ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

VERITEK

For

PRIME ENERGY LIMITED

Prepared by: Tara Gannon

Date audit commenced: 13 February 2019

Date audit report completed: 7 March 2019

Audit report due date: 26 March 2019

TABLE OF CONTENTS

EXECUTIVE SUMMARY

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

Wells is an agent to Prime, providing NHH meter readings where the meter is not AMI capable, or the MEP cannot provide readings. Because the Wells audit is more than seven months old, additional checks were undertaken to confirm that there were no changes to Wells' processes or systems which could have a negative impact on Prime's compliance, and checks were conducted for a sample of meter condition events.

Prime has worked hard to resolve issues identified during the previous audit and has made some good progress:

- all switching files were on time, except two RR files which were unavoidably late due to backdated switch event dates;
- the timeliness of status updates has improved overall;
- all AMI reads are now imported into Orion, which has improved historic estimate accuracy and read attainment;
- read handling processes have been improved to reduce the likelihood of processing errors when importing MEP and agent data, or entering manual readings;
- customer read and photo read handling processes have improved to prevent them from incorrectly being classified as validated; and
- changes to the way status is managed in Orion have helped to ensure that consumption is reported if it occurs during an inactive or vacant period.

Prime has continued to work with their system provider, Agility, to resolve some ongoing reconciliation reporting issues.

- Improvements have been made to the AV080 report to correct historic estimate proportions. Some data accuracy issues relating to incorrect data inputs were identified, and I recommend that some further potential data accuracy issues are investigated. Prime intends to improve its pre-submission validation to ensure that accuracy issues are identified, investigated and resolved prior to submission.
- The AV120 report still does not appear to handle reversal of invoicing and re-invoicing correctly.
- ICP days continue to be reported for ICPs with inactive status. Although not compliant with clause 15.6, it ensures that if any consumption occurs during an inactive period, it will be reported.

Where issues are occurring, Prime has both short-term fixes and medium-term plans to fully investigate and resolve the issues.

The audit found 21 non-compliance issues and makes three recommendations. The breach risk rating total is 44, which gives an indicative next audit due date of six months. The non-compliances related to switching, registry, meter reading, and read attainment affected small numbers of ICPs and events. These non-compliances were either cleared or actions to prevent future non-compliances have been identified. The reconciliation submission accuracy issues affecting NHH volumes, ICP days, and billed information require further investigation before implementing system changes. In the meantime Prime has put additional monitoring controls in place to monitor and improve submission accuracy until these system changes are made. I recommend that the next audit be completed in ten months, and note that Prime has indicated that they expect to have resolved the issues by January 2020.

The matters raised are shown in the tables below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	10.6, 11.2, 15.2	One ICP with distributed generation has an incorrect profile recorded on the registry.	Moderate	Low	2	Identified
Changes to registry information	3.3	10 Schedule 11.1	Eight late status updates. Seven late MEP nominations. 34 late trader updates.	Moderate	Low	2	Identified
Provision of information to the registry manager	3.5	9 Schedule 11.1	The registry was not updated within five business days of commencement of trading for two ICPs.	Moderate	Low	2	Identified
ANZSIC codes	3.6	9 (1(k) of Schedule 11.1	Two ANZSIC codes were incorrectly recorded and were updated during the audit.	Strong	Low	1	Cleared
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	An incorrect AN response code was applied for one transfer switch.	Strong	Low	1	Identified
Losing trader must provide final information - standard switch	4.3	5 Schedule 11.3	At least ten estimated daily kWh values were not consistent with the average consumption for the last read to read period in transfer CS files.	Weak	Low	3	Identified
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	One CS read was recorded in Orion with an incorrect date and read sub-type.	Strong	Low	1	Cleared

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Gaining trader informs registry of switch request - switch move	4.7	9 Schedule 11.3	Switch move NTs were sent for three ICPs where the customers were not moving in effective from the switch date.	Moderate	Low	2	Investigating
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	An incorrect AN response code was applied for one switch move.	Strong	Low	1	Identified
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	One incorrect last actual read date was recorded in a switch move CS file. At least eight estimated daily kWh values were not consistent with the average consumption for the last read to read period in switch move CS files.	Weak	Low	3	Identified
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	Two late RR files for switch moves. One RR file was not supported by two validated actual readings.	Moderate	Low	2	Identified
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	Two late switch withdrawals.	Strong	Low	1	Identified
Distributed unmetered load	5.4	11 Schedule 15.3, Clause 15.37B	Prime's Wellington DUML database has not been audited.	Moderate	Medium	4	Identified
NHH meter reading application	6.7	6 Schedule 15.2	One CS read was recorded in Orion with an incorrect date and read sub-type.	Strong	Low	1	Cleared
NHH meters interrogated annually	6.9	8(1) and (2) Schedule 15.2	One meter reading frequency report was submitted one business days late.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
NHH metering information data validation	9.5	16 Schedule 15.2	Where a subsequent read is lower than the switch in reading, an estimated reading is applied.	Moderate	Low	2	Identified
Calculation of ICP days	11.2	15.6	The AV110 report includes inactive ICP days. The AV110 calculates the ICP days from the date the ICP was entered into Orion, which may differ from the actual start date. Four ICP days were reported with an incorrect submission type.	Weak	Low	3	Identified
Electricity supplied information provision to the reconciliation manager	11.3	15.7	Where multiple invoices and reversals occurred billed consumption does not always reflect what was billed during the month.	Moderate	Low	2	Investigating
Accuracy of submission information	12.7	15.12	Some submission information was incorrect.	Weak	Medium	6	Identified
Permanence of meter readings for reconciliation	12.8	4 of Schedule 15.2	Some estimates were not replaced by revision 14.	Moderate	Low	2	Identified
Historical estimate reporting to RM	13.3	10 Schedule 15.3	Historic estimate thresholds were not met for some revisions.	Moderate	Low	2	Identified
Future Risk Rating						44	

