VERITEK

Electricity Industry Participation Code Reconciliation Participant Audit Report

For

Wise Pre Pay Energy Limited (WISE)

Prepared by Tara Gannon – Veritek Ltd

Date of Audit: 26/05/17 and 30/05/17

Date Audit Report Complete: 24/06/16

Date Audit Report Due: 23/07/16

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 version 7.1.

WISE Pre Pay Energy Limited (WISE) are a solely pre-payment participant.

The audit found 25 non-compliances and makes three recommendations.

Since the last audit, WISE has employed more staff, including a PEBS developer, and has put considerable effort into resolving data discrepancies identified during the previous audit. Many of the corrections were implemented after the new staff arrived and settled in, around January and February 2017. At the same time process improvement and automation began. In general, I found less non-compliance in the 2017 portion of the audit period.

Consumption on vacant sites is now reported until the ICP is disconnected. After disconnection, the account is closed and reads are not imported, which makes it difficult to detect whether consumption has occurred after disconnection.

Unfortunately, some of the process corrections made have resulted in new non-compliances, particularly around use of reads.

- Reads are not imported once WISE receives an NT, zero estimates are created instead.
- CS files have been generated with a read type of actual, and the last actual read imported. They should be recorded with the correct last actual read date and value.
- Some issues with handling of inactive dates were identified on the AV110 and AV080 reports, inactive days were being included in the calculations.

Corrections are not always processed where actual reads become available after estimates are applied, or for periods where meters are bridged.

WISE supplies a small number of non AMI ICPs and does not receive actual reads for these, which has resulted in some non-compliance with the meter interrogation requirements.

The breach risk rating total is 68, which gives an indicative next audit due date of three months. My recommendation is that the next audit should be carried out in six months. The auditor will need to see evidence that the new processes are being consistently followed once implemented, and I do not believe that three months will allow sufficient time to both implement the changes and prove their effectiveness. WISE is a small retailer, completing a relatively small number of transactions and most non-compliances had a low audit risk rating. I recommend WISE should be given six months to resolve these issues, and bed in the revised processes prior to the next audit.

The matters raised are shown in the tables below:

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Breach Risk Rating	Audit History	Controls	Remedial Action
Relevant information	2.1	15.2 of Part 15	Some incorrect information was not identified and corrected as soon as practicable during the audit period.	4	Twice	Moderate	Identified
Audit trails	2.4	21 of Schedule 15.2	The meter reading audit trail within PEBS does not include operator identifier.	1	None	Strong	Identified
MEP arrangements	2.12	10.36	WISE supplied ICP 0000371141TUC44 with Trustpower as MEP from 09/02/2017 to 06/04/2017, without having valid MEP arrangements in place. Upon switch in WISE requested AMS replace the meter, and AMS accepted the nomination effective from the switch in date.	1	None	Moderate	Identified
Changes to registry information	3.3	10 of Schedule 11.1	243 status updates were not processed within 5 business days of the event on the Registry. One status update applied an incorrect code. Inactive - ready for decommissioning was applied instead of inactive - de-energised remotely by AMI meter.	2	Once	Moderate	Identified
Management of inactive status	3.9	19 of Schedule 11.1	ICPs disconnected for credit reasons are not updated to inactive on the registry, unless they have been inactive for a week or more. The registry should reflect the correct status for each ICP on each day. Some disconnections were not processed in PEBS or on the registry from the correct date.	3	Twice	Weak	Identified
AN files for standard switches	4.2	3 of Schedule 11.3	Incorrect AN response codes were provided for two ICPs with AMI metering. AA was applied instead of AD.	2	None	Moderate	Identified
CS files for standard switches	4.3	5 of Schedule 11.3 and Clause 15.2 of Part 15	Incorrect standard switch CS file content including • Some incorrect and inaccurate switch readings, due to not using actual reads where they are available and applying zero estimates. • Some incorrect read types. • One incorrect last read date.	6	Twice	Weak	Investigating
CS files for standard switches	4.3	Clause 5 of Schedule 11.3	Two late CS files	2	Once	Moderate	Identified

Subject	Section	Clause	Non-compliance	Breach Risk Rating	Audit History	Controls	Remedial Action
AN files for switch moves	4.8	Clause 10 of Schedule 11.3	An incorrect AN response code was provided for one ICP which was de-energised. CO was applied instead of PD.	2	None	Moderate	Identified
Losing trader determines a different switch date	4.8	Clause 10 of Schedule 11.3	21 late CS files.	2	Twice	Moderate	Identified
Losing trader determines a different switch date	4.9	Clause 10(2) of Schedule 11.3	Switch information was not provided for the event date set by the losing trader for 10 switches.	3	None	Weak	Identified
CS files for switch moves	4.10	11 of Schedule 11.3 and Clause 15.2 of Part 15	Incorrect switch move CS file content including • Some incorrect and inaccurate switch readings, due to not using actual reads where they are available and applying zero estimates. • Some incorrect read types. • One incorrect last read date.	6	Twice	Weak	Investigating
Read changes for switch moves	4.11	12 of Schedule 11.3	Three late read change acknowledgement files	2	None	Moderate	Identified
Read changes for switch moves	4.11	6 and 6A of Schedule 11.3 and 15.2 of Part 15	An accepted read change was not applied in PEBS. This will result in incorrect submission information	2	None	Moderate	Identified
Defective metering installations	6.4	15.2 of Part 15	Where a meter is found to be bridged, consumption is not estimated for the bridged period.	3	None	Weak	Investigating
Interrogate meters once	6.8	7(1) and 7(2) of Schedule 15.2	Five ICPs with no read gained during the period of supply and exceptional circumstances not met were identified.	2	Twice	Moderate	Identified
Correction of NHH readings	8.1	19(1) of schedule 15.2 and 15.2 of Part 15	Some meter changes were not processed with the correct date and read.	3	None	Weak	Identified
Correction of NHH readings	8.1	19(1) of schedule 15.2 and 15.2 of Part 15	Estimated reads are not replaced with actual readings, should actual readings become available at a later date.	3	None	Weak	Identified
Correction of NHH readings	8.1	19(1) of schedule 15.2	Consumption on vacant sites is only identified and submitted if there is an active customer for the ICP.	3	None	Weak	Identified

Subject	Section	Clause	Non-compliance	Breach Risk Rating	Audit History	Controls	Remedial Action
ICP days calculation	11.2	15.6 and 15.2 of Part 15 and	The ICP days report included inactive days. The report has now been corrected to only include active ICP days.	2	None	Moderate	Cleared, issue was resolved from February 2017.
Creation of submission information	12.2	15.4 of Part 15	Revision files were submitted late in May 2017.	2	None	Moderate	Identified
Permanence of meter readings	12.8	4 of Schedule 15.2	A small amount of forward estimate remained for the final revisions for November 2015, December 2015 and January 2016. Not all meter readings were made permanent estimates by the 14 month revision.	2	None	Moderate	Identified
Historical estimate process	12.11	4 of Schedule 15.3 and 15.2 of Part 15	Historic estimates were not calculated correctly where an ICP is inactive for part of a period, and where an ICP had switched out and back in.	6	None	Weak	Identified
Market Administrator meter reading reports	13.1	8 and 9 of Schedule 15.2	Meter reading frequency reports were not submitted prior to January 2017.	1	Once	Strong	Cleared, all reports from January 2017 were submitted on time
Historical estimate reporting	13.3	10 of Schedule 15.3	Historic estimate targets were not met for all revisions	2	None	Moderate	Identified
Breach Risk Rating Score							68
Indicative Next Audit Frequency							3 months

Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Remedial Action
Relevant information	2.1	10.6, 11.2, 15.2	Check internal data for consistency to identify data discrepancies, including checking that only MEPs with valid arrangements with WISE are used, and identification of ICPs with unmetered load.	Identified
Withdrawal of switch requests	4.15	18 of Schedule 11.3	Record withdrawal request and withdrawal rejection reasons against each ICP.	Identified

Subject	Section	Clause	Recommendation for Improvement	Remedial Action
NHH meter data validation	9.5	Clause 16 of schedule 15.2	I recommend some enhancements to the read validation checks: WISE should implement their intended change to review consumption patterns for the customer to help identify high or low reads. Consider reviewing the volume billed each day, separate to the review of debit account balances. This will ensure all customers with high or low consumption will be checked daily, rather than only those with a debit balance. Consider average daily consumption rather than monthly consumption in the reconciliation report checks. Comparison with the previous period or submission will improve WISE's checks of consumption against expected and previous patterns.	Identified.

Persons Involved in This Audit:

Auditor:

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Veritek Limited
Electricity Authority Approved Auditor

Personnel assisting in this audit were:

Name	Title
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Ferdin Jayachandran	Metering Operations Analyst
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1. Administrative

1.1 Summary of Previous Audit

WISE provided a copy of the last audit, conducted in October 2016 by Rebecca Elliot of Veritek Limited. The status of the issues identified in that audit are recorded below:

Table of Non-Compliance

Subject	Previous Report Section	Clause	Non-compliance	Status
Relevant Information	1.10	15.2 of part 15	Information not corrected at the earliest opportunity.	Still existing. Refer to section **2.1**.
Provide Accurate Information	1.11	11.2 of part 11	Information not corrected at the earliest opportunity.	Still existing. Refer to section **2.1**.
Switching	2.1.2	3 of schedule 11.3	39 late AN files.	Cleared. There were no genuine late AN files during the audit period. Refer to section **4.2**.
	2.1.3	4 of schedule 11.3	7 ICPs with an event date greater than 10 days from the NT.	Cleared. There were no ICPs with event dates more than 10 days from the NT during the audit period. Refer to section **4.2**.
	2.1.4	5 of schedule 11.3	Some late CS files. Incorrect CS file information	Still existing. Refer to section **4.3**.
	2.2.2	10 of schedule 11.3	37 late AN files. Some late CS files. Some MI switches with no AN sent.	Still existing. There were no late AN files, but some late CS files were identified. Refer to sections **4.7 to 4.10**.
	2.2.3	11 of schedule 11.3	Incorrect CS file content.	Still existing. Refer to section **4.10**.

Subject	Previous Report Section	Clause	Non-compliance	Status
	2.2.4	12 of schedule 11.3	1 late RR file.	Cleared. There were no late RR files during the audit period. Refer to section **4.4**.
	2.4	18 of schedule 11.3	Incorrect switch withdrawal code used. 2 late AW files.	Cleared. No incorrect withdrawal codes, and no late AW files were identified. Refer to section **4.15**.
Changes to Registry Information	2.8.3	10 of schedule 11.1	Registry information not updated within 5 business days of the event.	Still existing. Refer to section **3.4**.
Registry Discrepancies	2.8.10	11(2) of schedule 11.1	No registry validation in place.	Cleared. Registry validation is now in place. Refer to section **2.1**.
Management of "Active" status	2.8.13	12 & 19 of schedule 11.1	ICPs not recorded on the registry at the correct status.	Cleared. No ICPs found with incorrect active status. Refer to section **3.8**.
Management of "Inactive" status	2.8.14	19 of schedule 11.1	ICPs not recorded on the registry at the correct status.	Still existing. Refer to section **3.9**.
Interrogate meters once	3.4	7(1)&(2) of schedule 15.2	Nine ICPs with no read gained during the period of supply and exceptional circumstances not met.	Still existing. Refer to section **6.8**.
Correction of NHH Meter Readings	4.1.1	19(1) of schedule 15.2	Consumption on active vacant not being submitted therefore corrections are only applied to active customers.	Cleared. Reads are imported for vacant ICPs and consumption is reported. Refer to section **8.1**.
NHH Metering Information Data Validation	4.2.4	16 of schedule 15.2	No validation for ICPs with no vend over a selected time period and zero consumption on an active site.	Cleared. Zero and low consumption is reviewed. Refer to section **8.1**.

Subject	Previous Report Section	Clause	Non-compliance	Status
Electronic Meter Reading	4.2.5	17 of schedule 15.2	AMI event information not adequately obtained and monitored.	Cleared. Meter event detail reports are received and monitored. Refer to section **8.1**.
Electricity Supplied	5.3	15.7 of part 15	Consumption on active vacant not being submitted.	Cleared. Reads are imported for vacant ICPs and consumption is reported. Refer to sections **8.1** and **11.3**.
Creation of Submission Information	6.1.3	15.5 of part 15	Consumption on active vacant ICPs is not being included in submission.	Cleared. Reads are imported for vacant ICPs and consumption is reported. Refer to section **8.1**.
Meter Reading Reports	6.2.1	8&9 of schedule 15.2	Monthly meter reading reports not provided.	Cleared. Monthly reports have been provided since January 2017. Refer to section **13.1**.

Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Remedial Action
Audit trails	1.14	21 of schedule 15.2	Enable customer data to be accessible post an ICP switching away.	Cleared. Customer information is readily available for inactive and switched customers. Refer to section **2.4**.
Withdrawal of Switch Requests	2.4	10 of schedule 11.1	Automate ICP status changes between PEBS and the registry ASAP.	Cleared. The process is now automated. Refer to section **4.15**.
Maintaining Shared Unmetered Load	2.10.3	11.14 of part 11	Include a check for any shared unmetered load be included in the Registry validation.	Still existing. Refer to section **2.1**.

Subject	Section	Clause	Recommendation for Improvement	Remedial Action
Validation	4.2.4	16 of schedule 15.2	WISE operation to monitor ICPs with zero consumption or without a recent purchase to determine whether an issue is present.	Cleared. Zero and low consumption is reviewed. Refer to section **8.1**.
Electronic Meter Reading	4.2.5	17 of schedule 15.2	Confirm event reporting is being received from AMS and formalise event reporting from Metrix.	Cleared. Meter event detail reports are received and monitored. Refer to section **8.1**.

