy of submission information (Clause 15.12)	106
12.8.	Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2).....	110
12.9.	Reconciliation participants to prepare information (Clause 2 Schedule 15.3)	110
12.10.	Historical estimates and forward estimates (Clause 3 Schedule 15.3).....	111
12.11.	Historical estimate process (Clause 4 and 5 Schedule 15.3)	112
12.12.	Forward estimate process (Clause 6 Schedule 15.3)	115
12.13.	Compulsory meter reading after profile change (Clause 7 Schedule 15.3).....	118
13.	Submission format and timing	119
13.1.	Provision of submission information to the RM (Clause 8 Schedule 15.3)	119
13.2.	Reporting resolution (Clause 9 Schedule 15.3)	119
13.3.	Historical estimate reporting to RM (Clause 10 Schedule 15.3)	120
	Conclusion	122
	Participant response	123

EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Wise Pre Pay Energy Ltd (WISE)**, 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 V7.1.

WISE Pre Pay Energy Limited (WISE) are a solely pre-payment participant, and all ICPs have submission type NHH.

WISE has worked to improve compliance during the audit period.

- The timeliness and accuracy of status updates has improved.
- The setting of event dates has improved dramatically, and only one ICP was found to have a non-compliant event date during this audit.
- Issues with ICP days and application of SASV identified during the audit have been corrected.
- No RRs were invalidly rejected.

Some key issues identified in previous audits still remain.

- All readings are recorded in PEBS, and readings that occur while a customer account is active are also recorded against the customer account. The historic estimate and switching processes apply the reads recorded on the customer account only. This means that where an ICP remains active and supplied by WISE after the customer is terminated, reads after the termination date will not be applied for switching or reconciliation. I found that in most cases, the switch out or disconnection date and account termination date were aligned and the correct reads were applied, but some exceptions were identified and are recorded as non-compliance.
- Corrections for bridged meters are not processed, due to a system limitation. WISE has had two bridged meters for part of the audit period, and is working to find a solution.
- Some late switching files were identified. The switches were generally delayed while WISE attempted to contact the customer to confirm they wished to proceed with the switch.

Most of the other issues identified affected small numbers of ICPs, and were found to have a low impact.

The audit found 22 non-compliances and made two recommendations. The breach risk rating total is 41, an improvement from 48 in the previous audit. Excluding the three non-compliances that I confirmed were cleared during the audit, the breach risk rating total is 38, which gives an indicative next audit due date of 12 months. Given that corrective actions have been identified or implemented for a further 15 of the non-compliances, I agree that 12 months is a reasonable next audit period.

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	10.6, 11.2, 15.2	One ICP was not updated to inactive from the correct date. One ICP had an incorrect ANZSIC code applied.	Strong	Low	1	Identified
Electrical Connection of Point of Connection	2.11	10.33A	One ICP had expired interim certification when it was reconnected. The metering was replaced and fully certified within 19 days of reconnection. ICP 0000263650HB287's meter was unbridged on 04/06/18 but the meter was not recertified.	Strong	Low	1	Identified
Arrangements for metering equipment provision	2.13	10.36	WISE did not have an arrangement in place with the MEP for two ICPs for part of the audit period.	Strong	Low	1	Identified
Changes to registry information	3.3	10 Schedule 11.1	47 late status updates. 10 late MEP nominations.	Moderate	Low	2	Identified
ANZSIC codes	3.6	9 (1)(k) of Schedule 11.1	One ICP had an incorrect ANZSIC code applied.	Strong	Low	1	Cleared
Management of "inactive" status	3.9	19 Schedule 11.1	ICP 0000560119UNC95 incorrectly had the inactive status applied from 31/07/2018 to 21/08/2018. The registry does not reflect the correct ICP status for ICPs which have been disconnected for credit for five days or less.	Moderate	Low	2	Identified
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	Incorrect AN response codes were applied for two transfer switches.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Losing trader must provide final information - standard switch	4.3	5 Schedule 11.3	41 late CS files for transfer switches. One CS file contained an incorrect switch reading and last actual read date. WISE's CS process does not always ensure that the switch read reflects the actual reading on their last day of responsibility.	Weak	Low	3	Investigating
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	One AN had a proposed event date before the gaining trader's proposed event date. Incorrect AN response codes were applied for two switch moves.	Moderate	Low	2	Identified
Losing trader determines a different date - switch move	4.9	10(2) Schedule 11.3	One AN had a proposed event date before the gaining trader's proposed event date.	Moderate	Low	2	Identified
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	47 late CS files for switch moves. Four switch move CS files contained an incorrect switch reading and last actual read date. WISE's CS process does not always ensure that the switch read reflects the actual reading on their last day of responsibility.	Weak	Low	3	Investigating
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	Four read change requests for switch moves were not supported by two actual readings.	Weak	Low	3	Investigating
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	One late AW file.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Metering information	4.16	21 Schedule 11.3	Readings in five CS files were inconsistent with the AMI read for the switch date, or were not a reasonable estimate of the reading on the event date.	Weak	Low	3	Identified
Electricity conveyed & notification by embedded generators	6.1	10.13, 10.24 and 15.13	Energy was not metered and quantified according to the code for two bridged meters.	Moderate	Low	2	Identified
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	Three ICPs did not have an actual read recorded during the period of supply, and exceptional circumstances did not exist.	Strong	Low	1	Identified
NHH meters interrogated annually	6.9	8(1) and (2) Schedule 15.2	The meter read frequency report considers the ICP start date with WISE, not the date from which the ICP has been continuously active.	Moderate	Low	2	Identified
Correction of NHH meter readings	8.1	19(1) Schedule 15.2	Two bridged meters have not had corrections processed.	Moderate	Low	2	Identified
NHH metering information data validation	9.5	16 Schedule 15.2	Where a subsequent read is lower than the switch in reading, the negative consumption is zeroed out.	Moderate	Low	2	Disputed
Calculation of ICP days	11.2	15.6	ICP days were not reported correctly for decommissioned ICPs. ICP days were under reported in August 2018 for ICP 0000560119UNC95.	Strong	Low	1	Cleared

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Accuracy of submission information	12.7	15.12	<p>Incorrect ICP days were reported for decommissioned ICPs, and one ICP where the status was recorded incorrectly.</p> <p>Consumption during periods where a meter is bridged is not reported.</p> <p>Where the active period continues after a customer account is terminated, historic estimate may not include all consumption.</p> <p>When calculating historic estimate, WISE based the calculation on SASV for the network, instead of SASV for the NSP. This can result in differences for NSPs connected to HAWK and WAIK, where there is more than one balancing area per network.</p>	Weak	Low	3	Identified
Historical estimate process	12.11	4 and 5 Schedule 15.3	<p>When calculating historic estimate, WISE based the calculation on SASV for the network, instead of SASV for the NSP. This can result in differences for NSPs connected to HAWK and WAIK, where there is more than one balancing area per network.</p>	Strong	Low	1	Cleared
Future Risk Rating						41 ¹	

Future risk rating	0	1-3	4-15	16-40	41-55	55+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

¹ Future risk rating is 38, with the three cleared non-compliances excluded. This gives an indicative audit frequency of 12 months.

RECOMMENDATIONS

Subject	Section	Description	Recommendation
Relevant information	2.1	Monitoring of changes to distributed generation or unmetered load fields	Identify and check any ICPs where the registry shows: <ul style="list-style-type: none"> • Installation type ≠ L • Generation capacity > 0 • Unmetered load details distributor ≠ blank • Shared ICP list ≠ blank.
ICPs at new or ready status for 24 months	3.10	Monitoring of new and ready ICPs	A Registry List (type P) with proposed trader = WISE and status = 000 and 999 should be run at least quarterly to identify ICPs which have been at new or ready status for more than 18 months and require follow up.

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.

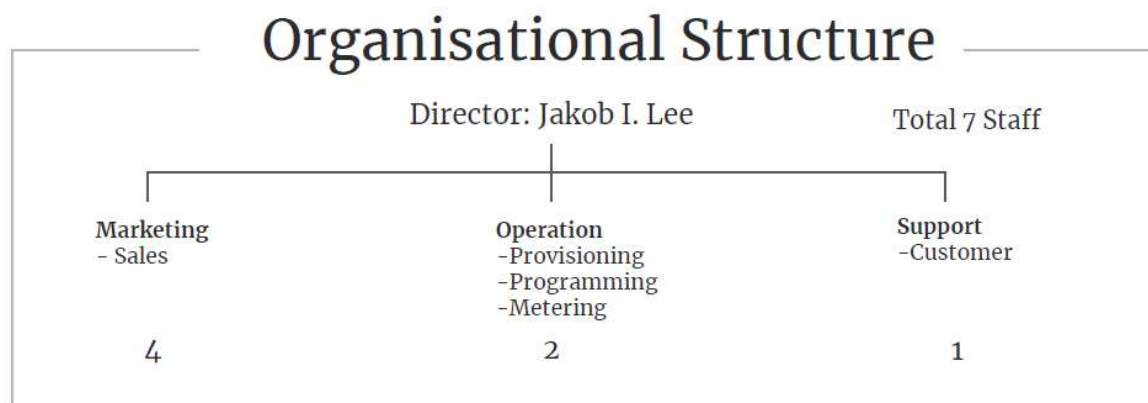
Audit observation

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



1.3. Persons involved in this audit

Auditor:

Tara Gannon

Veritek Limited

Electricity Authority Approved Auditor

WISE personnel assisting in this audit were:

Name	Title
Ferdin Jayachandran	Metering Operations Analyst
Insoo Kim	Programming & Operations Manager

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

WISE receives AMI data from AMS, Metrix, and WEL Networks as MEPS. There are no agents involved in the process.

Audit commentary

Not applicable

1.5. Hardware and Software

WISE uses the Pre Pay Energy Billing System (PEBS) platform which is owned by Energy Billing System Limited. PEBS is a bespoke MySQL database on a Linux operating system. Daily backups are performed to a remotely hosted server.

1.6. Breaches or Breach Allegations

There were no alleged breaches relevant to the scope of the audit during the audit period.

1.7. ICP Data

WISE provided a list file as at August 2018. The active ICPs from the list file are summarised by meter category in the table below:

Metering Category	2018 (current audit)	2018 (Feb 2018 audit)	2017	2016
1	1688	1840	2210	1,972
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-
9	-	-	-	-

All ICPs on the list file are summarised in the table below:

Status	Number of ICPs 2018 (current audit)	Number of ICPs 2018 (Feb 2018 audit)	Number of ICPs 2017	Number of ICPs 2016
Active (2,0)	1,688	1,840	2,210	1,972
Inactive – new connection in progress (1,12)	-	-	-	-
Inactive – electrically disconnected vacant property (1,4)	8	11	43	58
Inactive – electrically disconnected remotely by AMI meter (1,7)	38	62	16	9
Inactive – electrically disconnected at pole fuse (1,8)	-	1	-	-
Inactive – electrically disconnected due to meter disconnected (1,9)	-	-	7	1
Inactive – electrically disconnected at meter box fuse (1,10)	-	-	-	-
Inactive – electrically disconnected at meter box switch (1,11)	-	-	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	1	2	2	-
Inactive – reconciled elsewhere (1,5)	-	-	-	-
Decommissioned (3)	30	16	-	-

1.8. Authorisation Received

An authorisation letter was provided.

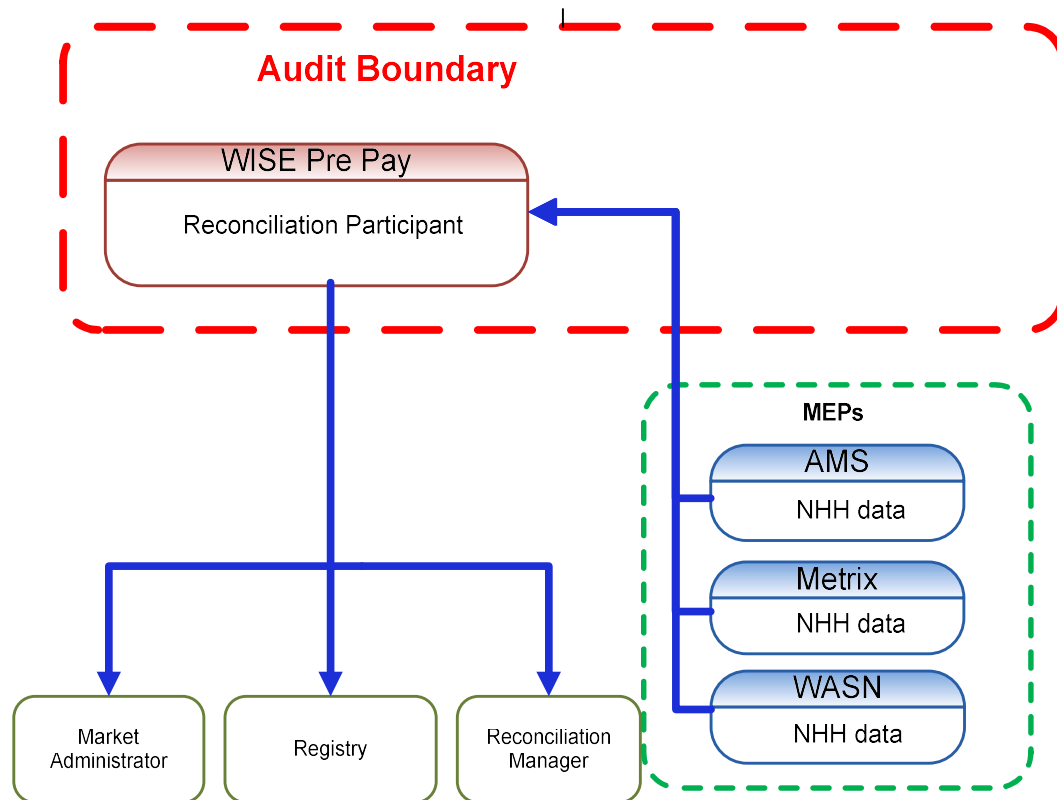
1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Wise Pre Pay Energy Ltd (WISE)**, 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 version 7.1.

The audit was carried out at WISE's premises in Auckland on 11 and 12 September 2018.

The scope of the audit is shown in the diagram below, with the WISE audit boundary shown for clarity. WISE are a solely pre-payment participant.