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	Description	Recommendation
Withdrawal of switch requests	4.15	Reasons for withdrawal requests and rejections	Consistently record withdrawal request and withdrawal rejection reasons in the Orion call notes.
Accuracy of submission information	12.7	Differences between revisions	Investigate the reasons for discrepancies between revisions.
Electricity supplied information provision to the reconciliation manager	11.3	Billed data	Monitor billed versus submission volumes over the coming months. Investigate to confirm the reason for the variances between billed and submitted volumes.

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

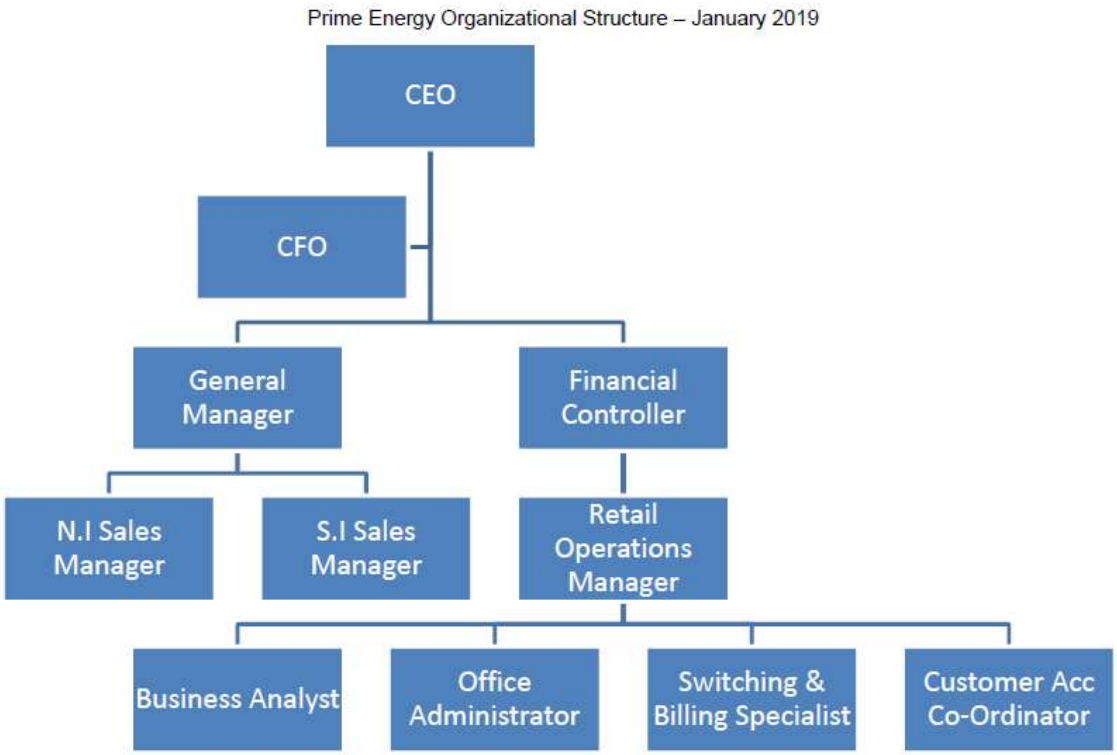
Current code exemptions were reviewed on the Electricity Authority website.

Audit commentary

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

1.2. Structure of Organisation

Prime provided a copy of their structure as at January 2019.



1.3. Persons involved in this audit

Auditor:

Tara Gannon

Veritek Limited

Electricity Authority Approved Auditor

Prime Energy personnel assisting with this audit:

Name	Title
Shainaz Rafiq	Retail Operations Manager

Wells personnel assisting with this audit:

Name	**Title**
Craig Simpson	Operations Manager

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

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

Audit observation

Use of agents was discussed with Prime.

Audit commentary

Prime uses Wells to conduct NHH manual data collection where the meter is not AMI capable, or the MEP cannot provide readings. Because the Wells audit is more than seven months old, additional checks were undertaken to confirm that there were no changes to Wells' processes or systems which could have a negative impact on Prime's compliance, and checks were conducted for a sample of meter condition events.

AMS, Metrix, Arc Innovations, and FCLM provide data as MEPs and are subject to a separate audit regime. AMS also provides data for Smartco meters.

All other functions are conducted in-house.

1.5. Hardware and Software

Prime uses the Orion system for functions included in the scope of the audit. Backup is in accordance with standard industry protocols, with Amazon and in-house backups performed.

1.6. Breaches or Breach Allegations

The EA confirmed that there were no alleged breaches relevant to the scope of the audit during the audit period.

1.7. ICP Data

All active ICPs are summarised by metering category in the table below. All 15 active ICPs with a metering category of 9 or blank have unmetered load.