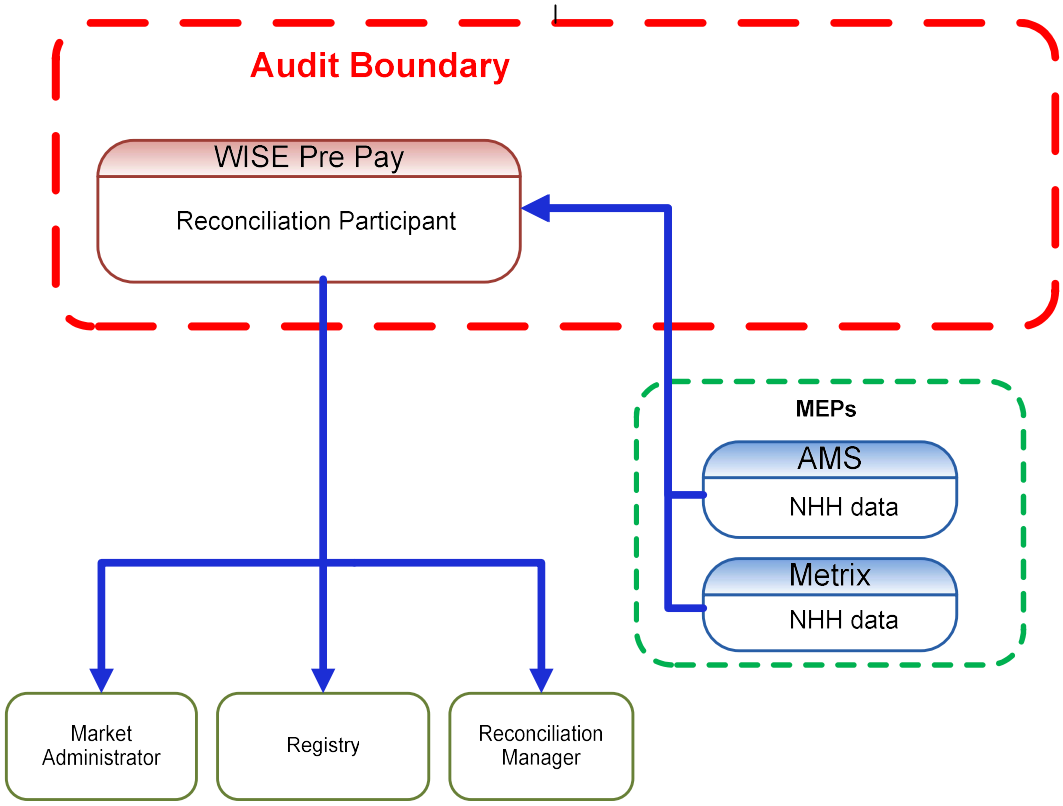
1.2 Scope of Audit

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 26 and 30 May 2017.

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. Almost all of their ICPs are AMI.



The MEPs are audited separately. The table below shows the tasks under clause 15.38 of part 15 for which WISE requires certification. This table lists the MEPs who assist with these tasks:

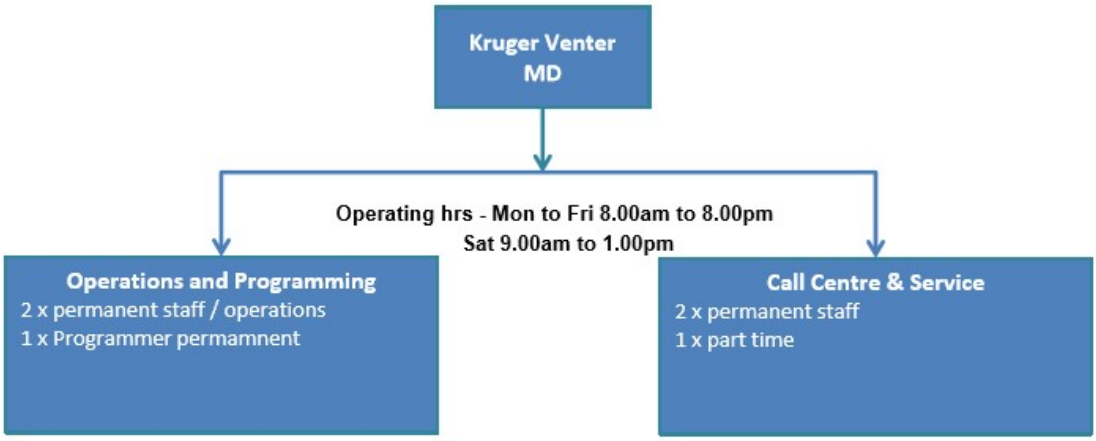
Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs
(a) - Maintaining registry information and performing customer and embedded generator switching		
(b) – Gathering and storing raw meter data		AMS - NHH Metrix - NHH
(c)(iii) - Creation and management of HHR & NHH volume information		
(d) – Calculation of ICP days		
(da) - delivery of electricity supplied information under clause 15.7		
(db) delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8		
(e) – Provision of submission information for reconciliation		

1.3 Exemptions from obligations to comply with code (Section 11 of Electricity Industry Act 2010)

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.

WISE confirms there are no exemptions in place that are relevant to the scope of this audit.

1.4 Organisation structure



1.5 Use of agents (Clause 15.34 of Part 15)

WISE uses only NHH AMI data provided by MEPs AMS and Metrix, whose compliance with the code is examined as part of their MEP audits.

1.6 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, and I sighted evidence confirming that these back-ups were being created.

1.7 Breaches or Breach Allegations

WISE has had one breach allegations recorded by the Electricity Authority during the audit period (reference 1703WISE1):

Breach Description	Clause	Outcome
WISE Pre Pay failed to take all practicable steps to ensure accuracy of submission volumes.	Part 15 clause 15.2	Early closure.

1.8 ICP data

WISE provided a list file as at May 2017. The list file was examined by status:

ICP Status	Number of ICPs May 2017	Number of ICPs October 2016	Number of ICPs April 2016
Active	2210	1,972	1,531
Inactive – vacant (1,4)	43	58	6
Inactive - reconciled elsewhere (1,5)	0	0	0
Inactive – ready for decommissioning (1,6)	2	0	0
Inactive - AMI disconnection (1,7)	16	9	1
Inactive - Meter disconnected (1,9)	7	1	0
Inactive - new connection in progress (1,12)	0	0	0
Decommissioned (3)	0	0	0

The active ICPs are all category 1 meters as WISE is a pre pay only participant.

1.9 Authorisation received

WISE provided a letter of authorisation to Veritek permitting the collection of data from other parties for matters directly related to the audit.

2. Operational infrastructure

2.1 Relevant information (Clause 10.6, 11.2, 15.2)

A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Part 15 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 and observed. The list file was examined to confirm that all information was correct and not misleading. The registry validation process was examined in detail in relation to the achievement of this requirement.

Audit Commentary

There has been an improvement in the monitoring of registry and submission discrepancies over the last two audit periods. WISE has processes in place to identify and correct any misleading or incorrect information.

Matches between PEBS data and the registry are completed weekly, using a script to compare current registry records to current PEBS records and produce a list of exceptions. I observed the exception review process and noted that the match process will identify discrepancies in:

- status
- meter number, channels and installation
- meter certification details
- meter dials
- register content; and
- energy flow direction.

WISE import notification files from the Registry to load changes to ICPs. This process will identify any changes to unmetered or generation details.

The analysis of the list file returned the following findings:

Item No.	Issue	2017	2016	Comments
1	Status mismatch between registry and WISE	1	11	One status was incorrectly applied, and is discussed in section **3.2**.
2	Active with no MEP	-	-	All active ICPs have an MEP.
3	Incorrect submission flag	-	-	All ICPs have submission type NHH.

Item No.	Issue	2017	2016	Comments
4	Blank ANZSIC codes	-	-	All active ICPs had an ANZSIC code applied.
5	ANZSIC "T999" not stated	-	-	No active ICPs had a not stated ANZSIC code applied.
6	ANZSIC "T994" don't know	-	-	No active ICPs had a don't know ANZSIC code applied.
7	Category 9 but Active with MEP and UML "N"	-	-	All category 9 meters have an inactive status.
8	ICPs with Distributor unmetered load populated but retail unmetered load is blank	-	-	No ICPs have distributed unmetered load populated.
9	ICPs with unmetered load flag Y but load is recorded as zero	-	-	No ICPs have unmetered flag = Y.
10	ICPs with incorrect shared unmetered load	-	-	No ICPs have incorrect shared unmetered load.
11	ICPs with Distributed Generation indicated but no DG profile	-	-	There is no evidence of distributed generation.

Internal data is not checked for consistency, so it is possible that data that is incorrect both in PEBS and on the Registry may not be identified. A recommendation is raised below.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 10.6, 11.2, 15.2	Check internal data for consistency to identify data discrepancies, including checking that only MEPs with valid arrangements with WISE are used, and identification of ICPs with unmetered load.	Check data consistency with the registry on a weekly basis via automated script.	Identified

Non-compliance relating to management of inactive status is recorded in section **3.9**. Non-compliance in relation to finding and correcting incorrect information is recorded below, this is discussed in more detail in sections **3.3**, **3.9**, **4.3**, **4.10**, **6.4**, **8.1**, **11.2** and **12.11**. Significant work has been undertaken to resolve data issues identified during the last audit, and put processes in place to ensure that new anomalies are identified and resolved quickly.

Non-compliance	Description
With: Clause 15.2 of Part 15 **From/to:** Entire audit period	Some incorrect information was not identified and corrected as soon as practicable during the audit period. **Potential impact:** Low **Actual impact:** Low **Audit history:** Twice previously **Controls:** Moderate **Breach Risk Rating: 4**
Audit Risk Rating	**Rationale for audit risk rating**
Medium	There have been improvements to identification and correction processes during the audit period. A large portion of this non-compliance relates to corrections of issues identified in the previous audit which were carried out early this year.

Actions taken to resolve the issue	Completion date	Remedial action Status
Hired programmer to enhance PEBS	November 2016	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
PEBS programmer developed further checks & scripts	February 2017	

2.2 Provision of information (Clause 15.35)

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

Audit Observation

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

Audit Commentary

Non-compliance has been recorded for late provision of information in sections **12.3** and **13**.

2.3 Data transmission (Clause 20 Schedule 15.2)

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

I observed the AMS and Metrix FTP folders, and traced a read from each through to PEBS.

Audit Commentary

AMI read data from MEPs is transmitted to WISE via FTP, which ensures the security and integrity of the data. Compliance is confirmed.

2.4 Audit trails (Clause 21 Schedule 15.2)

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
- provided to and received from the reconciliation manager
- provided and received from other reconciliation participants and their agents.

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 reviewed audit trails for a small sample of events. Large samples were not necessary because audit trail fields are expected to be the same for every transaction of the same type.

Audit Commentary

The logs for the following activities were reviewed.

- **Meter readings:** an audit trail is available for all meter readings within PEBS, but does not include the operator identifier. This is recorded as non-compliance below.
- **Registry notifications:** a compliant audit trail is recorded within the registry.
- **Switching files:** a compliant audit trail is recorded within the registry, and within PEBS.
- **Reconciliation reports:** a compliant audit trail is recorded within the allocation portal.

During the previous audit, a recommendation was raised to make inactive customer records more easily accessible. I reviewed several disconnected and switched customer records over the course of the audit, and confirmed that their details could be viewed in the PEBS front end.

Non-compliance	Description
With: Clause 21 of Schedule 15.2 **From/to:** Entire audit period	The meter reading audit trail within PEBS does not include operator identifier. **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 audit trail meets all other requirements. There are a small number of users.

Actions taken to resolve the issue	Completion date	Remedial action Status
Modify PEBS database	August 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Operator identifier column to be added	August 2017	

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

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. Compliance is confirmed.

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

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.

Audit Observation

I reviewed WISE's current terms and conditions, and 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. WISE confirmed that they have been able to arrange access for other parties when requested. Compliance is confirmed.

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

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

A registry list file with history was reviewed for the audit period to confirm that WISE supplied only category 1 meters, and all meters had an MEP recorded.

Audit Commentary

WISE deals with category 1 existing connections only. They do not determine meter locations for new connections, or loss compensation.

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

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.

Audit Observation

I reviewed WISE's current terms and conditions.

Audit Commentary

WISE's terms and conditions contain the appropriate clauses to achieve compliance with this requirement.

2.9 Electrical connection of an ICP (Clause 10.32)

A reconciliation participant must only request electrical connection of a point of connection if they:
- accept responsibility for the ICP and the obligations under Parts 10 and 11, and, under Part 15; and
- have an arrangement with an MEP to provide metering at the point of connection under Part 15.

Audit Observation
An event detail report for the audit period was reviewed, which confirmed that WISE had not completed any new connections during the audit period.

Audit Commentary
WISE has not dealt with any new connections since they commenced trading, and do not intend to.

2.10 Metering certification (Clause 10.33(2))

A reconciliation participant may energise or authorise the energisation of a connection only if the reconciliation participant has accepted responsibility for the point of connection if one or more certified metering installations are in place.

Audit Observation
An event detail report for the audit period was reviewed, which confirmed that WISE had not completed any new connections during the audit period.

Audit Commentary
WISE has not dealt with any new connections since they commenced trading, and do not intend to.

2.11 Arrangements for line function services (Clause 11.16)

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

Audit Observation
A registry list file with history for the audit period 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 confirmed there are arrangements in place with all networks they currently trade on. Compliance is confirmed.

2.12 Arrangements for metering equipment provision (Clause 10.36)

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

Audit Observation

A registry list file with history for the audit period was reviewed to identify all MEPs for WISE ICPs during the audit period.

WISE supplied ICPs with AMS, Metrix, Contact Energy, WEL Networks and Trustpower as MEPs.

Audit Commentary

WISE confirmed there are arrangements in place with AMS, Metrix, Contact Energy and WEL Networks.

ICP 0000371141TUC44 was supplied by WISE from 09/02/2017 with Trustpower as MEP. WISE immediately requested AMS replace the meter, as they did not have an arrangement with Trustpower. AMS accepted the MEP nomination effective from the switch in date, and the meter was replaced on 06/04/2017.

Non-compliance	Description
With: Clause 10.36 **From/to:** 09/02/2017-06/04/2017	WISE supplied ICP 0000371141TUC44 with Trustpower as MEP from 09/02/2017 to 06/04/2017, without having valid MEP arrangements in place. Upon switch in WISE requested AMS replace the meter, and AMS accepted the nomination effective from the switch in date. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating:** 1
Audit Risk Rating	**Rationale for audit risk rating**
Low	Only one domestic ICP was affected for a period of less than two months. The process to change to an MEP with valid arrangements commenced as soon as the switch was complete.

Actions taken to resolve the issue	Completion date	Remedial action Status
Staff training to identify valid MEPs before switch	June 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We have included additional check with current checks to Meter & MEP details	June 2017	

3. Maintaining registry information

3.1 Obtaining ICP identifiers (Clause 11.3)

The following participants must obtain an ICP identifier for any point of connection, as defined in clause 11.3(3) of part 11, to any local network or embedded network:

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.*

Audit Observation

An event detail report for the audit period was reviewed, which confirmed that WISE had not completed any new connections during the audit period.

Audit Commentary

WISE has not dealt with any new connections since they commenced trading, and do not intend to.

3.2 Providing registry information (Clause 11.7(2))

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

Audit Observation

An event detail report for the audit period was reviewed, which confirmed that WISE had not completed any new connections during the audit period.