The table below shows the tasks under clause 15.38 of part 15 for which WISE requires certification.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs
(a) - Maintaining registry information and performing customer and embedded generator switching		
(b) – Gathering and storing raw meter data		AMS - NHH Metrix - NHH WEL Networks - NHH
(c)(ii) - Creation and management of NHH volume information		
(d) – Calculation of ICP days		

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs
(da) - delivery of electricity supplied information under clause 15.7		
(e) – Provision of submission information for reconciliation		

MEPs who provide AMI data are audited separately, under the MEP audit regime.

1.10. Summary of previous audit

WISE provided a copy of their previous audit conducted in February 2018 by Tara Gannon of Veritek Limited.

The audit found 20 non-compliances and made no recommendations. The summary tables below show the status of the non-compliances and recommendations. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-compliance	Remedial Action
Relevant information	2.1	10.6, 11.2, 15.2	One ICP was not updated to active from the correct date. Ten ICPs were not updated to inactive from the correct date.	Still existing, but less exceptions were identified. Refer to section 2.1.
Changes to registry information	3.3	10 Schedule 11.1	112 late status updates. Four late MEP nominations.	Still existing. Refer to section 3.3.
Management of “active” status	3.8	17 Schedule 11.1	One ICP was not updated to active from the correct date.	Still existing. The status event date for ICP 0476537126LCBCA has not been corrected. No other issues with active status dates were identified. Refer to section 3.8.

Subject	Section	Clause	Non-compliance	Remedial Action
Management of "inactive" status	3.9	19 Schedule 11.1	<p>10 ICPs were updated to inactive from the date the customer account was finalised, not the disconnection date.</p> <p>Credit disconnections are only updated to inactive once they have been disconnected for five business days or more.</p>	<p>Still existing. The status dates have not been corrected for these ICPs.</p> <p>Still existing.</p> <p>Refer to section 3.9.</p>
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	<p>Less than 50% of proposed event dates were within five business days after the NT was received.</p> <p>An incorrect AN response code was applied for one switch.</p>	<p>Cleared.</p> <p>Still existing.</p> <p>Refer to section 4.2.</p>
Losing trader must provide final information - standard switch	4.3	5 Schedule 11.3	<p>136 late CS files for transfer switches.</p> <p>If the switch event date is after NT receipt and the customer does not wish to use their credit balance, consumption between the NT date and switch date is estimated as zero, and the switch read is recorded as actual.</p> <p>If an ICP is vacant, the closing read for the last customer is used in the CS.</p> <p>Four CS files with correct readings had estimated readings incorrectly recorded as actual.</p>	<p>Still existing.</p> <p>Refer to section 4.3.</p>
Non-half hour switch event meter reading - standard switch	4.5	6(2) and (3) Schedule 11.3	Two read changes issued under clauses 6(2) and (3) of schedule 11.3 were rejected.	<p>Cleared.</p> <p>Refer to section 4.5.</p>
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	An incorrect AN response code was applied for one switch.	<p>Still existing.</p> <p>Refer to section 4.8.</p>

Subject	Section	Clause	Non-compliance	Remedial Action
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	<p>257 late CS files for switch moves.</p> <p>If an ICP is vacant, the closing read for the last customer is used in the CS.</p> <p>If the switch event date is after NT receipt and the customer does not wish to use their credit balance, consumption between the NT date and switch date is estimated as zero, and the switch read is recorded as actual.</p> <p>One CS with correct readings had estimated readings incorrectly recorded as actual.</p>	<p>Still existing.</p> <p>Refer to section 4.10.</p>
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	<p>An accepted read change was not applied in PEBS.</p> <p>Two read change requests were late.</p> <p>Two ICPs had incorrect read types recorded in RR files, and one ICP had an incorrect read type recorded in PEBS.</p> <p>Two changed reads were recorded against an incorrect date in PEBS.</p>	<p>Mostly cleared, but some RRs were not supported by two actual readings.</p> <p>Refer to section 4.11.</p>
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	Three NWs were issued more than two calendar months after the switch event date.	<p>Still existing.</p> <p>Refer to section 4.15.</p>
Metering information	4.16	17 and 18 Schedule 11.3	Readings in nine switch move CS files were inconsistent with the AMI read for the switch date, and were not a reasonable estimate of the reading on the event date.	<p>Still existing.</p> <p>Refer to section 4.16.</p>
Electricity conveyed & notification by embedded generators	6.1	10.13, 10.24 and 15.13	Energy is not metered and quantified according to the code where meters are bridged.	<p>Still existing.</p> <p>Refer to section 6.1.</p>
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	Six ICPs did not have an actual read recorded during the period of supply, and exceptional circumstances did not exist.	<p>Still existing.</p> <p>Refer to section 6.8.</p>
Correction of NHH meter readings	8.1	19(1) Schedule 15.2	Three bridged meters have not had corrections processed.	<p>Still existing.</p> <p>Refer to section 8.1.</p>

Subject	Section	Clause	Non-compliance	Remedial Action
Identification of readings	9.1	3(3) Schedule 15.2	Read types were incorrectly recorded in 16 switch files.	Cleared. No incorrectly classified reads were identified. Refer to section 9.1 .
NHH metering information data validation	9.5	16 Schedule 15.2	Where a subsequent read is lower than the switch in reading, the negative consumption is zeroed out.	Still existing. Refer to section 9.5 .
Electronic meter readings and estimated readings	9.6	17 Schedule 15.2	AMI event information not adequately obtained and monitored. Event reporting is received from AMS and WEL Networks, but is not reviewed. Event reporting is not received from Metrix.	Cleared. Meter event information is reviewed, and Metrix now provides event information. Refer to section 9.6 .
Calculation of ICP days	11.2	15.6	ICP days are not reported correctly where status updates are not processed with the correct date.	Still existing. Refer to section 11.2 .
Accuracy of submission information	12.7	15.12	If permanent estimate readings do not reflect the best estimate of consumption, historic estimate may not be correct. Where status changes are not processed from the correct date, ICP days may not be reported correctly. Historic estimate for consumption while inactive may not be calculated correctly if actual or permanent estimate reads are not recorded on the disconnection and reconnection date.	Still existing. Refer to section 12.7 .

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 validation process was examined in detail in relation to the achievement of this requirement. The list file was examined to identify any registry discrepancies, and to confirm that all information was correct and not misleading.

Audit commentary

WISE ensures that the data contained in PEBS matches the registry by importing registry data on switch in, and importing any changes received in notification files.

WISE has processes in place to identify and correct any misleading or incorrect information, including:

- a weekly match between the status recorded in PEBS and on the registry for each ICP
- a monthly match between ICP and metering component information recorded in PEBS and on the registry.

Any discrepancies are investigated and resolved.

The checks completed do not specifically identify changes to distributor unmetered load details or distributor generation details; any changes to these fields are automatically imported from the notification files without WISE being alerted. I recommend that WISE considers reporting on any changes to these fields, so that they can ensure their obligations for distributed generation and unmetered load are met.

Description	Recommendation	Audited party comment	Remedial action
Monitoring of changes to distributed generation or unmetered load fields	Identify and check any ICPs where the registry shows: <ul style="list-style-type: none">• Installation type ≠ L• Generation capacity > 0• Unmetered load details distributor ≠ blank• Shared ICP list ≠ blank.	WISE has added a procedure to check the installation Type, Generation capacity, Unmetered Load Distributor, and Shared ICP List.	Identified

The analysis of the list file returned the following findings:

Item No.	Issue	2018 (current audit)	2018 (Feb audit)	2017	2016	Comments
1	Status mismatch between registry and WISE	1	11	1	11	Non-compliance is recorded below, and discussed further in section 3.9 .
2	Active with no MEP	-	-	-	-	Compliant
3	Incorrect submission flag	-	-	-	-	Compliant, all ICPs have submission type NHH.
4	Blank ANZSIC codes	-	-	-	-	Compliant
5	ANZSIC "T999" not stated	-	-	-	-	Compliant
6	ANZSIC "T994" don't know	-	-	-	-	Compliant
7	Incorrect ANZSIC code	1	-	-	-	Non-compliance is recorded below, and discussed further in section 3.6 .
7	Category 9 but Active with MEP and UML "N"	-	-	-	-	Compliant
8	ICPs with Distributor unmetered load populated but retail unmetered load is blank	-	-	-	-	Compliant, no unmetered load was identified.
9	ICPs with unmetered load flag Y but load is recorded as zero	-	-	-	-	Compliant, no unmetered load was identified.
10	ICPs with incorrect shared unmetered load	-	-	-	-	Compliant, no unmetered load was identified.
11	ICPs with Distributed Generation indicated but no DG profile	1	-	-	-	The ICP switched out before WISE had confirmed whether generation was installed. Refer to section 6.1 .

Two registry data discrepancies were identified during the audit, and are recorded as non-compliance below:

- one disconnection was processed from an incorrect as discussed in **section 3.9**.
- one ICP had an incorrect ANZSIC code applied as discussed in **section 3.6**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 10.6, 11.2, 15.2 From: 18-Apr-18 To: 12-Sep-18	One ICP was not updated to inactive from the correct date. One ICP had an incorrect ANZSIC code applied. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong, as improvements have been made during the audit period to ensure disconnections and reconnections are processed from the correct date. The registry match processes will help to identify any incorrect statuses. The incorrect ANZSIC code was chosen based on information provided with the customer application. The impact is assessed to be low, two ICPs were affected. There will be a small impact on reconciliation because consumption is not submitted during inactive periods.		
Actions taken to resolve the issue		Completion date	Remedial action status
As noted, overall the processes that we have in place are robust. We will review our training.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Refer above comments			

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.

A breach report for the audit period was reviewed to identify any late submission information.

Audit commentary

This area is discussed in several sections in this report.

No late submissions were identified on the breach report.

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

AMS, Metrix, and WEL Networks transfer meter reading information to WISE via SFTP. MEP data transmission processes were reviewed as part of their MEP audits.

To confirm the data transmission process I traced a diverse sample of reads for six ICPs from the source files to PEBS. The sample included reads for all MEPs.

Audit commentary

The data transfer method was confirmed to be compliant as part of each MEP and agent audit.

All reads checked were consistent with the source file information.

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 (clause 21(4)(c)).*

Audit observation

A complete audit trail was checked for all data gathering, validation, and processing functions. I viewed audit trails in PEBS for a small sample of events.

Audit commentary

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

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 WISE's current terms and conditions.

Audit commentary

WISE's current 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 WISE's current terms and conditions, and also discussed compliance with these clauses.

Audit commentary

WISE's contract with their customers includes consent to access for authorised parties for the duration of the contract.

There were no instances where access to the metering installation could not be arranged 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 registry list for 1 February to 14 August 2018 was reviewed to identify any ICPs which require loss compensation.

Audit commentary

WISE has only supplied ICPs with metering category 1. No ICPs have required 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 WISE's Terms and Conditions, which apply to all customers supplied.

Audit commentary

WISE'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 one 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 and event detail report for 1 February to 14 August 2018 were analysed to identify all new connections and confirm the process and controls are functioning as expected.

Audit commentary

WISE completed one new connection during the audit period. Responsibility was accepted and arrangements were made with the MEP as required by this clause.

Audit outcome

Compliant

2.10. Temporary Electrical Connection of an ICP (Clause 10.33(1))

Code reference

Clause 10.33(1)

Code related audit information

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

- *they are recorded in the registry as being responsible for the ICP; and*
- *one or more certified metering installations are in place at the ICP in accordance with Part 10; and*
- *for an ICP that has not previously been electrically connected, the network owner has given written approval.*

Audit observation

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

The registry list and event detail report for 1 February to 14 August 2018 were analysed to identify all new connections and confirm the process and controls are functioning as expected.

Audit commentary

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:

- *they are recorded in the registry as being responsible for the ICP; and*
- *one or more certified metering installations are in place at the ICP in accordance with Part 10; and*
- *for an ICP that has not previously been electrically connected, the network owner has given written approval.*

Audit observation

The registry list and event detail report for 1 February to 14 August 2018 were analysed to identify all new connections and reconnections, and confirm the process and controls are functioning as expected.

Audit commentary

New connections

WISE completed one new connection during the audit period. Meter certification was completed within five business days of electrical connection as required by this clause.

Reconnections

WISE completed 123 reconnections during the audit period.

- 122 ICPs had full certification at the time of reconnection.
- ICP 0000300363WEE20 had expired interim certification when it was reconnected on switch in on 12/07/2018. The ICP now has full certification following an MEP change on 31/07/18.

Not having full certification at the time of reconnection for all ICPs is recorded as non-compliance below.

Bridged meters

WISE provided a list of two ICPs which were bridged at some time during the audit period.

The metering for ICP 0393852628LC5D8 was recertified when it was unbridged, but the metering for ICP 0000263650HB287 was not. This is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.11 With: Clause 10.33A From: 04-Jun-18 To: 31-Jul-18	One ICP had expired interim certification when it was reconnected. The metering was replaced and fully certified within 19 days of reconnection. ICP 0000263650HB287's meter was unbridged on 31/05/18 but the meter was not recertified. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as strong, only one of the 123 reconnections did not have full certification on reconnection. One bridged meter was not recertified on unbridging. The impact is rated as low, the metering was replaced following reconnection.

Actions taken to resolve the issue	Completion date	Remedial action status
<p>We have added a process to check metering installation certification. The process checks the certification once a day and sends the results to the person in charge. This allows us to monitor the certificate in the interim state or the expired certificate.</p> <p>For ICP 0000263650HB287, the contractor did nothing and the meter was automatically fixed.</p>	05/10/2018	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Refer above comments	Date	

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 registry list for 1 February to 14 August 2018 was reviewed to identify all the networks WISE traded on during the audit period. Arrangements for line function services for these networks were discussed.

Audit commentary

WISE trades on the Unison, Vector, WEL Networks, and Wellington Electricity networks.

WISE has current use of system agreements in place with Vector, Unison, WEL Networks, Centralines, Wellington Electricity, and Orion.

The online application process specifies the areas where WISE can supply ICPs. When a customer application is received, WISE staff check the ICP on the registry to confirm the network is valid prior to acceptance.

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 registry list for 1 February to 14 August 2018 was reviewed to identify the MEP for each ICP WISE supplied during the audit period. Arrangements for MEP services were discussed.

Audit commentary

Until February 2018, WISE had allowed some ICPs with legacy meters to switch in, with the intention of upgrading them to AMI metering as soon as possible.