Metering Category	(2019)	(2018)	(2017)	(2016)
1	1,110	1,045	784	532
2	141	126	69	38
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-
9	6	6	6	4
Blank	9	9	6	4

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

Status	Number of ICPs (2019)	Number of ICPs (2018)	Number of ICPs (2017)	Number of ICPs (2016)
Active (2,0)	1,266	1,186	865	580
Inactive – new connection in progress (1,12)	11	3	-	1
Inactive – electrically disconnected vacant property (1,4)	3	3	2	3
Inactive – electrically disconnected remotely by AMI meter (1,7)	4	1	1	-
Inactive – electrically disconnected at pole fuse (1,8)	-	-	-	-
Inactive – electrically disconnected due to meter disconnected (1,9)	4	5	9	-

Inactive – electrically disconnected at meter box fuse (1,10)	1	-	-	-
Inactive – electrically disconnected at meter box switch (1,11)	-	-	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	1	4	4	12
Inactive – reconciled elsewhere (1,5)	-	-	1	1
Decommissioned (3)	97	83	73	2

1.8. Authorisation Received

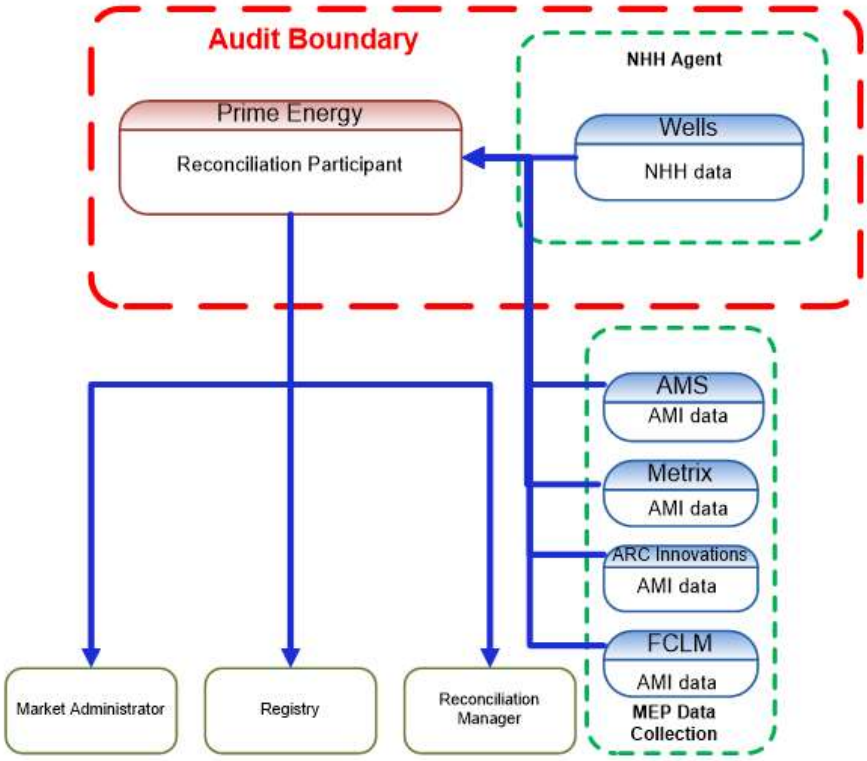
Prime provided all information directly, and authorisation was not required.

1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Prime, 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, at Prime's premises in Auckland on 13-14 February 2018.

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



The table below shows the tasks under clause 15.38 of Part 15 for which Prime requires certification. This table also lists those agents who assist with these tasks:

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 – NHH	AMS Arc Innovations FCLM Metrix
(c)(ii) - Creation and management of NHH volume information		
(d) – Calculation of the number of ICP days and delivery of a report under clause 15.6		
(da) delivery of electricity supplied information under clause 15.7:		
(e) – Provision of submission information for reconciliation		

Wells has been audited in accordance with the Guidelines for Reconciliation Participant Audits, and the agent audit report is expected to be submitted along with this report. Because the Wells audit is more than seven months old, additional checks were undertaken to confirm that there were no changes to Wells' processes or systems which could have a negative impact on Prime's compliance, and checks were conducted for a sample of meter condition events.

AMS, Arc Innovations, FCLM, and Metrix are subject to a separate audit regime as MEPs. They are not acting as agents to Prime.

1.10. Summary of previous audit

Prime provided a copy of their previous audit conducted in March 2018 by Tara Gannon of Veritek Ltd. The summary tables below show the status of the non-compliances and recommendations raised in the previous audit. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non compliance	Status
Relevant information	2.1	10.6, 11.2, 15.2	Some Orion and registry information was incorrect.	Still existing

Subject	Section	Clause	Non compliance	Status
Changes to registry information	3.3	10 Schedule 11.1	13 late status updates occurred during the audit period.	Still existing
Provision of information to the registry manager	3.5	9 Schedule 11.1	The registry was not updated within five business days of commencement of trading for 11 ICPs.	Still existing
ANZSIC codes	3.6	9 (1(k)) of Schedule 11.1	One active ICP has a T994 (don't know) ANZSIC code recorded.	Cleared
Changes to unmetered load	3.7	9(1)(f) of Schedule 11.1	Trader unmetered load details are not recorded on the registry for three ICPs. One ICP is metered, but also has standard unmetered load. The unmetered load was not recorded in Orion and the unmetered load has not been submitted.	Cleared
Management of "inactive" status	3.9	19 Schedule 11.1	One ICP temporarily had an incorrect status date recorded.	Cleared
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	Three late RR files for switch moves. One RR file contained an incorrect reading and was subsequently rejected and reissued.	Still existing
Electricity conveyed & notification by embedded generators	6.1	10.13, 10.24 and 15.13	Energy is not metered and quantified according to the code where meters are bridged.	Cleared
NHH meters interrogated annually	6.9	8(1) and (2) Schedule 15.2	One meter reading frequency report was submitted three business days late.	Still existing
Identification of readings	9.1	3(3) Schedule 15.2	One estimated reading was entered with an actual read type.	Cleared
NHH metering information data validation	9.5	16 Schedule 15.2	Where a subsequent read is lower than the switch in reading, an estimated reading is applied.	Still existing
Electronic meter readings and estimated readings	9.6	17 Schedule 15.2	Meter event information is not provided by FCLM.	Cleared