Audit Commentary

WISE has not dealt with any new connections since they commenced trading, and do not intend to.

3.3 Changes to registry information (Clause 10 Schedule 11.1)

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

Audit Observation

The disconnection process is discussed in section **3.9**, and the reconnection process is discussed in section **3.8**.

In this section I have examined the event detail report for the audit period to determine the overall performance. I used the extreme case methodology examining a sample of the fewer of the ten ICPs with the latest status updates, or all ICPs with late status updates, for each type of status update.

Audit Commentary

The table below shows that the registry was not updated within five business days for 243 of 361 ICPs where a status change has been made during the audit period. The registry was updated later than 30 business days after the actual event date for 37 of the 361 ICPs. 27 of these were to status "Active", nine were to status "Inactive - vacant", and one was to status "Inactive - Ready for decommissioning".

Many of these late updates related to historic data clean up following the last audit. Improved processes to update the registry, and weekly matches between PEBS and registry records are expected to reduce the average notification days in future audits. I found that none of the late status changes sampled occurred after February 2017, when process improvements were made.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Changes to active - reconnections	2017	140	29	111	19	21%
Change to de-energised vacant (1,4)	2017	140	55	85	9	39%
Change to de-energised ready for decommissioning (1,6)	2017	1	0	1	134	0%
Change to de-energised remotely by AMI meter (1,7)	2017	80	34	46	5	43%

Reconnections

An extreme case sample of the ten latest ICP status updates were examined. All of these updates were 60 or more business days late. None of the late updates sampled occurred after February 2017.

The late status updates were part of a clean-up of historic exceptions following the last audit, or identified as part of new checks implemented in January 2017.

Inactive - vacant

An extreme case sample of the ten latest ICP status updates were examined. Nine of these were over 30 days. None of the late updates sampled occurred after February 2017.

The eight latest status updates were part of a clean-up of historic exceptions following the last audit. The remaining two were late due to delays in receiving paperwork to confirm the disconnection.

Inactive - ready for decommissioning

There was one late status update to inactive - ready for decommissioning. My review showed that the code had been applied incorrectly, as the ICP was de-energised remotely by AMI meter. The code was corrected on the Registry during the audit. The late status update was part of a clean-up of historic exceptions following the last audit.

Inactive – disconnected remotely by AMI meter

An extreme case sample of the ten latest ICP status updates were examined, all were between six and ten business days late. None of the late updates sampled occurred after January 2017.

The status updates between eight and ten business days late were all identified and corrected through the weekly registry match process.

The late update of the registry is recorded as non-compliance.

Non-compliance	Description
With: Clause 10 of Schedule 11.1 **From/to:** entire audit period	243 status updates were not processed within five business days of the event on the Registry. One status update applied an incorrect code. Inactive - ready for decommissioning was applied instead of inactive - de-energised remotely by AMI meter. **Potential impact:** Low **Actual impact:** Low **Audit history:** Once **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	A large number of the late updates were due to the historic data clean up. I have seen evidence of improved processes which will reduce the risk of recurrence, but some issues with update to inactive status remain.

Actions taken to resolve the issue	Completion date	Remedial action Status
Created separate database to monitor status	February 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Weekly reports to check for any discrepancies	February 2017	

3.4 Trader responsibility for an ICP (Clause 11.18)

A trader becomes responsible for an ICP when the trader is recorded in the registry as being responsible for the ICP. The responsible trader must ensure that an MEP is recorded in the Registry.

A trader ceases to be responsible for an ICP if another trader accepts responsibility in the registry; or the ICP is decommissioned. If decommissioning an ICP, the trader must ensure that a final meter interrogation takes place, and that the MEP is notified.

Audit Observation

An event detail report for the audit period was reviewed, which confirmed that WISE had not completed any new connections during the audit period.

A registry list file was examined, and confirmed that all ICPs had a valid MEP.

The process for the decommissioning of ICPs was examined. The registry list file was examined and confirmed that there were no decommissioned ICPs.

Audit Commentary

WISE has not dealt with any new connections since they commenced trading, and do not intend to.

Before decommissioning an ICP, an attempt will be made to read the meter at the time of removal and if this is not possible then the last actual meter reading is used. The MEP responsible would be made aware the site is to be decommissioned.

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

The content of files provided to the registry contains the information set out in clause 9 of schedule 11.1.

Audit Observation

An event detail report for the audit period was reviewed, which confirmed that WISE had not completed any new connections during the audit period.

Audit Commentary

WISE has not dealt with any new connections since they commenced trading, and do not intend to.

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

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

Audit Observation

The process to capture and manage ANZISC codes was examined. A registry list file was reviewed to check ANZSIC codes.

Audit Commentary

The list file was analysed and found that all ICPs had a valid ANZSIC code recorded. All codes were as expected.

WISE confirmed that they update the ANZIC code to 0 for all their customers on switch in, as they only supply domestic ICPs. Compliance is confirmed.

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

Traders must populate the unmetered load details for all ICPs with unmetered load for which they are responsible.

Audit Observation

A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any ICPs with unmetered load.

Audit Commentary

WISE has not supplied any unmetered load since they commenced trading, and do not intend to.

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

Before being given an "Active" status the retailer is required to ensure that the ICP has only one customer, embedded generator, or direct purchaser; and that the electricity consumed is quantified by a metering installation(s) or other approved method of calculation.

Audit Observation

An event detail report for the audit period was reviewed, to identify all changes to active during the audit period.

The report confirmed that WISE had not completed any new connections during the audit period.

The process for the management of ICP reconnection was examined. The event detail report for the audit period was analysed and the findings in relation to the timeliness of updates to registry is recorded in section **3.3**.

Audit Commentary

WISE has not dealt with any new connections since they commenced trading, and do not intend to.

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 by email by AMS. Metrix reconnection data is imported into PEBS and updates automatically. AMS reconnection data is processed manually in PEBS.

The Registry is updated manually. Any ICPs which been updated in PEBS but not on the registry will be identified through the weekly match to the registry. Not all ICPs disconnected for credit are updated on the registry, so a registry update may not be required on reconnection. This is discussed in section **3.9**.

WISE's 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.

3.9 Management of "inactive" status (Clause 19 Schedule 11.1)

The ICP status of "inactive" must be managed by the relevant trader and indicates that:
- electricity cannot flow at that ICP; or
- submission information related to the ICP is not required by the reconciliation manager for the purpose of compiling reconciliation information.

Audit Observation

An event detail report for the audit period was reviewed, to identify all changes to inactive during the audit period.

The process for the management of ICP disconnection was examined. The event detail report for the audit period was analysed and the findings in relation to the timeliness of updates to registry is recorded in Section **3.3**.

Audit Commentary

Disconnections typically occur for vacancy and credit reasons. Disconnection data is provided via FTP by Metrix, and by email by AMS. Metrix disconnection data is imported into PEBS and updates automatically. AMS disconnection data is processed manually in PEBS.

If disconnected for vacancy, WISE requests disconnection for the move out date, and updates PEBS and the registry as soon as possible after receiving confirmation from the MEP.

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 the list of customers reconnected.

If 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 week or more, the registry is updated to inactive effective from the disconnection date and the customer account is closed in PEBS. Late updates to inactive status are recorded as non-compliance in section **3.3**. In some cases, it is difficult for WISE to confirm whether an ICP is vacant as their customers do not consistently inform them when they move out. These will be treated as a credit disconnection until vacancy is confirmed.

ICPs are not sent for disconnection if a switch is in progress.

I reviewed a sample of seven disconnections. For five of them, disconnection dates recorded in PEBS and on the registry were not always consistent with each other, or the disconnection paperwork. These differences appear to be caused by typos, and early closure of customer accounts in PEBS. There were no issues found after early January 2017, when processes for disconnections were improved.

The recording of ICPs at an incorrect status on the registry is recorded as non-compliance below.

Non-compliance	Description
With: Clause 19 of Schedule 11.1 **From/to:** entire audit period	ICPs disconnected for credit reasons are not updated to inactive on the registry, unless they have been inactive for a week or more. The registry should reflect the correct status for each ICP on each day. Some disconnections were not processed in PEBS or on the registry from the correct date. **Potential impact:** Low **Actual impact:** Low **Audit history:** Twice **Controls:** Weak **Breach Risk Rating: 3**
Audit Risk Rating	**Rationale for audit risk rating**
Low	A small number of ICPs are involved. ICPs in the process of switching to another retailer are not sent for disconnection, which reduces the impact on other participants.

Actions taken to resolve the issue	Completion date	Remedial action Status
Automated disconnection & reconnection project completed/ also see section 15. Providing additional information.	February 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Additional reporting around vacant properties weekly / also see section 15. Providing additional information.	February 2017	

3.10 ICPs at new or ready status for 24 months (Clause 15 Schedule 11.1)

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 has not dealt with any new connections since they commenced trading, and as they have no intent to do so, it is unlikely they will be selected as the expected retailer for any new or ready ICPs.

3.11 Change of MEP (Clause 10.22(1)(a)(i))

If the MEP for an ICP which is not also an NSP changes, the trader must notify the registry of the gaining MEP in accordance with Part 11.

Audit Observation

The process to manage a change of MEP on an existing ICP was examined. An event detail report for the audit period was reviewed, and identified two changes to MEP during the audit period. Both MEP changes were reviewed. The nomination date was compared to the metering event effective date to identify any ICPs that were not nominated within five business days.

Audit Commentary

When an MEP change is required, WISE nominates the MEP on the registry and logs a job for meter replacement at the same time.

Analysis found the MEP was nominated within five business days of the metering certification date. I checked the two MEP changes processed during the audit period and confirmed they had been handled correctly.

Compliance is confirmed.

4. Performing customer and embedded network switching

I note that the switch breach reporting is in the process of being updated by Jade to align with the current code. Therefore, the switch breach report has been used to indicate non-compliance, but due to inaccuracies it is not always possible to give a definitive number of the volume of late files.

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

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 of a switch no later than two business days after the arrangement comes into effect and include in its advice to the registry 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 sample of five ICPs using the typical sampling methodology were checked to confirm that these were notified to the registry within two business days.

Audit Commentary

WISE's processes are compliant with the requirements of the Section 36M of the Fair Trading Act 1986. The withdrawal process is used if the customer changes their mind. Customers are advised of their responsibilities in relation to this matter.

The event detail report was examined in relation to WISE as the gaining trader for a sample of five NHH standard switches. The registry was informed via the NT file within two business days of all conditions in relation to the agreement being met for all ICPs.

Compliance is confirmed.

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

Within three business days after receipt of notification of a switch from the registry, 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 providing the proposed event date to the registry and a valid switch response code; or providing a request for withdrawal.

Audit Observation

An event detail report for the audit period was reviewed to identify AN files issued by WISE during the audit period. A sample of three ANs (or all if less than three were available) with each acknowledgement code were reviewed to determine whether the codes had been correctly applied.

The switch breach history report for the audit period was reviewed, and showed no late AN files.

The event detail report was analysed to assess compliance with the requirement to meet the setting of event dates requirement.

Audit Commentary

No late AN files for transfer switches were identified on the switch breach history report. ANs were normally processed on the day the NT was received.

The event detail report found no event dates set greater than 10 days, and all event dates were within five days or less.

I identified two standard switches (ICPs 0002215049WE438 and 0345110021LC12E) where incorrect AN response codes were applied. Both had advanced meters, but AA was applied instead of AD. This is recorded as non-compliance below.

Non-compliance	Description
With: Clause 3 of Schedule 11.3 **From/to:** 30/01/2017 and 02/03/2017	Incorrect AN response codes were provided for two ICPs with AMI metering. AA was applied instead of AD. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	There were a small number of errors. Other participants could confirm AMI metering was in place for the affected ICPs through other registry fields.

Actions taken to resolve the issue	Completion date	Remedial action Status
Provided additional training to operational staff	December 2016	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Increased operational staffing	January 2017	

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

If the losing trader provides information to the registry 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 a CS file.

Audit Observation

An event detail report for the audit period was reviewed, to identify CS files issued by WISE during the audit period. 734 CS files in total were issued during the audit period. A sample of five standard switch CS files were reviewed to determine whether the data provided was complete and accurate. The sample included meters with estimated and actual readings.

The switch breach history report for the audit period was reviewed to identify late CS files.

Audit Commentary

The accuracy of the content of CS files was confirmed by checking a sample of records in WISE's database. The content checked included:

- correct identification of meter readings and correct date of meter readings
- accuracy of meter readings
- accuracy of register content; and

- accuracy of average daily consumption (this is based on the most recent read to read consumption).

I found several issues with CS file content. These issues are recorded as non-compliance below, and WISE intends to review their practices for CS files.

- Prior to January 2017, if a read was over estimated, WISE would wait for the actual reads to "catch up" before importing them. This resulted in ICP 0000026081WE7A5 switching out on estimated reads when actual reads were available. I saw evidence of a process change to import actual readings each day.
- When an NT is received, WISE stops importing actual reads and estimates daily consumption as zero. Actual reads should be used if available, and any consumption estimated should reflect a best estimate of consumption. Estimated consumption of zero was provided for the switch period for ICP 0000026081WE7A5.
- From February 2017 onwards, the switch read has been recorded as the last actual read with a type of actual. This resulted in an incorrect switch read type for ICP 0000027007WE2C0. This practise causes two issues: the reading is not an accurate estimate of the consumption up to the last day the ICP was supplied by WISE; and the read type is incorrect because it is not a validated meter reading on that day.
- Prior to February 2017 the closing read was correctly selected, and displayed as estimate if there was no actual read on that day.

Non-compliance	**Description**
With: Clause 5 of Schedule 11.3 and Clause 15.2 of Part 15. **From/to:** Entire audit period	Incorrect standard switch CS file content including: • some incorrect and inaccurate switch readings, due to not using actual reads where they are available and applying zero estimates • some incorrect read types • one incorrect last read date. **Potential impact:** Medium **Actual impact:** Low **Audit history:** Twice previously **Controls:** Weak **Breach Risk Rating: 6**
Audit Risk Rating	**Rationale for audit risk rating**
Medium	A high proportion of the switch move CS files checked contained at least one error (2/5).

Actions taken to resolve the issue	**Completion date**	**Remedial action Status**
We are in discussion with our legal and financial advisors regarding this and will make changes to our terms and conditions to reduce our risk. Also see section 15. For additional information.	Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We are adjusting our terms and conditions to be compliant	August 2017	

The switch breach history report showed seven CS files sent more than two business days after the event date, and two CS files sent more than 25 business days after the NT was received. These were analysed and found:

- seven were sent within the required timeframes
- one was delayed due to a meter replacement, as paperwork needed to be received and processed before completing the switch
- one was delayed because a debt was resolved before the switch was completed.