Since March 2018, WISE staff check the ICP on the registry to confirm AMS, Metrix, or WEL Networks is the MEP, and that AMI metering is installed, prior to accepting a customer application.

WISE supplied active ICPs with AMS, Metrix, Legacy Metering Group, WEL Networks, and Trustpower as MEPs during the audit period.

- WISE has agreements in place with AMS, Metrix and WEL Networks, and an arrangement in place with Legacy Metering Group.
- There is no agreement or arrangement in place with Trustpower. Two ICPs were affected:

ICP	Active dates with MEP TRUM	Comment
0000015833HR8B8	25/02/18-28/02/18	The meter was replaced with an AMS meter soon after switch in.
0000690142TU18A	05/02/18-03/04/18	The ICP became inactive vacant before the meter could be replaced.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.13 With: Clause 10.36 From: 05-Feb-18 To: 03-Apr-18	WISE did not have an arrangement in place with the MEP for two ICPs for part of the audit period. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as strong, because they have prevented ICPs with an MEP WISE does not have a valid agreement or arrangement with from switching in since March 2018.</p> <p>The impact is low. Only two ICPs were affected and WISE promptly replaced the meter for one ICP. The other is disconnected for vacancy, so WISE does not have a customer to arrange meter replacement with.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Will actively look to replace meter once site is occupied		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We only sign up customers with MEPs with valid agreement		May 2018	

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 connections 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

WISE completed one new connection during the audit period, and the requirements of this clause were met. The 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 and event detail report for 1 February to 14 August 2018 were analysed in relation to updating of the registry.

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

Audit commentary

WISE's processes are designed to ensure that trader information is populated as required by this clause. Late updates are recorded as non-compliance in **sections 3.3**.

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**. In this section, the event detail report for 1 February to 14 August 2018 was analysed to determine the overall performance for that period.

A sample of the ten latest updates for each status type (or all if less than ten were available), were reviewed to determine the reasons for the late updates.

The process to manage a change of MEP on an existing ICP was examined. An event detail report for the audit period was reviewed, to identify all MEP changes during the period and determine whether they were within the required timeframes. All late MEP nominations were checked.

Audit commentary

The event detail report was examined to confirm whether the registry is updated within five business days when information referred to in clause 9 of schedule 11.1 changes.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Status updates						
Change to active (2,0)	2017	140	29	111	19	21%
	2018 (Feb audit)	224	148	76	6	66%
	2018 (current audit)	123	82	41	5	67%
Change to electrically disconnected vacant property (1,4)	2017	140	55	85	9	39%
	2018 (Feb audit)	20	19	1	4	95%
	2018 (current audit)	17	17	-	2	100%
Change to electrically disconnected ready for decommissioning (1,6)	2017	1	-	1	134	0%
	2018 (Feb audit)	5	-	5	303	0%
	2018 (current audit)	13	11	2	2	85%
Change to electrically disconnected remotely by AMI meter (1,7)	2017	80	34	46	5	43%
	2018 (Feb audit)	392	363	29	6	93%
	2018 (current audit)	217	213	4	2	98%
Change to electrically disconnected at pole fuse (1,8)	2017	-	-	-	-	-
	2018 (Feb audit)	8	2	1	6	67%
	2018 (current audit)	-	-	-	-	-
Change to electrically disconnected due to meter disconnected (1,9)	2017	-	-	-	-	-
	2018 (Feb audit)	16	16	-	4	100%
	2018 (current audit)	1	1	-	3	100%

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Trader updates						
MEP nominations	2018 (Feb audit)	312	308	4	3	99%
	2018 (current audit)	91	81	10	3	89%
Trader updates (excluding MEP nominations and NT updates)	2018 (current audit)	8	8	-	2	100%

Status updates

The table above shows that the registry was not updated within five business days for 47 (12.7%) of 371 ICPs where a status change has been made during the audit period. No late status updates were more than nine business days late.

The ten latest status updates to active were reviewed and found to have been caused by:

- status corrections
- backdated switches
- and delays in processing status updates.

All late status updates to inactive were reviewed and found to be caused by:

- delays in receiving confirmation that the ICP was disconnected, and processing the disconnection
- delays while WISE waited to confirm whether the customer would reconnect, or if the account would remain terminated
- one ICP was accidentally removed from disconnection list when the customer terminated their account; WISE's processes have been updated to prevent terminated accounts from being removed from the list
- corrections to status dates.

MEP nominations

The table above shows that 10 of the 91 MEP nominations were made late. All late MEP nominations were reviewed:

- eight nominations were backdated at the MEP's request
- two nominations were late due to an oversight, or a delay in receiving information.

Trader updates

Trader updates excluding MEP nominations and NT updates were all made on time.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.3 With: Clause 10 Schedule 11.1 From: 02-Feb-18 To: 26-Jul-18	47 late status updates. 10 late MEP nominations. 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	The controls are rated as moderate because they are adequate to ensure that the registry is updated on time most of the time, but there is room for improvement. The risk is low as most updates were completed on time or soon after they were due.		
Actions taken to resolve the issue		Completion date	Remedial action status
Change to Active (2,0) depends on the transfer date of losing retailer in most cases. We reconnect property but are unable to update registry until ICP is with WISE. As for MEP nominations all nominations that were late were done after MEP advised the date of replacement. The registry is updated the same day we are notified.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Weekly checks on Registry status mismatch. MEP nomination updated on same day MEP notifies WISE		Ongoing	

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)):*
 - *arrange for a final interrogation to take place prior to or upon meter removal (clause 11.18(3)(a)); and*
 - *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 new connection process was discussed.

The registry list and event detail report for 1 February to 14 August 2018 were examined to identify:

- any active ICPs that do not have an MEP recorded
- any MEP nomination rejections.

ICP Decommissioning

The process for the decommissioning of ICPs was examined. A selection of ten decommissioned ICPs were checked using the typical case method of sampling to prove the process and confirm controls are in place.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

All active ICPs have a valid MEP recorded, and all MEP nominations made by WISE were accepted by the MEP.

One new connection was completed during the audit period, and the MEP was nominated within five business days of the event date. WISE made the nomination when they claimed the ICP and moved the status to active.

91 MEP nominations were made during the audit period. Late MEP nominations are recorded as non-compliance in **section 3.3**.

ICP Decommissioning

WISE continue with their obligations under this clause. ICPs that are vacant and active, or inactive are still maintained in PEBS.

14 ICPs were decommissioned during the period. WISE had met their obligation to arrange a meter interrogation prior to or upon meter removal. In two cases WISE were unable to complete the interrogation because the meter had been removed without their knowledge.

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 registry list and event detail report for 1 February to 14 August 2018 were reviewed to identify all new connections, and determine the timeliness of registry updates.

Audit commentary

The new connection process is described in detail in **section 2.9**. WISE completed one new connection during the audit period, and the registry was updated on time.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Change to active – new connections (2,0)	2018 (Feb audit)	-	-	-	-	-
	2018 (current audit)	1	1	-	5	100%
Change to inactive – new connection in progress (1,12)	2018 (Feb audit)	-	-	-	-	-
	2018 (current audit)	-	-	-	-	-

Audit outcome

Compliant

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 as at 14 August 2018 was reviewed to check ANZSIC codes.

All active ICPs had 0 (domestic) ANZSIC codes. I checked a typical sample of 20 ICPs to confirm the validity of the ANZSIC codes applied.

Audit commentary

ANZSIC codes are set based on information provided on the customer application.

All active ICPs had a valid ANZSIC code recorded.

The accuracy of the ANZSIC codes for 20 ICPs were checked:

- 19 were confirmed to be correctly classified as domestic.
- The ANZSIC code for ICP 0000042258HBC27 was domestic, based on information initially provided by the customer, but should have been N73. This is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 9 (1)(k) of Schedule 11.1 From: 18-Apr-18 To: 12-Sep-18	One ICP had an incorrect ANZSIC code applied. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong, because they are sufficient to ensure that correct ANZSIC codes are applied where the information provided on the customer application is correct. The impact is rated as low, because only one ICP with an incorrect ANZSIC code was identified.		
Actions taken to resolve the issue		Completion date	Remedial action status
The incorrect ANZSIC code has been corrected.		08/10/18	Cleared

Preventative actions taken to ensure no further issues will occur	Completion date	
We will check the Price category code more actively to get the correct ANZSIC code	Ongoing	

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

Code reference

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 identify and monitor unmetered load was discussed. The registry list for 1 February to 14 August 2018 was reviewed to identify all unmetered load.

Audit commentary

WISE does not supply any ICPs with unmetered load, and does not intend to.

Where distributor unmetered load details change on the registry, the change will be imported into PEBS as part of the registry notification process. Staff will not be made aware that unmetered load details for an ICP have changed.

A recommendation to check for changes to unmetered load details is raised in **section 2.1**, and trader obligations for ICPs with unmetered load were discussed with WISE.

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. Review of the registry list as at 14 August 2018 confirmed that no ICPs had “inactive - new connection in progress” status with an initial energisation date populated.

One new connection was completed during the audit period. I checked the variance between the active date and the initial electrical connection date.

Reconnections

The process for the management of ICP reconnection was examined. The event detail report for 1 February to 14 August 2018 was analysed, and the findings on the timeliness of registry updates are recorded in **section 3.3**.

Audit commentary

WISE’s PEBS system will not allow more than one party per ICP, nor will it allow an ICP to be set up without both a meter and Metering Equipment Provider.

New connections

WISE processed one new connection during the audit period. Review of the connection paperwork confirmed that WISE’s active date was correct.

ICP	Event date	PR255 Cert date	Distributor connection date	Comment
0000042258HBC27	18/04/2018	18/04/2018	17/04/2018	WISE’s event date was consistent with the connection paperwork.

Reconnections

Reconnections typically occur when an inactive ICP switches in, or once payment has been received following a credit disconnection. Reconnection data is provided via FTP by Metrix and WEL Networks, and via email by AMS. Metrix and WEL Networks reconnection data is imported into PEBS and updates automatically. AMS reconnection data is processed manually in PEBS.

The registry is updated manually for all reconnections. Any ICPs updated in PEBS, but not on the registry will be identified through the weekly match to the registry as discussed in **section 2.1**.

If an ICP is reconnected within five business days of disconnection it will not be updated to inactive on the registry, so a registry update to active may not be required on reconnection. This is discussed further in **section 3.9**.

A typical sample of 18 status changes to active were checked, all had the correct status and date applied.

The previous audit found ICP 0476537126LCBCA was recorded with an event date of 10/07/2017, this should have been recorded with 05/07/2017. This issue has not been cleared, the status date remains 10/07/2017.

Late registry updates to active are recorded as a non-compliance in **section 3.3**.

Audit outcome

Compliant

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 list file as at 14 August 2018 was examined and confirmed no ICPs were at “inactive - new connection in progress status”.

The event detail report for 1 February to 14 August 2018 was examined to identify all status changes to inactive. A sample of five ICPs at each inactive status (or all ICPs if less than five were available) were checked using the typical characteristics methodology. The findings in relation to the timeliness of updates to registry is recorded in **section 3.3**.

Audit commentary

Disconnections are usually remote, and are not processed if a switch is in progress.

Disconnection data is provided via FTP by Metrix and WEL Networks, and by email by AMS. Metrix and WEL Networks disconnection data is imported into PEBS and updates automatically. AMS disconnection data is processed manually in PEBS.

If disconnected for credit, the registry is not updated immediately. WISE maintains a list of customers sent to the MEPs for disconnection, with the disconnection date. Each day they compare the list of customers disconnected for credit, to an updated list with the reconnected customers removed.

- If the ICP is reconnected, the customer is taken off the disconnected list and the site is left as active on the registry.
- If the customer remains on the disconnected list for a five business days or more, the registry is updated to inactive effective from the first day the ICP was disconnected, and the customer account is closed in PEBS. Late updates to inactive status are recorded as non-compliance in **section 3.3**.

The previous audit found ten disconnections were processed from an incorrect date, because WISE had processed the disconnection from the date the customer account was terminated rather than the physical disconnection date. Status dates have not been corrected for these ten ICPs.

I found that WISE have changed their process, and the registry is consistently updated effective from the first day that the ICP is disconnected, however, the disconnection read is not entered onto the customer account if the disconnection read occurs after the date the account was terminated. Because only reads recorded on a customer account are used by the reconciliation process, this can result in under reporting of consumption where disconnection occurs after the account termination date. This is recorded as non-compliance in **section 12.7**.

To identify ICPs with incorrect statuses, WISE completes the following weekly checks:

- a match between the statuses recorded in PEBS and on the registry as described in **section 2.1**; and
- review of a report of vacant and inactive ICPs with consumption after the final read date on the customer account.

I reviewed the vacant and inactive properties report and identified 21 ICPs which appeared to have inactive consumption. For 20 of the ICPs I found that consumption had not occurred after the disconnection date, and WISE had recorded the correct status for their period of responsibility. For ICP 0000560119UNC95, the status was updated to inactive effective from 31/07/2018, but the disconnection failed. The status should have remained active until it was re-disconnected on 22/08/2018. Non-compliance is recorded for incorrectly applying the inactive status from 31/07/2018 to 21/08/2018.

I reviewed the reason codes and disconnection dates for a diverse sample of 16 disconnections, and found all had the correct status date and code applied.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.9</p> <p>With: Clause 19</p> <p>Schedule 11.1</p> <p>From: 31-Jul-17</p> <p>To: 21-Aug-18</p>	<p>ICP 0000560119UNC95 incorrectly had the inactive status applied from 31/07/2018 to 21/08/2018.</p> <p>The registry does not reflect the correct ICP status for ICPs which have been disconnected for credit for five days or less.</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>The controls have improved and are sufficient to ensure that the registry is updated from the correct date most of the time.</p> <p>The impact is rated as low, only one ICP with incorrect status dates applied was identified.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
As noted, overall the processes that we have in place are robust. We will review our training.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We have strong controls in place. We will monitor and review the process as required.		Ongoing	

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 what process is in place to manage and respond to such requests.

Audit commentary

WISE completed one new connection during the audit period. WISE does not intend to regularly process new connections; the new connection was completed for an existing WISE customer.

No requests for information on new or ready ICPs have been received from distributors. If received these would be actioned on a case by case basis.

