ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

For

YES POWER LIMITED

Prepared by: Steve Woods

Date audit commenced: 19 November 2020

Date audit report completed: 8 December 2020

Audit report due date: 10 December 2020

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **YES Power Limited (YES Power)**, 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.

YES Power has improved the controls in some areas, resulting in an improvement in compliance and a reduction in re-work. In particular the switching read change process is now more streamlined and does not include estimating HHR data to cater for incorrect switch event meter readings from losing traders.

Most of the issues found relate to the NHH processes, which started being used during the audit period. Some of the non-compliances occurred during the time there was a bulk switch out of a large number of ICPs, and COVID-19 lockdown occurred. Most of the issues I found had already been identified and resolved by YES Power.

The audit found 20 non-compliance issues, one recommendation is made, and no issues are raised. The audit risk rating is 24, indicating that the next audit be due in 12 months. All of the audit risk ratings are low, nine non-compliances are now cleared, and the controls are now much stronger in most areas, therefore I recommend an 18-month audit period.

The matters raised are shown in the tables below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	11.2	Inaccurate HHR data where ARC is the MEP due to there only being one decimal place.	Strong	Low	1	Identified
Changes to registry information	3.3	10 of Schedule 11.1	Some late status and trader updates.	Strong	Low	1	Identified
Provision of information to the registry manager	3.5	9 Schedule 11.1	One new connection not updated to the registry within 5 business days.	Moderate	Low	2	Identified
ANZSIC codes	3.6	9 (1)(k) of Schedule 11.1	One incorrect ANZSIC code	Strong	Low	1	Cleared
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	Incorrect use of the AA switch response code.	Strong	Low	1	Cleared

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Losing trader must provide final information - standard switch	4.3	5 Schedule 11.3	At least two average daily consumption errors.	Strong	Low	1	Cleared
Retailers must use the same readings	4.4	6(1) of Schedule 11.3	One incorrect RR reading	Strong	Low	1	Cleared
Gaining trader informs registry of switch request - switch move	4.7	9 Schedule 11.3	Three late NT files.	Strong	Low	1	Identified
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	One late AN file.	Strong	Low	1	Identified
Losing trader determines a different date - switch move	4.9	10(2) Schedule 11.3	Incorrect use of the AA switch response code.	Strong	Low	1	Cleared
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	26 late CS files At least three average daily consumption errors	Strong	Low	1	Identified
Gaining trader changes to switch meter reading – switch move	4.11	12 of Schedule 11.3	One late AC file	Strong	Low	1	Identified
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	Six ICPs not read during the period of supply	Moderate	Low	2	Identified
NHH meters 90% read rate	6.10	9(1) and (2) Schedule 15.2	Seven ICPs not read in the 4-month period	Moderate	Low	2	Identified
ICP days	11.2	15.6	ICP days incorrect for nine NSPs for files sent in one month	Strong	Low	1	Cleared

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Electricity supplied information	11.3	15.7	Error in electricity supplied file for May 2020.	Strong	Low	1	Cleared
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates file does not contain electricity supplied information. Errors in aggregates files for 14 ICPs	Strong	Low	1	Identified
Creation of submission information	12.2	15.4	10 HHR ICPs missing from HHR aggregates and HHR vols files between January and July 2020 due to system issues.	Strong	Low	1	Cleared
Allocation of submission information	12.3	15.5	Incorrect NSP for one ICP for May 2020	Strong	Low	1	Cleared
Historical estimate reporting to RM	13.3	10 Schedule 15.3	Two NSPs did not meet the 90% threshold for HE for the 7-month revision. Between November 2019 and June 2020 three NSPs did not meet the 80% threshold for HE.	Moderate	Low	2	Identified
Future Risk Rating							24

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

RECOMMENDATIONS

Subject	Section	Clause	Recommendation
Complete and accurate information.	2.1	11.2	Run a check against the PR-010 report with history monthly. Check the AC-020 monthly.

Subject	Section	Clause	Recommendation
Proportion of HHR estimates	12.8	4 of Schedule 15.2	Develop reporting to record HHR estimates per month per MEP to assist with improving service levels.

ISSUES

Subject	Section	Description	Issue
		Nil	

1. ADMINISTRATIVE

1.1. Exemptions from Obligations to Comply with Code (Section 11)

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

Audit observation

Current code exemptions were reviewed on the Electricity Authority website.

Audit commentary

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

1.2. Structure of Organisation

YES Power provided a copy of their organisation structure for the relevant parts of their business.

1.3. Persons involved in this audit

Auditor:

Steve Woods

Veritek Limited

Electricity Authority Approved Auditor

YES Power personnel assisting in this audit were:

Name	Title
Alexander Born	Operations Manager
Arun Kumar	Reconciliation and Product Manager
Christoph Sachse	Consultant – Robotron NZ Limited

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

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

Audit observation

YES Power receives HHR data from MEPs, who are subject to their own audit regime and are not considered agents. Wells provides adhoc NHH manual reads and is considered an agent.

Audit commentary

YES Power receives HHR data from MEPs, who are subject to their own audit regime and are not considered agents. Wells provides adhoc NHH manual reads and is considered an agent.

1.5. Hardware and Software

YES Power uses the robotron*esales system. The is a cloud-based application, written and maintained by Robotron NZ.

The Oracle database is stored in Sydney where it is regularly backed up. There is also a copy of raw metering data stored in NZ.

1.6. Breaches or Breach Allegations

There have been no alleged breaches relevant to the scope of this audit during the audit period.

1.7. ICP Data

Active ICPs are summarised by meter category in the table below.

Metering Category	2020	2019	2018
1	143	188	26
2	10	4	0
3	0	0	0
4	0	0	0
5	0	0	0
9	0	0	0
Blank	1	0	0

Status	Number of ICPs (2020)	Number of ICPs (2019)	Number of ICPs (2018)
Active (2,0)	154	192	26
Inactive – new connection in progress (1,12)	1	0	0
Inactive – electrically disconnected vacant property (1,4)	1	0	0
Inactive – electrically disconnected remotely by AMI meter (1,7)	0	0	0
Inactive – electrically disconnected at pole fuse (1,8)	0	0	0
Inactive – electrically disconnected due to meter disconnected (1,9)	0	0	0
Inactive – electrically disconnected at meter box fuse (1,10)	0	0	0
Inactive – electrically disconnected at meter box switch (1,11)	0	0	0

Inactive – electrically disconnected ready for decommissioning (1,6)	0	0	0
Inactive – reconciled elsewhere (1,5)	0	0	0
Decommissioned (3)	1	1	0

1.8. Authorisation Received

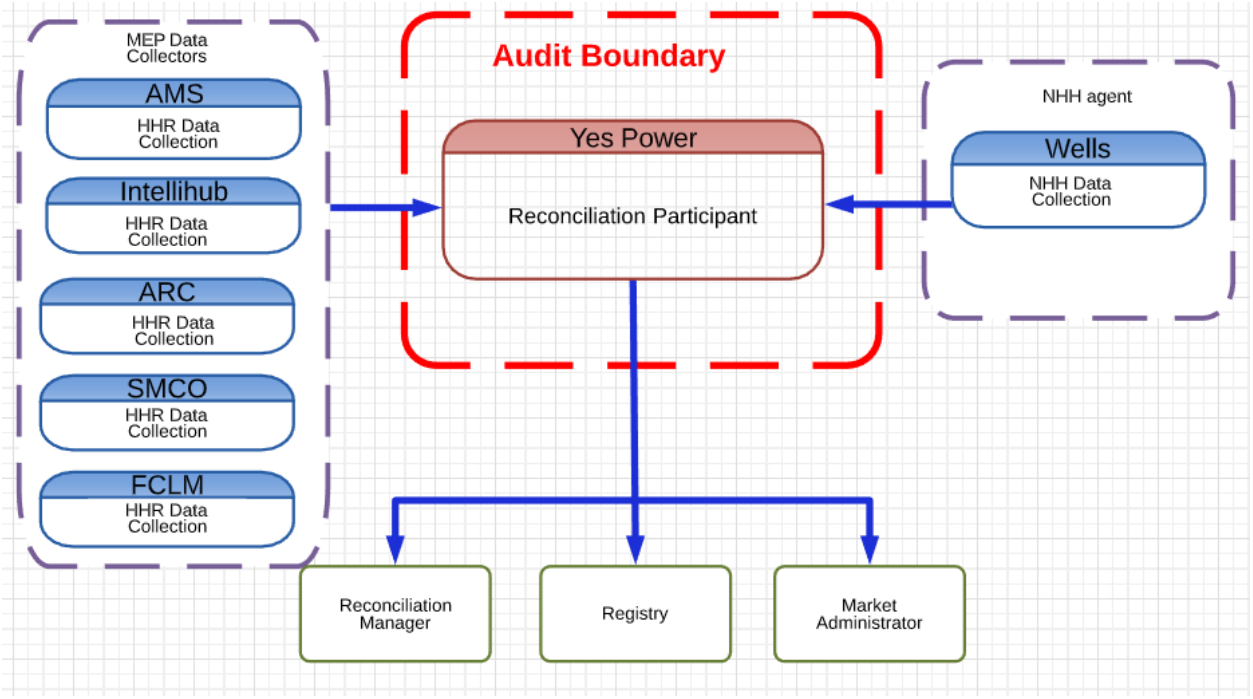
An authorisation letter was not required.

1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of YES Power, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.1.

The audit was carried out at YES Power's premises in Christchurch on 18 and 19 November 2020.