Subject	Section	Clause	Non compliance	Status
Calculation of ICP days	11.2	15.6	The AV110 report includes inactive ICP days. ICP days were not calculated correctly for all ICPs.	Still existing Still existing
Electricity supplied information provision to the reconciliation manager	11.3	15.7	Where invoices covered a period longer than the calendar month, or multiple invoices and reversals occurred billed consumption did not always reflect what was billed during the month.	Still existing
Creation of submission information	12.2	15.4	One vacant ICP did not have consumption reported, because of an incorrect status in Orion.	Cleared
Accuracy of submission information	12.7	15.12	Some submission information was incorrect.	Still existing
Accuracy of submission information	12.7	15.12	Some submission information was incorrect.	Still existing
Permanence of meter readings for reconciliation	12.8	4 of Schedule 15.2	Some estimates were not replaced by revision 14.	Still existing
Forward estimate process	12.12	6 Schedule 15.3	The accuracy threshold was not met for all months and revisions.	Cleared
Historical estimate reporting to RM	13.3	10 of Schedule 15.3	Historic estimate thresholds were not met for some revisions.	Still existing

Subject	Section	Clause	Recommendation	Status
Data transmission	2.3	Estimation of readings	Where a read is missing but a zero value indicating a missing read is not recorded, I recommend Prime checks the source read file to determine whether an actual read is present prior to estimating.	Cleared

Subject	Section	Clause	Recommendation	Status
ICP days	11.2	Review of ICP days	Calculate the active ICP days using a date ranged registry list and compare to the ICP level ICP days submission to identify any discrepancies.	Underway

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 registry list as at 24/12/18 was examined to identify any registry discrepancies, and to confirm that all information was correct and not misleading.

Audit commentary

Prime validates their data against the registry:

- Prior to each AV080 NHH volumes and AV110 ICP days submission aggregation factors for each ICP are checked against a date ranged registry list.
- Multipliers values are checked against the registry monthly.
- Unmetered load details are checked against the registry approximately every six months. The last check was completed in February 2019, and no changes were required.
- ICP discrepancy reporting is completed at the end of each month, by matching a registry list with history against the current values stored in Orion. The ICP discrepancy report identifies differences between registry and Orion information for meter type information (HHR, NHH, UNM), dedicated NSP, installation type, meter multiplier flag, meter register count, network, and ICP (which detects ICPs missing on the registry or in Orion). Some differences relate to the way in which information is recorded in Orion, for example there is no AMI flag field so "deemed" is used to denote AMI, and the registry records a multiplier flag and Orion records multiplier numbers. All discrepancies are investigated.

ICP status is not date ranged in Orion, so status is not matched to the registry. ICP statuses are managed using occupier accounts, and this process is discussed further in **section 3.9**.

Registry notification files are not reviewed. Prime relies on the checks above and paperwork received from MEPs to identify changes to registry information made by other parties.

The analysis of the list file returned the following findings:

Item No.	Issue	2019	2018	Comments
1	Status mismatch between registry and Prime	-	1	Compliant.
2	Active with no MEP	-	-	Compliant, only unmetered ICPs are active with no MEP.
3	Incorrect submission flag	-	-	Compliant, all ICPs have submission type NHH.
4	Active with blank ANZSIC codes	-	-	Compliant.
5	Active with ANZSIC "T999" not stated	-	-	Compliant.
6	Active with ANZSIC "T994" don't know	-	1	Compliant.
7	Active ICP with cat 9 and UML="N"	-	-	Compliant.
8	ICPs with Distributor unmetered load populated but retail unmetered load is blank	-	3	Compliant.
9	ICPs with unmetered load flag Y but load is recorded as zero	-	-	Compliant.
10	ICPs with incorrect shared unmetered load	-	-	Compliant, no shared unmetered load was identified.
11	ICPs with Distributed Generation indicated but no DG profile	1	-	ICP 0007146643RNB87 had distributed generation and RPS profile recorded. This is discussed further in **section 6.1**.

The 2018 audit found a small number of data discrepancies, which were followed up during the audit:

- the ICP with incorrect ANZSIC code, and ICP with an incorrect status date have been corrected;
- unmetered load details have been updated for the three ICPs which had no retailer unmetered load details recorded on the registry; and
- the estimated read entered as an actual has been corrected - estimates are now automatically created by Orion with the correct read type, and zeros are not inserted where reads are missing.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 10.6, 11.2, 15.2 From: 01-Nov-18 To: 14-Feb-19	One ICP with distributed generation has an incorrect profile recorded on the registry. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong as they are sufficient to ensure that profiles are recorded correctly most of the time. The impact is assessed to be low, Prime intends to process a backdated correction.

Actions taken to resolve the issue	Completion date	Remedial action status
ICP switched at the end of 2018 was listed as L but early 2019 it changed to B. We were unable to update the Registry due to error message 'not valid for trader'. We contacted fixed this, we updated the code.	4/3/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
All sales & CS staff are well trained to look out for this. However; this was a late generation approval by the network. This check is already in our ICP discrepancy report so we are not expecting this to be repeated in the future, not unless it's a backdated update by the network.	4/3/2019	

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

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

Audit observation

Prime receives meter readings from AMS, Metrix, Arc, and FCLM as MEPs, and Wells as an agent.