There is no regular monitoring of ICPs at new or ready status. I recommend that ICPs with new or ready status should be monitored:

Description	Recommendation	Audited party comment	Remedial action
Monitoring of new and ready ICPs	A Registry List (type P) with proposed trader = WISE and status = 000 and 999 should be run at least quarterly to identify ICPs which have been at new or ready status for more than 18 months and require follow up.	We do not do new connections for customers anymore	Based on the comments provided, future new connections are unlikely. The recommendation is not expected to be implemented.

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 WISE deem all conditions to be met.

A typical sample of five ICPs using the typical sampling methodology were checked to confirm that they were notified to the registry within two business days.

Audit commentary

WISE'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. NT files were sent within two days of all conditions being met for the ICPs checked.

Audit outcome

Compliant

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 must disregard every event date established by the losing trader for a customer who has been with the losing trader for less than two calendar months (clause 4(2) of Schedule 11.3).

Audit observation

An event detail report for 2 February to 14 August 2018 was reviewed to:

- identify AN files issued by WISE during the period; and
- assess compliance with the setting of event dates requirement.

A sample of two ANs per response code were reviewed to determine whether the response codes had been correctly applied.

The switch breach report was examined for the audit period.

Audit commentary

The switch breach report confirmed all AN files were sent within the allowable timeframes.

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.

All transfer AN files were examined on the event detail report. All proposed event dates were within 10 business days of NT receipt, and 99.2% were within five business days. This is a significant improvement from 7.5% within five business days during the previous audit.

Total transfer switches	Total over 10 business days	Total within 10 business days	Total within 5 business days	% within 5 business days
243	0	243	241	99.2%

The previous audit found one transfer AN had an incorrect response code applied. I reviewed a sample of two ANs for each AN response code used. I specifically checked whether the AA code was only used when none of the other codes were relevant. I found two AN files where an incorrect response code was applied due to human error:

ICP	Applied Code	Correct Code
0002224949WEDBD	“AA” (accept and acknowledge)	“AD” (advanced metering)
0000231869WEB5F	“AA” (accept and acknowledge)	“AD” (advanced metering)

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.2 With: Clauses 3 and 4 Schedule 11.3 From: 07-Jun-17 To: 07-Jun-18	Incorrect AN response codes were applied for two transfer switches. 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 over AN responses are moderate. They are sufficient to ensure that the correct code is applied most of the time, but there is room for improvement. The impact is assessed as low. Information available on the registry confirmed that the two ICPs with incorrect response codes had advanced metering.		
Actions taken to resolve the issue		Completion date	Remedial action status
Staff Training Provided		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Multiple checks before AN is sent		Ongoing	

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

An event detail report for the period from 1 February to 14 August 2018 was reviewed, to identify CS files issued by WISE. 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. Average daily consumption is calculated on read import as the average consumption over the previous seven days. If there are not seven readings over the last seven days, the average will be calculated over the last seven readings. The average daily consumption is validated, and if over 150 kWh the value provided by the customer on sign up will be applied.

I checked the average daily consumption for all transfer CS files and did not identify any with daily consumption that was negative, zero, or over 100 kWh per day.

The process to manage the sending of the CS file within five business days of the event date was examined.

The switch breach history report for the audit period was reviewed to identify late CS files, and an extreme case sample of the latest ten files were checked.

Audit commentary

The switch breach report recorded 55 late transfer CS files. Of the 55 late files, 14 were confirmed to have been sent within five business days of the event date, and appeared on the switch breach report in error. The other 41 CS files were genuinely late, and the latest file was seven days overdue.

I checked a sample of the ten latest CS files to determine the reasons for the delays. WISE had accidentally applied the thresholds for switch moves to transfer switches, and I found all the transfer CS files had been sent within five business days of NT receipt. In future, WISE intends to ensure that transfer CS files are sent within five business days of the event date.

I followed up CS content issues identified in previous audits, and found they still exist.

- The final reading recorded on the customer account is applied for the CS. Most of the time, this is consistent with the actual reading on WISE's last day of responsibility. Where the customer account closed prior to the switch out date but the ICP is still connected or the final read does not match the disconnection read, the CS read may not be the actual reading for the event date.
- Where a customer is in credit when the NT is received and requires a refund, WISE still refunds the customer and applies a switch reading from the day that the NT was received.
- CS files are automatically created with a read type of actual, and users must manually change the read type to estimate before the file is sent.

For the five transfer CS files reviewed, content was correct apart from the switch readings and last actual read date for ICP 0000191774WEBFA as shown below. The final read on the customer account was applied instead of the reading on WISE's last day of supply.

ICP and event	CS file field	Applied	Correct	Difference
0000191774WEBFA 25/06/18	Switch event read	10058510/1 3374 (E) 10058510/2 0 (E)	10058510/1 3415 (A) 10058510/2 0 (A)	41 kWh
	Last actual read	22/06/18	24/06/18	

The late CS files and incorrect CS file content are recorded as non-compliance below. Provision of inaccurate switch readings also affects reconciliation submission accuracy, as is discussed further in **section 12.7**.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.3</p> <p>With: Clause 5 Schedule 11.3</p> <p>From: 01-Feb-18 To: 12-Sep-18</p>	<p>41 late CS files for transfer switches.</p> <p>One CS file contained an incorrect switch reading and last actual read date.</p> <p>WISE's CS process does not always ensure that the switch read reflects the actual reading on their last day of responsibility.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as weak, as they are unlikely to prevent incorrect CS reads from being applied in certain circumstances.</p> <p>The impact is assessed as low. The latest transfer CS was 7 days overdue, and only one incorrect reading was identified for a transfer CS.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>NT and AN list is checked on daily basis and Transfer Switches are processed differently from Moving switches.</p> <p>As a Prepay company, if a customer switches to another company without paying a fee, we need a way to recover the loss. Our only solution is to transfer the power usage used by the customer to the gaining trader. We try to minimize the amount of usage that will be transferred to the gaining trader by disconnecting the power when the customer's balance becomes negative. This should be taken into consideration which is inevitably incurred under the current system that the daily reading is received in a day rather than in real time.</p>		Sept 2018	Investigating

Preventative actions taken to ensure no further issues will occur	Completion date	
Staff Training provided to follow new switching process mentioned above	Sept 2018	

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 four calendar months of the actual event date, 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 1 February to 14 August 2018 was reviewed to identify all read change requests and acknowledgements during the audit period.

- WISE issued one RR for a transfer switch, which was accepted.
- Three RRs for transfer switches were issued to WISE, all were rejected.

The RR and AC file content, and PEBS data was examined.

The switch breach history report was reviewed to identify late RR and AC files.

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. If the difference is small, WISE waits to see if the AML readings will “catch up” and exceed the switch read before issuing an RR. This process is discussed further in **section 9.5**.

WISE issued one read change request for a transfer switch. The request was supported by two actual readings and PEBS reflected the outcome of the read change process.

WISE received three read change requests for transfer switches. All were validly rejected, and had the expected read recorded in PEBS based on the outcome of the read change process.

No late read change requests or acknowledgements were identified for transfer switches.

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 1 February to 14 August 2018 was reviewed to identify all read change requests and acknowledgements where clause 6(2) and (3) of schedule 11.3 applied.

Audit commentary

WISE only uses submission type NHH and did not issue any read change requests where clause 6(2) and (3) of schedule 11.3 applied.

All rejected read changes were checked. No read changes issued under clause 6(2) and (3) of schedule 11.3 had been invalidly rejected. The files issued under this clause contained the same reads as the CS files.

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 WISE.

Audit commentary

WISE 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 WISE deem all conditions to be met.

A typical sample of five ICPs using the typical sampling methodology were checked to confirm that they were notified to the registry within two business days.

Audit commentary

WISE'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. NT files were sent within two days of all conditions being met for the ICPs checked.

Audit outcome

Compliant

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 five 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*

- a valid switch response code; and
- 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—
 - is not earlier than the gaining trader’s proposed event date, and
 - 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

An event detail report for 2 February to 14 August 2018 was reviewed to:

- identify AN files issued by WISE during the period; and
- assess compliance with the setting of event dates requirement.

A sample of two ANs per response code were reviewed to determine whether the response codes had been correctly applied.

The switch breach report was examined for the audit period.

Audit commentary

The switch breach report confirmed all AN files were sent within the allowable timeframes.

All 282 switch move AN files were examined on the event detail report:

- no ANs had proposed event dates later than 10 business days after receipt of the NT
- one AN had a proposed transfer date earlier than the gaining trader’s proposed date due to a data entry error - ANs are created manually.

ICP	NT proposed date	AN proposed date	CS completion date
0068240183TU522	25/02/2018	23/02/2018	25/02/2018

The previous audit found one switch move AN had an incorrect response code applied. I reviewed a sample of two ANs for each AN response code used. I specifically checked whether the AA code was only used when none of the other codes were relevant. I found two AN files where an incorrect response code was applied due to human error:

ICP	Applied Code	Correct Code
0000441944WEB8B	“AA” (accept and acknowledge)	“AD” (advanced metering)
0003046373WEDA7	“AA” (accept and acknowledge)	“AD” (advanced metering)

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.8 With: Clause 10(1) Schedule 11.3 From: 23-Feb-18 To: 07-Jun-18	One AN had a proposed event date before the gaining trader's proposed event date. Incorrect AN response codes were applied for two switch moves. 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 over AN responses are moderate. They are sufficient to ensure that the correct code is applied most of the time, but there is room for improvement. The impact is assessed as low. The switch with an early AN proposed date was switched effective from the requested date. Information available on the registry confirmed that the two ICPs with incorrect response codes had advanced metering.		
Actions taken to resolve the issue		Completion date	Remedial action status
Staff Training Provided		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Staff Training Provided		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, 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 2 February to 14 August 2018 was reviewed to:

- identify AN files issued by WISE during the period; and
- assess compliance with the setting of event dates requirement.

Audit commentary

Switches were completed as required by this clause.

As described in **section 4.8**, one AN had a proposed transfer date earlier than the gaining trader's proposed date due to a data entry error.

ICP	NT proposed date	AN proposed date	CS completion date
0068240183TU522	25/02/2018	23/02/2018	25/02/2018

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.9 With: Clause 10(2) Schedule 11.3 From: 23-Feb-18 To: 25-Feb-18	One AN had a proposed event date before the gaining trader's proposed event date. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate. WISE is aware of the AN date requirements and the non-compliant date occurred because of a data entry error. The impact is assessed as low. The switch with an early AN proposed date was switched effective from the requested date.		
Actions taken to resolve the issue		Completion date	Remedial action status
Staff Training Provided		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Staff Training Provided		Ongoing	

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

An event detail report for the period from 1 February to 14 August 2018 was reviewed, to identify CS files issued by WISE. The accuracy of the content of CS files was confirmed by checking a sample of 12 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. Average daily consumption is calculated on read import as the average consumption over the previous seven days. If there are not seven readings over the last seven days, the average will be calculated over the last seven readings. The average daily consumption is validated, and if over 150 kWh the value provided by the customer on sign up will be applied.

I checked the average daily consumption for all switch move CS files and did not identify any with daily consumption that was negative or over 100 kWh per day. 50 switch move CS files contained zero daily consumption and a sample of ten of these were reviewed to confirm whether the zero consumption was genuine.

The process to manage the sending of the CS file within five business days of the event date was examined.

The switch breach history report for the audit period was reviewed to identify late CS files, and an extreme case sample of the latest ten files were checked.

Audit commentary

The switch breach report recorded 120 switch move CS files. Of the 120 late files, 73 were confirmed to have been sent within five business days of the NT receipt date, and appeared on the switch breach report in error. The other 47 CS files were genuinely late, and the latest file was 21 days overdue.

I checked a sample of the ten latest CS files to determine the reasons for the delays, and found they were delayed due to attempted withdrawals, and delays in contacting the customer to confirm they wished to proceed with the switch before sending the CS.

As discussed in **section 4.3**, I followed up CS content issues identified in previous audits, and found they still exist.

- The final reading recorded on the customer account is applied for the CS. Most of the time, this is consistent with the actual reading on WISE's last day of responsibility. Where the customer account closed prior to the switch out date, but the ICP is still connected or the final read does not match the disconnection read, the CS read may not be the actual reading for the event date.

- Where a customer is in credit when the NT is received, and requires a refund, WISE still refunds the customer and applies a switch reading on the day that the NT was received.
- CS files are automatically created with a read type of actual, and users must manually change the read type to estimate before the file is sent.

For the 12 switch move CS files reviewed, content was correct apart from the switch readings and last actual read dates below:

ICP and event	CS file field	Applied	Correct	Difference
0000067610TREAD 13/08/18	Switch event read	RD11106816/1 76824 (E)	RD11106816/1 76836 (A)	12 kWh
	Last actual read	01/08/18	08/09/18	
0000035163WEE9F 25/05/18	Switch event read	213057706/1 31487 (E)	213057706/1 31497 (A)	10 kWh
	Last actual read	15/04/18	24/05/18	
0000041786HB51B 31/07/18	Switch event read	217231846/1 1819 (E)	217231846/1 1831 ² (E)	12 kWh
	Last actual read	14/07/18	16/07/18	
0000105440HB901 14/02/18	Switch event read	216433536/1 8979 (E)	216433536/1 8982 (A)	3 kWh
	Last actual read	07/02/18	13/02/18	

I reviewed a further 10 CS files with estimated daily consumption of zero and found it was genuine.

The late CS files and incorrect CS file content is recorded as non-compliance below. Provision of inaccurate switch readings also affects reconciliation submission accuracy, as is discussed further in **section 12.7**.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.10</p> <p>With: Clause 11 Schedule 11.3</p> <p>From: 01-Feb-18</p> <p>To: 12-Sep-18</p>	<p>47 late CS files for switch moves.</p> <p>Four switch move CS files contained an incorrect switch reading and last actual read date.</p> <p>WISE's CS process does not always ensure that the switch read reflects the actual reading on their last day of responsibility.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>

² ICP 0000041786HB51B was disconnected at time of the switch. The following actual reads were available: 16/07/18 1831 and 01/08/18 1847. The switch event reading should be at least 1831.

Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as weak, as they are unlikely to prevent incorrect CS reads and late CS files under certain circumstances.</p> <p>The impact is assessed as low. The latest transfer CS was 21 days overdue, and the differences between actual and applied readings were found to be small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Almost all Switch Move CS files were processed within 5 working days since last audit. AN dates updating method has been changed since then.</p> <p>As a Prepay company, if a customer switches to another company without paying a fee, we need a way to recover the loss. Our only solution is to transfer the power usage used by the customer to the gaining trader. We try to minimize the amount of usage that will be transferred to the gaining trader by disconnecting the power when the customer's balance becomes negative. This should be taken into consideration which is inevitably incurred under the current system that the daily reading is received after a day rather than in real time.</p>		Feb 2018	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Refer above comments			

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 four calendar months of the actual event date, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by two 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 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 (clause 12(2B)).*

Audit observation

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

The event detail report for 1 February to 14 August 2018 was reviewed to identify all read change requests and acknowledgements during the audit period.

- WISE issued 23 RRs for switch moves. 15 were accepted and eight were rejected.
- Four RRs for switch moves were issued to WISE. One was accepted and three were rejected.

The RR and AC file content, and PEBS data was examined for a sample of files.

The switch breach history report was reviewed to identify late RR and AC files.

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. If the difference is small, WISE waits to see if the AMI readings will “catch up” and exceed the switch read before issuing an RR. This process is discussed further in **section 9.5**.

WISE issued 23 read change requests for a switch moves. A sample of 12 were checked, including all RRs rejected by the other trader. PEBS reflected the outcome of the RR process in all cases. Four of the RRs were not supported by at least two actual readings; this is recorded as non-compliance below.

WISE received four read change requests for switch moves. One was validly rejected and three were accepted. In all cases PEBS reflected the outcome of the read change process.

No late read change requests or acknowledgements were identified switch moves.

The previous audit identified some issues with the accuracy of RR file content, no similar issues were identified during the current audit.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.11 With: Clause 12 Schedule 11.3 From: 15-Feb-18 To: 06-Mar-18	Four read change requests for switch moves were not supported by two actual readings. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as weak, as they do not ensure that all read requests are supported by at least two actual readings. The impact is low, as the read change requests were all supported by at least one actual reading. Three of the four affected read changes were rejected.		
Actions taken to resolve the issue		Completion date	Remedial action status
We are reviewing our process to strengthen our controls		Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Refer above comments			

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

Code reference

Clause 13 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 through or assume responsibility for:

- *a half hour metering installation (that is not a category 1 or 2 metering installation) at an ICP with a submission type of half hour in the registry and an AMI flag of "N"; or*
- *a half hour metering installation at an ICP that has a submission type of half hour in the registry and an AMI flag of "N" and is traded by the losing trader as non-half hour; or*
- *a non half hour metering installation at an ICP at which the losing trader trades electricity through a half hour metering installation with an AMI flag of "N".*

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 three 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

An event detail report for the period from 1 February to 14 August 2018 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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 three 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

An event detail report for the period from 1 February to 14 August 2018 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

An event detail report for the period from 1 February to 14 August 2018 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

The switch withdrawal process was examined.

The event detail report for 1 February to 14 August 2018 was reviewed to:

- identify all switch withdrawal requests (NWs) issued by WISE; the content of a sample of at least three NWs for each withdrawal code (or all if less than three were available) were checked using the typical sampling methodology, including eight withdrawal requests rejected by other traders
- identify all switch withdrawal acknowledgements (AWs) issued by WISE; all AW rejections were reviewed
- confirm timeliness of withdrawal requests, as this is not currently being identified in the switch breach report.

The switch breach report was checked for any late NW and AW files.

Audit commentary

The content of 16 WISE NW files was checked. In all cases the withdrawal reasons provided were accurate.

14 of the 55 NWs issued by WISE were rejected by the other trader. Eight of these NWs were checked, and I found WISE had good reasons supported by notes in PEBS at the time of sending the NW.

53 NWs were issued to WISE, and seven of these were rejected. I reviewed all the rejected NWs and found the rejection was based on the information available at the time the response was issued. In some cases WISE asked the other trader to reissue the withdrawal with the correct code, and later accepted.

Analysis of the event detail report found no NWs were issued more than two calendar months after the switch date.

One late AW file was identified on the switch breach report. It was issued late because WISE was attempting to contact the customer to confirm whether the withdrawal should proceed.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.15</p> <p>With: Clauses 17 and 18 Schedule 11.3</p> <p>From: 16-Jul-18</p> <p>To 17-Jul-18</p>	<p>One late AW file.</p> <p>Potential impact: Low</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	Controls are rated as strong because only one file was late. The impact is low because the file was one day late.	
Actions taken to resolve the issue		Completion date
As noted, overall the processes that we have in place are robust. We will do our best to reach customer within time period.		Ongoing
Preventative actions taken to ensure no further issues will occur		Completion date
Refer above comments		
		Identified

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

All meter readings used in the switching process are validated meter readings or permanent estimates.

In most cases, the meter readings used in the switching process are validated meter readings or permanent estimates. I found that in some circumstances, the reads applied in CS files were not consistent with the AMI read for the switch date, or were not a reasonable estimate of the reading on the event date as discussed in **sections 4.3 and 4.10**. The total error for the sample checked was 78 kWh.

WISE's policies regarding the management of meter reading expenses is compliant.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.16 With: 21 Schedule 11.3 From: 01-Feb-18 To: 12-Sep-18	Readings in five CS files were inconsistent with the AMI read for the switch date, or were not a reasonable estimate of the reading on the event date. Potential impact: Medium Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as weak, as they are unlikely to prevent incorrect CS reads from being applied in certain circumstances. The impact is assessed as low overall, most CS files checked contained correct readings.		
Actions taken to resolve the issue		Completion date	Remedial action status
This was human error and we will be reviewing our training.		End of October 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Refer above comments			

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

Code reference

Clause 11.15AA to 11.15AB

Code related audit information

A trader that buys electricity from the clearing manager may elect to have a switch saving protection by giving notice to the Authority in writing.

If a protected trader enters into an arrangement with a customer of another trader (the losing trader), or a trader enters into an arrangement with a customer of a protected trader, to commence trading electricity with the customer, the losing trader must not, by any means, initiate contact with the customer to attempt to persuade the customer to terminate the arrangement during the period from the receipt of the NT to the event date of the switch including by:

11.15AB(4)(a)- making a counter offer to the customer; or

11.15AB(4)(b)- offering an enticement to the customer.

Audit observation

The Electricity Registry switch save protected retailer list was examined.

Win-back processes were examined to determine whether they are compliant. The event detail report for 1 February to 14 August 2018 was analysed to identify all withdrawn switches with a CX code applied prior to the switch completion date for any switch save protected retailer.

Audit commentary

WISE is not a switch save protected retailer.

WISE contacts the customers for ICPs requested by another retailer only to confirm that the switch request is valid. No win-back activity is initiated with lost customers during the switch.

The event detail report identified 30 CX coded switch withdrawal requests; all were sent after the switch was completed.

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 for 1 February to 14 August 2018 was reviewed to identify all unmetered load.

Audit commentary

WISE does not supply any ICPs with shared unmetered load, and does not intend to.

Processes to prevent ICPs with unmetered load from switching in, and to monitor existing ICPs for addition of 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 process to identify and monitor unmetered load was discussed. The registry list for 1 February to 14 August 2018 was reviewed to identify all unmetered load.

Audit commentary

WISE does not supply any ICPs with unmetered load, and does not intend to.

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:*
 - o *the date the limit was calculated or estimated to have been exceeded*
 - o *the details of the corrective measures that the MEP proposes to take or is taking to reduce the unmetered load.*

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 1 February to 14 August 2018 was reviewed to identify all unmetered load.

Audit commentary

WISE does not supply any ICPs with unmetered load, and does not intend to.

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

The process to identify and monitor unmetered load was discussed. The registry list for 1 February to 14 August 2018 was reviewed to identify all unmetered load.

Audit commentary

WISE does not supply any ICPs with distributed unmetered load, and does not intend to.

Audit outcome

Compliant

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 distributed generation were reviewed. The registry list for 1 February to 14 August 2018 was reviewed to confirm whether WISE had supplied any ICPs with generation during the audit period.

Audit commentary

Metering installations installed

One new connection was processed during the audit period. WISE ensured that metering was installed prior to electrical connection.

All active ICPs have an MEP, and at least one meter channel. No submission information is determined using subtraction.

Distributed Generation

WISE's application process rejects any application which has "B" in the installation type field.

Analysis of the registry list found that generation capacity was added by the distributor for one WISE ICP during the audit period. PEBS imported the registry notification information, but staff were not aware that the generation details for the ICP had changed. WISE did not contact the customer to confirm whether generation was installed, or arrange installation of import/export metering before it switched out.

ICP	Switch in date	Generation added	Switch out date	Generation capacity	Fuel Type
0000803830HBA8D	21/02/2017	10/04/2018	21/08/2018	1.38	solar

I have not recorded non-compliance because the existence of generation was not confirmed, and the ICP has now switched out.

A recommendation to check for changes to generation details is raised in **section 2.1**, and trader obligations for ICPs with distributed generation were discussed with WISE.

Bridged meters

WISE provided a list of two ICPs where remote disconnection had occurred then the meter had been bridged to reconnect. The existence of bridged meters is recorded as non-compliance below. Non-compliance is recorded in **section 8.1** because corrections for consumption during the bridged period were not recorded.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.1 With: Clause 10.13, 10.24 and 15.13 From: 09-May-18 To: 13-Jun-18	Energy was not metered and quantified according to the code for two bridged meters 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 as they are sufficient to mitigate risk most of the time, but there is room for improvement. Bridging only occurs where a soft reconnection cannot be performed after hours and the customer urgently requires their energy supply for health and safety reasons. The meters were bridged for 21 and 26 days respectively.		
Actions taken to resolve the issue		Completion date	Remedial action status
When the meter is bridged, add a prefix of _b {n} to the meter serial, identify it with a bridged meter, and make an estimate regardless of the actual reading. When the meter becomes unbridged, add a new meter and start from the existing reading.		14/09/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Periodically monitor the reading of the bridged meter.		Ongoing	

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 to confirm whether WISE is responsible for any GIPs.

Audit commentary

Review of the NSP table confirmed that WISE are 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 for 1 February to 14 August 2018 was reviewed, to identify any ICPs with profiles that require certification of the control device.

Audit commentary

Examination of the list file found that WISE has only used the RPS profile, 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.

WISE provided ten examples of defective meters. They were reviewed to determine whether the MEP was advised and if appropriate action was taken.

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, WISE raises a field services job to investigate.

I confirmed that for all ten possible defective meter examples provided, the MEP was notified and appropriate action was taken. All the examples related to communications issues, no defects relating to meter accuracy were identified. Estimates were recorded during the period without communication, and were replaced with actual reads once they became available.

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

AMI data is provided by AMS, Metrix, and WEL Networks as MEPs. Interrogation requirements and clock synchronisation was reviewed as part of their MEP audits.

The registry list for 1 February to 14 August 2018 was reviewed to identify meters without AMI metering, and I discussed how these ICPs were read with WISE.

Audit commentary

Fulfilment of the interrogation systems requirements was examined as part of the MEP audits, and found to be compliant. Only the MEPs can interrogate the meters where WISE is the trader.

MEPs provide information on clock synchronisation events via email, which are reviewed by WISE to determine whether any action is required. WISE has not received notification of any clock synchronisation events outside the maximum permissible errors during the audit period.

No manual reads are received for non AMI meters. Meter readings are estimated until the meter is upgraded, and a removal reading is obtained. Since March 2018, WISE has only accepted customer applications where the meter is recorded as AMI capable on the registry.

The registry list shows there are no active ICPs without AMI metering. Nine ICPs without AMI metering were temporarily supplied during the audit period. Of those:

- seven ICPs underwent meter replacements, and are now receiving regular AMI reads
- one ICP switched to another retailer before the AMI upgrade could be completed; the MEP required the customer to complete work on the meter board before the upgrade could be carried out
- ICP 0000690142TU18A is disconnected for vacancy; WISE had attempted to arrange an upgrade, but the MEP required the customer to complete work on the meter board first.

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

AMI data is provided by AMS, Metrix and WEL Networks as MEPs. Meters are not manually read.

Audit commentary

All meter readings are received from the MEP from the services interface, or through the switching process.

WISE does not currently supply any active ICPs with meters which are not AMI capable. Prior to March 2018, where a meter was not AMI capable, WISE estimated readings until the meter was replaced. Replacement was requested as soon as possible after switch in.

WISE does not complete any manual readings, nor does WISE accept customer readings.

Identification of readings is discussed in **section 9.1**.

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 meter readings provided by MEPs and agents are applied as at 2400hrs. Switch in readings are appropriately treated as if they have occurred at midnight on the switch in date. Application of reads was reviewed as part of the historic estimate checks, discussed in **section 12.11**.

Audit outcome

Compliant

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.

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”.

All reads received are from AMI meters, from the MEP on meter exchange paperwork, or through the switching process. Since March 2018, WISE has required ICPs to have AMI capable metering installed prior to switching in. Prior to March 2018, a small number of ICPs with legacy meters were switched in, all have had their meters replaced with HHR or AMI capable meters, are inactive, or have switched out.

ICPs with missing reads are checked twice weekly. If a communications issue is preventing reads from being attained and is not resolved quickly, a fault will be raised with the MEP. I reviewed these checks, and saw evidence of issues being resolved and field services jobs being raised through this process.

Three ICPs where the period of supply ended during the audit period did not receive an actual read. The periods of supply were 2, 41, and 47 days respectively, and exceptional circumstances did not exist.

Audit outcome

Compliant

Non-compliance	Description		
Audit Ref: 6.8 With: Clause 7(1) and (2) Schedule 15.2 From: 19-Jun-17 To: 10-Aug-18	Three ICPs did not have an actual read recorded during the period of supply, and exceptional circumstances did not exist. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong because they will mitigate the risk most of the time, and since March 2018 WISE has not accepted new ICPs without AMI metering. ICPs are likely to only be unread where they are supplied for a very short period, and AMI reads are not available. The impact is assessed as low, because in all cases, the ICPs were domestic customers, and the period of supply was short.		
Actions taken to resolve the issue		Completion date	Remedial action status
We no longer accept Non AMI sites to replace meter		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We no longer accept Non AMI sites and try and replace meter		Mar 2018	

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 February to June 2018 were reviewed.

NSPs where compliance was not achieved were reviewed to determine whether reasonable endeavours were used to attain reads, and if exceptional circumstances existed.