The genuine late CS files are recorded as non-compliance below.

Non-compliance	Description
With: Clause 5 of Schedule 11.3 **From/to:** February 2017-May 2017	Two late CS files. **Potential impact:** Low **Actual impact:** Low **Audit history:** Once **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	Both switches were completed within two weeks of the switch being requested.

Actions taken to resolve the issue	Completion date	Remedial action Status
Additional training for operational staff	December 2016	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Daily monitoring of switching process by operational staff	December 2016	

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

If the validated meter reading or permanent estimate provided by the losing trader differs by less than 200 kWh from a value established by the gaining trader for a Transfer Switch event, the gaining trader uses the losing trader's validated meter reading or permanent estimate as the switch event meter reading.

Audit Observation

The process for the management of read requests was examined.

The event detail report and switch breach report were analysed to identify all read change requests and acknowledgements during the audit period.

A combined sample of ten read change requests from the event detail report was selected using the diverse sample methodology. The sample included both transfer and gaining trader read requests, files exchanged with different traders, and a mix of acceptances and rejections.

All read change rejections, and a sample of five read change acceptances was selected from the event detail report using the diverse sample methodology. The sample covered both transfer and gaining trader read requests, and files exchanged with different traders.

The switch breach history report for the audit period was reviewed, and no late read change requests or acknowledgements were identified for transfer switches.

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.

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

No data accuracy issues were identified for transfer read change requests or acknowledgements. All read changes rejected, had been rejected for valid reasons.

During 2016, it was not possible for WISE to update switch reads once a switch has been completed. PEBS was modified in early 2017 to allow switch reads to be changed, and historic changes have been made since then. PEBS reflected the correct reads for standard switch read changes checked.

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

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 on the registry: and
- the gaining trader will trade electricity from a meter with a half hour submission type in the registry;
- the gaining trader within five business days after receiving final information from the registry, 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 process for the management of read requests was examined. The event detail report and switch breach report were analysed. A sample of five ICPs for each of the following scenarios were selected using the typical sample methodology from the event detail report. The sample covered both transfer and gaining trader read requests, and a variety of other participants.

- Other retailer's request accepted by WISE
- Other retailer's request rejected by WISE

The switch breach history report for the audit period was reviewed to identify late read change acknowledgement files.

Audit Commentary

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

No data accuracy issues were identified for transfer read change requests or acknowledgements. All read changes rejected, had been rejected for valid reasons.

During 2016, it was not possible for WISE to update switch reads once a switch has been completed. PEBS was modified in early 2017 to allow switch reads to be changed, and historic changes have been made since then. PEBS reflected the correct reads for standard switch read changes checked.

4.6 Disputes – standard switch (Clause 7 Schedule 11.3)

A losing trader or gaining trader may notify the other that it disputes a switch event meter reading, notified under clauses 1 to 6. Such a dispute must be resolved in accordance with clause 15.29.

Audit Observation

Confirm with WISE whether any disputes have needed to be resolved in accordance with this clause.

Audit Commentary

WISE confirms that no disputes have needed to be resolved in accordance with this clause.

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

The code requires that "for each ICP, to which a switch relates, the gaining trader must advise the registry of the switch no later than two business days after the arrangement with the customer or embedded generator comes into effect."

Audit Observation

The switch gain process was examined to determine when WISE deem all conditions to be met. A sample of five ICPs using the typical sampling methodology were checked to confirm that these were notified to the registry within two business days.

Audit Commentary

WISE's processes are compliant with the requirements of the Section 36M of the Fair Trading Act 1986. The withdrawal process is used if the customer changes their mind. Customers are advised of their responsibilities in relation to this matter.

The event detail report was examined in relation to WISE as the gaining trader for a sample of five move in switches. The registry was informed via the NT file within two business days of all conditions in relation to the agreement being met for all ICPs.

Compliance is confirmed.

4.8 Losing trader provides information – switch move (Clause 10 Schedule 11.3)

After receiving notification of a switch request from the registry, the losing trader must respond to the switch request within five business days.

Audit Observation

An event detail report for the audit period was reviewed, to identify AN files issued by WISE during the audit period. A sample of three ANs (or all if less than three were available) with each acknowledgement code were reviewed to determine whether the codes had been correctly applied.

The switch breach history report for the audit period was reviewed, and showed three late AN files.

Audit Commentary

Three late AN files for transfer switches were identified on the switch breach history report, but none of these were genuine. No late AN files were identified through analysis of the event detail report. ANs are normally processed on the day the NT is received. This is a significant improvement from the last audit, where 37 late AN files were recorded.

I identified one switch move (ICPs 0327712686LC292) where an incorrect AN response code was applied. CO (contracted customer) was applied instead of PD (premises de-energised). This is recorded as non-compliance below.

Non-compliance	Description
With: Clause 10 of Schedule 11.3 **From/to:** 07/10/2016	An incorrect AN response code was provided for one ICP which was de-energised. CO was applied instead of PD. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	There was only one error found among the 12 switch move AN files reviewed. Other participants could confirm the status through other registry fields.

Actions taken to resolve the issue	Completion date	Remedial action Status
Additional training for operational staff	December 2016	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Daily monitoring of switching process by operational staff	December 2016	

The switch breach history report showed 21 CS files sent more than two business days after the event date, six CS files sent more than 25 business days after the NT was received, and one CS sent more than two days after the NT if no AN was sent. 734 CS files in total were issued during the audit period. A diverse characteristics sample of 15 were reviewed to cover all the breach types and found:

- one CS upload had failed, and once detected the file was re-uploaded.
- two were not genuine, due to withdrawals.
- eight had a backdated NT date, making it difficult or impossible for the losing trader to respond within two business days of the event date.
- WISE had set the event date for four ICPs, and then switched the file from a later date. This is discussed further in section **4.9.**

17 of the 21 late CS files occurred in 2016, prior to processes being improved and automated. Provision of late CS files is recorded as non-compliance in the table below.

Non-compliance	**Description**
With: Clause 10 of Schedule 11.3 **From/to:** October 2016 – March 2017	21 late CS files. **Potential impact:** Low **Actual impact:** Low **Audit history:** Twice previously **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	There were a small number of late files, sent less than 3 business days late on average. 17 of the late files were sent in 2016, prior to processes being improved.

Actions taken to resolve the issue	**Completion date**	**Remedial action Status**
Additional training for operational staff	December 2016	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Daily monitoring of switching process by operational staff	December 2016	

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

If the losing trader determines a different date, the losing trader must also complete the switch by providing to the registry as described in sub-clause (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

The event detail report was analysed to assess compliance with the requirement to meet the setting of event dates requirement.

Audit Commentary

Review of the event detail report showed 10 ICPs where the switch event date was more than 10 days after the date the request was received. 764 AN files were issued in total. In all cases I found that the switch date provided in the AN was within 10 days of receipt of the NT, but the CS file was sent with an event date between 8 and 15 calendar days later.

This is non-compliant with clause 10(2) of schedule 11.3, which requires the losing trader to provide the switch information for the event date determined by the losing trader.

Non-compliance	Description
With: Clause 10(2) of Schedule 11.3 **From/to:** October 2016 – March 2017	Switch information was not provided for the event date set by the losing trader for 10 switches. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Weak **Breach Risk Rating: 3**
Audit Risk Rating	**Rationale for audit risk rating**
Low	CS file event dates were 8-15 days later than the AN date for 10 ICPs.

Actions taken to resolve the issue	Completion date	Remedial action Status
Additional training for operational staff	December 2016	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Daily monitoring of switching process by operational staff	December 2016	

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

If the losing trader has provided information to the registry in accordance with clause 10(a), must provide a CS file containing the event date and switch event meter reading.

Audit Observation

An event detail report for the audit period was reviewed to identify CS files issued by WISE during the audit period. A sample of five CS files were reviewed to determine whether the codes the data

provided was complete and accurate. The sample included meters with estimated and actual readings.

Audit Commentary

The accuracy of the content of CS files was confirmed by checking a sample of records in WISE's database. The content checked included:

- correct identification of meter readings and correct date of meter readings
- accuracy of meter readings
- accuracy of register content; and
- accuracy of average daily consumption (this is based on the most recent read to read consumption).

I found some incorrect CS file content.

- Prior to January 2017, if a read was over estimated, WISE would wait for the actual reads to "catch up" before importing them. This resulted in one meter register for ICP 0000010840WE8EE switching out on an estimated read when an actual read was available. I saw evidence of a process change to import actual readings each day after January 2017.
- The CS file for ICP 0000014727WE35B contained an incorrect last actual read date. It appears this is a typo, files were created manually on the registry in 2016.
- When an NT is received, WISE stops importing actual reads and estimates daily consumption as zero. Actual reads should be used if available, and any consumption estimated should reflect a best estimate of consumption.
- The CS file for ICP 0000024237WEDDF recorded an incorrect switch read type. A change was made in February 2017 to record the last actual read as a switch read, with a type of actual. This causes two issues: the reading is not an accurate estimate of the consumption up to the last day the ICP was supplied by WISE, causing non-compliance with clause 15.2; and the read type is incorrect because it is not a validated meter reading on that day. Prior to February 2017 the closing read was correctly selected, and displayed as estimate if there was no actual read on that day.

These issues are recorded as non-compliance below, and WISE intends to review their practices for CS files. Files sent for a different date to the date set by the losing retailer are raised as non-compliance in section **4.9**.

Non-compliance	Description
With: Clause 11 of Schedule 11.3 and Clause 15.2 of Part 15. **From/to:** Entire audit period	Incorrect switch move CS file content including • some incorrect and inaccurate switch readings, due to not using actual reads where they are available and applying zero estimates • some incorrect read types • one incorrect last read date. **Potential impact:** Medium **Actual impact:** Low **Audit history:** Twice previously **Controls:** Weak **Breach Risk Rating: 6**
Audit Risk Rating	**Rationale for audit risk rating**
Medium	A high proportion of the switch move CS files checked contained at least one error (3/5).

Actions taken to resolve the issue	Completion date	Remedial action Status
We are in discussion with our legal and financial advisors regarding this and will make changes to our terms and conditions to reduce our risk. Also see section 15. For additional information.	Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We are adjusting our terms and conditions to be compliant	August 2017	

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

As of October 9th, 2015, the gaining trader may provide an AMI switch event meter reading within five business days of the event date to the losing trader. In this instance the losing trader MUST use the gaining traders switch event meter reading. If no AMI switch event meter reading is available the gaining trader MUST use the losing traders switch event meter reading. If the validated meter reading or permanent estimate provided by the losing trader differs by less than 200 kWh from a value established by the gaining trader for a Move Switch event, the gaining trader uses the losing trader's validated meter reading or permanent estimate as the switch event meter reading.

Audit Observation

The process for the management of read requests was examined.

The event detail report and switch breach report were analysed to identify all read change requests and acknowledgements during the audit period.

A combined sample of ten read change requests from the event detail report was selected using the diverse sample methodology. The sample included both transfer and gaining trader read requests, files exchanged with different traders, and a mix of acceptances and rejections.

All read change rejections, and a sample of five read change acceptances was selected from the event detail report using the diverse sample methodology. The sample covered both transfer and gaining trader read requests, and files exchanged with different traders.

The switch breach history report for the audit period was reviewed. Two late read change requests and three late acknowledgements were identified for gaining trader read changes.

Audit Commentary

The switch breach history report showed two RR files for the same ICP were sent more than four months after the TN for ICP 0000027840WEDA2. These were not genuine late files, it was a backdated switch, and the RR was sent within four months of receipt of the NT file.

No data accuracy issues were identified for transfer read change requests or acknowledgements.

Three late read change acknowledgements were identified. Two occurred during 2016, where the process was manual and sometimes delayed. The other occurred in 2017, the file was missed and the issue was identified on the switch breach report and promptly corrected. This is recorded as non-compliance below.

Non-compliance	Description
With: Clause 12 of Schedule 11.3 and Clause 15.2 of Part 15 **From/to:** November 2016 and February 2017	Three late read change acknowledgement files. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	Three of 13 AC files were affected. Two were processed within 21 business days. The other was not responded to at all, but the ICP has since switched away from the retailer who requested the read change.

Actions taken to resolve the issue	Completion date	Remedial action Status
Additional training for operational staff	December 2016	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Daily monitoring of switching process by operational staff	December 2016	

During 2016, it was not possible for WISE to update switch reads once a switch has been completed. PEBS was modified in early 2017 to allow switch reads to be changed, and historic changes have been made since then.

One read change for a switch move that was not processed correctly in PEBS was identified. An accepted RR read for 0457629967LCA1D was not recorded in PEBS because the customer account was vacant and had been closed. The last read recorded by WISE was 52009 on 06/03/16 and the accepted read was 55692 on 20/11/16. This is recorded as non-compliance below.

Non-compliance	Description
With: 6 and 6A of Schedule 11.3 **From/to:** October 2016 and March 2017	An accepted read change was not applied in PEBS. This will result in incorrect submission information. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	The difference between the applied and accepted read is 3683 kWh. Only one renegotiated read was found to be incorrectly applied.

Actions taken to resolve the issue	Completion date	Remedial action Status
Enhancements to PEBS	February 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Access to update reads in PEBS by operational staff	February 2017	

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

The gaining trader 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 to trade electricity through or assume responsibility for:
- a half hour metering installation that is not a category 1 or 2 metering installation, that has an ICP with a submission type half hour on the registry and an AMI flag of "N"; or
- a half hour metering installation that has a submission flag of half hour 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 with the losing trader trades through a half hour metering installation with an AMI flag of "N".

Audit Observation

The event detail report and switch breach report were analysed to identify all switch files sent during the audit period. No half hour switches were identified.

Audit Commentary

WISE did not complete any half hour switches during the audit period.

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

Within three business days after the losing trader is informed about the switch by the registry, the losing trader must:
15(a) - provide to the registry a valid switch response code as approved by the Authority; or
15(b) - provide a request for withdrawal of the switch in accordance with clause 17.

Audit Observation

The event detail report and switch breach report were analysed to identify all switch files sent during the audit period. No half hour switches were identified.

Audit Commentary

WISE did not complete any half hour switches during the audit period.

4.14 Gaining trader to notify registry – gaining trader switch (Clause 16 Schedule 11.3)

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

Audit Observation

The event detail report and switch breach report were analysed to identify all switch files sent during the audit period. No half hour switches were identified.

Audit Commentary

WISE did not complete any half hour switches during the audit period.

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

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.