I reviewed the method to receive meter reading data from each MEP and agent. I traced a typical sample of readings for 20 ICPs from the source files to Orion, including two ICPs for each MEP, and ten ICPs for Wells.

Audit commentary

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

Orion requires reads to be imported in a consistent format. The data contained in each read file is reformatted using a template prior to being imported into Orion. For AMI meters, daily readings are now imported so they are available for finalising customer accounts, the read renegotiation process, and historic estimate process.

I traced a diverse sample of readings for 20 ICPs including each MEP and agent from the source files to Orion and found the readings matched the source files.

The 2018 audit found that for one ICP, an actual reading was omitted during the file reformatting. An estimate was manually created in Orion with a read type of actual. The reading has now been corrected and processes have been changed to minimise the likelihood of future issues. Estimates are now automatically created in Orion with the correct read type, and ICPs with missing reads do not have zeros added to the reformatted files.

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 Orion 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 Prime's current terms and conditions.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The trader must use its best endeavours to provide access:

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

If the trader has a consumer, the trader must obtain authorisation from the customer for access to the metering installation, 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 Prime's current terms and conditions, and discussed compliance with these clauses.

Audit commentary

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

Prime confirmed that there have been no instances where access could not be arranged for other parties during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

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

Audit observation

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

The registry list as at 24/12/18 was reviewed.

Audit commentary

Prime has only supplied ICPs with metering categories 1 and 2. No ICPs have required loss compensation.

Audit outcome

Compliant

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

Code reference

Clause 11.15B

Code related audit information

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

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

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

Audit observation

I reviewed Prime's current terms and conditions.

Audit commentary

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

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

The new connection process was examined in detail to evaluate the strength of controls. The list file and event detail report for 01/03/18 to 24/12/18 were analysed to confirm the process is compliant and controls are functioning as expected.

Audit commentary

Prime's new connection process requires all ICPs to be taken to the "new connection in progress" status in the registry and the MEP is nominated at the same time.

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

Audit outcome

Compliant

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

Code reference

Clause 10.33(1)

Code related audit information

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

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

Audit observation

The new connection process was examined in detail to evaluate the strength of controls. The registry list and event detail report for 01/03/18 to 24/12/18 were analysed to confirm process compliance and controls are functioning as expected.

Audit commentary

The registry list and event detail reports were reviewed. All ICPs recorded as active with metering installed have an MEP recorded.

Prime's new connections process ensures that all ICPs are claimed and taken to the "inactive - new connection in progress" status. The MEP is decided at this point and nominated in the registry. None of the new connections were temporarily electrically connected, and this is unlikely to occur for Prime.

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

The registry list as at 24/12/18, meter installation details report, and event detail report for 01/03/18 to 24/12/18 were analysed to confirm process compliance and that controls are functioning as expected.

Audit commentary

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

New connections

The new connection process ensures the MEP is nominated. Prime connected 12 ICPs during the audit period. All were metered and certified on the date of electrical connection.

Reconnections

Certification details were checked for the 12 reconnections where certification information was available on the metering installation details or event detail report. All meters were certified on the reconnection date.

Bridged ICPs

No bridged meters were identified during the audit period.

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.

Audit commentary

Prime has use of system agreements or arrangements in place with all the networks they trade on.

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

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

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

Audit commentary

Prime has arrangements in place with all relevant MEPs. No new MEPs were added during the audit period.

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

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

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

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

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

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

Audit observation

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

Audit commentary

This requirement is well understood and managed by Prime.

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 process was examined in detail. The registry list as at 24/12/18 and event detail report for 01/03/18 to 24/12/18 were analysed to evaluate registry updates for new connections. This clause links directly to **section 3.5** below, which assesses the timeliness of registry updates.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

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

In this section I have examined the event detail report for 01/03/18 to 24/12/18, to identify all late status updates, MEP nominations, and trader updates. All late status updates and MEP nominations, and ten late trader updates over 30 days were examined to determine why they were late.

The list file was examined to identify any active ICPs with no MEP recorded, or with meter category nine recorded and the UML flag set to "N". In all cases Prime was compliant, and the ICPs were unmetered.

Audit commentary

Prime processes all status updates manually on the registry, once paperwork is received. Active and inactive ICPs are recorded as active in Orion, to ensure that all consumption is captured and reported. ICPs are transferred to an "occupier" customer in Orion for any vacant periods, and an "occupier (disconnected)" customer for any inactive periods.

The event detail report was examined to confirm whether the registry is updated within five business days when information referred to in clause 9 of schedule 11.1 changes. Overall, the timeliness of status updates has improved since the 2018 audit.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Status updates						
	2016	10	5	5	37.4	50%

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Change to active (2,0) - reconnections	2017	20	11	9	14	55%
	2018	39	32	7	5	82%
	2019	**12**	**11**	**1**	**2**	**92%**
Change to electrically disconnected vacant property (1,4)	2016	6	5	1	5	83.3%
	2017	7	6	1	5	85%
	2018	13	13	-	2	100%
	2019	**6**	**6**	**-**	**1**	**100%**
Change to electrically disconnected ready for decommissioning (1,6)	2016	11	-	11	168.5	0%
	2017	3	2	1	4	67%
	2018	11	6	5	12	55%
	2019	**14**	**9**	**5**	**14**	**64%**
Change to electrically disconnected remotely by AMI meter (1,7)	2016	-	-	-	-	-
	2017	-	-	-	-	-
	2018	9	9	-	1	100%
	2019	**13**	**13**	**-**	**1**	**100%**
Change to electrically disconnected due to meter disconnected (1,9)	2016	-	-	-	-	-
	2017	10	8	2	12	80%
	2018	3	3	-	1	100%
	2019	**3**	**2**	**1**	**5**	**67%**
Change to electrically disconnected at meter box fuse (1,10)	2016	3	3	-	0.6	100%
	2017	1	1	-	4	100%
	2018	1	1	-	3	100%
	2019	**1**	**-**	**1**	**48**	**0%**