Audit commentary

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

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
Feb 2018	25	0	0	100%
Mar 2018	27	0	0	100%
Apr 2018	28	2	2	99.85%
May 2018	28	2	2	99.85%
Jun 2018	27	2	2	99.85%

Unread ICPs on the NSPs where less than 100% read attainment was achieved were reviewed. I found that the ICPs had been inactive for part of the period, and the read attainment requirement did not apply. The inclusion of inactive days within the period of supply in the meter read frequency report is recorded as non-compliance below.

Copies of the reports submitted to the EA from February to June 2018 were provided. The reports were in the required format and submitted on time.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 6.9</p> <p>With: Clause 8(1) and (2) Schedule 15.2</p> <p>From: 01-Feb-18</p> <p>To: 12-Sep-18</p>	<p>The meter read frequency report considers the ICP start date with WISE, and does not allow for inactive periods.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</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, there is room for errors to occur where an ICP has been inactive.</p> <p>The impact is assessed to be low, as there is no impact on reconciliation. WISE's read attainment is high.</p>

Actions taken to resolve the issue	Completion date	Remedial action status
Reading report procedure has been revised and no longer include inactive days.	14/09/2018	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Check the data before submitting the reading report.	Ongoing	

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 four 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 February to June 2018 were reviewed.

NSPs where compliance was not achieved were reviewed to determine whether reasonable endeavours were used to attain reads, and if exceptional circumstances existed.

Audit commentary

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

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
Feb 2018	30	1	14	99.16%
Mar 2018	30	0	5	99.70%
Apr 2018	30	0	5	99.70%
May 2018	32	0	7	99.58%

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	Total ICPs unread for 4 months	Overall percentage read
Jun 2018	31	0	5	99.69%

Unread ICPs on the NSPs where less than 90% read attainment was achieved were reviewed. I found that the ICPs had been inactive for part of the period, and the read attainment requirement did not apply. The inclusion of inactive days within the period of supply in the meter read frequency report is recorded as non-compliance in **section 6.9**.

Audit outcome

Compliant

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 provided by AMS, Metrix, and WEL Networks as MEPs. 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 the 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

Review of a registry list for the period from 1 February to 14 August 2018 confirmed that WISE has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with this clause was not assessed, because WISE does not deal with HHR readings.

Audit outcome

Not applicable

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

Review of a registry list for the period from 1 February to 14 August 2018 confirmed that WISE has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with this clause was not assessed, because WISE does not deal with HHR readings.

Audit outcome

Not applicable

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

Review of a registry list for the period from 1 February to 14 August 2018 confirmed that WISE has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with this clause was not assessed, because WISE does not deal with HHR readings.

Audit outcome

Not applicable

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

Review of a registry list for the period from 1 February to 14 August 2018 confirmed that WISE has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with this clause was not assessed, because WISE does not deal with HHR readings.

Audit outcome

Not applicable

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.

Audit commentary

Compliance with this clause has been demonstrated by the MEPS.

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

WISE intends to retain meter reading data for over 48 months. I viewed the meter readings for WISE's first ICP (0258253088LCBBE) and found that the earliest meter readings from November 2015 had been retained.

I traced readings for two ICPs each for AMS, Metrix, and WEL Networks from the source data to PEBS. All reads matched the source data. This confirmed that the reads had not been modified.

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.

Audit commentary

No non-metering information is collected by WISE.

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 errors are detected during validation of non-half hour meter readings, one of the following must be undertaken:

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

19(1)(b) - replacement of the original meter reading by another meter reading (even if the replacement meter reading may be at a different date)

19(1)(c) - if the original meter reading cannot be confirmed or replaced by a meter reading from another interrogation, then an estimated reading is substituted, and the estimated reading is marked as an estimate and it is subsequently replaced 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 the validation process, WISE may review AMI readings for surrounding dates. If an original meter reading cannot be confirmed by another reading, the original read will be removed from the customer account so it will not be used for billing or reconciliation. An estimated reading is used for billing, and forward estimate is created for reconciliation. The actual readings will be retained against the ICP meter and register.

I reviewed examples of corrections to determine whether they had been processed correctly and flowed through to revision submissions.

Defective meters

Where a defective meter is identified a field services job is raised, and the meter is usually replaced.

I reviewed ten examples of possible defective meters. All of the defects were communication issues, and the meters were recording consumption accurately. In two cases, the meters began communicating again and in the other eight cases the meter was replaced, and the meter paperwork removal read was correctly applied in PEBS.

Bridged meters

Bridged meters are typically identified through consumption validations, or if the MEP notifies WISE of load side voltage. WISE rarely completes manual disconnections, bridging only occurs where an ICP cannot be remotely reconnected.

WISE does not currently have a process to estimate and correct consumption during bridged periods; a system modification is required to allow these corrections to occur. WISE provided two examples of bridged meters and I found that no corrections had been processed. This is recorded as non-compliance below.

Multipliers

No WISE ICPs have meter multipliers, and no ICPs requiring multiplier corrections were identified.

Transposed meter readings

No ICPs with transposed meter readings were identified during the audit period.

Inactive ICPs with consumption

For consumption to be included in historic estimate calculations, the following must occur:

1. The ICP status must be active for at least part of the read to read period.
2. The readings must be recorded against the customer account.

ICPs are usually disconnected and moved to inactive status when the customer account is terminated, or soon after. The status is updated to inactive on the registry effective from the first full day that the ICP was inactive.

After a customer account is terminated, readings continue to be imported against the ICP and meter register, but are not recorded against the terminated customer account. The disconnection read is only recorded on the customer account if it occurs on or before the termination date. Where there is a timing difference between the final read on the customer account and the disconnection read, there may be unreported consumption.

Weekly, WISE reports on ICPs where there is a difference between the final read recorded on the customer account and the latest read received by the MEP. The ICPs are individually reviewed to determine whether the consumption is genuine. If the consumption is genuine, a job is raised to re-connect, unless the ICP is in the process of switching out. Once the customer has made contact to reconnect the ICP, the status is returned to active and the reads during the affected period are loaded on the customer's account so that they are available for billing and reconciliation.

To check the process, I reviewed WISE's weekly report which identified 21 ICPs with inactive status and consumption after the final reading on the customer's account.

- six ICPs had a 1 kWh consumption difference and I was unable to confirm whether there was genuine consumption while inactive
- three ICPs switched to another retailer for the period with inactive consumption, and no correction was required
- two ICPs had their status corrected and reads recorded on the customer account, and consumption was correctly reported
- for the remaining ten ICPs I found that the final read recorded on the customer's account differed from the disconnection read, resulting in a small amount of under reported consumption, which is discussed further in **section 12.7**; the status dates were correct on the registry for nine of the ICPs but for ICP 0000560119UNC95 an incorrect status date was applied as discussed in **section 3.9**.

Compliance is recorded in this section because the ICPs with genuine consumption while disconnected had been appropriately corrected. The issues identified relate to the processing of the disconnections and are recorded as non-compliance in **sections 3.9** and **12.7**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 8.1 With: Clause 19(1) Schedule 15.2 From: 09-May-18 To: 13-Jun-18	Two bridged meters have not had corrections processed. 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 as they are sufficient to ensure that corrections are processed most of the time, except where they relate to bridged meters. Bridging only occurs where a soft reconnection cannot be performed after hours and the customer urgently requires their energy supply for health and safety reasons.		
Actions taken to resolve the issue		Completion date	Remedial action status
When the meter is bridged, add a prefix of _b {n} to the meter serial, identify it with a bridged meter, and make an estimate regardless of the actual reading. When the meter becomes unbridged, add a new meter and start from the existing reading.		14/09/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Periodically monitor the reading of the bridged meter.		Ongoing	

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 errors are detected during validation of half hour metering information the correction must be as follows:

19(2)(a) - if a check meter or data storage device is installed at the metering installation, data from this source may be substituted

19(2)(b) - in the absence of any check meter or data storage device, data may be substituted from another period if the total of all substituted intervals matches the total consumption recorded on the meter, if available, and the pattern of consumption is considered materially similar to the period in error.

Audit observation

Review of a registry list for the period from 1 February to 14 August 2018 confirmed that WISE has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with this clause was not assessed, because WISE does not deal with HHR readings.

Audit outcome

Not applicable

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

If error compensation and loss compensation are carried out as part of the process of determining accurate data, the compensation process must be documented and must comply with audit trail requirements.

Audit observation

The registry list for 1 February to 14 August 2018 was reviewed to identify any ICPs which require loss compensation.

Audit commentary

WISE has only supplied ICPs with metering category 1. No ICPs have required error or loss compensation.

Audit outcome

Compliant

8.4. Correction of HHR and NHH raw meter data (Clause 22(1) and (2) Schedule 15.2)

Code reference

Clause 22(1) and (2) 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:

22(2)(a) - the date of the correction or alteration

22(2)(b) - the time of the correction or alteration

22(2)(c) - the operator identifier of the reconciliation participant

22(2)(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

22(2)(e) - the technique used to arrive at the corrected data

22(2)(f) - the reason for the correction or alteration.

Audit observation

Corrections are discussed in **section 8.1**, 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 was reviewed as part of their MEP audits.

Audit commentary

Raw meter data is held by MEPs.

WISE only corrects working data and keeps an appropriate audit trail.

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 PEBS 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**.

A sample of readings were reviewed in PEBS to confirm they were correctly classified.

Audit commentary

Readings are clearly identified in PEBS, and this was confirmed by reviewing a sample of actual and estimated readings.

The previous audit found some incorrect read types were recorded in CS and RR files, during this audit I found that read types had been recorded correctly. Where I found read types were incorrectly recorded in CS files in **sections 4.3** and **4.10**, it was because an incorrect read had been selected. The read types applied were correct for the selected reads.

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 **sections 11** and **12**, to confirm that volume was based on readings as required.

NHH data is collected by AMS, Metrix, and WEL Networks as MEPs. Compliance was assessed as part of their MEP audits.

Audit commentary

The MEPs are responsible for data collection, and this is reviewed as part of their audit. The MEPs retain raw, unrounded data.

A sample of six reads were traced from the source files to PEBS in **section 2.3** to confirm the read import process. The source files contain the raw unrounded data. Reads from AMS and Metrix are rounded to the nearest whole number on import into PEBS, and reads from WEL Networks are truncated to remove decimal places.

Audit outcome

Compliant

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

Review of a registry list for the period from 1 February to 14 August 2018 confirmed that WISE has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with this clause was not assessed, because WISE does not deal with HHR readings.

Audit outcome

Not applicable

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 zero values.

Audit observation

I reviewed and observed the NHH data validation process, including checking a sample of data validations.

Audit commentary

All reads received are from AMI meters, from the MEP on meter exchange paperwork, or through the switching process.

Read import validation

I confirmed that the WISE's daily read import process checks:

- readings relate to the correct ICP meter and register; if a match is not found, the information appears on an error log which is reviewed each morning
- the date and time is valid, and matches the expected date; the process only imports midnight reads, so if there is no midnight read available for the previous day it will be recorded as a missing read
- the ICP has an active customer account; if there is no active account, the read is imported against the ICP and meter register but not recorded on a customer account
- whether the read is the same as, higher, or lower than the previous read; if the read is lower, a meter rollover is automatically processed (if a lower reading occurred due to a previous high estimate rather than a genuine meter rollover, it will be detected through the post import validation checks).

Post import validation

Further validations occur after reads are imported:

- any ICPs where the daily consumption is not between 2kWh and 70 kWh are checked individually to determine whether the consumption is correct and if a read renegotiation is required; these checks will help to identify possible stopped meters, bridged meters, and where reads lower than a previous read have been incorrectly treated as meter rollovers
- daily credit reviews identify customers with high or low balances, which are investigated
- missing reads are checked twice weekly; if the issue is not resolved quickly, a fault will be raised with the MEP.

In the event that an actual read is genuinely lower than the previous reading, WISE request a read renegotiation if the difference is more than 200 kWh, or will estimate zero consumption until the reads

“catch up” to the switch in read if the difference is less than 200 kWh. Creation of these zero estimates is recorded as non-compliance below.

Consumption for inactive ICPs

Once a customer account is finalised, reads will be recorded against the ICP and meter, but not the customer’s account. Only reads recorded against the customer account are used for billing and historic estimate calculation.

Weekly, a report is generated showing inactive ICPs with consumption between the final read for the customer and the latest read provided by the MEP. The ICPs are individually reviewed to determine whether the consumption is genuine. If the consumption is genuine, a job is raised to re-disconnect, unless the ICP is in the process of switching out. Once the customer has made contact to reconnect the ICP, the status is returned to active and the reads during the affected period are loaded on the customer’s account so that they are available for billing and reconciliation. If the status is not returned to active for the correct dates and/or the reads are not recorded on the customer account inactive consumption will not reported. This is discussed further in **sections 8.1** and **12.7**.

Reconciliation submission validation

Reconciliation submissions are also reviewed prior to submission as discussed in **section 12.3**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 9.5 With: Clause 16 Schedule 15.2 From: 01-Feb-18 To: 12-Sep-18	Where a subsequent read is lower than the switch in reading, the negative consumption is zeroed out. 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 as readings are recorded correctly most of the time. The impact is assessed to be low. Any read differences greater than 200 kWh are expected to be dealt with through the read renegotiation process. Once reads catch up to the switch read, all consumption will be accounted for.

Actions taken to resolve the issue	Completion date	Remedial action status
If the actual reading is lower than the previous reading, the WISE will request read renegotiation if the difference exceeds 200 kW. If the difference is less than 200 kW, estimate 0 consumption until the read "catch up" the switch in read. In the case of Postpay, there is no problem to record the reading value only once a month, but 0 consumption is indispensable in Prepaid which requires daily billing.	N/A	Disputed
Preventative actions taken to ensure no further issues will occur	Completion date	
Refer to the comments above.		

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 0 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

Electronic read validation and meter event log processes were reviewed. A sample of meter event reports were viewed.

Audit commentary

Submission type is NHH for all ICPs, and data is validated as described in **section 9.5**.

Meter event reports are received and reviewed. I viewed a sample of the reports and found that they typically contain power failure, power up and down events. I did not find any examples where events affecting meter accuracy had occurred.

- AMS and WEL networks provide full meter event reports via FTP.

- Metrix provides meter events that require a service order to be raised via email, and a monthly summary of meter events via FTP.