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



The table below shows the tasks under clause 15.38 of part 15 for which YES Power requires certification. AMS, ARC, IHUB, MTRX, SMCO and FCLM provide AMI data as MEPs, not as agents. Wells provides NHH data as an agent.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	**Agents Involved in Performance of Tasks**	**MEPs Providing AMI data**
(a) - Maintaining registry information and performing customer and embedded generator switching		
(b) – Gathering and storing raw meter data	Wells	AMS – HHR (AMI) ARC – HHR (AMI) IHUB – HHR (AMI) SMCO – HHR (AMI) MTRX – HHR (AMI) FCLM – HHR (AMI)
(c)(iii) - Creation and management of NHH and HHR volume information	Wells	AMS – HHR (AMI) ARC – HHR (AMI) IHUB – HHR (AMI) SMCO – HHR (AMI) MTRX – HHR (AMI) FCLM – HHR (AMI)
(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		

1.10. Summary of previous audit

YES Power provided a copy of their previous audit completed in December 2019 by Ewa Glowacka. The summary table below shows the status of the non-compliances raised in the previous audit. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-compliance	Status
Changes to registry information	3.3	10 of Schedule 11.1	A small number of late registry updates	Still existing
ANZSIC codes	3.6	9(1)(k) of Schedule 11.1	Incorrect ANZSIC code for one ICP	Still existing
Losing trader must provide final information - standard switch	4.3	5 of Schedule 11.3	Average daily consumption methodology is incorrect. Incorrect switch event read for one ICP.	Still existing
Retailers must use same reading - standard switch	4.4	6(1) Schedule 11.3	Not switching on the same reads for some ICPs.	Cleared
Losing trader must provide final information - switch move	4.10	11 of Schedule 11.3	Average daily consumption methodology is incorrect. Incorrect switch event read for one ICP, one CS file was late.	Still existing
Withdrawal of switch request	4.15	17 of Schedule 11.3	One AW file was late.	Still existing
Correction of HHR metering information	8.2	19(2) of Schedule 15.2	HHR actual data provided by MEPs is overwritten to accommodate the volume difference after RR files are rejected by losing traders.	Cleared
Electronic meter readings and estimated readings	9.6	17 of Schedule 15.2	No log files reviewed from FCLM, ARCS, and MTRX because they are not provided to them.	Cleared
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHRAGGR files do not contain electricity supplied information.	Still existing

Subject	Section	Clause	Non-compliance	Status
Accuracy of submission information	12.7	15.2	Some volumes could be inaccurate due to the scaling process algorithm.	Cleared

Subject	Section	Clause	Recommendation	Status
			Nil	

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

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

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

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

Audit observation

The process to find and correct incorrect information was examined. The registry validation process was examined in detail in relation to the achievement of this requirement. The list file as at 30/10/20 and audit compliance reporting were examined to identify any registry discrepancies and confirm that all information was correct and not misleading.

Audit commentary

This clause requires that YES Power must check the list file against their own records and correct records as soon as practicable.

To meet compliance with above clauses, YES Power monitors registry notification files and conducts a snapshot check at the end of the month against the EDA report. I recommend a check against the PR-010 file with history at the end of each month prior to day-4 submissions, as a double check of that all aggregation factors are correct for submissions. I also recommend checking the audit compliance report monthly.

Recommendation	Description	Audited party comment	Remedial action
Regarding Clause 11.2	Run a check against the PR-010 report with history monthly. Check the AC-020 monthly.	Processes have been reviewed and updated where Audit Compliance Report are checked monthly. PR-010 report is checked for some aggregation factors now and will include all by March 2021.	Identified

All exceptions identified are resolved as soon as possible.

I only found one discrepancy, which was an incorrect ANZSIC code, which is recorded as non-compliance in **Section 3.6.**

There is an issue with ARC Innovations meters when used for HHR settlement. The on-site setup is that a meter pulses into a data storage device, which counts the pulses and "stores" them every 200 pulses which equals 0.1 kWh. There is only one decimal place, so the smallest increment of consumption is 0.1. The issue is made worse for installations with a multiplier, for example if the multiplier is 100, the smallest increment per interval is 10 kWh, which means the accuracy per trading period is very poor. YES

Power does not have any Category 2 ICPs where ARC is the MEP. Unfortunately for Yes Power, the HHR data derived from ARC meters is not considered to be accurate in accordance with Clause 15.2. The total kWh per month will be accurate but if volumes are not recorded and reported against the correct trading period, Yes Power may not be charged at the wholesale rate that applied during the trading period when the electricity was consumed. More detail is provided in **section 12.7**.

Audit outcome

Non-compliant

<table>
<tr><th>Non-compliance</th><th colspan="3">Description</th></tr>
<tr><td>Audit Ref: 2.1
With: Clause 10.6, 11.2, 15.2

From: 19-Dec-20
To: 21-Nov-20</td><td colspan="3">Inaccurate HHR data where ARC is the MEP due to there only being one decimal place.
Potential impact: Low
Actual impact: Low
Audit history: None
Controls: Strong
Breach risk rating: 1</td></tr>
<tr><th>Audit risk rating</th><th colspan="3">Rationale for audit risk rating</th></tr>
<tr><td>Low</td><td colspan="3">The controls are recorded as strong because registry checking ensures data is accurate and the ARC issue of inaccurate data is difficult to avoid without turning away customers.
The impact on settlement and participants is minor; therefore, the audit risk rating is low.</td></tr>
<tr><th colspan="2">Actions taken to resolve the issue</th><th>Completion date</th><th>Remedial action status</th></tr>
<tr><td colspan="2">ARC meters are being displaced by EDMI smart meters which records HHR data more accurately. The ARC meters/mesh is being dismantled in such a way to minimise disruption to communications so early removal is ineffective. Vector metering under their project “Continuing to replace our ARC smart meter fleet with NGC meters”, expects to complete this project by Dec 2023.</td><td>Dec 2023</td><td rowspan="3">Identified</td></tr>
<tr><th colspan="2">Preventative actions taken to ensure no further issues will occur</th><th>Completion date</th></tr>
<tr><td colspan="2"></td><td></td></tr>
</table>

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

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

Audit observation

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

Audit commentary

This area is discussed in several sections in this report and compliance is confirmed.

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

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

Audit observation

AMI data is provided by MEPs via SFTP.

To confirm the process, I traced a sample of reads and volumes for one ICP per MEP from the source files to robotron*esales.

Audit commentary

All read and volume data is transferred from the MEP to YES Power via SFTP.

I traced a sample of data for one ICP per MEP from the source files to robotron*esales to confirm the data transmission process. All volumes matched.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10.4

Code related audit information

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

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

Audit observation

I reviewed YES Power's current customer terms and conditions.

Audit commentary

YES Power's terms and conditions include consent to access for authorised parties for the duration of the contract.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The trader must use its best endeavours to provide access:

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

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

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

Audit observation

I reviewed YES Power's current customer terms and conditions and discussed compliance with these clauses.

Audit commentary

YES Power's terms and conditions include consent to access for authorised parties for the duration of the contract. YES Power confirmed that they have been able to arrange access for other parties when requested.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

Audit observation

The physical meter location point is not specifically mentioned in the terms and conditions, but the existing practices in the electrical industry achieve compliance.

A review of a registry list confirmed that YES Power has not supplied any ICPs with metering category 3 or above during the audit period.

Audit commentary

There were no ICPs where loss compensation occurs.

Audit outcome

Compliant

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

Code reference

Clause 11.15B

Code related audit information

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

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

- *the trader to provide information about the customer to the Authority and for the Authority to provide the information to another trader if required under Schedule 11.5 (clause 11.15B(1)(d));* ***and***
- *the trader to assign the rights and obligations of the trader to another trader (clause 11.15B(1)(e)).*

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

Audit observation

I reviewed YES Power's current customer terms and conditions.

Audit commentary

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

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

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

The event detail report for the audit period was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

YES Power completed two new connections during the audit period, and in both cases they accepted their obligations by agreeing to be the retailer and they had a arrangement with the MEPs.

Audit outcome

Compliant

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

Code reference

Clause 10.33(1)

Code related audit information

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

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

Audit observation

The event detail report for the audit period was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

YES Power did not conduct or authorise any temporary electrical connection.

Audit outcome

Compliant

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

Code reference

Clause 10.33A(1)

Code related audit information

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

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

Audit observation

The new connection and reconnection processes were discussed.

The audit compliance report for the period 01/12/19 to 31/10/20 was examined to identify any uncertified metering installations.

Audit commentary

YES Power conducted two new connections. One had certified metering installed and the other was unmetered. All reconnected ICPs had certified metering installations.

Audit outcome

Compliant

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

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

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

Audit observation

The process to ensure an arrangement is in place before trading commences on a network was examined, along with the application process.

The registry list for 01/12/19 to 31/10/20 was reviewed to identify all networks YES Power has traded on during the audit period.

Audit commentary

YES Power has arrangements in place for line function services where they intend to trade.

MEP arrangements are in place with all relevant MEPs.

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

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

The registry list for 01/12/19 to 31/10/20 was reviewed to identify the MEPs for YES Power ICPs during the audit period.

Audit commentary

YES Power demonstrated that arrangements are in place with all relevant MEPs.

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

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

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

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

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

Audit observation

The event detail report for the audit period was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

YES Power completed two new connections during the audit period, and they achieved compliance with the clauses above.

Audit outcome

Compliant

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

Code reference

Clause 11.7(2)

Code related audit information

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

Audit observation

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

The event detail report for 01/12/19 to 31/10/20 was analysed in relation to updating of the registry. This clause links directly to **sections 3.3** and **3.5** below, where findings on the timeliness of updates are recorded.

Audit commentary

YES Power's processes are designed to ensure that trader information is populated as required by this clause. Late updates are recorded as non-compliance in **sections 3.3** and **3.5**.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

The process to manage status changes is discussed in detail in **sections 3.8** and **3.9**. In this section, the event detail and audit compliance reports for 01/12/19 to 31/10/20 was analysed determine the overall performance for that period.

A sample of late updates were reviewed to determine why they were delayed, including:

- all late active updates,
- all late inactive updates; and
- all late trader updates.

Audit commentary

The event detail and audit compliance reports were examined to confirm whether the registry is notified within five business days when information referred to in clause 9 of schedule 11.1 changes.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Status updates						
Change to active (2,0)	2018	1	1	0		100%
	2019	9	8	1	6.25	88.8%
	2020	**15**	**14**	**1**	**1.6**	**93.33**
Change to electrically disconnected	2018	0				
	2019	3	2	1		67%
	2020	**12**	**12**	**0**	**1.82**	**100%**
Trader updates						
Trader updates	2019	24	19	5		79%
	2020	**17**	**10**	**7**	**7.06**	**58.82**

Status updates

There was one late status update to active. It was late by one day due to lack of clarity in the job completion notes. All changes to inactive were compliant.