Within five business days after receiving a notification from the registry of a switch, the trader receiving the withdrawal must notify the registry 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.

On receipt of a rejection notification from the registry, a trader may re-submit the switch withdrawal request for an ICP. All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request.

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 receipt of notification from the registry 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.

Audit Observation

The event detail report was analysed to identify all switch withdrawal and acknowledgement files sent during the audit period.

All withdrawal requests rejected by WISE were reviewed, and a typical sample of five withdrawal requests accepted by WISE were reviewed.

A sample of 16 withdrawal requests issued by WISE were selected using the diverse characteristics method, to cover three (or all if less than that three were available) examples for each reason request used during the period.

The switch breach history report for the audit period was reviewed. Three late notifications of withdrawal were identified during the audit period.

Audit Commentary

The withdrawal process is now automated. I reviewed all withdrawal requests rejected by WISE, and found all had been rejected for valid reasons. Accepted withdrawals had been processed as expected.

I reviewed 16 withdrawal requests, and checked the reason codes:

- 12 withdrawal requests appeared to have the correct reason code applied
- insufficient information was available to confirm whether the correct withdrawal code was applied for four withdrawal requests.

A recommendation on recording supporting information for withdrawal requests has been raised below.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 18 of schedule 11.3	Record withdrawal request and withdrawal rejection reasons against each ICP.	Withdrawal process has been automated in PEBS	Identified

Three late notifications of withdrawal were identified on the switch breach report. All three were investigated, and none were found to be genuine late files. There were no late acknowledgement files.

4.16 Metering information (Clause 21 Schedule 11.3)

For an interrogation or validated meter reading or permanent estimate carried out in accordance with Schedule 11.3:
- 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.
- 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. Examples to confirm this procedure have been examined as part of the sending of final information for switches and read requests made.

Audit Commentary

All meter readings used in the switching process are validated meter readings or permanent estimates. Non-compliance relating to using estimated switch readings when actual readings are available is raised in sections **4.3** and **4.10**.

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

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

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 to confirm that WISE is not a save protected retailer.

Win-back processes were examined to determine whether they are compliant.

I checked the event detail report for all withdrawn switches from the audit period, to identify any withdrawn switches with a CX code applied prior to the switch completion date in relation to any switch save protected retailers.

Audit Commentary

WISE confirmed that they contact customers who are switching out to confirm that the switch request is valid, but do not offer enticements for the customer to remain with WISE.

I checked the event detail report for all withdrawn switches from the audit period. There were 16 switches that were withdrawn with the code "CX" applied prior to the switch completion date in relation to any switch save protected retailers. I reviewed a diverse sample covering both retailers the switches were withdrawn from, and found no credits had been applied to the customers' accounts in exchange for cancelling their planned switches. Compliance is confirmed.

5. Maintenance of unmetered load

5.1 Maintaining shared unmetered load (Clause 11.14)

The trader must adhere to the process for maintaining shared unmetered load.

Audit Observation

A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any ICPs with unmetered load.

I reviewed processes to identify shared unmetered load.

Audit Commentary

WISE has not supplied any unmetered load since they commenced trading, and do not intend to.

Any new unmetered load will be identified through the validation checks described in section **2.1**.

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

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

A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any ICPs with unmetered load.

Audit Commentary

WISE has not supplied any unmetered load since they commenced trading, and do not intend to.

5.3 Unmetered threshold exceeded (Clause 10.14 (5))

If the unmetered load limit is exceeded the retailer must:
- within 20 business days, commence corrective measure to ensure it complies with Part 10
- within 20 business days of commencing the corrective measure, complete the corrective measures

- no later than 10 business days after it becomes aware of the limit having been exceeded, advise each participant who is or would be expected to be affected of:
- the date the limit was calculated or estimated to have been exceeded
- the details of the corrective measures that the MEP proposes to take or is taking to reduce the unmetered load.

Audit Observation
A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any ICPs with unmetered load.

Audit Commentary
WISE has not supplied any unmetered load since they commenced trading, and do not intend to.

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

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
A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any ICPs with unmetered load.

Audit Commentary
WISE has not supplied any unmetered load since they commenced trading, and do not intend to.

6. Gathering raw meter data

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

A trader must ensure that for each energised ICP that electricity is conveyed is in accordance with the code.

A participant is not required to quantify the electricity at a point of connection if the electricity is supplied by an embedded generator who has given the Reconciliation Manager a notification under clause 15.13 of Part 15.

Audit Observation

A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any ICPs with distributed generation.

Audit Commentary

In accordance with Part 10 the responsibility for the metering installations at each point of connection rests with the Metering Equipment Provider.

Examination of the list file found no ICPs with generation capacity. All ICPs had an installation type of L and generation capacity of 0. WISE does not offer service to sites with embedded generation installed. Any new distributed generation will be identified through the validation checks described in section **2.1**.

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

An asset owner must, for each GIP that connects to the grid, ensure that there is one or more certified metering installations for the GIP.

Audit Observation

A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any GIPs.

Audit Commentary

Examination of the list file found that WISE has not supplied any GIPs. WISE supplies only pre pay electricity meters.

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

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

A registry list file with history was reviewed for the audit period to confirm that WISE has only used the RPS profile during the audit period.

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.

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

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.

Examples of defective meters were reviewed, including low side voltage errors and communication errors. There were no examples of stopped meters or incorrect meter multipliers identified during the audit period.

Audit Commentary
Potential defective metering installations are identified by reviewing meter event detail reports, or identifying missing, high or low reads during the validation process.

I sighted a sample of 20 meter event logs, which included both MEPs. Action taken on issues raised in these meter event logs are discussed below.

Low side voltage faults
The most common error is low side voltage, which is identified on meter event detail reports. Typically, low side voltage occurs where the meter has been bridged. This mainly occurs where a customer is vulnerable, and a remote reconnection could not be performed outside of certain hours. WISE explained that the MEP's operating hours have increased, and bridging for after hours reconnection is now very unlikely.

The MEP asks WISE to raise a service request to check, unbridge, recertify, and remotely reconnect the meter. WISE raises the service request as soon as possible. I checked nine examples of low side voltage notifications from the MEP, and found all had a service request raised the same day.

Consumption during the bridged period is not estimated. This is raised as non-compliance below.

Non-compliance	Description
With: Clause 15.2 of Part 15 **From/to:** Entire audit period	Where a meter is found to be bridged, consumption is not estimated for the bridged period. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Weak **Breach Risk Rating: 3**

Audit Risk Rating	Rationale for audit risk rating
Low	All WISE's customers are domestic and have relatively low consumption. Bridged meters are identified the day after reconnection, and a service request is promptly raised with the MEP. Bridging only occurs where a remote reconnection is not possible at the time, and the customer is determined to be vulnerable. Due to extended hours to complete remote reconnections, bridging will be less common in the future.

Actions taken to resolve the issue	Completion date	Remedial action Status
Automation of disconnection & reconnection	May 2017	Investigating. The estimate for the bridged period should remain after the actual reads "catch up" to the estimate.
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We record Estimated Reads for the days the meter is bridged but do not charge the customer anything extra. The estimated reads are continued till the Actual Read over takes the Estimated Reads.	December 2016	

Communication faults

I reviewed five examples of communications faults resulting in reads not being received. I noted that in all cases, the fault was resolved and actual reads were received and recorded after the fault date.

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

A reconciliation participant must obtain raw meter data used to determine volume information from the services access interface. Except when only the Metering Equipment Provider can electronically interrogate a metering installation for which it is responsible and they have an arrangement with the reconciliation participant which prevents them from interrogating the metering installation themselves.

Audit Observation

The data collection process was examined. A sample of five meter reads per MEP were checked using the typical case sample methodology.

A registry list file was reviewed, which confirmed that WISE did supply some ICPs without AMI metering. All six ICPs with non AMI meters on the snapshot registry list file were reviewed to determine whether they were read.

Audit Commentary

Information used to determine volume information is provided by AMS and Metrix as Meter Equipment Providers to WISE. This function will be examined as part of their respective MEP audits.

AMI readings are supplied by AMS and Metrix, these are appropriately labelled. I checked the content of a sample of five reading files for each MEP to confirm the data in WISE's database matched the data in the files. Compliance is confirmed.

No manual reads are received for non AMI meters. These meters are not read, as discussed in section **6.8**.

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

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

All validated meter readings must be derived from meter readings.

A meter reading provided by a consumer may be used as a validated meter reading only if another set of validated meter readings not provided by the consumer are used during the validation process. During the manual interrogation of each NHH metering installation the reconciliation participant must:
(a) obtain the meter register
(b) ensure seals are present and intact
(c) check for phase failure (if supported by the meter)
(d) check for signs of tampering and damage
(e) check for electrically unsafe situations.
If the relevant parts of the metering installation are visible and it is safe to do so.

Audit Observation
The data collection process was examined. A sample of five meter reads per MEP were checked using the typical case sample methodology.

Processes for customer reads were reviewed.

Audit Commentary
Information used to determine volume information is provided by AMS and Metrix as Meter Equipment Providers to WISE. This function will be examined as part of their respective MEP audits.

AMI readings are supplied by AMS and Metrix, these are appropriately labelled. I checked the content of a sample of five reading files for each MEP to confirm the data in WISE's database matched the data in the files. Compliance is confirmed.

No manual reads are received from customers, or for non AMI meters. This is discussed further in section **6.8**.

6.7 NHH meter reading application (Clause 6 Schedule 15.2)

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

WISE imports the midnight AMI midnight readings, which are applied as at 2400hrs by WISE. Application of reads was reviewed as part of the historic estimate checks, discussed in section **12.11**. Compliance is confirmed.

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

A validated meter reading must be 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, 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".

Audit Observation

The process to manage missed reads was examined.

WISE provided a list of ICPs not read during the period of supply. The extreme case sampling method was used to select the five ICPs with the longest period of supply which were unread.

Audit Commentary

WISE runs a report in PEBS showing all ICPs with no actual read in the last month. All sites on the report are investigated each fortnight when the report is reviewed. A field service request is raised with the MEP if necessary. I reviewed the checks completed, and saw evidence of issues being resolved as sites on the list for previous months now have actual reads.

27 ICPs were not read during the period of supply. Of these 22 had a period of supply of less than three months, and 16 had a period of supply of less than one month. The remaining five ICPs were reviewed to determine whether they were not read due to exceptional circumstances.

- Four of the meters were not AMI. Because WISE does not have the capacity to read legacy meters and does not accept customer readings, no read was received.
- One meter had a high switch read from the previous retailer, and WISE were waiting for the actual AMI reads they received to "catch up" before importing them. Non-compliance in relation to read accuracy where estimates are applied is discussed further in sections **4.3** and **4.10**.

I found that exceptional circumstances did not exist in either case, and the failure was not due to access issues. I have raised non-compliance below.

Non-compliance	Description
With: Clauses 7(1) and 7(2) of Schedule 15.2 **From/to:** Entire audit period	Five ICPs with no read gained during the period of supply and exceptional circumstances not met were identified. **Potential impact:** Low **Actual impact:** Low **Audit history:** Twice previously **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	WISE normally confirms that ICPs are AMI prior to switch in. WISE currently supply only five active non AMI meters.

Actions taken to resolve the issue	Completion date	Remedial action Status
Business rules dictate customers have smart meters if not possible to replace meter customers are advised to replace meter before joining	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Additional training for staff to identify legacy meters	Ongoing	

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

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 the months of January - March 2017 were provided.

Audit Commentary

The monthly meter reading reports provided were reviewed.

Month	Total NSPs where ICPs were supplied > 12 months	NSPs <100% read	ICPs unread for 12 months	Overall percentage read
January 2017	10	1	1	99%
February 2017	9	0	0	100%
March 2017	16	0	0	100%

In January 2017, ICP 0312996098LCDDE had no actual read recorded within 12 months at OTA0221. Exceptional circumstances did exist, actual reads were being received but were unable to be loaded against the ICP. The ICP switched to WISE effective 07/12/15 with meter RX08029919. After the switch, WISE found it was receiving reads for a different meter (RD15008162), because a meter change was completed on 03/12/15. WISE followed this up with the losing retailer and MEP, but did not receive meter exchange paperwork and confirmation of the start read for the new meter until 30/12/16.

Compliance is confirmed.

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

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 ICPs.

A report is to be sent to the market administrator 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 the months of January - March 2017 were provided.

Audit Commentary

The monthly meter reading reports provided were reviewed.

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	Total ICPs unread for 4 months	Overall percentage read
January 2017	21	1	13	99%
February 2017	21	1	17	99%
March 2017	22	1	19	99%

For each month reviewed, the 90% reading requirement was not met for PEN1101. Six ICPs were supplied at PEN1101 for the affected months, and one ICP (1001113856LC9E3) did not receive an actual read.

Exceptional circumstances did exist. The meter installed did not have advanced metering capability. WISE requested a meter change on 16/12/16, but it was not completed until 29/05/17 as WISE was

unable to contact the customer to arrange for them to be home for the meter replacement. I saw evidence of multiple attempts to contact the customer.

The best endeavours requirement was met. Compliance is confirmed.

6.11 NHH meter interrogation log (Clause 10 Schedule 15.2)

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
Data is collected by AMS and Metrix and the processes were reviewed as part of their MEP audits.

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

I reviewed five meter interrogation logs for each MEP to ensure that the AMI reads provided are used by WISE.

Audit Commentary
Review of five meter interrogation logs per MEP confirmed that AMI reads are being provided by the MEP, and that the logs are compliant with the requirements of this clause. Compliance is confirmed.

All actual reads are received from switching files or MEPs. No manual reads, including customer reads are used. I saw no evidence of manual or customer reads during the audit.

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

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
A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary
WISE does not deal with any HHR data.

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

The following information is collected during each interrogation of HHR metering:

- *the unique identifier (device ID) of the meter or data logger;*
- *the connection time, disconnection time and recorder time;*
- *the half-hour metering information for each trading period;*
- *events log.*

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

WISE does not deal with any HHR data.

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

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

WISE does not deal with any HHR data.

7. Storing raw meter data

7.1 Trading period duration (Clause 13 Schedule 15.2)

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

Audit Observation

A sample of five meter interrogation logs per MEP were checked using the typical case sample methodology. Only one read per day, at midnight, is imported by WISE.

Trading period duration for MEPs was reviewed as part of their MEP audits.

Audit Commentary

Review of five meter interrogation logs per MEP confirmed that only the midnight read is imported by WISE. Trading period duration is the responsibility of MEPs, and is reviewed as part of their MEP audits. Compliance is confirmed.

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

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.

Raw meter data from December 2015, when WISE began trading, was reviewed.