Audit outcome

Compliant

10. PROVISION OF METERING INFORMATION TO THE PRICING MANAGER 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 pricing manager and 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.

Audit commentary

WISE is not responsible for any NSPs. No information is provided to the pricing manager in accordance with this clause.

Audit outcome

Not applicable

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 pricing manager and 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 pricing manager and 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.

Audit commentary

WISE is not responsible for any NSPs. No information is provided to the pricing manager in accordance with this clause.

Audit outcome

Not applicable

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

WISE is not responsible for any NSPs. No information is provided to the pricing manager in accordance with this clause.

Audit outcome

Not applicable

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 the pricing manager or 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

WISE is not responsible for any NSPs. No information is provided to the pricing manager in accordance with this clause.

Audit outcome

Not applicable

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

A registry list was reviewed for the period from 1 February to 14 August 2018 to confirm the profiles used.

Audit commentary

WISE only uses RPS profile; buying and selling 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 ten NSPs with a small number of ICPs to confirm the AV110 ICP days calculation was correct.

A registry list with history for the period from 1 February to 14 August 2018 was reviewed to determine whether there have been any upgrades from NHH to HHR, or downgrades from HHR to NHH; none were identified.

I reviewed variances for 12 months of GR100 reports.

Audit commentary

The process for the calculation of ICP days was examined by comparing:

- ten NSPs with a small number of ICPs on the July 2018 submission against the active days for the NSP on the registry list, and
- active ICP days for all NSPs on the July 2018 submission against ICP level supporting data.

The ICP days calculation was confirmed to be correct.

The following table shows the ICP days difference between WISE's database and the RM return file (GR100) for all available revisions for 12 months. Negative percentage figures indicate that WISE's ICP days are higher than those contained on the registry, and positive percentage figures indicate that the WISE's ICP days are lower than those contained on the Registry.

Month	Ri	R1	R3	R7
Jul 2017	0.22%	0.14%	0.11%	-0.04%
Aug 2017	-0.02%	0.10%	-0.01%	-0.06%
Sep 2017	0.04%	0.10%	-0.08%	0.00%
Oct 2017	0.02%	-0.23%	-0.31%	0.00%
Nov 2017	-0.32%	-0.21%	-0.32%	0.00%
Dec 2017	-0.36%	-0.34%	-0.33%	0.00%
Jan 2018	-0.36%	-0.33%	0.00%	-
Feb 2018	-0.41%	-0.40%	-0.07%	-
Mar 2018	0.00%	0.00%	0.00%	-
Apr 2018	0.04%	0.01%	0.00%	-
May 2018	-0.15%	-0.07%	-	-
Jun 2018	-0.20%	-0.20%	-	-

I checked five NSPs with differences between the retailer and registry days and found they related to decommissioned ICPs. The ICP days calculation was correctly excluding days where an ICP had inactive (001) status, but did not exclude days where ICPs had decommissioned (003) status. WISE updated the report logic in September 2018, and I reviewed revision reports and confirmed that decommissioned ICPs were correctly excluded. Revised AV110 submissions will be provided to the reconciliation manager.

For ICP 0000560119UNC95 under reporting of ICP days occurred for August 2018. An inactive status update occurred on 31/07/18 but the disconnection failed and the ICP remained active until it was re-disconnected on 22/08/2018. This is recorded as non-compliance below, and in **sections 3.9** and **12.7**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.2 With: Clause 15.6 From: 01-Feb-18 To: 12-Sep-18	ICP days were not reported correctly for decommissioned ICPs. ICP days were under reported in August 2018 for ICP 0000560119UNC95. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong because the reports have now been corrected. The impact is assessed to be low. WISE is currently responsible for 30 decommissioned ICPs. The reports have been corrected, and revised ICP days will be washed up. 21 days were under reported for ICP 0000560119UNC95 due to an incorrect status date.		
Actions taken to resolve the issue		Completion date	Remedial action status
The stored procedure was modified to not reflect the ICP days of the decommissioned ICP. The status date for ICP 0000560119UNC95 has been corrected.		12/09/2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We will continue to monitor the data values and verify the data values 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.

GR130 reports for January 2016 to June 2018 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Audit commentary

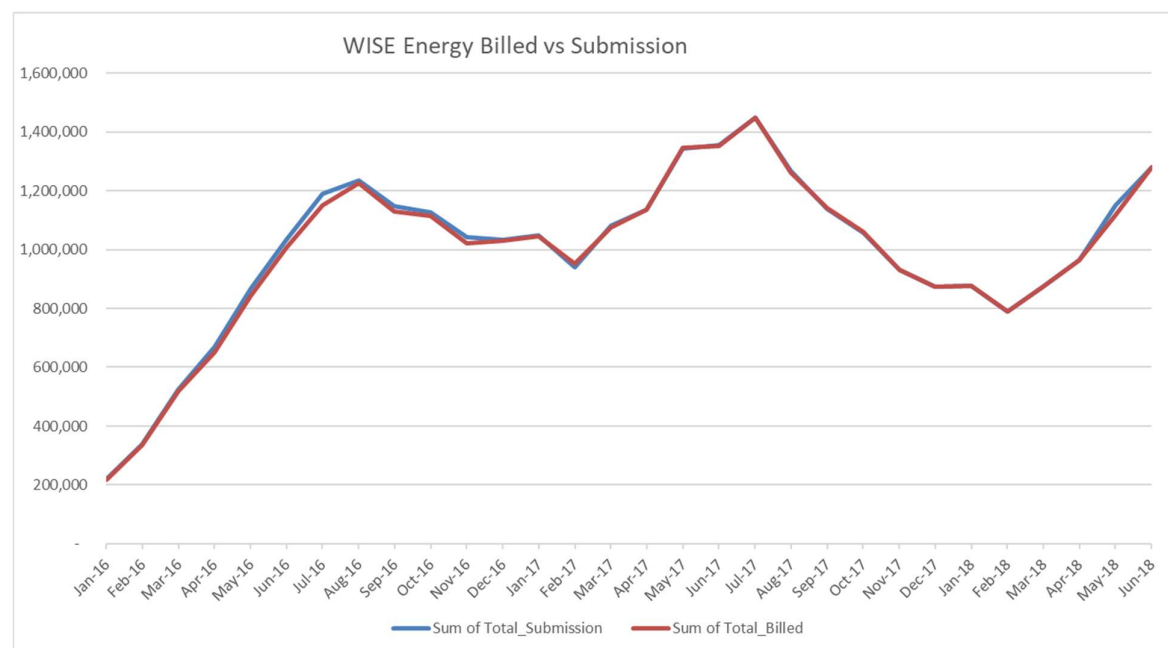
The process for the calculation of as billed data was examined by comparing:

- billed data for all NSPs on the July 2018 submission against ICP level supporting data
- ten ICPs on the ICP level supporting data against the source billing information.

The as billed calculation was confirmed to be correct.

I also checked the difference between submission and electricity supplied information for a 32 month period, and the results are shown in the chart below.

Comparison between Submitted Volumes and Electricity Supplied



The total difference is -0.51% for the two years ended June 2018 and -0.28% for the year ended June 2018 (billed lower than submission).

Audit outcome

Compliant

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

Review of a registry list for the period from 1 February to 14 August 2018 confirmed that WISE has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with this clause was not assessed, because WISE does not deal with HHR readings.

Audit outcome

Not applicable

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

Review of a registry list for the period from 1 February to 14 August 2018 confirmed that WISE has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with this clause was not assessed, because WISE does not deal with HHR readings.

Audit outcome

Not applicable

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

The process to create submissions was reviewed.

NHH submissions are created using PEBS. A diverse sample of NHH ICPs were checked to confirm submissions were correct. Further information on calculation of historic estimate is recorded in **section 12.11**, and the aggregation of the AV080 report was found to be compliant in **section 12.3**.

Alleged breaches were reviewed to determine whether any reconciliation submissions were late.

Audit commentary

A sample of NHH ICPs were checked to confirm whether they were handled correctly:

- no ICPs with genuine vacant consumption were identified; WISE rarely supplies active-vacant ICPs, their policy is to disconnect as soon as an ICP becomes vacant
- disconnected ICPs with consumption were reviewed in **section 8.1**; all ICPs with genuine consumption while disconnected were appropriately corrected

- one ICP had generation capacity added by the distributor during the audit period; as discussed in **section 6.1** the ICP switched out before WISE confirmed whether generation was installed
- no ICPs with unmetered load were supplied.

There were no alleged breaches for late provision of information.

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 processes to ensure that submissions are accurate were discussed and observed, including review of reports used in the process.

The process for aggregating the AV080 was examined. The GR170 to AV080 files for a diverse sample of six months and revisions were compared to confirm zeroing occurs.

Audit commentary

The process for the calculation of ICP days was examined by comparing :

- consumption data for all NSPs on the April 2018 3-month submission against ICP level supporting data
- the network, NSP, reconciliation type, profile, loss factor, dedicated NSP to the registry list for all ICPs on the AV080 for April 2018 to confirm that aggregation factors were applied correctly.

The NHH volumes calculation was confirmed to be correct.

GR170 and AV080 files were compared for seven months and revisions, and found to contain the same NSPs, confirming that zeroing is occurring as required.

AV080 submissions are reviewed by WISE prior to being submitted, including individually checking any ICPs with historic estimate consumption over 1500 kWh, or where the historic estimate is greater than the total estimate. Other 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

The NSP table on the registry and registry list were reviewed.

Audit commentary

WISE is not responsible for any GIPs; compliance was not assessed.

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

WISE is not a local or embedded network owner; compliance was not assessed.

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

WISE is not a grid connected generator; compliance was not assessed.

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 **section 8.1**.

Audit commentary

There were no alleged breaches for late provision of submission information during the audit period.

Some submission accuracy issues were identified, and are recorded as non-compliance below.

ICP days

Two ICP days reporting errors were identified, as described in **section 11.2**:

- the ICP days calculation was correctly excluding days where an ICP had inactive (001) status, but did not exclude days where ICPs had decommissioned (003) status, WISE updated the report logic in September 2018, and revised AV110 submissions will be provided to the reconciliation manager
- ICP 0000560119UNC95 was recorded as inactive from 31/07/18 - 21/08/18 when it should have been active; ICP days were under reported for August 2018.

Bridged meters

Consumption is not estimated for bridged meters. Two bridged meters did not have corrections processed, as discussed in **section 8.1**.

Readings used to calculate historic estimates

All readings are recorded in PEBS, and readings that occur while a customer account is active are also recorded against the customer account. The historic estimate and CS processes apply the reads recorded on the customer account only.

In most cases, the customer account will record all readings for an ICP. There are two main exceptions:

1. Where an ICP is disconnected after a customer account is terminated, the last read recorded will be from the date the customer account is finalised, not the read from the disconnection or switch out date.
2. If a read is lower than the previous read, a meter rollover is processed. If the read is found to be genuinely lower, typically where it follows a high estimated switch in read, the read will not be recorded against the customer account and a zero estimate will be inserted instead. This is raised as non-compliance in **section 9.5**.

The following CS files contained readings that did not match the actual AMI reading for the event date. While WISE had applied the switch readings when calculating reconciliation submission volumes, the switch readings were incorrect, resulting in under submission.

ICP	Under submission (kWh)
0000191774WEBFA	41
0000067610TREAD	12
0000035163WEE9F	10
0000041786HB51B	12
0000105440HB901	3
Total	78

The previous audit found that consumption during inactive periods was sometimes mis-calculated. Consumption was calculated for the active portion of the period, then any consumption while inactive was calculated as the difference between the first read after reconnection and the last read before disconnection.

- Where disconnection and reconnection reads were entered, the inactive consumption was calculated correctly.
- Where the last read before disconnection fell before the disconnection date, and/or the first read after reconnection fell after the reconnection date, inactive consumption could be over reported because part of the inactive read period would overlap the active read period.

To prevent this issue from recurring, WISE removed the inactive consumption process from the historic estimate calculation. Instead, they have relied upon the validation process described in **section 9.5** to identify ICPs with inactive consumption, and the correction process described in **section 8.1** to return the ICP to active status and add the reads for the inactive period to the customer account.

I reviewed all 21 ICPs with inactive consumption identified on WISE's weekly report and found that some had unreported consumption while the ICPs were inactive. This is recorded as non-compliance in **section 8.1** and below. The affected ICPs are:

ICP	Final reading date	Disconnection read date	kWh under reported
0000107703UND28	6/08/2018	8/08/2018	4
0000560119UNC95	29/07/2018	30/07/2018	128
0000220362UN385	1/08/2018	06/08/2018	12
0455801037LC8B5	30/05/2018	01/06/2018	4
0927599303LCB02	24/04/2018	26/04/2018	21
0485174278LC9BD	22/08/2017	15/08/2017	5
0336766025LC840	8/08/2018	10/08/2018	4
1001144881LCE7F	5/08/2018	07/08/2018	4
0320779041LCA29	23/07/2018	25/07/2018	3
1001121185UN910	19/05/2018	21/05/2018	3
Total			188

Historic estimate calculation

As noted in the previous audit, historic estimate is calculated based on the status on the registry and the reads recorded on the customer's account. Where the registry status is incorrect, or reads are not recorded on the customer's account, historic estimate may not reflect the actual consumption.

As described above, I found 188 kWh had been under reported for inactive consumption and 78 kWh had been under reported due to differences between the CS readings and actual readings.

An issue with the application of the Seasonal Adjusted Shape Values (SASV) was identified in **section 12.11**; instead of applying the sum of the SASV for the NSP, WISE had applied the sum of the SASV for the network. For most of the NSPs WISE supplies (including the NSPs for the historic estimate examples provided) there is only one balancing area per network, and the SASV values for each NSP within the balancing area were the same. This means that although the SASV value applied is the total for the network rather than the NSP, the result is the same as it would be if the SASV for the NSP had been applied. All NSPs supplied up to the end of the last audit period had only one balancing area per network.

Since 1 February 2018, WISE has supplied NSPs connected to the HAWK and WAIK networks. These networks have more than one balancing area, and the sum of the SASV for the network will not be proportional to the sum of the SASV for the NSP. This can result in incorrect apportionment of consumption between months for the 549 affected ICPs.