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Change to electrically disconnected at meter box switch (1,11)	**2019**	**1**	**1**	**-**	**5**	**100%**
Trader updates						
Changes of MEP	2018	52	52	-		100%
	2019	**65**	**58**	**7**	**2**	**89%**
Trader updates (excluding MEP nominations and NT updates)	**2019**	**54**	**20**	**34**	**255**	**37%**

Late status updates

The table above shows that the registry was not updated within five business days for eight (16%) of 50 ICPs where a status change has been made during the audit period. The registry was updated more than 30 business days for two ICPs, one updated to "Inactive - ready for decommissioning", and one updated to "inactive - electrically disconnected at meter box fuse". The late updates are recorded as non-compliance.

I reviewed all late status updates to determine why they were delayed:

- one late status update to "active" was caused by a backdated switch;
- all five late updates to "inactive ready for decommissioning" were caused by delays in confirming that the ICP was to be decommissioned; and
- the two late updates to other inactive statuses were caused by delays in receiving paperwork and confirming the ICPs was disconnected.

Late MEP nominations

The nomination date was compared to the metering event effective date to identify any ICPs that were not nominated within five business days. 58 (89%) of the 65 MEP nominations were made within five business days, and all nominations were within 22 business days of the event date.

All seven late MEP nominations were checked and found to be caused by:

- backdated switches;
- MEPs requesting the nomination be backdated; and
- delays in confirming the correct MEP and metering details.

Late trader updates

20 (37%) of the 54 trader updates made were within five business days of the event date. 29 of the updates were more than 30 business days after the event date. A sample of ten late updates more than 30 business days after the event date were examined; all related to backdated corrections following the 2018 audit.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: Clause 10 Schedule 11.1 From: 01-Mar-18 To: 24-Dec-18	Eight late status updates. Seven late MEP nominations. 34 late trader updates. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as moderate because they are adequate to ensure that the registry is updated on time most of the time, but there is room for improvement. The risk is low as most updates were completed on time or soon after they were due.

Actions taken to resolve the issue	Completion date	Remedial action status
We endeavour to update the Registry within 5 working days of receiving the paperwork. Most of the late nominations were backdated data correction.	N/A	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We have an internal SR report, so dates are monitored. However; its difficult to avoid non-compliance when MEP change their codes or if we are correcting previous data. We are monitoring this on an ongoing basis	N/A	

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

Retailers Responsibility to Nominate and Record MEP in the Registry

The new connection process was discussed and the registry list as at 24/12/18 was examined to confirm whether all active ICPs have an MEP recorded.

ICP Decommissioning

The process for the decommissioning of ICPs was examined. Decommissioned ICPs were checked to prove the process and confirm controls are in place.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

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

Review of the registry list confirmed that all active metered ICPs have an MEP recorded. The new connection process ensures the MEP is nominated.

65 MEP nominations were made; all were accepted by the MEP.

ICP Decommissioning

ICPs that are vacant and either active or inactive will still be maintained in Orion. An attempt is made to read the meter at the time of removal and if this is not possible then the last actual meter reading is used. This last actual reading is normally the one taken at the time of disconnection. Prime also advises the MEP responsible that the site is to be decommissioned, or has been decommissioned, dependent on the distributor's process.

Ten ICPs were decommissioned during the audit period, one was set up in error and nine were dismantled. I checked the dismantled ICPs and confirmed Prime met their obligation to arrange a meter interrogation prior to or upon meter removal.

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 5 business days of trading (clause 9(2)).

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

Audit observation

The new connection process was examined in detail. The event detail report for 01/03/18 to 24/12/18 was reviewed to evaluate registry updates for new connections. All late status updates for new connections were examined to determine why they were late.

Audit commentary

The event detail report was examined to confirm that information is provided to the registry within five business days of commencement of trading at each ICP.

Event	Year	Total ICPs	ICPs notified within 5 days	ICPs notified greater than 5 days	Average notification days	Percentage compliant
Change to new connection in progress (1,12)	2016	13	11	2	28	85%
	2017	8	7	1	27	88%
	2018	25	24	1	1	96%
	2019	**24**	**23**	**1**	**1**	**96%**

Event	Year	Total ICPs	ICPs notified within 5 days	ICPs notified greater than 5 days	Average notification days	Percentage compliant
New connections Change to active	2016	12	0	12	46.75	0%
	2017	7	5	2	5	71%
	2018	26	15	11	10	58%
	2019	**12**	**10**	**2**	**3**	**83%**

Late updates to new connection in progress

The ICP with a backdated update to "new connection in progress" status has not been connected yet, and is therefore compliant.

Late update to active

The table above shows that the registry was not updated within five business days for two of the 12 ICPs where the status became "active" during the audit period. This is recorded as non-compliance below.

The late updates to "active" status were one and two business days late respectively and were caused by a combination of delays in receiving paperwork and processing the paperwork once it was received.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.5 With: Clause 9 Schedule 11.1 From: 18-Oct-18 To: 30-Oct-18	The registry was not updated within five business days of commencement of trading for two ICPs. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as moderate, because they are sufficient to ensure that the registry is updated on time most of the time. The risk rating is low, as two updates were one to two days late.