Audit Commentary

When this data reaches WISE's systems, the level of security is robust and data cannot be accessed by unauthorised personnel.

WISE has retained reading data since they began trading, and intends to retain reading data for at least 48 months.

Compliance with clause 18.3 of schedule 15.2 was examined, which requires that ".....meter readings cannot be modified without an audit trail being created." Readings cannot be modified without an audit trail being created. Validation occurs in a temporary table before it becomes a permanent record and meter readings are not edited. Audit trails are discussed in further detail in section **2.4,** and a non-compliance was raised relating to the content of the audit trails. Compliance is confirmed.

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

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

WISE does not deal with any non-metering information.

7.4 Data Storage Device Clock Synchronisation (Clause 2(5)&(6) of Schedule 15.2)

When electronically interrogating the meter the participant must ensure that the clock is synchronised and correct the clock and raw data where necessary.

Audit Observation

Clock synchronisation processes for MEPs were reviewed as part of their MEP audits. MEPs are to advise WISE of clock synchronisation discrepancies and adjustments.

Audit Commentary

WISE advices that they have not received any clock synchronisation adjustment information from the MEPs. They do receive other metering event information and believe they have not received any clock synchronisation information because no events have occurred. Compliance is confirmed.

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)

If errors are detected during validation of non-half hour meter readings, one of the following must be undertaken:
- confirmation of the original meter reading by carrying out another meter reading
- replacement of the original meter reading by another meter reading (even if the replacement meter reading may be at a different date)
- 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

There were no examples of corrections to actual metering data available during the audit period. Consumption is estimated where a reading is unavailable. Once actual reads are available these are loaded after the estimates, the estimates are not replaced. I reviewed a typical sample of reads after a period of no communication for five ICPs and found this process had been followed as expected.

Where meter changes had occurred, I attempted to match reads to paperwork, but in four of five cases the dates and reads applied did not match. This is recorded as non-compliance below.
The affected changes occurred in 2016, prior to a system change that allows WISE to amend read history and process meter changes on the correct date.

Non-compliance	Description
With: Clause 19(1) of schedule 15.2 and Clause 15.2 of Part 15 **From/to:** Entire audit period	Some meter changes were not processed with the correct date and read. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Weak **Breach Risk Rating: 3**
Audit Risk Rating	**Rationale for audit risk rating**
Low	There were a small number of meter changes, and no issues were found in 2017.

Actions taken to resolve the issue	Completion date	Remedial action Status
Enhancements to PEBS to update status	December 2016	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
In house programmer to update meter changes	December 2016	

Prior to February 2017, WISE would wait for actual reads to "catch-up" to high estimates before being loaded. In addition, not replacing estimates with actuals when they become available is recorded as non-compliance below.

Non-compliance	Description
With: Clause 19(1) of schedule 15.2 and Clause 15.2 of Part 15 **From/to:** Entire audit period	Estimated readings are not replaced with actual readings, if actual readings become available. Prior to February 2017, actual readings were not loaded if they were lower than the previous reading. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Weak **Breach Risk Rating: 3**
Audit Risk Rating	**Rationale for audit risk rating**
Low	Actual reads after the estimated period are entered, so all consumption is captured.

Actions taken to resolve the issue	Completion date	Remedial action Status
Enhancements to PEBS	February 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Automatic update of reads	February 2017	

Estimated reads are based on previous actual consumption, or if unavailable, the estimated consumption provided by the losing retailer. Where a site is in the process of switching out, zero daily consumption is estimated and actual reads are not imported. This is raised as non-compliance in sections **4.3** and **4.10**.

In the previous audit, a non-compliance was raised because consumption on vacant sites was not being reported, because customer accounts were closed after disconnection. Processes have improved, but non-compliance remains.

WISE now leaves customer accounts open until they have disconnected, and confirmed that the customer has left, or the customer has not made contact to be reconnected once disconnection is complete. Reads are loaded on the customer account during this time, but are not loaded once the customer account is closed. Almost all disconnections are completed remotely, rather than at the pole fuse or meter, so self reconnection by customers is unlikely. All active vacant sites are included in the AV080.

In early 2017 WISE generated a vacant properties report, which queries readings received and identifies any vacant properties with consumption. If consumption is detected, WISE attempts to contact the customer and creates a new account which the reads will be loaded against. If the customer cannot be contacted, the ICP is disconnected again. In this situation, the vacant consumption will not be recorded.

This is recorded as non-compliance below.

Non-compliance	**Description**
With: Clause 19 (1) of schedule 15.2 **From/to:** Entire audit period	Consumption on vacant sites is only identified and submitted if there is an active customer for the ICP. **Potential impact:** Low **Actual impact:** Low **Audit history:** Twice previously **Controls:** Weak **Breach Risk Rating: 3**
Audit Risk Rating	**Rationale for audit risk rating**
Low	Consumption in the period immediately after disconnection will be identified. WISE does not close the customer account until they have confirmed consumption is zero, and attempts to confirm whether the customer wishes to reconnect or has moved out. Almost all disconnections are completed remotely, rather than at the pole fuse or meter, so self reconnection by customers is unlikely.

Actions taken to resolve the issue	**Completion date**	**Remedial action Status**
Enhancements to PEBS	March 2017	Identified.
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Additional reports on a weekly basis around vacant properties	March 2017	

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

If errors are detected during validation of half hour metering information the correction must be as follows:
- if a check meter or data storage device is installed at the metering installation, data from this source may be substituted
- 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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

Review of the registry list file confirmed that the meters supplied by WISE are AMI with submission type NHH. WISE does not deal with HHR data.

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

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH. All meters are category 1.

Audit Commentary

WISE does not deal with any loss and compensation arrangements.

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

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

There were no examples of corrections to actual metering data available during the audit period. Consumption is estimated where a reading is unavailable.

9. Estimating and validating volume information

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

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

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

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

Audit Commentary

Estimated readings are clearly identified as required by this clause. Compliance is confirmed.

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

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. Compliance is confirmed.

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

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

Audit Observation

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

Audit Commentary

NHH Meter readings provided by the MEP are not rounded or truncated. Compliance is confirmed.

9.4 Half hour estimates (Clause 15 Schedule 15.2)

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

Review of the registry list file confirmed that the meters supplied by WISE are AMI with submission type NHH. WISE does not deal with HHR data.

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

Each validity check of non-half hour meter readings and estimated readings must include the following:
16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register
16(2)(b) - checks for invalid dates and times
16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend
16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected 0 values.

Audit Observation

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

Audit Commentary

All reads received are from AMI meters. WISE checks that meters have AMI capability before accepting the switch. Wise currently supplies five active ICPs without AMI capability, and is working with MEPs to replace these as soon as possible. Consumption is estimated until these meters are replaced, based on history provided by the customer and their previous retailer.

WISE imports the AMI reads each morning and processes disconnections and reconnections.

I observed the read import process checks

- Readings relate to the correct ICP meter and register.
- The date and time is valid, and matches the expected date (today -1 day). The process only imports midnight reads, so if there is no midnight read available it will be recorded as a missing read. Reads not imported are manually reviewed, and can be reimported if necessary. For example, if a missing read unavailable the previous day is obtained.
- The ICP has an active customer account. If the customer account is terminated, no read will be imported.
- Whether the read is the same as, higher or lower than the previous read. If the read is the same or higher it is imported. If the read is lower, an exception is generated and a rollover read is processed.

A "no actual reading list" is reviewed two to three times a week to identify ICPs where no actual read has been received. The report is reviewed and followed up by WISE.

The daily consumption validation checks occur after billing, and focus primarily on the customer's balance, rather than the volume billed that day. Any customers more than $20 in debit are investigated. If a customer was in credit but had high consumption, they would be identified in the reconciliation report checks completed prior to each submission. Any ICP consuming over 1,000 kWh is investigated. If an ICP has only been active for part of the month, high consumption may not be identified.

WISE is intending to implement additional checks against consumption trends for the customer, taking seasonal usage patterns into account.

The last audit recommended zero consumption checks, and this has now been implemented. Low and zero consumption is identified through:

- The daily usage 0 query, which is run two to three times per week. This query shows ICPs with average consumption of zero based on the last week. Each ICP on the report is investigated and followed up with the MEP if required.
- The weekly average consumption check. Each week, a report of average daily consumption for the previous week is generated for all ICPs. Any customers with daily average consumption less than 1 kWh are checked. It is possible that customers with very low or zero consumption for only part of a week may be missed in this check.

Customers have access to their consumption data, and will contact WISE if they believe their bill is high, or their credit is being used too quickly.

I have recommended some improvements to the validation process below.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 16 of schedule 15.2	I recommend some enhancements to the read validation checks: • WISE should implement their intended change to review consumption patterns for the customer to help identify high or low reads. • Consider reviewing the volume billed each day, separate to the review of debit account balances. This will ensure all customers with high or low consumption will be checked daily, rather than only those with a debit balance. • Consider average daily consumption rather than monthly consumption in the reconciliation report checks. Comparison with the previous period or submission will improve WISE's checks of consumption against expected and previous patterns.	We will set the lower and upper limits of the usage and filter the usage accordingly to monitor the problematic list. We will also store the monthly average usage for each user and use it to compare the values.	Identified

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

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

Meter event logs are received and reviewed. I sighted a sample 20 meter event logs, including logs for both MEPs. Action taken as a result of reviewing the logs is discussed in section **6.4**.

Audit Commentary

During the last audit, non-compliance was raised because meter event detail reports were not consistently received. These reports are now received with the read files, and are appropriately reviewed.

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)

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

Review of the registry list file confirmed that the meters supplied by WISE are AMI with submission type NHH. WISE does not deal with HHR data.

10.2 Unoffered & intermittent generation provision of metering information (Clause 13.137)

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

A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any ICPs with generation.

Audit Commentary

Examination of the list file found no ICPs with generation capacity. All ICPs had an installation type of L and generation capacity of 0. WISE does not offer service to sites with embedded generation installed.

10.3 Loss adjustment of HHR metering information (Clause 13.138)

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

Review of the registry list file confirmed that the meters supplied by WISE are AMI with submission type NHH. WISE does not deal with HHR data.

10.4 Notification of the provision of HHR metering information (Clause 13.140)

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

Review of the registry list file confirmed that the meters supplied by WISE are AMI with submission type NHH. WISE does not deal with HHR data.

11. Provision of submission information for reconciliation

11.1 Buying and selling notifications (Clause 15.3)

Unless an embedded generator has given a notification in respect of the point of connection under clause 15.3, a trader must notify 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 file was reviewed for the audit period to confirm that only the RPS profile was used.

Audit Commentary

As WISE is only using the RPS profile, trading notifications were not required.

11.2 Calculation of ICP days (Clause 15.6)

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.

Audit Observation

The process for the calculation of ICP days was examined by checking five NSPs with a small number of ICPs to confirm the AV110 ICP days calculation was correct.

I reviewed variances for 16 months of GR100 reports, and investigated any large discrepancies.

Audit Commentary

The process for the calculation of ICP days was examined by checking five NSPs with a small number of ICPs. ICP days calculation was confirmed to be correct.

The following table shows the ICP days difference between WISE files and the RM return file (GR100) for all available revisions for several months. Negative percentage figures indicate that the WISE ICP days figures are higher than those contained on the registry. The discrepancies are very small and generally improve over time as expected. The larger discrepancies for early revisions in July to December 2016 occurred because inactive days were being included in the ICP days calculation. This issue was resolved in February 2017, and accuracy has improved for submission made from February 2017 onwards.

Month	Ri	R1	R3	R7	R14
November 2015	0.00%	0.00%	-0.98%	-0.98%	-0.98%
December 2015	0.00%	0.08%	0.00%	0.00%	0.00%
January 2016	0.12%	-0.02%	-0.02%	-0.02%	0.01%
February 2016	-0.08%	-0.28%	0.00%	-0.01%	0.00%
March 2016	-0.11%	-0.44%	-0.01%	-0.24%	-
April 2016	-0.38%	-0.20%	-0.01%	-0.40%	-
May 2016	0.10%	-0.10%	-0.20%	-0.91%	-
June 2016	-0.22%	-0.40%	-1.70%	-1.55%	-
July 2016	-1.15%	-1.54%	-2.48%	0.00%	-
August 2016	-2.90%	-2.79%	-2.58%	-0.05%	-
September 2016	-	-3.29%	-2.68%	-0.02%	-
October 2016	-	-2.67%	-2.68%	-	-
November 2016	-	-3.29%	-0.17%	-	-
December 2016	-	-4.29%	-0.50%	-	-
January 2017	-0.49%	-0.61%	-0.61%	-	-
February 2017	-	-0.65%	0.00%	-	-

Non-compliance	Description
With: Clauses 15.6 and 15.2 of Part 15 **From/to:** reports submitted November 2016 to January 2017	The ICP days report included inactive days. The report has now been corrected to only include active ICP days. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	The issue has now been resolved, and there was no impact on other traders.

Actions taken to resolve the issue	Completion date	Remedial action Status
Enhancements made to PEBS	March 2017	Cleared. I saw evidence that this issue was resolved from February 2017.
Preventative actions taken to ensure no further issues will occur	**Completion date**	
ICP days calculation report was modified to rectify issue	March 2017	

11.3 Electricity supplied information provision to the reconciliation manager (Clause 15.7)

A retailer must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each NSP, aggregated by invoice month, for which it has provided submission information to the reconciliation manager, including revised submission information for that period as non- loss adjusted values in respect of:
15.7(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period
15.7(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.

Audit Observation

The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs to confirm the AV120 calculation was correct.

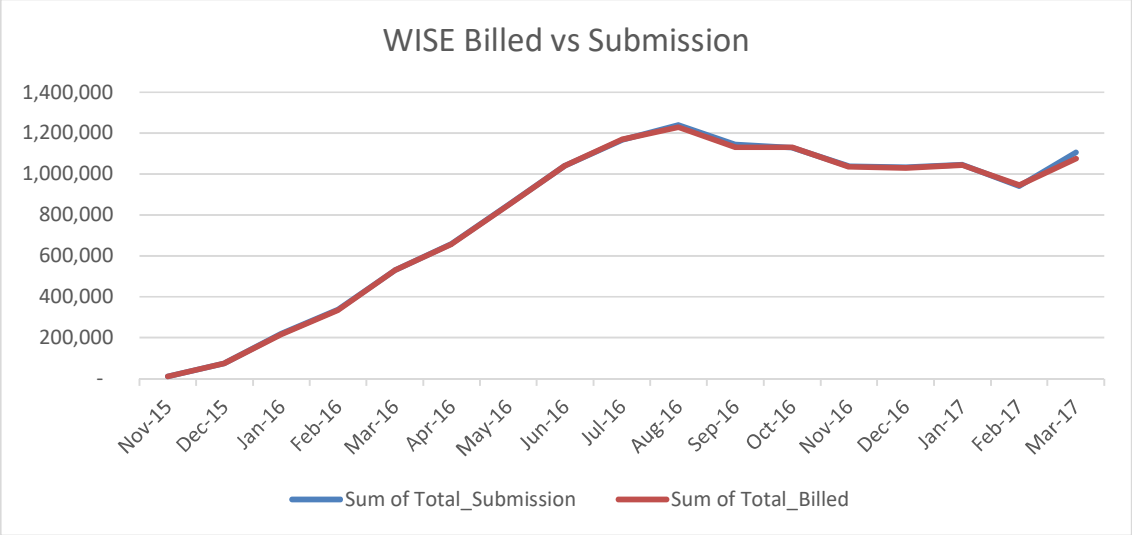
Review the GR130 reports for November 2015 onwards to confirm whether the relationship between billed and submitted data appears reasonable.