WISE corrected their historic estimate calculations during the audit, to use the SASV for the NSP instead of for the network.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 12.7</p> <p>With: Clause 15.12</p> <p>From: 01-Feb-18</p> <p>To: 12-Sep-18</p>	<p>Incorrect ICP days were reported for decommissioned ICPs, and one ICP where the status was recorded incorrectly.</p> <p>Consumption during periods where a meter is bridged is not reported.</p> <p>Where the active period continues after a customer account is terminated, historic estimate may not include all consumption.</p> <p>When calculating historic estimate, WISE based the calculation on SASV for the network, instead of SASV for the NSP. This can result in differences for NSPs connected to HAWK and WAIK, where there is more than one balancing area per network.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: None</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 they are unlikely to mitigate errors where the period of supply continues after the customer account is terminated.</p> <p>The controls over application of SASV and reporting of ICP days have improved to strong, following the issues being resolved.</p> <p>The impact is assessed to be low, because the ICP days and SASV issues are resolved and correct information will be washed up. The impact of the under reported consumption is low, based on the kWh differences identified.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
The stored procedure was modified to not reflect the ICP days of the decommissioned ICP, and the bridged meter was modified to estimate the reading regardless of the actual reading value by changing the meter serial number until unbridge. Also, when calculating the HE, we modified the stored procedure to use only the SASV for that NSP.		14/09/2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will continue to monitor the data values and verify the data values before submitting.		Ongoing	

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).

Volume information created using estimated readings must be subsequently replaced at the earliest opportunity by the reconciliation participant by volume information that has been created using validated meter readings or permanent estimates by, at the latest, the month 14 revision cycle.

A permanent estimate may be used in place of a validated meter reading, but only if, despite having used reasonable endeavours; the reconciliation participant has been unable to obtain a validated meter reading.

Audit observation

AV080 14 month revisions for December 2016, March 2017 and April 2017 were reviewed to identify any forward estimate still existing.

Audit commentary

Review of AV080 14 month revisions December 2016, March 2017 and April 2017 showed no forward estimate remained.

Audit outcome

Compliant

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 must comprise the following:

- *half hour volume information 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) *half hour volume information for the ICP; or*
 - b) *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

Processes to ensure that information used to aggregate the reconciliation reports is consistent with the registry were reviewed in **section 2.1**.

Aggregation and content of reconciliation submissions was reviewed in **section 12.3**, and the registry list for 1 February to 14 August 2018 was reviewed.

Audit commentary

Compliance with this clause was assessed:

- all WISE's ICPs have metering category 1, and are submitted as NHH
- no ICPs with unmetered load are supplied
- no profiles requiring a certified control device are used
- no loss or compensation arrangements are required
- aggregation of the AV080 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

I reviewed 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.

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, WISE were supplied with a list of scenarios, and for some individual ICPs a manual HE calculation was conducted, and compared to the result from PEBS.

Audit commentary

For all examples provided, WISE's historic estimate calculation result was correct.

An issue with the application of the Seasonal Adjusted Shape Values (SASV) was identified; instead of applying the sum of the SASV for the NSP, WISE had applied the sum of the SASV for the network.

For most of the NSPs WISE supplies (including the NSPs for the examples provided) there is only one balancing area per network, and the SASV values for each NSP within the balancing area were the same. This means that although the SASV value applied is the total for the network rather than the NSP, the result is the same as it would be if the SASV for the NSP had been applied. All NSPs supplied up to the end of the last audit period had only one balancing area per network.

Since 1 February 2018, WISE has supplied NSPs connected to the HAWK and WAIK networks as shown below. These networks have more than one balancing area, and the sum of the SASV for the network will not be proportional to the sum of the SASV for the NSP. This can result in incorrect apportionment of consumption between months for the affected ICPs.

Balancing area	NSP	Network	Start date	Active ICPs at NSP (includes any ICP which was active at any time)
MAGPIESHAWKG	FHL0331	HAWK	01/02/2018	19
MAGPIESHAWKG	RDF0331	HAWK	01/02/2018	35
MAGPIESHAWKG	WTU0331	HAWK	01/02/2018	46
TAUPROTHAWKG	OWH0111	HAWK	01/02/2018	4
TAUPROTHAWKG	ROT0111	HAWK	01/02/2018	13
TAUPROTHAWKG	ROT0331	HAWK	01/02/2018	14

Balancing area	NSP	Network	Start date	Active ICPs at NSP (includes any ICP which was active at any time)
TAUPROTHAWKG	TRK0111	HAWK	25/06/2018	3
TAUPROTHAWKG	WRK0331	HAWK	01/02/2018	24
JEF0111WAIKE	JEF0111	WAIK	01/02/2018	1
POR0111WAIKE	POR0111	WAIK	01/02/2018	1
WAIKATOWAIGK	HAM0111	WAIK	01/02/2018	83
WAIKATOWAIGK	HAM0331	WAIK	01/02/2018	165
WAIKATOWAIGK	HLY0331	WAIK	01/02/2018	72
WAIKATOWAIGK	TWH0331	WAIK	01/02/2018	69
Total				549

WISE corrected their historic estimate calculations during the audit, to use the SASV for the NSP instead of for the network. The historic estimate examples were updated using this revised logic. I re-checked the application of the SASV and confirmed that the correct values were applied.

Test	Scenario	Test Expectation	Result pre SASV correction	Result post SASV correction
a	ICP becomes Active part way through a month	Consumption is only calculated for the Active portion of the month.	Correct, but total network SASV applied	Compliant, NSP SASV applied
b	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Correct, but total network SASV applied	Compliant, NSP SASV applied
c	ICP become Inactive then Active again within a month.	Consumption is only calculated for the Active portion of the month.	Correct, but total network SASV applied	Compliant, NSP SASV applied
d	ICP switches in part way through a month on an estimated switch reading	Consumption is calculated to include the 1st day of responsibility.	Correct, but total network SASV applied	Compliant, NSP SASV applied
e	ICP switches out part way through a month on an estimated switch reading	Consumption is calculated to include the last day of responsibility.	Correct, but total network SASV applied	Compliant, NSP SASV applied

Test	Scenario	Test Expectation	Result pre SASV correction	Result post SASV correction
f	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	Correct, but total network SASV applied	Compliant, NSP SASV applied
g	Continuous ICP with a read during the month	Consumption is calculated assuming the readings are valid until the end of the day.	Correct, but total network SASV applied	Compliant, NSP SASV applied
h	Continuous ICP without a read during the month	Consumption is calculated assuming the readings are valid until the end of the day.	Correct, but total network SASV applied	Compliant, NSP SASV applied
i	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Correct, but total network SASV applied	Compliant, NSP SASV applied
j	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Has not occurred	Has not occurred
k	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Has not occurred	Has not occurred
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.	Correct, but total network SASV applied	Compliant, NSP SASV applied
m	ICP with a customer read during the month	Customer reads are not used to calculate historic estimate.	Has not occurred	Has not occurred
n	ICP with a photo read during the month	Photo reads are not used to calculate historic estimate.	Has not occurred	Has not occurred
o	ICP has a meter with a multiplier greater than 1	The multiplier is applied correctly.	Has not occurred	Has not occurred

As noted in the previous audit, historic estimate is calculated based on the status on the registry and the reads recorded on the customer's account. Where the registry status is incorrect, or reads are not

recorded on the customer's account, historic estimate may not reflect the actual consumption. This is recorded as non-compliance in **section 12.7**. For the historic estimate examples checked in this section, ICPs with inactive periods were treated correctly.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 12.11 With: Clause 4 and 5 Schedule 15.3 From: 01-Feb-18 To: 12-Sep-18	When calculating historic estimate, WISE based the calculation on SASV for the network, instead of SASV for the NSP. This can result in differences for NSPs connected to HAWK and WAIK, where there is more than one balancing area per network. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated to be strong, because the issue was resolved during the audit. The impact is assessed to be low, because the data will be corrected and washed up. For all the historic estimate examples reviewed, the result using the correct NSP SASV was the same as the result using the network SASV.		
Actions taken to resolve the issue		Completion date	Remedial action status
When calculating the HE, we modified the stored procedure to use only the SASV for that NSP.		12/09/2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We will continue to monitor the data values and verify the data values before submitting.		Ongoing	

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 over the audit period.

Audit commentary

WISE's forward estimate process is based on estimated reads entered in PEBS. The estimated reads are calculated from the average daily consumption, which is based on actual read history. If no historical information is available, the average daily consumption from the CS file, or information provided by the customer on sign up is used.

The accuracy of the initial submission, in comparison to each subsequent revision is required to be within 15% and within 100,000kWh. The target was met for all balancing areas.

Quantity of balancing areas with differences over 15% and 100,000 kWh

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Feb 2017	0	0	0	0	7
Mar 2017	0	0	0	0	8
April 2017	0	0	0	0	8
May 2017	0	0	0	-	8
June 2017	0	0	0	-	8
July 2017	0	0	0	-	7
Aug 2017	0	0	0	-	7
Sep 2017	0	0	0	-	7
Oct 2017	0	0	0	-	7
Nov 2017	0	0	-	-	7
Dec 2017	0	0	-	-	7
Jan 2018	0	0	-	-	7

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Feb 2018	0	0	-	-	7
Mar 2018	0	0	-	-	7
Apr 2018	0	0	-	-	8
May 2018	0	-	-	-	8
Jun 2018	0	-	-	-	8

The total variation between revisions at an aggregate level is shown below.

Month	Revision 1	Revision 3	Revision 7	Revision 14
Feb 2017	1.29%	1.50%	-0.14%	1.27%
Mar 2017	-2.49%	-1.35%	-0.13%	-0.18%
April 2017	-0.23%	-1.09%	0.39%	0.27%
May 2017	-0.99%	-0.56%	1.09%	-
June 2017	-2.37%	0.22%	1.46%	-
July 2017	-0.35%	1.54%	1.38%	-
Aug 2017	-0.09%	1.29%	1.22%	-
Sep 2017	-1.47%	0.01%	-0.12%	-
Oct 2017	0.18%	0.25%	0.28%	-
Nov 2017	-0.33%	-0.17%	-	-
Dec 2017	-0.04%	0.44%	-	-
Jan 2018	-0.28%	-0.06%	-	-
Feb 2018	-0.24%	-0.09%	-	-

Month	Revision 1	Revision 3	Revision 7	Revision 14
Mar 2018	-0.32%	-0.06%	-	-
Apr 2018	-0.88%	-0.65%	-	-
May 2018	-2.50%	-	-	-
Jun 2018	-0.13%	-	-	-

The differences were reviewed at balancing area level, and no large percentage or kWh differences between revisions were identified.

Audit outcome

Compliant

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 for 1 February to 14 August 2018 was reviewed, to identify any ICPs which have had a change of profile.

Audit commentary

Examination of the list file found that WISE has only used the RPS profile. No profile changes were identified.

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

Submission information provided to the reconciliation manager must be aggregated to the following level:

- *NSP code (clause 8(a))*
- *reconciliation type (clause 8(b))*
- *profile (clause 8(c))*
- *loss category code (clause 8(d))*
- *flow direction (clause 8(e))*
- *dedicated NSP (clause 8(f))*
- *trading period for half hour metered ICPs and consumption period or day for all other ICPs (clause 8(g)).*

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**.

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
- consumption period.

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 reports as part of the aggregation checks.

Audit commentary

Review of nine AV080 reports confirmed that submission information is appropriately rounded to two 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 months, and found to meet the targets in all cases.

Quantity of NSPs where revision targets were met

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Dec 2016	-	-	29	29
Mar 2017	-	31	31	31
Apr 2017	-	31	31	31

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Aug 2017	31	31	-	31
Sep 2017	31	31	-	31
Oct 2017	-	31	-	31
Feb 2018	32	-	-	32
Mar 2018	32	-	-	32
Apr 2018	33	-	-	33

The table below shows that the percentage HE at a summary level for all NSPs is at or above the required targets for all revisions.

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Dec 2016	-	-	100.00%
Mar 2017	-	100.0%	100.00%
Apr 2017	-	100.0%	100.00%
Aug 2017	99.9%	100.00%	-
Sep 2017	100.0%	100.00%	-
Oct 2017	-	100.00%	-
Feb 2018	99.97%	-	-
Mar 2018	99.94%	-	-
Apr 2018	99.55%	-	-

Audit outcome

Compliant

CONCLUSION

WISE Pre Pay Energy Limited (WISE) are a solely pre-payment participant, and all ICPs have submission type NHH.

WISE has worked to improve compliance during the audit period.

- The timeliness and accuracy of status updates has improved.
- The setting of event dates has improved dramatically, and only one ICP was found to have a non-compliant event date during this audit.
- Issues with ICP days and application of SASV identified during the audit have been corrected.
- No RRs were invalidly rejected.

Some key issues identified in previous audits still remain.

- All readings are recorded in PEBS, and readings that occur while a customer account is active are also recorded against the customer account. The historic estimate and switching processes apply the reads recorded on the customer account only. This means that where an ICP remains active and supplied by WISE after the customer is terminated, reads after the termination date will not be applied for switching or reconciliation. I found that in most cases, the switch out or disconnection date and account termination date were aligned and the correct reads were applied, but some exceptions were identified and are recorded as non-compliance.
- Corrections for bridged meters are not processed, due to a system limitation. WISE has had two bridged meters for part of the audit period, and is working to find a solution.
- Some late switching files were identified. The switches were generally delayed while WISE attempted to contact the customer to confirm they wished to proceed with the switch.

Most of the other issues identified affected small numbers of ICPs, and were found to have a low impact.

The audit found 22 non-compliances and made two recommendations. The breach risk rating total is 41, an improvement from 48 in the previous audit. Excluding the three non-compliances that I confirmed were cleared during the audit, the breach risk rating total is 38, which gives an indicative next audit due date of 12 months. Given that corrective actions have been identified or implemented for a further 15 of the non-compliances, I agree that 12 months is a reasonable next audit period.

PARTICIPANT RESPONSE

Sighting the fact that, the processes for some of the non-compliances identified in this audit, have been modified after being identified, WISE would like to request for a longer audit period. This will help us show the significant changes made during & after the September 18 audit. We believe, taking in to account the process changes WISE has made recently, a twelve month audit period would be appropriate.

Also, WISE believes one of the non-compliances recorded was rectified since the previous audit in January 18, which has been included in the current one in error. Another one of WISE's non compliance is due to the shortcomings of the EA registry, in that, the registry can only be updated by the retailer holding the ICP, which has unfairly led to WISE being non-compliant.