Actions taken to resolve the issue	Completion date	Remedial action status
The Registry updates were done 1-2 business days late due to late paperwork. In some cases, paperwork were received but had 2 retailers trying to claim the same ICP, therefore; additional site visits were required to confirm the correct retailer.	N/A	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We are consistently monitoring our Service Request report to ensure updates happen within 5 working days. We are also planning to build a database which will create auto reminders for anything over 3days. We anticipate this release will take approx. 6-9 months.	Dec 2019	

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 registry list as at 24/12/18 was reviewed to check ANZSIC codes. To confirm the validity of the ANZSIC codes, I checked a diverse sample of 30 active ICPs across seven different ANZSIC codes which made up more than 2.5% of the total ICPs.

Audit commentary

Prime checks ANZSIC codes on switch in, and corrects any ICPs with blank or unknown ANZSIC codes. ANZSIC codes are not checked as part of the regular discrepancy reporting processes.

Review of the registry list found no ICPs have inactive or unknown ANZSIC codes.

28 of the 30 ANZSIC codes checked were confirmed to be correct. The other two codes were corrected during the audit, following investigation.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.6 With: Clause 9 (1(k)) of Schedule 11.1 From: 08-Apr-17 To: 11-Feb-19	Two ANZSIC codes were incorrectly recorded, and were updated during the audit. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong, as they are sufficient to ensure that most ICPs have the correct ANZSIC code recorded. The impact is low. These were isolated exceptions, and in one case the customer had not provided clear information on their application. Both exceptions were corrected during the audit.

Actions taken to resolve the issue	Completion date	Remedial action status
ANZSIC codes were updated promptly during the audit	14/2/19	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We rely on the customers to inform us about the nature of their business during signup. Some customers are reluctant to do this so it makes it difficult for us. We are planning to carry out annual ANZSIC codes washups starting later in the year. This will require additional resources.	Dec 2019	

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 manage unmetered load was examined. The list file as at 24/12/18 was examined to identify any ICPs where:

- unmetered load is identified by the distributor, but none is recorded by Prime;

- Prime's unmetered load figure does not match with the Distributor's figure (where it was possible to calculate this if the Distributor is using the recommended format) and the variance is greater than 1.0kWh per day. 1.0 kWh per day was chosen as a sample only; this does not indicate compliance is achieved if an error is found that is less than 1.0 kWh per day.

Audit commentary

Prime supplies 13 ICPs with standard unmetered load indicated, and three ICPs with distributed unmetered load. Prime does not supply any ICPs with shared unmetered load, these are rejected as part of the application process. If shared unmetered load is added for an existing ICP, Prime can reject the shared unmetered load.

Review of the registry list found:

- all ICPs with unmetered load recorded by the distributor also have unmetered load recorded by Prime;
- all ICPs with the unmetered flag set to Y have unmetered load populated, no ICPs have daily unmetered kWh of 0; and
- for four ICPs, the unmetered load details recorded by Prime were inconsistent with the distributor's unmetered load details:

ICP	Distributor UNM details	Trader UNM details	Comments
0000031344AAEF5	-	DUML 84 fittings; Sensors; advertising signs	Prime confirmed their trader details are correct, and intends to ask the distributor to update their unmetered load details.
0001405610UNA6B	-	2x110w	Prime confirmed their trader details are correct, and intends to ask the distributor to update their unmetered load details.
0000540879TU14A	UNDER VARANDAH TAURANGA - 115W-24HR	115W; 12H; UNDER VERANDAH	The customer confirmed the load is connected for only 12 hours. Prime intends to ask the distributor to check and update their details. The distributor daily unmetered kWh is 1.38 kWh higher than Prime's.
0933039829LCC93	0.36kW:24:VECT Unmetered	500.00; 12.00; UNM_UnKnown	The trader details were inherited from the previous trader and Prime intends to confirm the correct details with the customer. The ICP switched in during 2015. The distributor daily unmetered kWh is 2.64 kWh higher than Prime's.

Each unmetered ICP has a dummy meter associated with it. End of month readings are calculated as the last read + (daily unmetered kWh x active days in the month) and copied into a template before being loaded into Orion. I viewed the template to confirm that the estimated daily consumption values and formulas were correct for five ICPs, and traced the end of month readings to Orion. I found some small differences between the calculated readings and the readings recorded in Orion, which were confirmed to be rounding. Historic estimate calculations for unmetered load were also checked in **section 12.11**, and found to be compliant.

As described in **section 2.1**, Prime's unmetered load kWh are checked against the registry approximately every six months. The last check was completed in February 2019, and no changes were required.

The 2018 audit identified one metered ICP which had unmetered load recorded on the registry, but no unmetered load details recorded in Orion and no unmetered load submissions had been made. I confirmed that Orion has been corrected, and revision submissions have been provided for all affected periods.

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

The connection and reconnection processes were examined. The event detail report for 01/03/18 to 24/12/18 was analysed. Findings on the timeliness of active status updates are recorded in **sections 3.3** and **3.5**.

Audit commentary

Prime's Orion system will not allow more than one active customer per ICP. An Orion system wizard is used to transfer ICPs between customer accounts, and dates are automatically populated to ensure that there is no overlap between customers.

Orion requires all ICPs to have an MEP and meter recorded. Unmetered ICPs have a dummy meter, which unmetered volumes are recorded against.

I checked the accuracy of the active dates used by Prime for new connections by comparing the active dates, meter certification dates, and initial energisation dates for all new connections that were electrically connected during the audit period. I found:

- where the initial energisation dates had been populated by the distributor, they matched Prime's active date; and
- where meter certification dates were populated, they were the same as the connection date.