Audit Commentary

The process for calculating and submitting electricity supplied information was examined by checking individual invoices for a typical sample of five NSPs to ensure the billed amount equalled the figure in the ICP level file which forms the basis of the aggregate file sent to the RM. The file is correct for the sample checked. Compliance is confirmed.

The table below shows a comparison between submissions and electricity supplied information. At an aggregate level, electricity submitted data is 0.4% higher than billed data from November 2015 to January 2017.

Comparison between Submitted Volumes and Electricity Supplied



In the last audit, non-compliance was raised because consumption was not reported for active-vacant ICPs. This issue is now cleared. Consumption is reported for all active vacant sites, and customer accounts are not closed until after the ICP has been disconnected. This is discussed further in section **3.9**.

11.4 HHR aggregates information provision to the reconciliation manager (Clause 15.8)

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

Review of the registry list file confirmed that the meters supplied by WISE are AMI with submission type NHH. WISE does not deal with HHR data.

12. Submission computation

12.1 Daylight saving adjustment (Clause 15.36)

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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by WISE have AMI installed, and submission type NHH.

Audit Commentary

Review of the registry list file confirmed that the meters supplied by WISE are AMI with submission type NHH. WISE does not provide any hourly consumption data to the reconciliation manager.

MEPs are responsible for daylight savings adjustment of their data, and this is reviewed as part of their MEP audits.

12.2 Creation of submission information (Clause 15.4)

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

Actual AV080 and AV110 submission dates and times on the allocation portal were compared to a list of expected submission dates and times. A typical sample of 5 months and 25 reports was reviewed.

A list of breaches was obtained from the Electricity Authority. There were no breaches for late provision of submission information.

Corrections were reviewed in section **8.1.**

Audit Commentary

Revision files submitted in May 2017 were late. They were due at 4pm on 17/05/17, but were submitted just after 10am on 18/05/17. This is raised as non-compliance below. All other submissions were on time.

No breaches had been recorded for late provision of submission information.

Non-compliance	Description
With: Clause 15.4 of Part 15 **From/to:** May 2017	Revision files were submitted late in May 2017. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	Files were submitted within 4 business hours of the deadline. There was no impact on the reconciliation process, files were received in time for processing. Wise is aware of the deadlines, and it appears this was a one off oversight.

Actions taken to resolve the issue	Completion date	Remedial action Status
Training & operational change implemented	May 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Developed a diary system as reminder for deadlines	May 2017	

12.3 Allocation of submission information (Clause 15.5)

In preparing and submitting submission information, the reconciliation participant must allocate volume information for each ICP to the NSP indicated by the data held by the registry for the relevant consumption period at the time the reconciliation participant assembles the submission information. Volume information must be derived in accordance with Schedule 15.2.

However, if, in relation to a point of connection at which the reconciliation participant trades electricity, a notification given by an embedded generator under clause 15.13 for an embedded generating station is in force, the reconciliation participant is not required to comply with the above in relation to electricity generated by the embedded generating station.

Audit Observation

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

The process to ensure that AV080 submissions are accurate was discussed and observed. The process for aggregating the AV080 was examined by checking aggregation for individual NSPs.

A typical sample of five active-vacant ICPs were reviewed to ensure that they are included in the AV080 submission.

The GR170 to AV080 files for three months were compared, to confirm zeroing occurs.

Audit Commentary

I checked aggregation for all NSPs on the March 2017 report, and found that the AV080 was aggregated correctly.

I checked from the registry list file with history to the AV080 detailed file for March 2017, and confirmed all ICPs that WISE was responsible for during the month were reported. This included all active-vacant ICPs.

Once an ICP is disconnected and the customer account is closed, reads are not entered into PEBS, resulting in zero consumption reported for these ICPs. Zero consumption is normally expected for disconnected ICPs, but if consumption occurred during the disconnected period it would not be identified or reported. This is raised as non-compliance in section **8.1**.

I note that the AV080 includes all days that WISE is responsible for the ICP, so it does include inactive sites with no consumption. A detailed review of the March 2017 AV080 confirmed that inactive sites are reported with zero consumption during the inactive period.

GR170 and AV080 files for 14 month revisions for November – January 2015 were compared, and found to contain the same NSPs. WISE advised that they have not needed to create zeroed records to date, and are aware of the requirement to do this.

AV080 submissions are reviewed by WISE prior to being submitted, including checks for high consumption. Other validation checks, and recommendations to improve the reconciliation report validations are discussed in section **9.5**.

12.4 Grid owner volumes information (Clause 15.9)

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

A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any GIPs.

Audit Commentary

Examination of the list file found that WISE has not supplied any GIPs. WISE is not required to report any grid owner volume information.

12.5 Provision of NSP submission information (Clause 15.10)

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
WISE is not a local or embedded network owner.

Audit Commentary
WISE is not a local or embedded network owner, and is not required to provide NSP submission information.

12.6 Grid connected generation (Clause 15.11)

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
A registry list file with history was reviewed for the audit period to confirm that WISE has not supplied any GIPs.

Audit Commentary
Examination of the list file found that WISE has not supplied any GIPs. WISE is not required to report any grid connected generation.

12.7 Accuracy of submission information (Clause 15.12)

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
AV080 and AV110 submission dates and times were reviewed on the allocation portal, to confirm that revised submissions are provided at the next available opportunity. Where revised submissions were not provided, I reviewed the data to confirm whether there had been any changes from the previous submission.

Corrections were reviewed in section **8.1**.

Audit Commentary

Review of submissions on the allocation portal confirmed revisions were submitted as expected.

An alleged breach in relation to accuracy of submission by the Electricity Authority is discussed in section **1.7**.

Corrections were reviewed in section **8.1**.

12.8 Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2)

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 were reviewed to identify any forward estimate still existing.

Audit Commentary

Review of AV080 14 month revisions for November 2015, December 2015 and January 2016 showed a small amount of forward estimate remained.

Non-compliance	Description
With: Clause 4 of Schedule 15.2 **From/to:** November 2015, December 2015 and January 2016 final revisions	A small amount of forward estimate remained for the final revisions for November 2015, December 2015 and January 2016. Not all meter readings were made permanent estimates by the 14 month revision. **Potential impact: Low** **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	The forward estimate amount was less than 5,000 kWh across the three months

Actions taken to resolve the issue	Completion date	Remedial action Status
Enhancements in NHH submission volume made / We will replace all legacy meters with smart meters and will do an actual reading within 12 months to avoid forward estimates. We have already made improvements to NHH submission reporting.	June 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Calculation methodology corrected in reporting NHH volumes as per above	June 2017	

12.9 Creation of submission information (Clause 2 Schedule 15.3)

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)):
- half hour volume information for the ICP; or
- non-half hour volumes information calculated under clauses 4 to 6 (as applicable).
- 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 on 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):
- for each ICP, the compensation factor that is recorded in the registry (clause 2(3)(a))
- for each NSP the compensation factor that is recorded in the metering installations most recent certification report. (clause 2(3)(b))

Audit Observation

The registry list file with history was reviewed for the audit period to confirm that WISE does not supply any ICPs with:

- submission type HHR
- unmetered load
- a metering category higher than 1
- distributed generation
- a profile apart from RPS
- a compensation factor.

Aggregation of the AV080 submission was reviewed in section **12.3**.

Audit Commentary

WISE prepares submission information for each NSP for the relevant consumption periods in accordance with these clauses; the submission information includes NHH volume information only. Compliance is confirmed.

12.10 Historical estimates and forward estimates (Clause 3 Schedule 15.3)

For each ICP that has a non-half hour metering installation, volume information derived from validated meter readings, estimated readings, or permanent estimates must be allocated to consumption periods using the following techniques to create historical estimates and forward estimates. (clause 3(1))

Each estimate that is a forward estimate or a historical estimate must clearly be identified as such. (clause 3(2))

If validated meter readings are not available for the purpose of clauses 4 and 5, permanent estimates may be used in place of validated meter readings. (clause 3(3))

Audit Observation

Review nine AV080 submissions for revisions 3 to 14, to confirm that historic estimates are included and identified.

Permanence of meter readings is reviewed in section **12.8**. The methodology to create forward estimates is reviewed in section **12.11**.

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. Compliance is confirmed.

12.11 Historical estimate process (Clause 4 and 5 Schedule 15.3)

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

Audit Commentary

Test	Scenario	Test expectation	Result
A	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Not compliant
B	ICP becomes Active then Inactive within a month.	Consumption is only calculated for the Active portion of the month.	Did not occur
C	ICP becomes Inactive, then Active, then Inactive again within a month.	Consumption is only calculated for the Active portion of the month.	Not compliant
D	Network/GXP/Connection (POC) alters partway through a month.	Consumption is separated and calculated for the separate portions of where it is to be reconciled to.	Compliant
E	ICP Starts on the 1st day of a month.	Consumption is calculated to include the 1st day of responsibility.	Compliant
F	ICP Ends on the Last Day of the month.	Consumption is calculated to include the last day of responsibility.	Did not occur
G	ICP Starts part way through a month.	Consumption is calculated to include the 1st day of responsibility.	Did not occur
H	ICP Ends part way through a month.	Consumption is calculated to include the last day of responsibility.	Did not occur
I & J	ICP is Lost and Won Back in a month.	Consumption is calculated for each day of responsibility.	Not compliant
K	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Did not occur
L	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Did not occur
M	ICP Starts on 1st and Ends on Last day of month.	Consumption is calculated for each day of responsibility.	Did not occur
N	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Compliant

Audit Commentary

WISE provided examples of historic estimate calculations, which were reviewed. I found that correct shape files had been applied.

The following scenarios were found to be non-compliant

- Where there was an inactive period, the inactive period was not considered.
- Where ICP was lost and won back, the period the ICP was not supplied by WISE was not handled correctly.

WISE is currently working to resolve these issues, and corrected information will be provided in revision submissions.

Non-compliance	Description
With: Clause 4 of Schedule 15.3 and Clause 15.2 of Part 15 **From/to:** entire audit period	Historic estimates were not calculated correctly where an ICP is inactive for part of a period, and where an ICP had switched out and back in. **Potential impact:** Medium **Actual impact:** Low **Audit history:** None **Controls:** Weak **Breach Risk Rating: 6**
Audit Risk Rating	**Rationale for audit risk rating**
Medium	In three cases identified, the differences were small. Overall, 92 kWh was over reported by WISE. WISE intended to resolve these issues as quickly as possible. I reviewed updated calculations and found they were correct for ICPs that switched out and back in. Most of WISE's ICPs are read daily, it is likely most historic estimate calculations will be accurate.

Actions taken to resolve the issue	Completion date	Remedial action Status
Enhancements in NHH submission volume made	June 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Calculation methodology corrected in reporting NHH volumes	June 2017	

12.12 Forward estimate process (Clause 6 Schedule 15.3)

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.

When an NT is received, WISE stops importing actual reads and estimates daily consumption as zero. Actual reads should be used if available, and any consumption estimated should reflect a best estimate of consumption. This is raised as non-compliance in sections **4.3** and **4.10**.

The accuracy of the initial submission, in comparison to each subsequent revision is required to be within 15% and within 100,000kWh. The table below shows the target was met for all revisions. Compliance is recorded.

Quantity of Balancing Areas with Differences Over 15% and 100,000 kWh

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Nov 2015	0	0	0	0	2
Dec 2015	0	0	0	0	2
Jan 2016	0	0	0	0	2
Feb 2016	0	0	0	0	2
Mar 2016	0	0	0	-	2
Apr 2016	0	0	0	-	2
May 2016	0	0	0	-	3
June 2016	0	0	0	-	3

Total Variation between Revisions

Month	Revision 1	Revision 3	Revision 7	Revision 14
Nov 2015	1.06%	6.39%	6.65%	1.51%
Dec 2015	0.06%	4.46%	4.81%	3.57%
Jan 2016	-0.10%	1.29%	1.54%	0.62%
Feb 2016	-2.19%	2.71%	3.00%	4.10%
Mar 2016	-0.16%	1.33%	1.15%	-
Apr 2016	-0.16%	1.33%	1.00%	-
May 2016	-1.94%	-0.08%	-0.24%	-
June 2016	-0.06%	-0.09%	-0.39%	

12.13 Compulsory meter reading after profile change (Clause 7 Schedule 15.3)

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

A registry list file with history was reviewed for the audit period to confirm that WISE has only used the RPS profile during the audit period.

Audit Commentary

Examination of the list file found that WISE has only used the RPS profile, and there have been no profile changes. In the event of a profile change, WISE will use a validated meter reading or a permanent estimate on the day that the change is effective.

13. Submission format and timing

13.1 Market Administrator Meter Reading Reports (Clauses 8 & 9 of Schedule 15.2)

Provision of meter read frequency reports to the Authority, no later than 20 business days after the end of the month.

Audit Observation

I reviewed meter reading reports for January to March 2017, to confirm that they meet the meter reading frequency report requirements.

Review processes to ensure the reports are accurate and submitted on time, and the timeliness of submission for a sample of reports.

Audit Commentary

I reviewed meter reading reports for January to March 2017, and confirmed that they met the meter reading frequency report requirements, and confirmed they were sent on the 20th of each month.

These reports were not submitted prior to January 2017. This is recorded as non-compliance below.

Non-compliance	Description
With: Clauses 8 and 9 of Schedule 15.2 **From/to:** November and December 2016.	Meter reading frequency reports were not submitted prior to January 2017. **Potential impact:** Low **Actual impact:** Low **Audit history:** Once previously **Controls:** Strong **Breach Risk Rating: 1**
Audit Risk Rating	**Rationale for audit risk rating**
Low	Little impact on other participants. Good controls are now in place to ensure that reports are submitted on time, there has been no recurrence since January 2017.