Trader updates

Late trader updates include MEP nominations and profile changes. I checked all seven late updates and found they were caused by:

- one examples of a late MEP nomination due to lots of correspondence with two MEPs because it was unclear which meter would fit and which MEP was going to install the meter.
- The other six examples were MEP nominations with the job issue date as the event date. I clarified that the date can be the same date the trader event is entered into the registry if the meter is not yet changed.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: Clause 10 Schedule 11.1 From: 01-Dec-19 To: 19-Nov-20	Some late status and trader updates. Potential impact: Low Actual impact: None Audit history: Twice Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as strong. They have been improved during the audit period they now mitigate risk to an acceptable level. The impact on settlement and participants is negligible; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		**Completion date**	**Remedial action status**
Business rules and processes have been reviewed and updated to avoid late registry updates.		Nov 2020	Identified
Preventative actions taken to ensure no further issues will occur		**Completion date**	

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

Retailers Responsibility to Nominate and Record MEP in the Registry

The audit compliance report, registry list as at 30/10/20 and event detail report for 01/12/19 to 31/10/20 were examined to identify:

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

ICP Decommissioning

The process for the decommissioning of ICPs was examined.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

All active ICPs have a valid MEP recorded.

YES Power nominates the MEP based on notification of meter changes by relevant MEPs.

There were no MEP nominations rejected during the audit period.

Backdated MEP nominations are recorded as non-compliance in **section 3.3**.

ICP Decommissioning

YES Power continue with their obligations under this clause. ICPs that are vacant and active, or inactive are maintained in robotron*esales.

YES Power's process meets the obligation to arrange a meter interrogation prior to or upon meter removal and notify the MEP. There were no decommissioned ICPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

The audit compliance report from 30/10/20 was examined was examined to identify all examples of missing registry data and the timeliness of registry updates.

Audit commentary

The audit compliance report did not identify any missing data. Two new connections were conducted during the audit period. The registry update for one was within five days but the other one was late due to a lengthy investigation into the actual electrical connection date, which I confirmed is correct, although it is different to the initial electrical connection date.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.5 With: Clause 9 Schedule 11.1 From: 04-Aug-20 To: 23-Sep-20	One new connection not updated to the registry within 5 business 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 controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and new connection process have been reviewed and updated to avoid late registry updates.	Nov 2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Business rules and new connection process will be reviewed and updated for continuous improvement.		

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

Code reference

Clause 9 (1(k) of Schedule 11.1

Code related audit information

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

Audit observation

The process to capture and manage ANZISC codes was examined. The audit compliance report and list file as at 30/10/20 were reviewed to check ANZSIC codes.

To confirm the validity of the ANZSIC codes selected I checked a diverse sample of 20 ICPs, including the only ICP with ANZSIC code 0 with metering category 2.

Audit commentary

ANZSIC codes are set based on information provided on the customer application. ANZSIC codes are checked when ICPs switch in.

Analysis of the registry list confirmed that no T99 series codes were present.

The accuracy of the ANZSIC codes for 20 ICPs were checked using google streetview and they were all correct.

ICP 0012129100EL94A had a residential ANZSIC code because the previous retailer used this code, but it is actually a commercial property. YES Power has corrected this code.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.6 With: Clause 9 (1)(k) of Schedule 11.1 From: 06-Jul-20 To: 12-Nov-20	One incorrect ANZSIC code Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because ANZSIC codes are now confirmed on switch in, and the audit compliance report is checked monthly. The impact on settlement and participants is minor; therefore the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated. ANZSIC codes are checked during switching and now during monthly compliance checks.	Nov 2020	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 9(1)(f) of Schedule 11.1

Code related audit information

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

- *the code ENG - if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or*
- *the daily average kWh of unmetered load at the ICP - in all other cases (clause 9(1)(f)(ii)).*

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 01/12/19 to 31/10/20 was reviewed to identify all ICPs with unmetered load.

Audit commentary

YES Power currently supplies one ICP with unmetered load. The registry contains the correct daily unmetered load kWh.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

The ICP status of "active" is be managed by the relevant trader and indicates that:

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

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

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

Audit observation

Reconnections

The ICP reconnection process was examined. The event detail report for 01/12/19 to 31/10/20 was analysed, and the findings on the timeliness of registry updates are recorded in **section 3.3**.

Audit commentary

Registry notification files are reviewed on an ongoing basis to ensure robotron*esales data matches the registry. A full validation occurs between robotron*esales and the registry once per month to ensure status information is correct. I also checked ICPs where consumption was present on inactive ICPs. Reporting is in place to identify these examples and the status is corrected as required. Submission occurs for all ICPs regardless of status.

Audit outcome

Compliant

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

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

Audit observation

The event detail report for 01/12/19 to 31/10/20 was examined to identify all status changes to inactive. A typical sample of five ICPs were checked to ensure the status was correct. The findings in relation to the timeliness of updates to registry are recorded in **section 3.3**.

Audit commentary

YES Power conducts disconnections remotely and updates the registry once confirmation of the disconnection is provided by the MEP.

YES Power provided a list of three ICPs which had consumption recorded during an inactive period.

No incorrect statuses were identified.

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

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

If an ICP has had the status of "New" or "Ready" for 24 calendar months or more, the distributor must ask the trader whether it should continue to have that status, and must decommission the ICP if the trader advises the ICP should not continue to have that status.

Audit observation

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

Audit commentary

YES Power has not had any queries in relation to "new" or "ready" ICPs. I checked the registry list file which confirmed there are no ICPs at new or ready where Yes Power is the proposed trader.

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

Code reference

Clause 2 Schedule 11.3

Code related audit information

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

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

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

Audit observation

The switch gain process was examined to determine when YES Power deem all conditions to be met.

I checked for any backdated NT files to confirm they were sent within two business days of customer contact.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

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

Audit observation

An event detail report for 01/12/19 to 31/10/20 was reviewed to:

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

I checked AN files for each response code were reviewed to determine whether the response codes had been correctly applied.

The switch breach report was examined for the audit period.

Audit commentary

AN timeliness

The switch breach report confirmed one AN file was not sent within the allowable timeframes.

AN content

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

All but one of the event dates were within five business days.

The response code of AA is incorrectly used when in most cases, AD should be used. 73 AN files had AA as a response code. The Authority provided a memo to participants on 05/08/16 clarifying the correct use of response codes. The memo contained the following clarification regarding the use of the AA code:

AA response code can only be used when no other code applies

The explanation of use for the response code 'AA' is: *Switch is accepted; there are no relevant issues*. Within the context of the switch response codes, 'no relevant issues' means that none of the other response codes applies.

If another switch response code would be valid then the losing trader cannot use the response code 'AA'.

In YES Power's case, the AD response code will be more applicable than AA in most cases.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.2 With: Clauses 3 and 4 Schedule 11.3 From: 19-Dec-20 To: 19-Nov-20	Incorrect use of the AA switch response code. One late AN file by one day. Potential impact: None Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as strong because YES Power has changed the default setting to AD. There is no impact because the presence of AMI metering is a registry field and the content of the AN file is not normally used as a source of information to confirm the presence of AMI.		
Actions taken to resolve the issue		**Completion date**	**Remedial action status**
Switch AN response code changed to "AD" for AMI metering, "AA" for non-AMI metering and will be overridden for other applicable AN response.		Nov 2020	Cleared
Preventative actions taken to ensure no further issues will occur		**Completion date**	

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

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

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

Audit observation

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

An event detail report for the period from 01/12/19 to 31/10/20 was reviewed, to identify CS files issued by YES Power. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

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

CS files with average daily kWh that was negative, zero, or over 100 kWh were identified. These were all MI switches and are discussed in Section 4.10.

Audit commentary

CS timeliness

Three late CS files were identified.

CS content

The accuracy of the content of CS files was confirmed by checking a sample of five transfer CS files. The information recorded in the files was correct, apart from average daily consumption. The calculation methodology has been changed and it is now using the last two reads which is normally one day; however, for the sample checked, only one register was taken into account for multi register meters. Four of the five ICPs had errors.

All readings were correctly labelled as estimates or actuals.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.3 With: Clause 5 Schedule 11.3 From: 01-Dec-19 To: 19-Nov-20	At least two average daily consumption errors. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because the average daily consumption calculation was resolved prior to the audit. The current controls for CS timeliness are strong and no late files have been sent since July 2020. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Business process have been reviewed and updated for switch CS where daily average consumption is calculated accurately.	Jul 2020	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

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

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

If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within 4 calendar months of the actual event date, provide to the losing trader a changed switch event meter reading supported by two validated meter readings.

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

Audit observation

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

The event detail report for 01/12/19 to 31/10/20 was reviewed to identify all read change requests and acknowledgements during the audit period.

- No RR files were issued to YES Power by other traders for transfer switches.
- 89 RR files were issued by YES Power for transfer switches. 72 of those were rejected. I reviewed five rejected and five accepted files to confirm that the requests were supported by at least two actual readings, that the content of the files was accurate, and that YES Power's system reflected the outcome of the read change process.

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

Audit commentary

Switch reads are checked by comparing actual AMI data to the switch read to determine whether an RR is required. Sometimes an AMI midnight read may not be available and so it's derived by deducting the sum of the trading periods for that day to determine the expected start read.

I checked the content of rejected and accepted files and YES Power data was incorrect for one of five ICPs checked. ICP 0006109900RNEA1 had an RR read calculated by subtracting the interval data from the reading for the next day, but the interval data was not available so the incorrect reading from the next day was sent. The switch ended up being withdrawn so there was no impact. There is now a validation in place to identify this scenario of missing interval data.

There were some RR files incorrectly rejected by other traders and YES Power correctly used their actual reading as a start reading. There were many examples where the difference between the CS read and the RR read was less than 1 kWh because some retailers truncate and some round. The Code does not stipulate which method should be used.

Timeliness of RR and AC files

The switch breach history report was examined. There were no late files during the audit period.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.4 With: Clause 6(1) and 6A Schedule 11.3 From: 17-Jun-20 To: 17-Jun-20	One incorrect RR reading Potential impact: Low Actual impact: Low Audit history: Twice Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because they have been improved since the last audit and they minimise risk to an acceptable level. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Business process for switch RR have been reviewed and updated to accurately calculate the switch read.	July 2020	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

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

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 6(2)(b);*
- *the gaining trader within five business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading.*

Audit observation

The event detail report for the period from 01/12/19 to 31/10/20 was reviewed to identify all read change requests and acknowledgements where clause 6(2) and (3) of schedule 11.3 applied.

Audit commentary

Other retailers cannot issue read change requests to YES Power under clause 6(2) and (3) of schedule 11.3 in most cases because YES Power is predominantly a HHR only trader.

70 RR files sent within five business days were rejected. In this scenario YES Power uses their read because it is based on an actual AMI read.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 11.3

Code related audit information

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

Audit observation

I confirmed with YES Power whether any disputes have needed to be resolved in accordance with this clause.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

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

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

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

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

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

Audit observation

The switch gain process was examined to determine when YES Power deem all conditions to be met.

All backdated switch moves were checked to confirm that they were notified to the registry within two business days, and that the correct switch type was selected.

Audit commentary

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

I checked five backdated NT files and three were not sent within two business days because of processing issues.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.7 With: Clause 9 Schedule 11.3 From: 02-Dec-19 To: 15-May-20	Three late NT files. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because staff training and controls have been improved. There have not been any issue since May 2020. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated to avoid late registry updates.	Nov 2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

- *10(1)(a) If the losing trader accepts the event date proposed by the gaining trader, the losing trader must complete the switch by providing to the registry manager:*
  - *confirmation of the switch event date; and*
  - *a valid switch response code; and*
  - *final information as required under clause 11; or*
- *10(1)(b) If the losing trader does not accept the event date proposed by the gaining trader, the losing trader must acknowledge the switch request to the registry manager and determine a different event date that—*
  - *is not earlier than the gaining trader's proposed event date, and*
  - *is no later than 10 business days after the date the losing trader receives notice, or*
- *10(1)(c) request that the switch be withdrawn in accordance with clause 17.*

Audit observation

An event detail report for 01/12/19 to 31/10/20 was reviewed to:

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

The switch breach report was examined for the audit period.

Audit commentary

AN timeliness

The switch breach report confirmed one AN file was not sent within the allowable timeframes. This was due to a format issue with the AN file where it had a decimal point which does not fit with the functional spec.

AN content

Switch move AN files were examined in the event detail report and I found 11 ANs had a proposed transfer date earlier than the gaining trader's proposed date, but it was confirmed the proposed retailer's dates were incorrect for all 11 due to an error at their end, so the date in Yes Power's AN file was actually correct.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.8 With: Clause 10(1) Schedule 11.3 From: 01-Dec-19 To: 19-Nov-20	One late AN file Potential impact: Low Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because controls have been strengthened during the audit period. There is little impact because the one file was only two days late.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated to avoid late registry updates. Switch Summary Report checked daily.	Nov 2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

An event detail report for 01/12/19 to 31/10/20 was reviewed to identify AN files issued by YES Power during the period.

A sample of AN files for each response code were reviewed to determine whether the response codes had been correctly applied.

Audit commentary

The PD, OC and AD response codes were used correctly, but the response code of AA is incorrectly used when in most cases, AD should be used. 165 AN files had AA as a response code. The Authority provided

a memo to participants on 05/08/16 clarifying the correct use of response codes. The memo contained the following clarification regarding the use of the AA code:

AA response code can only be used when no other code applies

The explanation of use for the response code 'AA' is: *Switch is accepted; there are no relevant issues*. Within the context of the switch response codes, 'no relevant issues' means that none of the other response codes applies.

If another switch response code would be valid then the losing trader cannot use the response code 'AA'.

In YES Power's case, the AD response code will be more applicable than AA in most cases.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.9 With: Clause 10(2) Schedule 11.3 From: 01-Dec-19 To: 19-Nov-20	Incorrect use of the AA switch response code. Potential impact: None Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because the default is now changed to AD. There is no impact because the presence of AMI metering is a registry field and the content of the AN file is not normally used as a source of information to confirm the presence of AMI.

Actions taken to resolve the issue	Completion date	Remedial action status
Switch AN response code changed to "AD" for AMI metering, "AA" for non-AMI metering and will be overridden for other applicable AN response.	Nov 2020	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 11 Schedule 11.3

Code related audit information

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

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

Audit observation

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

An event detail report for the period from 01/12/19 to 31/10/20 was reviewed, to identify CS files issued by YES Power. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

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

CS files with average daily kWh that was negative, zero, or over 100 kWh were identified. A sample of 17 of these CS files were checked to determine whether the average daily consumption was correct.

Audit commentary

CS timeliness

26 late CS files were identified, most of these related to the bulk switching of ICPs to Ecotricity in the middle of 2020.

CS content

The accuracy of the content of CS files was confirmed by checking a sample of five MI CS files. The information recorded in the files was correct, apart from average daily consumption. The calculation methodology has been changed and it is now using the last two reads which is normally one day; however, for the sample checked, only one register was taken into account for multi register meters. Four of the five ICPs had errors. One of the five checked had two registers and the daily consumption was incorrect. Two of the 17 ICPs checked where the average daily consumption was high or zero had the same error.

All readings were correctly labelled as estimates or actuals.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.10 With: Clause 11 Schedule 11.3 From: 01-Dec-19 To: 19-Nov-20	26 late CS files At least three average daily consumption errors. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because the average daily consumption calculation has been corrected and the controls for timeliness are now more robust; there have not been any late files since mid-July 2020. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated to avoid late registry updates and provision of accurate information to the registry. Switch Summary Report checked daily.	Jul 2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within four calendar months of the actual event date, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by two validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*

- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 12(3)(b)).*

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

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

Audit observation

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

The event detail report for 01/12/19 to 31/10/20 was reviewed to identify all read change requests and acknowledgements during the audit period.

- Three RR files were issued to YES Power by other traders for move switches. One was rejected. I reviewed the rejected file to confirm the reasons for rejection were valid and confirm that YES Power's system reflected the outcome of the RR process, and five accepted files to confirm compliance.
- 26 RR files were issued by YES Power for move switches. 13 of those were rejected. I reviewed five rejected and five accepted files to confirm that the requests were supported by at least two actual readings, that the content of the files was accurate, and that YES Power's system reflected the outcome of the read change process.

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

Audit commentary

Switch reads are checked by comparing actual AMI data to the switch read to determine whether an RR is required. Sometimes an AMI midnight read may not be available and so it's derived by deducting the sum of the trading periods for that day to determine the expected start read.

I checked the content of rejected and accepted files and YES Power data was correct in all cases. There were some RR files incorrectly rejected by other traders and YES Power correctly used their actual reading as a start reading. There were many examples where the difference between the CS read and the RR read was less than 1 kWh because some retailers truncate and some round.

I checked one rejection by YES Power and the rejection was valid.

Timeliness of RR and AC files

The switch breach history report was examined. There was one late AC file in early 2020 due to a processing issue.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.11 With: Clause 12 Schedule 11.3 From: 14-Feb-20 To: 09-Mar-20	One late AC file Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because they have been improved since the last audit and they minimise risk to an acceptable level. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Business rules and processes have been reviewed and updated to avoid late registry updates. Switch Summary Report checked daily.	Jul 2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 13 Schedule 11.3

Code related audit information

The gaining trader switch process applies when a trader has an arrangement with a customer or embedded generator to trade electricity through or assume responsibility for:

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

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

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

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

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

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

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

> *14(4)(a) – the proposed event date is in the same month as the date on which the gaining trader advised the registry manager; or*
>
> *14(4)(b) – the proposed event date is no more than 90 days before the date on which the gaining trader advises the registry manager and this date is agreed between the losing and gaining traders.*

Audit observation

No HH switches occurred during the audit period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

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

> *15(a) - provide to the registry manager a valid switch response code as approved by the Authority; or*
>
> *15(b) - provide a request for withdrawal of the switch in accordance with clause 17.*

Audit observation

No HH switches occurred during the audit period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

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

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

> *16(a)- give the losing trader or MEP for the ICP an opportunity to interrogate the metering installation immediately before the ICP is electrically disconnected or the metering equipment is removed; or*
>
> *16(b)- carry out an interrogation and, no later than five business days after the metering installation is electrically disconnected or removed, advise the losing trader of the results and metering component numbers for each data channel in the metering installation.*

Audit observation

No HH switches occurred during the audit period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Compliant

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

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

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

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
  - *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*
  - *the withdrawal advisory code published by the Authority (clause 18(c)(ii))*
- *within five business days after receiving notice from the registry manager of a switch, the trader receiving the withdrawal must advise the registry manager that the switch withdrawal request is accepted or rejected. A switch withdrawal request must not become effective until accepted by the trader who received the withdrawal. (clause 18(d))*
- *on receipt of a rejection notice from the registry manager, in accordance with clause 18(d), a trader may re-submit the switch withdrawal request for an ICP in accordance with clause 18(c). All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request. (clause 18(e))*

- *if the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within two business days after receiving notice from the registry manager in accordance with clause 22(b), the losing trader must comply with clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16 (clause 18(f)).*

Audit observation

The switch withdrawal process was examined.

The event detail report for 01/12/19 to 31/10/20 was reviewed to:

- identify all switch withdrawal requests (NWs) issued by YES Power; and check the content of a sample of two withdrawals per withdrawal code,
- identify all switch withdrawal acknowledgements (AWs) issued by YES Power; and check a sample of ten AW rejections to confirm whether they were validly rejected; and
- confirm timeliness of withdrawal requests, as this is not currently being identified on the switch breach report (an extreme case sample of ten late withdrawal requests were checked).

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

Audit commentary

NW

44 NWs were issued by YES Power; two (4.5%) were rejected by the other trader. The content of a sample of five files were checked. They all had the correct withdrawal advisory codes.

The switch breach report did not record any late NW files.

AW

16 NWs were issued to YES Power, and four (25%) of these were rejected and the AW files were sent within five business days.

Audit outcome

Compliant

4.16. Metering information (Clause 21 Schedule 11.3)

Code reference

Clause 21 Schedule 11.3

Code related audit information

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

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

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

Audit observation

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

Audit commentary

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

There were no examples of meter reading errors.

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

Audit outcome

Compliant

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

Code reference

Clause 11.15AA to 11.15AB

Code related audit information

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

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

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

Audit observation

I checked processes for "win-back" activity and I checked all "CX" coded switch withdrawal requests.

Audit commentary

YES Power does not conduct "win-back" activity.