Actions taken to resolve the issue	Completion date	Remedial action Status
Enhancements made to PEBS	January 2017	Cleared. All reports from January 2017 were submitted on time.
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Report wasn't submitted in the past but now part of our on going reporting process	January 2017	

13.2 Provision of submission information to the RM (Clause 8 Schedule 15.3)

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

The process to ensure that AV080 submissions are accurate was discussed. Aggregation of the AV080 report was checked for all NSPs for one month.

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

Audit Commentary

I checked aggregation for all NSPs on the March 2017 report, and found that the AV080 was aggregated correctly. Compliance with the requirement to use correct aggregation factors is confirmed.

13.2.1 Reporting resolution (Clause 9 Schedule 15.3)

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

Aggregation of the AV080 was reviewed for all NSPs for March 2017 in section **12.3**. As part of these checks, I verified that the data provided for submission was correctly rounded.

Review nine AV080 submissions to confirm that data is rounded to two decimal places.

Audit Commentary

Review of the nine AV080 submissions confirmed that data is rounded to two decimal places.

13.3 Historical estimate reporting to RM (Clause 10 Schedule 15.3)

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 eight months of AV080 reports to confirm that historic estimate requirements were met.

Audit Commentary

The quantity of historical estimates is contained in the submission file and is not a separate report. Historic estimate targets were not met for all revisions, as described in the tables below.

Quantity of NSPs where revision targets were met.

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Nov 2015	0	9	9	10
Dec 2015	4	10	8	10
Jan 2016	2	11	7	11
Feb 2016	6	15	-	16
March 2016	17	17	-	18
April 2016	17	-	-	18
May 2016	18	-	-	19
Oct 2016	23	-	-	23
Nov 2016	23	-	-	24
Dec 2016	29	-	-	30

The table below shows that the percentage HE at a summary level is below the required targets.

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Nov 2015	16.2%	95.7%	95.2%
Dec 2015	46.8%	98.9%	99.0%
Jan 2016	50.3%	98.4%	98.2%
Feb 2016	80.2%	98.5%	-
March 2016	98.6%	98.5%	-
April 2016	98.7%	-	-
May 2016	98.8%	-	-
Oct 2016	98.2%	-	-
Nov 2016	99.0%	-	-
Dec 2016	99.4%	-	-

Non-compliance	Description
With: Clause 10 of Schedule 15.3 **From/to:** November 2015 to May 2016, and November 2016 to December 2016.	Historic estimate targets were not met for all revisions. **Potential impact:** Low **Actual impact:** Low **Audit history:** None **Controls:** Moderate **Breach Risk Rating: 2**
Audit Risk Rating	**Rationale for audit risk rating**
Low	WISE were close to the target in all cases.

Actions taken to resolve the issue	Completion date	Remedial action Status
Enhancements in NHH submission volume made	June 2017	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Calculation methodology corrected in reporting NHH volumes	June 2017	

Conclusions

The audit found 25 non-compliances and makes three recommendations.

Since the last audit, WISE has employed more staff, including a PEBS developer, and put considerable effort into resolving data discrepancies identified during the previous audit. Many of the corrections were implemented after the new staff arrived and settled in, around January and February 2017. At the same time process improvement and automation began. In general, I found less non-compliance in the 2017 portion of the audit period.

Consumption on vacant sites is now reported until the ICP is disconnected. After disconnection, the account is closed and reads are not imported, which makes it difficult to detect whether consumption has occurred after disconnection.

Unfortunately, some of the process corrections made have resulted in new non-compliances, particularly around use of reads.

The matters raised are shown in the tables below:

Table of Non-Compliance

Subject	Section	Clause	Non-compliance	Breach Risk Rating	Audit History	Controls	Remedial Action
Relevant information	2.1	15.2 of Part 15	Some incorrect information was not identified and corrected as soon as practicable during the audit period.	4	Twice	Moderate	Identified
Audit trails	2.4	21 of Schedule 15.2	The meter reading audit trail within PEBS does not include operator identifier.	1	None	Strong	Identified
MEP arrangements	2.12	10.36	WISE supplied ICP 0000371141TUC44 with Trustpower as MEP from 09/02/2017 to 06/04/2017, without having valid MEP arrangements in place. Upon switch in WISE requested AMS replace the meter, and AMS accepted the nomination effective from the switch in date.	1	None	Moderate	Identified
Changes to registry information	3.3	10 of Schedule 11.1	243 status updates were not processed within 5 business days of the event on the Registry. One status update applied an incorrect code. Inactive - ready for decommissioning was applied instead of inactive - de-energised remotely by AMI meter.	2	Once	Moderate	Identified

Subject	Section	Clause	Non-compliance	Breach Risk Rating	Audit History	Controls	Remedial Action
Management of inactive status	3.9	19 of Schedule 11.1	ICPs disconnected for credit reasons are not updated to inactive on the registry, unless they have been inactive for a week or more. The registry should reflect the correct status for each ICP on each day. Some disconnections were not processed in PEBS or on the registry from the correct date.	3	Twice	Weak	Identified
AN files for standard switches	4.2	3 of Schedule 11.3	Incorrect AN response codes were provided for two ICPs with AMI metering. AA was applied instead of AD.	2	None	Moderate	Identified
CS files for standard switches	4.3	5 of Schedule 11.3 and Clause 15.2 of Part 15	Incorrect standard switch CS file content including • Some incorrect and inaccurate switch readings, due to not using actual reads where they are available and applying zero estimates. • Some incorrect read types. • One incorrect last read date.	6	Twice	Weak	Investigating
CS files for standard switches	4.3	Clause 5 of Schedule 11.3	Two late CS files	2	Once	Moderate	Identified
AN files for switch moves	4.8	Clause 10 of Schedule 11.3	An incorrect AN response code was provided for one ICP which was de-energised. CO was applied instead of PD.	2	None	Moderate	Identified
Losing trader determines a different switch date	4.8	Clause 10 of Schedule 11.3	21 late CS files.	2	Twice	Moderate	Identified
Losing trader determines a different switch date	4.9	Clause 10(2) of Schedule 11.3	Switch information was not provided for the event date set by the losing trader for 10 switches.	3	None	Weak	Identified
CS files for switch moves	4.10	11 of Schedule 11.3 and Clause 15.2 of Part 15	Incorrect switch move CS file content including • Some incorrect and inaccurate switch readings, due to not using actual reads where they are available and applying zero estimates. • Some incorrect read types. • One incorrect last read date.	6	Twice	Weak	Investigating
Read changes for switch moves	4.11	12 of Schedule 11.3	Three late read change acknowledgement files	2	None	Moderate	Identified
Read changes for switch moves	4.11	6 and 6A of Schedule 11.3 and 15.2 of Part 15	An accepted read change was not applied in PEBS. This will result in incorrect submission information	2	None	Moderate	Identified

Subject	Section	Clause	Non-compliance	Breach Risk Rating	Audit History	Controls	Remedial Action
Defective metering installations	6.4	15.2 of Part 15	Where a meter is found to be bridged, consumption is not estimated for the bridged period.	3	None	Weak	Investigating
Interrogate meters once	6.8	7(1) and 7(2) of Schedule 15.2	Five ICPs with no read gained during the period of supply and exceptional circumstances not met were identified.	2	Twice	Moderate	Identified
Correction of NHH readings	8.1	19(1) of schedule 15.2 and 15.2 of Part 15	Some meter changes were not processed with the correct date and read.	3	None	Weak	Identified
Correction of NHH readings	8.1	19(1) of schedule 15.2 and 15.2 of Part 15	Estimated reads are not replaced with actual readings, should actual readings become available at a later date.	3	None	Weak	Identified
Correction of NHH readings	8.1	19(1) of schedule 15.2	Consumption on vacant sites is only identified and submitted if there is an active customer for the ICP.	3	None	Weak	Identified
ICP days calculation	11.2	15.6 and 15.2 of Part 15 and	The ICP days report included inactive days. The report has now been corrected to only include active ICP days.	2	None	Moderate	Cleared, issue was resolved from February 2017.
Creation of submission information	12.2	15.4 of Part 15	Revision files were submitted late in May 2017.	2	None	Moderate	Identified
Permanence of meter readings	12.8	4 of Schedule 15.2	A small amount of forward estimate remained for the final revisions for November 2015, December 2015 and January 2016. Not all meter readings were made permanent estimates by the 14 month revision.	2	None	Moderate	Identified
Historical estimate process	12.11	4 of Schedule 15.3 and 15.2 of Part 15	Historic estimates were not calculated correctly where an ICP is inactive for part of a period, and where an ICP had switched out and back in.	6	None	Weak	Identified
Market Administrator meter reading reports	13.1	8 and 9 of Schedule 15.2	Meter reading frequency reports were not submitted prior to January 2017.	1	Once	Strong	Cleared, all reports from January 2017 were submitted on time
Historical estimate reporting	13.3	10 of Schedule 15.3	Historic estimate targets were not met for all revisions	2	None	Moderate	Identified
Breach Risk Rating Score							68
Indicative Next Audit Frequency							3 months

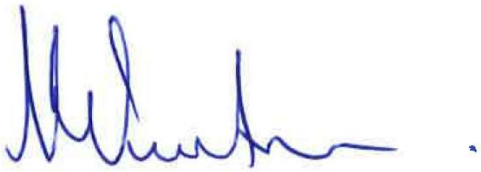
Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Remedial Action
Relevant information	2.1	10.6, 11.2, 15.2	Check internal data for consistency to identify data discrepancies, including checking that only MEPs with valid arrangements with WISE are used, and identification of ICPs with unmetered load.	Identified
Withdrawal of switch requests	4.15	18 of Schedule 11.3	Record withdrawal request and withdrawal rejection reasons against each ICP.	Identified
NHH meter data validation	9.5	Clause 16 of schedule 15.2	I recommend some enhancements to the read validation checks: WISE should implement their intended change to review consumption patterns for the customer to help identify high or low reads. Consider reviewing the volume billed each day, separate to the review of debit account balances. This will ensure all customers with high or low consumption will be checked daily, rather than only those with a debit balance. Consider average daily consumption rather than monthly consumption in the reconciliation report checks. Comparison with the previous period or submission will improve WISE's checks of consumption against expected and previous patterns.	Identified

Signed by:

Tara Gannon
Veritek Limited
Electricity Authority Approved Auditor

Signed by:



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15. WISE Response

Due to the differences in how post-paid and pre-paid work, our non-compliance rating has been high. Some of the issues are detailed below. We are looking to work collaboratively with the concerned bodies to do constructive work to tackle these issues.

3.9 Management of "inactive" status (Clause 19 Schedule 11.1)

- On an average 80-100 disconnections are done on a daily basis, for a database of 2000 odd customers.
- More than half of them are reconnected on the same day and the rest over the next few days.
- At the moment we update the registry as "inactive" if the customer is not reconnected for 5 working days, since the disconnection.
- As per the schedule the status is to be updated inactive if there is no power supply for one full day.
- Since we do our disconnections at around 11:30 am in the morning, on the day we disconnect, the ICP is not inactive for the full day.
- Due to the sheer number of disconnections & reconnections taking place daily, manually updating the registry for each ICP becomes hard.
- Our disconnection & reconnection processes are automated, hence making it harder to keep track of reconnections taking place at a given time.
- Due to the demographic of people Wise deals with, customers staying disconnected for days together, especially during the hotter months, are high in number.
- Other issues include customers switching to other retailers since WISE doesn't have any definite contract holding the customers.
- Customers switching to other retailers may or may not be reconnected on certain days making it harder to update the registry with the correct information.
- The disconnections carried out by WISE are different to the ones done by post paid companies.
- Post pay companies generally disconnect ICPs for non payment of bill for power already used or vacant properties.
- However with WISE, customers pay ahead for the power they use, so technically they can choose to go without power for a certain period if they like. This doesn't necessarily mean the property is vacant.

Possible Solutions

- We might be able to automate registry status updates to reflect confirmation of disconnects & reconnects on PEBS.
- This will still have some drawbacks relating to updating correct information.
- If we are to automate our update process, it will be off the shoulder of confirmation of disconnections & reconnections.
- Hence the registry will be updated inactive with the same date as disconnected and with the reconnections they get updated as active.
- This creates a history of updates with inactive & active statuses for the same day or the next day, for both cases, the ICP being never fully inactive.
- The ICP is never truly inactive unless, there is no reconnection for the first two days since the disconnection.

- This again raises the question of ICPs switching, which is beyond our control, which makes the information updated on the registry invalid.

4.3 Losing trader must provide final information – standard switch (Clause 5 Schedule 11.3) & 4.10 Losing trader must provide final information – switch move (Clause 11 Schedule 11.3)

- Wise Zero Estimates usage from the time a switch request is received for an ICP.
- This is carried out to prevent customers leaving with a Negative Balance.
- Unlike with Post paid companies, customers aren't under contract to pay for the power for a given period of time. They pay ahead for their usage which means; they do not have a contract with WISE and can leave whenever they wish.
- Once the switching starts we do not disconnect our customer, which in most cases stops the payments from the customer.
- And for this time period they are using free power, for which WISE can not bill the customer and follow up.
- The billing and meter readings are much more intertwined in case of a prepaid system than a post paid system.
- The fact that the other retailers treat Wise as a post-paid rather than a prepaid, by sending back-dated bills, makes it harder for WISE to process switching more effectively.
- With backdated bills, our customers start with a negative balance for a prepaid service. And if they choose to leave WISE immediately, it leaves us with the bill for which WISE can not send a monthly bill, as we are a prepaid service.
- Even if a back dated bill is avoided, the time period taken to switch in or out an ICP plays a role for the power usage in a property.
- The power used during this time period, either leaves us with a debt or our customer starts with a debt.
- If we are to send Estimated reads as per the schedule while switching instead of the last recorded Actual reads, the gaining retailer can amend reads to an actual Switch vent read obtained by them (Clause 12 Schedule 11.3).
- This creates a loophole for customers to use free power or get rid of old bills by switching to a Prepay service & then back to a post pay service.
- This is emphasized especially in Move In switches, where the properties are kept connected for a certain period of time before being disconnected by Post-pay companies, which accumulates usage for that time when the customer switches companies.
- Since they do not have a registered customer to forward the bill, this is sent to the gaining retailer. If it is another post-paid company this is added on to the customer's bill for which they have a contract to collect payments.
- However if it is a prepaid power, the customers can get off without payment by switching to another retailer, since as explained previously there are no monthly bills with us(pre-paid).