All "CX" coded switch withdrawal requests were genuine and related to switches in not switches out.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

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

> *11.14(2) - The distributor must give written notice to the traders responsible for the ICPs across which the unmetered load is shared, of the ICP identifiers of the ICPs.*
>
> *11.14(3) - A trader who receives such a notification from a distributor must give written notice to the distributor if it wishes to add or omit any ICP from the ICPs across which unmetered load is to be shared.*
>
> *11.14(4) - A distributor who receives such a notification of changes from the trader under (3) must give written notice to the registry manager and each trader responsible for any of the ICPs across which the unmetered load is shared.*
>
> *11.14(5) - If a distributor becomes aware of any change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must give written notice to all traders affected by that change as soon as practicable after that change or decommissioning.*
>
> *11.14(6) - Each trader who receives such a notification must, as soon as practicable after receiving the notification, adjust the unmetered load information for each ICP in the list for which it is responsible to ensure that the entire shared unmetered load is shared equally across each ICP.*
>
> *11.14(7) - A trader must take responsibility for shared unmetered load assigned to an ICP for which the trader becomes responsible as a result of a switch in accordance with Part 11.*
>
> *11.14(8) - A trader must not relinquish responsibility for shared unmetered load assigned to an ICP if there would then be no ICPs left across which that load could be shared.*
>
> *11.14(9) - A trader can change the status of an ICP across which the unmetered load is shared to inactive status, as referred to in clause 19 of Schedule 11.1. In that case, the trader is not required to give written notice to the distributor of the change. The amount of electricity attributable to that ICP becomes UFE.*

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 01/12/19 to 31/10/20 was reviewed to identify all ICPs with shared unmetered load during the period.

Audit commentary

YES Power does not supply any ICPs with shared unmetered load.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (2)(b)

Code related audit information

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 01/12/19 to 31/10/20 was reviewed to identify all ICPs with unmetered load during the period.

Audit commentary

YES Power does not currently supply any ICPs with unmetered load over 3,000 kWh per annum.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 01/12/19 to 31/10/20 was reviewed to identify all ICPs with unmetered load during the period.

Audit commentary

YES Power does not currently supply any ICPs with unmetered load over 3,000 kWh per annum.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 01/12/19 to 31/10/20 was reviewed to identify all ICPs with unmetered load during the period.

Audit commentary

YES Power does not currently supply any ICPs with distributed unmetered load.

Audit outcome

Compliant

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

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

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

Audit observation

Processes for distributed generation were reviewed. The audit compliance report as at 02/12/19 was reviewed to confirm whether YES Power had supplied any ICPs with generation during the audit period and whether there were any registry discrepancies.

Audit commentary

Metering installations installed

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

Distributed Generation

Analysis of the registry list found that YES Power supplies 31 ICPs with generation entered by the distributor, all of which have import/export metering installed.

Submission data was checked to ensure generation kWh were submitted. Compliance is confirmed.

Bridged meters

There were no bridged meters during the audit period.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The participant responsible for the metering installation must:

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

Audit observation

The NSP table was reviewed to confirm whether YES Power is responsible for any GIPs.

Audit commentary

Review of the NSP table confirmed that YES Power are not responsible for any GIPs.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

Audit observation

The registry list for 01/01/19 to 02/12/19 was reviewed, to identify any ICPs with profiles that require certification of the control device.

Audit commentary

Examination of the list file found that YES Power has only used the HHR and RPS profiles, and control devices are not used for reconciliation purposes.

Audit outcome

Not applicable

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

Processes relating to defective metering were examined.

There was only one defective meter identified and I checked all relevant correspondence.

Audit commentary

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

For the example checked, the meter was changed and estimation occurred correctly.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.2

Code related audit information

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

> *2(2) - The reconciliation participant must collect raw meter data used to determine volume information from the services interface or the metering installation or from the MEP.*
>
> *2(3) - The reconciliation participant must ensure the interrogation cycle is such that is does not exceed the maximum interrogation cycle in the registry.*
>
> *2(4) - The reconciliation participant must interrogate the meter at least once every maximum interrogation cycle.*
>
> *2(5) - When electronically interrogating the meter the participant must:*
>
> *a) ensure the system is to within +/- 5 seconds of NZST or NZDST*
> *b) compare the meter time to the system time*
> *c) determine the time error of the metering installation*
> *d) if the error is less than the maximum permitted error, correct the meter's clock*
> *e) if the time error is greater than the maximum permitted error then:*

i) correct the metering installation's clock
ii) compare the metering installation's time with the system time
iii) correct any affected raw meter data.

f) download the event log.

2(6) – The interrogation systems must record:

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

Audit observation

HHR data is provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

HHR data is provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

The data collection process was examined.

Audit commentary

AMI data is provided by MEPs. Validated readings are derived from actual meter readings.

YES Power is aware of the requirements to ensure that customer readings are validated against a set of validated actual reading from another source. If customer readings are used to calculate consumption, the interval data is labelled as estimated. An example was checked to confirm this.

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 15.2

Code related audit information

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

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

Audit observation

YES Power has submitted NHH metered volumes for a small number of ICPs.

Switch event meter readings in CS files were reviewed in **sections 4.3** and **4.10**.

Switch event meter readings in RR files were reviewed in **sections 4.4, 4.5** and **4.11**.

Audit commentary

All reads are correctly applied in accordance with this clause.

Audit outcome

Compliant

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

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

I requested a list of all NHH ICPs not read during the period of supply.

Audit commentary

There were six ICPs not read during the period of supply. The all switched out in June 2020. The ICPs were not read because Yes Power did not have an arrangement in place for manual meter reading, there

was then the disruption of COVID lockdown and then a large number of ICPs were switched to Ecotricity. The “best endeavours, despite exceptional circumstances” threshold was not met for these ICPs.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.8 With: Clause 7(1) and (2) Schedule 15.2 From: 01-Dec-19 To: 20-Nov-20	Six ICPs not read during the period of supply. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Ad-Hoc reads in place for all NHH meters.	Oct 2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

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

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

Audit observation

There were no NHH ICPs without readings for 12 months.

Audit commentary

There were no NHH ICPs without readings for 12 months.

Audit outcome

Not applicable

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

There were seven ICPs not read in 4 months. The six ICPs mentioned in Section 6.8 plus one other. I checked the circumstances leading to readings not being obtained.

Audit commentary

As mentioned in Section 6.8, six ICPs switched out in June 2020. The ICPs were not read because Yes Power did not have an arrangement in place for manual meter reading, there was then the disruption of COVID lockdown and then a large number of ICPs were switched to Ecotricity. The "best endeavours, despite exceptional circumstances" threshold was not met for these ICPs.

One further ICP had a reading just prior to the 12-month point, but did not have a reading for more than four months. Wells was engaged to conduct an ad-hoc read.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.10 With: Clause 9(1) and (2) Schedule 15.2 From: 01-Dec-19 To: 20-Nov-20	Seven ICPs not read in the 4-month period Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Ad-Hoc reads in place for all NHH meters.	Oct 2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

YES Power has used Wells to conduct ad-hoc meter readings. I checked the Wells audit report for compliance.

Audit commentary

The Wells audit report confirms compliance with this requirement.

Audit outcome

Compliant

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

HHR data is provided by MEPs. Compliance was assessed as part of their MEP audits.

Audit commentary

MEPs are responsible for HHR data collection, and compliance is recorded in their audit reports.

Audit outcome

Compliant

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

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

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

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

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

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

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

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

Audit observation

HHR data is provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

Fulfilment of the interrogation systems requirements was examined as part of the MEP audits, and found to be compliant.

Audit outcome

Compliant

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

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

HHR data is provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

Fulfilment of the interrogation systems requirements was examined as part of the MEP audits, and found to be compliant.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

HHR data is provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

Fulfilment of the interrogation systems requirements was examined as part of the MEP audits, and found to be compliant.

Audit outcome

Compliant

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

Code reference

Clause 18 Schedule 15.2

Code related audit information

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

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

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

Audit observation

Raw meter data is retained by MEPs, and compliance is assessed as part of their MEP audits.

Processes to archive and store raw meter date were reviewed.

Audit commentary

Compliance is recorded in the MEP audit reports.

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

All meter reading data is archived and is retained by YES Power for at least 48 months.

Audit outcome

Compliant

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

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

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

Audit observation

Processes to record non-metering information were discussed.

Audit commentary

Non metering information is not collected by YES Power; therefore, compliance was not assessed.

Audit outcome

Not applicable

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

> *19(1)(a) - confirmation of the original meter reading by carrying out another meter reading*
>
> *19(1)(b) - replacement of the original meter reading by another meter reading (even if the replacement meter reading may be at a different date)*
>
> *19(1)(c) - if the original meter reading cannot be confirmed or replaced by a meter reading from another interrogation, then an estimated reading is substituted and the estimated reading is marked as an estimate and it is subsequently replaced in accordance with clause 4(2).*

Audit observation

I checked the validation and correction processes in place.

Audit commentary

YES Power has only conducted a small number of NHH meter readings and there were no errors. Meter readings used during the switch process are often replaced. YES Power's system has the ability to record readings as estimates if they are.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

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

Audit observation

Processes for correction and estimation were reviewed.

There was only one defective meter during the audit period. I reviewed all records to confirm the correction process.

Audit commentary

Errors are identified through the data validation process, missing reads process, or information provided by the customer or MEP.

Where errors are detected, replacement data is estimated in accordance with the code. The estimation process is discussed in **section 9.4**.

The methodology for data estimation is as follows:

- Interpolation for small gaps.

  Where the number of trading periods missing is below four, then the values will be created by the interpolation method. A straight line will be assumed between the neighbouring values. If meter reads are available, scaling will be performed to scale the estimated values to the total consumption matches the difference between register reads.

- Copy from previous consumption patterns.

  For gaps larger than four trading periods estimated using interpolation, a consumption pattern matching process is applied. This process uses the same day over previous weeks (excluding stat holidays). If meter reads are available, scaling is performed to scale the estimated values to match the difference between reads.

- Average consumption value.

  If the above two methods cannot be used, robotron*sales creates consumption based on the average daily kWh information received in the CS file using a generic profile (type of customer).

- General consumption profile.

  When there is no other information available, a general consumption profile representing an average customer pattern is used.

Clause 19(5) of Schedule 15.2 requires that if a reconciliation participant corrects or alters data under this clause, the reconciliation participant must generate and archive a journal that contains the following information:

> (a) the date of the correction or alteration; and
>
> (b) the time of the correction or alteration; and
>
> (c) the operator identifier for the person within the reconciliation participant who made the correction or alteration; and
>
> (d) the half hour meter reading data or the non half hour meter reading data corrected or altered, and the total difference in volume of such corrected or altered data; and
>
> (e) the technique used to arrive at the corrected data; and
>
> (f) the reason for the correction or alteration.

When YES Power conducts corrections, the journal contains the details listed above. I checked the journal for ICP 0006745733RN2E0 to confirm compliance.

Audit outcome

Compliant

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

Audit observation

The registry list as at 30/10/20 was reviewed to identify any ICPs which require loss compensation.

Audit commentary

YES Power has not supplied ICPs error or loss compensation.

Audit outcome

Compliant

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

Code reference

Clause 22(1) and (2) Schedule 15.2

Code related audit information

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

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

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

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

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

22(2)(d) - the half-hour metering data or the non half hour metering data corrected or altered, and the total difference in volume of such corrected or altered data

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

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

Audit observation

Corrections are discussed in **section 8.2**. I 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 is collected by MEPs; data retention was reviewed as part of their MEP audits.

Audit commentary

Raw meter data is held by MEPs, and compliance is recorded in their MEP audits.

YES Power only corrects working data and they keep an appropriate audit trail.

Retention of raw metering data is discussed in **section 7.2** and audit trails are discussed in **section 2.4**.

Audit outcome

Compliant

9. ESTIMATING AND VALIDATING VOLUME INFORMATION

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

Code reference

Clause 3(3) Schedule 15.2

Code related audit information

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

Audit observation

Provision of estimated reads to other participants during switching was reviewed in **sections 4.3**, **4.4**, **4.5**, **4.10** and **4.11**.

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

Audit commentary

Read types are recorded correctly. I checked approximately 15 examples to confirm compliance.

Audit outcome

Compliant

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

Code reference

Clause 3(4) Schedule 15.2

Code related audit information

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

3(4)(a) - validated meter readings

3(4)(b) - estimated readings

3(4)(c) - permanent estimates.

Audit observation

Processes for derivation of volumes were discussed and observed.

Audit commentary

Data provided by MEPs and agents is considered "actual". Estimates created by YES Power are identified as estimates. Some estimates become permanent if they are not replaced. All readings and interval data are correctly identified.

Audit outcome

Compliant

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

A sample of submission data was reviewed in **sections 11** and **12**, to confirm that volume was based on readings as required.

HHR data is collected by MEPs. Compliance was assessed as part of their MEP audits.

Audit commentary

The MEPs and AMS retain raw, unrounded data. Meter reading data is not rounded or truncated on import.

Files from Intellihub only contain two decimal places. Intellihub confirmed the raw data from the meters also have two decimals, as shown below.

```
0000041168DE23C,RD14005933,KWH-IMP-PRI-TOT,051,IN16,X,001,2020-11-23T00:00:00+13,2020-11-23T00:29:59+13,0.1600,A,KWH,Y
0000041168DE23C,RD14005933,KWH-IMP-PRI-TOT,051,IN16,X,002,2020-11-23T00:30:00+13,2020-11-23T00:59:59+13,0.1400,A,KWH,Y
```

Audit outcome

Compliant

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

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

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

Audit observation

The HHR estimate process was examined, and a sample of estimates were reviewed. Revised data was compared to estimates where the estimates had been replaced.

Audit commentary

The process for estimation and correction is described in **Section 8.2.**

I reviewed four examples of estimates and found that YES Power used reasonable endeavours to ensure that submitted information was within the percentage specified by the Authority in all cases reviewed.

YES Power has a robust process in place to follow up with MEPs when data is incomplete. Intellihub estimates are not used.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 15.2

Code related audit information

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

> *16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register*
>
> *16(2)(b) - checks for invalid dates and times*
>
> *16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend*
>
> *16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected zero values.*

Audit observation

I checked the validation steps to confirm compliance.

Audit commentary

Billing validation includes bill length, high consumption and low consumption. Very few actual NHH meter readings have been dealt with and they have been entered manually and checked at the time of data entry.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

> *17(4)(a) - checks for missing data*
>
> *17(4)(b) - checks for invalid dates and times*
>
> *17(4)(c) - checks of unexpected zero values*
>
> *17(4)(d) - comparison with expected or previous flow patterns*
>
> *17(4)(e) - comparisons of meter readings with data on any data storage device registers that are available*

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

Audit observation

I reviewed the HHR data validation process, including meter event logs.

Validation of electronic readings was also reviewed as part of the MEP audits.

Audit commentary

Electronic meter reading information is provided by MEPs. Meters are interrogated regularly, and there is little risk that data can be overwritten. Data is held for a longer period at the meter and can be re-interrogated later if required.

Robotron*esales validates data on import. The validation includes:

- Missing values: All import objects are constantly checked for missing values for the duration of a valid contract. "Missing value"-status is set and can be checked by the user.
- Unexpected zero values: The daily consumption is checked for the lower threshold of zero. Potential Bridged meters are thereby identified.
- High values: Threshold for individual values is currently set to 100kWh and for daily sum to 1000kWh.
- Compare to previous patterns: Deviation between daily sum and previous days sum must be lower than 500%
- Receive unexpected data: If data for dates older than one month are received, they will not be automatically imported. The user is notified and has to accept it manually

Additionally, all meter data could be view graphically, which is an efficient way of checking flow patterns for each customer.

Event logs are provided by all relevant MEPs and are managed in a compliant manner.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

YES Power is not responsible for any NSPs. No information is provided to the grid owner in accordance with this clause.

Audit outcome

Not applicable

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

Code reference

Clause 13.137

Code related audit information

Each generator must provide the 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 grid owner with the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of that generator's volume information (clause 13.137(2)).

If such half-hour metering information is not available, the generator must provide the pricing manager and the relevant grid owner a reasonable estimate of such data (clause 13.137(3)).

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

YES Power is not responsible for any NSPs. No information is provided to the grid owner in accordance with this clause.

Audit outcome

Not applicable

10.3. Loss adjustment of HHR metering information (Clause 13.138)

Code reference

Clause 13.138

Code related audit information

The generator must provide the information required by clauses 13.136 and 13.137,
13.138(1)(a)- adjusted for losses (if any) relative to the grid injection point or, for embedded generators the grid exit point, at which it offered the electricity
13.138(1)(b)- in the manner and form that the pricing manager stipulates
13.138(1)(c)- by 0500 hours on a trading day for each trading period of the previous trading day.
The generator must provide the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of the generator's volume information.

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

YES Power is not responsible for any NSPs. No information is provided to the grid owner in accordance with this clause.

Audit outcome

Not applicable

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

Code reference

Clause 13.140

Code related audit information

If the generator provides half-hourly metering information to the grid owner under clauses 13.136 to 13.138, or 13.138A, it must also, by 0500 hours of that day, advise the relevant grid owner.

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

YES Power is not responsible for any NSPs. No information is provided to the grid owner in accordance with this clause.

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

Unless an embedded generator has given a notification in respect of the point of connection under clause 15.3, a trader must give notice to the reconciliation manager if it is to commence or cease trading electricity at a point of connection using a profile with a profile code other than HHR, RPS, UML, EG1, or PV1 at least five business days before commencing or ceasing trader.

The notification must comply with any procedures or requirements specified by the reconciliation manager.

Audit observation

Processes to create buying and selling notifications were reviewed.

A registry list for 01/12/19 to 31/10/20 was reviewed confirm the profiles used.

Audit commentary

YES Power uses the HHR profile and the RPS profile, which do not require a trading notifications.

Audit outcome

Compliant

11.2. Calculation of ICP days (Clause 15.6)

Code reference

Clause 15.6

Code related audit information

Each retailer and direct purchaser (excluding direct consumers) must deliver a report to the reconciliation manager detailing the number of ICP days for each NSP for each submission file of submission information in respect of:

> *15.6(1)(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*
>
> *15.6(1)(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

The ICP days information must be calculated using the data contained in the retailer or direct purchaser's reconciliation system when it aggregates volume information for ICPs into submission information.

Audit observation

The process for the calculation of ICP days was examined by checking variances for nine NSPs in the GR100 reports.

Audit commentary

The variances are shown in the table below.

Date	Revision	NSP	HHR/NHH	Registry ICP days	YESP ICP days	Difference
May-19	14	ISL0331	HHR	262	231	31
Jun-19	14	ISL0331	HHR	300	270	30
Nov-19	3	HEN0331	HHR	90	89	1
Nov-19	7	HEN0331	HHR	90	89	1
May-20	1	TKR0331	HHR	62	63	-1
May-20	3	TKR0331	HHR	62	63	-1
May-20	3	TKR0331	HHR	62	63	-1
Jun-20	1	PEN0331	HHR	90	91	-1
Jun-20	3	PEN0331	HHR	90	91	-1

It was confirmed that the variances were caused by an incorrect calculation by the system. The ICP days files were re-run for the R1, R3 and R7 examples above and it is now calculating correctly.

ICP Days difference between the registry and YES Power database

(Positive = YES Power data is lower than that on the registry).

Month	R0	R1	R3	R7	R14
Jan-19					0.00%
Feb-19					0.00%
Mar-19					0.00%
Apr-19					0.00%
May-19					1.09%
Jun-19				0.00%	1.19%
Jul-19				0.00%	
Aug-19				0.00%	
Sep-19			0.00%		
Oct-19	0.00%	0.00%	0.00%	0.00%	

Month	R0	R1	R3	R7	R14
Nov-19	0.24%	0.02%	0.03%	0.03%	
Dec-19	0.71%	0.16%	0.00%	0.42%	
Jan-20	0.50%	-0.01%	0.00%	0.74%	
Feb-20	-0.34%	-0.35%	0.40%	0.34%	
Mar-20	-0.33%	0.67%	-0.33%	0.00%	
Apr-20	0.58%	0.87%	0.00%		
May-20	0.71%	0.34%	-0.18%		
Jun-20	0.51%	-0.29%	-0.29%		
Jul-20	0.00%	0.00%	0.00%		
Aug-20	0.02%	0.02%			
Sep-20	0.96%	0.00%			

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.2 With: Clause 15.6 From: 01-Jun-20 To: 30-Jun-20	ICP days incorrect for nine NSPs for files sent in one month. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong because they have been strengthened during the audit period. The impact is assessed to be low, as updated data was provided through the revision process.
Actions taken to resolve the issue	**Completion date** / **Remedial action status**

System patch update resolved these grouping issues.	Jul 2020.	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 15.7

Code related audit information

A retailer must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each NSP, aggregated by invoice month, for which it has provided submission information to the reconciliation manager, including revised submission information for that period as non- loss adjusted values in respect of:

15.7(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period

15.7(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.

Audit observation

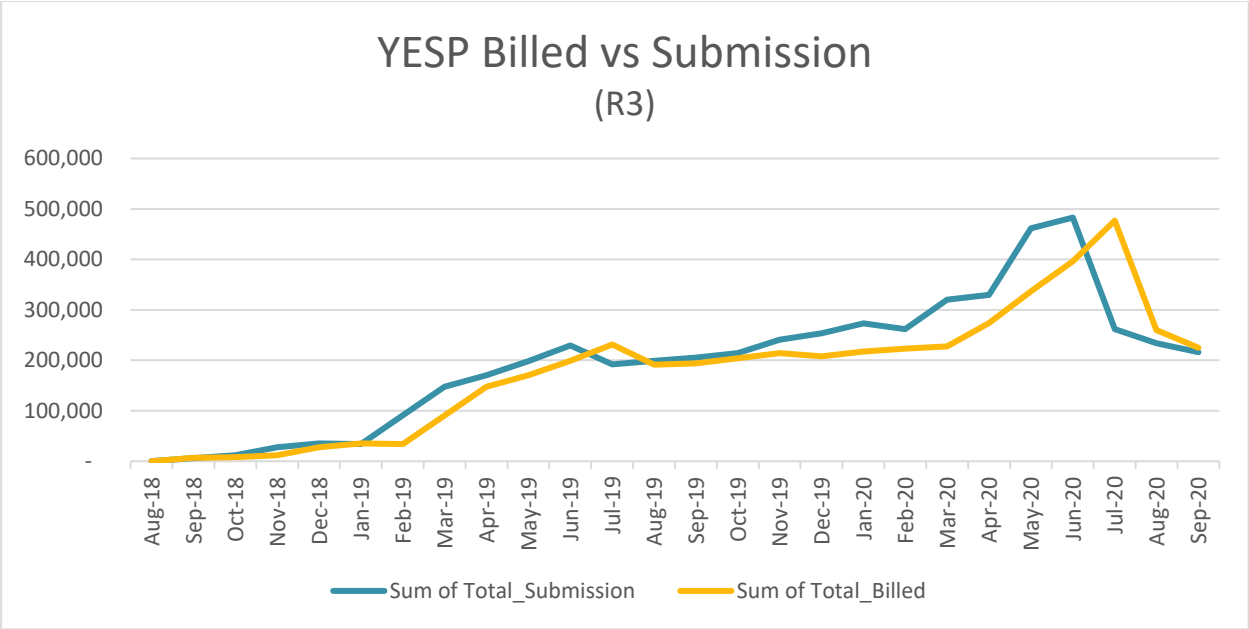
The process for the calculation of "as billed" volumes was examined.

GR130 reports for August 2018 to September 2020 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Audit commentary

There is a 5.9% difference for the period shown in the graph below. I checked the invoices for three NSPs and the totals matched electricity supplied file.

Comparison between Submitted Volumes and Electricity Supplied



There had been an error with the May 2020 file, which has now been revised and is correct. The 5.9% variance mentioned above is expected to improve as time goes by.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.3 With: Clause 15.7 From: 01-May-20 To: 31-May-20	Error in electricity supplied file for May 2020. Potential impact: None Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because they have recently been strengthened and will identify these sorts of issues now. The impact on settlement and participants is minor; therefore the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Certain Billed Invoice Statuses was not picked for the Electricity Supplied Report due to manual process. Reporting updated where manual step is now automated.	Jul 2020.	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Code reference

Clause 15.8

Code related audit information

A retailer or direct purchaser (excluding direct consumers) must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each half hourly metered ICP for which it has provided submission information to the reconciliation manager, including:

> *15.8(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*
>
> *15.8(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

Audit observation

I confirmed that the process for the calculation and aggregation of HHR data is correct, by matching HHR aggregates information with the HHR volumes data for three submissions.

The GR090 ICP missing files received during the audit period were examined. A sample of nine missing ICPs were reviewed to determine the reasons they were missing.

Audit commentary

YES Power's HHR aggregates report contains submission information, not electricity supplied information as specified under clause 15.8. Although the reports YES Power produces are consistent with the Reconciliation Manager Functional Specification, this is recorded as technical non-compliance below.

I confirmed the process for aggregation of HHR data is correct, by:

- matching HHR aggregates information to the volumes for three submissions, which confirmed that the differences between the volumes and aggregates were small and related to rounding
- matching HHR aggregates volumes to the source files received from the MEP for five ICPs - I found that the volumes matched; and
- checking three ICPs with vacant consumption and three ICPs with consumption while disconnected since December 2019 to confirm that vacant consumption is reported - all ICPs with consumption while disconnected had the consumption submitted.

The GR090 ICP missing files received during the audit period were examined. A sample of 70 differences were reviewed, and most were found to be caused by backdated switching events. There were also the following issues found:

- One ICP had the incorrect NSP of TKA0331 instead of TMK0331 for R0. This was corrected by R1.
- Three ICPs had submission for the correct NSP but there was an additional row with zero kWh for a different ICP. This matter is also resolved.
- Ten ICPs were missing from the aggregates and HHR vols files due to grouping issues in robotron*esales. This issue is also now resolved, and the revision files are correct.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.4 With: Clause 15.8 From: 01-Jan-19 To: 02-Dec-19	HHR aggregates file does not contain electricity supplied information. Errors in aggregates files for 14 ICPs Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong because they have been strengthened during the audit period. The impact is assessed to be low, as updated data was provided through the revision process.

Actions taken to resolve the issue	Completion date	Remedial action status
Nil.		Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using the TPR technique.

Audit observation

HHR data is provided by MEPs. Compliance was assessed as part of their audits.

The daylight savings adjustment process was reviewed including viewing examples of ICPs moving into and out of daylight savings.

Audit commentary

Daylight savings processes for the MEPs were reviewed as part of their audits and found to be compliant.

I viewed the adjustment process for Metrix ICPs. I checked a sample of ICPs to confirm that where data is provided in NZST, data is correctly adjusted using the trading period run on technique.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

By 1600 hours on the 4th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all NSPs for which the reconciliation participant is recorded in the registry as having traded electricity during the consumption period immediately before that reconciliation period (in accordance with Schedule 15.3).

By 1600 hours on the 13th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all points of connection for which the reconciliation participant is recorded in the registry as having traded electricity during any consumption period being reconciled in accordance with clauses 15.27 and 15.28, and in respect of which it has obtained revised submission information (in accordance with Schedule 15.3).

Audit observation

A sample of HHR ICPs were checked to ensure that volumes were correctly recorded in **section 11.4.** Corrections are discussed in section **8.2**.

YES Power has submitted unmetered NHH volumes for one ICP.

I checked for alleged breaches regarding late files.

Audit commentary

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

I checked the accuracy of the HHR aggregates and HHR volumes files in **section 11.4.** There were 10 HHR ICPs missing from HHR aggregates and HHR vols files between January and July 2020 due to system issues. This matter is now resolved and has not occurred again.

The AV080 file for the unmetered load ICP was accurate.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.2 With: Clause 15.4 From: 01-Jan-20 To: 31-Jul-20	10 HHR ICPs missing from HHR aggregates and HHR vols files between January and July 2020 due to system issues. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating:
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong because they have been strengthened during the audit period. The impact is assessed to be low, as updated data was provided through the revision process.

Actions taken to resolve the issue	Completion date	Remedial action status
System patch update resolved these grouping issues.	Jul 2020	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

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

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

Audit observation

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

I walked through the HHR volumes and aggregates validation process, including reviewing historic validations.

Audit commentary

YES Power processes registry notification files to ensure aggregation factors, including NSPs, are correct. There is a monthly check of a snapshot completed at the end of the month as a double check. As mentioned in **Section 2.1**, I recommend checking the PR-010 file (list file) with history prior to the Day-4 submission to ensure the correct time-slices are in place for all aggregation factors.

As mentioned in Section 11.4, one ICP was submitted against the incorrect NSP for May 2020. The total kWh submitted in the R0 file was zero and the revision files contained 0.07kWh for the correct NSP.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.3 With: Clause 15.5 From: 01-May-20 To: 31-May-20	Incorrect NSP for one ICP for May 2020 Potential impact: Low Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong because they have been strengthened during the audit period. The impact is assessed to be low, as updated data was provided through the revision process.

Actions taken to resolve the issue	Completion date	Remedial action status
System patch update resolved these grouping issues.	Jul 2020.	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

The participant (if a grid owner) must deliver to the reconciliation manager for each point of connection for all of its GXPs, the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.9(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period (clause 15.9(b)).*

Audit observation

Review of the NSP table confirmed that YES Power is not a grid owner.

Audit commentary

Review of the NSP table confirmed that YES Power is not a grid owner and is not required to submit grid owner volume information.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

The participant (if a local or embedded network owner) must provide to the reconciliation manager for each NSP for which the participant has given a notification under clause 25(1) Schedule 11.1 (which relates to the creation, decommissioning, and transfer of NSPs) the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.10(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period (clause 15.10(b)).*

Audit observation

A registry list was reviewed to confirm YES Power does not own any local or embedded networks.

Audit commentary

YES Power is not required to provide NSP submission information.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

The participant (if a grid connected generator) must deliver to the reconciliation manager for each of its points of connection, the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.11(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period (clause 15.11(b)).*

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

YES Power is not a grid connected generator; therefore, compliance was not assessed.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

If the reconciliation participant has submitted information and then subsequently obtained more accurate information, the participant must provide the most accurate information available to the reconciliation manager or participant, as the case may be, at the next available opportunity for submission (in accordance with clauses 15.20A, 15.27, and 15.28).

Audit observation

Alleged breaches during the audit period were reviewed to determine whether any reconciliation submissions were late.

Corrections were reviewed in **sections 8.1** and **8.2**.

Audit commentary

Review of alleged breaches confirmed that no reconciliation submissions were made late.

I checked that corrections were included in revision files and that when more accurate information was available it was submitted. I have recorded in several sections that revisions have been conducted for ICP days, electricity supplied, HHR aggregates and HHR vols files.

<u>Arc Innovations meters settled as HHR</u>

There is an issue with ARC Innovations meters when used for HHR settlement. The on-site setup is that a meter pulses into a data storage device, which counts the pulses and "stores" them every 200 pulses which equals 0.1 kWh. There is only one decimal place, so the smallest increment of consumption is 0.1. The issue is made worse for installations with a multiplier, for example if the multiplier is 100, the smallest increment per trading period is 10 kWh, which means the accuracy per interval is very

poor. Unfortunately for TODD, this means the HHR data derived from ARC meters is not considered to be accurate in accordance with Clause 15.2. The total kWh per month will be accurate, but If volumes are not recorded and reported against the correct trading period, TODD may not be charged at the wholesale rate that applied during the trading period when the electricity was consumed. Non-compliance is recorded in **section 2.1** due to information not being complete and accurate. Compliance is recorded in this section, because TODD is unable to obtain more accurate information.

The first three graphs below are Category 2 with multipliers. The red line is my estimate of likely profile. The next three are Category 1 where it is shown that every interval is a multiple of 0.1 or is zero where there are insufficient pulses to reach 0.1. If an interval has 100 pulses for example, the interval will show zero and the 100 pulses will be allocated to the next interval.

Audit outcome

Compliant

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

Code reference

Clause 4 Schedule 15.2

Code related audit information

Only volume information created using validated meter readings, or if such values are unavailable, permanent estimates, has permanence within the reconciliation processes (unless subsequently found to be in error).

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

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

Audit observation

I checked for the presence of FE in the 14-month revision files.

I evaluated the issue of estimated HHR data still being present at 14 months.

Audit commentary

There have not yet been any 14-month revisions for NHH ICPs.

Standard reporting is not in place to identify the quantity of HHR estimates in the 14-month revision. All HHR estimates are considered permanent if they are not replaced.

I recommend reporting is developed and monitored to record the quantity of HHR estimates per month per MEP to assist with improving service levels.

Recommendation	Description	Audited party comment	Remedial action
Regarding Clause 4 of Schedule 15.2	Develop reporting to record HHR estimates per month per MEP to assist with improving service levels.	Reporting in place to monitor and record HHR periods missing per month.	Cleared

Audit outcome

Compliant

12.9. Reconciliation participants to prepare information (Clause 2 Schedule 15.3)

Code reference

Clause 2 Schedule 15.3

Code related audit information

If a reconciliation participant prepares submission information for each NSP for the relevant consumption periods in accordance with the Code, such submission information must comprise the following:

- *half hour volume information for each ICP notified in accordance with clause 11.7(2) for which there is a category 3 or higher metering installation (clause 2(1)(a))*
- *for each ICP about which information is provided under clause 11.7(2) for which there is a category 1 or category 2 metering installation (clause 2(1)(b)):*
  - *a) half hour volume information for the ICP; or*
  - *b) non half hour volumes information calculated under clauses 4 to 6 (as applicable).*
  - *c) unmetered load quantities for each ICP that has unmetered load associated with it derived from the quantity recorded in the registry against the relevant ICP and the number of days in the period, the distributed unmetered load database, or other sources of relevant information (clause 2(1)(c))*
- *to create non half hour submission information a reconciliation participant must only use information that is dependent on a control device if (clause 2(2)):*
  - *a) the certification of the control device is recorded in the registry; or*
  - *b) the metering installation in which the control device is location has interim certification.*
- *to create submission information for a point of connection the reconciliation participant must apply to the raw meter data (clause 2(3):*
  - *a) for each ICP, the compensation factor that is recorded in the registry (clause 2(3)(a))*
  - *b) for each NSP the compensation factor that is recorded in the metering installations most recent certification report (clause 2(3)(b)).*

Audit observation

Aggregation and content of reconciliation submissions was reviewed.

Audit commentary

Compliance with this clause was assessed:

- most of YES Power's metered ICPs are submitted as HHR,
- a small number of ICPs are submitted as NHH
- one ICP with unmetered load had accurate submission,
- no profiles requiring a certified control device are used,
- no loss or compensation arrangements are required; and
- aggregation of the AV090 and AV140 reports is compliant.

Audit outcome

Compliant

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

Code reference

Clause 3 Schedule 15.3

Code related audit information

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

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

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

Audit observation

I checked the FE and HE processes and calculations.

Audit commentary

YES Power has submitted HE where readings are present and FE where they are not.

Audit outcome

Compliant

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

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

The methodology outlined in clause 4 of Schedule 15.3 must be used when preparing historic estimates of volume information for each ICP when the relevant seasonal adjustment shape is available.

If a seasonal adjustment shape is not available, the methodology for preparing an historical estimate of volume information for each ICP must be the same as in clause 4, except that the relevant quantities kWh_{Px} must be prorated as determined by the reconciliation participant using its own methodology or on a flat shape basis using the relevant number of days that are within the consumption period and within the period covered by kWh_{Px}.

Audit observation

YES Power commenced submitting NHH during the audit period. I manually checked one HE calculation where a start read, and a subsequent read were available.

I reviewed the results of the scenarios that were checked in the test system during the previous audit.

Audit commentary

The only scenario used during the audit period was a switch in on an actual read with another reading in a subsequent month. The manual calculation confirmed the HE values were correct. I have copied in the results from the previous audit, confirming all other scenarios are now correct. Unmetered load was confirmed to be calculated correctly and is submitted as HE.

Ref	Test	Comments	Result of Audit
1	Switch in during the month with estimated switch read, actual read gained in the next month, full profile data available.	Confirm that HE is calculated for the relevant part of the month, even though the switch in read is an estimate, and calculation begins on correct day	Compliant
2	Switch in during the month with actual switch read, actual read gained in the next month, full profile data available.	Confirm that HE is calculated for the relevant part of the month, and calculation begins on correct day	Compliant
3	Status change to active during the month, read gained in the next month, full profile data available	Confirm that HE is calculated for the relevant part of the month	Scenario not found
4	Switch out on estimate during the month	Confirm that HE is calculated even though the reading is an estimate Confirm that HE calculation ends on the correct day.	Compliant
5	Switch out on actual during the month	Confirm that HE is calculated for the relevant part of the month, and calculation ends on correct day	Compliant
6	Complete month without a read in the month	Read in the previous month and the month after, confirm correct HE for the month	Compliant
7	Complete month with a read during the month	Confirm the two calculations for the month are correct	Compliant
8	GXP change during the month	Confirm submission against one GXP for part month then the other GXP for part month, with correct HE/FE balance on each	Compliant
9	Switch in 2 months ago, first actual read gained in current month, profile data not available for current month	Confirm estimation is shown as forward, not historical	Scenario not found
10	Meter change during month	Confirm estimation is calculated for both meters, and summed correctly	Compliant
11	Half-hour meter installed during month	NHH meters is replaced by HHR meter. Confirm that volumes of a day when meters were swapped were fully reconciled.	Compliant

12	Two reads in the same month	Confirm usage between two reads is 'Historic' even if no profile data is available	Compliant
13	ICP days for all HE scenarios above	Confirm ICP days calculations are correct	Compliant
14	GXP change backdated	Confirm usage is shown against correct GXP for the time of usage	Compliant
15	Unmetered load submission	Check that this works the same as a normal meter and is considered HE	Compliant (confirmed during this audit)
16	CS read modified by RR	Confirm that consumption is updated to match RR read replacing CS	Compliant

Audit outcome

Compliant

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 Schedule 15.3

Code related audit information

Forward estimates may be used only in respect of any period for which an historical estimate cannot be calculated.

The methodology used for calculating a forward estimate may be determined by the reconciliation participant, only if it ensures that the accuracy is within the percentage of error specified by the Authority.

Audit observation

I checked the forward estimate methodology.

Audit commentary

Forward estimates are based on a field called "expected average daily consumption", which is based on the previous read to read period, or is manually entered for newly switched in reads, using the previous retailer's average daily consumption from the CS file.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 15.3

Code related audit information

If the reconciliation participant changes the profile associated with a meter, it must, when determining the volume information for that meter and its respective ICP, use a validated meter reading or permanent estimate on the day on which the profile change is to take effect.

The reconciliation participant must use the volume information from that validated meter reading or permanent estimate in calculating the relevant historical estimates of each profile for that meter.

Audit observation

I checked profile changes in the event detail report.

Audit commentary

The only changes were the addition of PV1 and changes from RPS to HHR. All changes occurred on a meter reading because the meter was changed.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

Audit observation

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

Aggregation of HHR volumes is discussed in **section 11.4**.

Audit commentary

Submission information is provided to the reconciliation manager in the appropriate format and is aggregated to the following level:

- NSP code,
- reconciliation type,
- profile,
- loss category code,
- flow direction,
- dedicated NSP; and
- consumption period.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

When reporting submission information, the number of decimal places must be rounded to not more than two decimal places.

If the unrounded digit to the right of the second decimal place is greater than or equal to five, the second digit is rounded up, and if the digit to the right of the second decimal place is less than five, the second digit is unchanged.

Audit observation

I reviewed the rounding of data on the AV090 and AV140 reports as part of the aggregation checks.

Audit commentary

Submission information is appropriately rounded to no more than two decimal places.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.3

Code related audit information

By 1600 hours on the 13th business day of each reconciliation period the reconciliation participant must report to the reconciliation manager the proportion of historical estimates per NSP contained within its non half hour submission information.

The proportion of submission information per NSP that is comprised of historical estimates must (unless exceptional circumstances exist) be:

- *at least 80% for revised data provided at the month 3 revision (clause 10(3)(a))*
- *at least 90% for revised data provided at the month 7 revision (clause 10(3)(b))*
- *100% for revised data provided at the month 14 revision (clause 10(3)(c)).*

Audit observation

I checked the proportion of HE in submission files.

Audit commentary

Two NSPs did not meet the 90% threshold for HE for the 7-month revision.

Between November 2019 and June 2020 three NSPs did not meet the 80% threshold for HE.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 13.3 With: Clause 10 Schedule 15.3 From: 01-Nov-19 To: 30-Jun-20	Two NSPs did not meet the 90% threshold for HE for the 7-month revision. Between November 2019 and June 2020 three NSPs did not meet the 80% threshold for HE. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**

Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore the audit risk rating is low.

Actions taken to resolve the issue	**Completion date**	**Remedial action status**
Ad-Hoc reads in place for all NHH meters.	Oct 2020.	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

CONCLUSION

YES Power has improved the controls in some areas, resulting in an improvement in compliance and a reduction in re-work. In particular the switching read change process is now more streamlined and does not include estimating HHR data to cater for incorrect switch event meter readings from losing traders.

Most of the issues found relate to the NHH processes, which started being used during the audit period. Some of the non-compliances occurred during the time there was a bulk switch out of a large number of ICPs, and COVID-19 lockdown occurred. Most of the issues I found had already been identified and resolved by YES Power.

The audit found 20 non-compliance issues, one recommendation is made, and no issues are raised. The audit risk rating is 24, indicating that the next audit be due in 12 months. All of the audit risk ratings are low, nine non-compliances are now cleared, and the controls are now much stronger in most areas, therefore I recommend an 18-month audit period.

PARTICIPANT RESPONSE