A typical sample of five reconnections were checked to confirm that the correct status and date had been applied.

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

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 disconnection process was discussed. The event detail report for 01/03/18 to 24/12/18 was analysed to identify all disconnections during the period.

A typical sample of at least five ICPs at each inactive status (or all ICPs if less than five were available) were checked using the typical characteristics methodology.

Findings on the timeliness of inactive status updates are recorded in **section 3.3**.

Audit commentary

Prime processes all status updates manually on the registry once paperwork is received. Inactive ICPs are recorded as active in Orion, to ensure that all consumption is captured and reported. ICPs are transferred to an "occupier" customer in Orion for any vacant periods, and an "occupier (disconnected)" customer for any inactive periods.

38 ICPs were updated to inactive statuses during the audit period. I reviewed a sample of 20 updates to inactive status, including at least five ICPs updated to each inactive status (or all if less than five examples were available) and confirmed the status reason codes and event dates were correctly applied based on the paperwork provided at the time of the update. One event was later reversed and corrected after additional information was provided by Vector.

Prime provided a list of three ICPs with inactive status which had consumption recorded. For two ICPs all consumption occurred prior to disconnection, and for the other ICP the meter had creeped one unit between its disconnection in July 2016 and August 2018. Status was correctly recorded on the registry for all three ICPs.

Some late status updates to inactive are recorded as 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 the process in place to manage and respond to such requests.

I analysed a registry list of ICPs with "new" or "ready" status, and reviewed processes to monitor new connections.

Audit commentary

Prime uses the status "inactive – new connection in progress" and usually changes the status once it is set to "ready". Analysis of the registry list confirmed that no ICPs have had "new" or "ready" status for more than two years.

Any requests from distributors on ICPs which have been at "new" or "ready" status for more than two years are investigated and responded to when they are received. None of these queries had been received during the audit period.

Prime monitors the progress of any new connections using a whiteboard, and spreadsheet. I viewed both during the audit and confirmed that they were up to date. Four new connections were in progress on 13/02/19.

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

Audit commentary

Prime'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.

Transfer switch type is applied where a customer is transferring between retailers at an address, and a certain contract start date is not required. Application of switch move for some transfer switches is recorded as non-compliance in **section 4.7**.

The five NT files checked were sent within two business days of pre-conditions being cleared, and the correct switch type was selected.

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 01/03/18 to 24/12/18 was reviewed to identify AN files issued by Prime during the audit period, and:

- a sample of two ANs per response code were reviewed to determine whether the codes had been correctly applied; and
- assess compliance with the setting of event dates requirements.

The switch breach report was examined for the audit period.

Audit commentary

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

The event detail report was reviewed for all eight transfer ANs to assess compliance with the setting of event dates requirements:

- all ANs had proposed event dates within ten business days of the NT receipt date; and
- 88% had an event date set within five business days.

AN response codes are selected manually. Five of the six AN response codes checked were correctly applied. The AA code is expected only used when none of the other codes were relevant, but I identified one ICP with an advanced meter where AA was applied:

ICP	Event date	Applied Code	Correct Code
0366460633LC4B7	1/12/2018	"AA" (accept and acknowledge)	"AD" (advanced metering)

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

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.2 With: Clauses 3 and 4 Schedule 11.3 From: 11-Dec-18	An incorrect AN response code was applied for one transfer switch. 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 over AN responses are strong. Codes are manually selected but staff are trained to ensure that the correct response code will be applied most of the time. The impact is assessed as low. Information available on the registry confirmed that the ICP with an incorrect response code had advanced metering, and the switch was later withdrawn.

Actions taken to resolve the issue	Completion date	Remedial action status
This was processed by a temp covering staff leave. The switch ended up being cancelled.	N/A	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We will ensure adequate training is provided to all future temps and proper supervision is also available.	14/2/19	

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for 01/03/18 to 24/12/18 was reviewed to identify CS files issued by Prime during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of five files. 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 an average daily kWh that was negative, zero, or over 200 kWh were identified. A sample of five of these CS files were checked to determine whether the average daily consumption was correct.

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

Audit commentary

CS timeliness

Prime uses the switch breach report to identify files which are due, and aims to process all files within two business days. Prime is aware that the days due recorded on this report are not consistently accurate.

The switch breach report recorded two late CS files for transfer switches, neither were genuine breaches.

CS content

CS files are created manually on the registry based on information recorded in Orion.

The Registry Functional Specification v22.21 states that average daily consumption within the CS file should be the average kWh per day for the last read period. Prime calculates the estimated daily consumption as the average daily consumption over the past year, or the period of supply if less than 12 months. While this is not technically consumption for the last read to read period, it provides a reasonable indication of the average daily consumption. Prime intends to change their estimated daily consumption calculation to reflect the consumption for the last read to read period.

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

Estimated daily kWh	Count of transfer CS files	Findings
Negative	-	
Zero	-	
More than 200 kWh	12	A sample of five were checked. All had different consumption in the last read to read period, because in some cases the consumption immediately before switching was not representative of the consumption history. Actual read to read period consumption was within -36 and +35 kWh (-14% and +15%) of the values provided in the CS files. In all cases, the estimated daily consumption in the CS file was a reasonable estimate of the average daily consumption over the past year.

The content of a sample of five transfer CS files were checked. I found all content was correct except the estimated daily consumption values, which did not match the consumption for the last read to read period.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.3 With: Clause 5 Schedule 11.3 From: 05-Apr-18 To: 18-Dec-18	At least ten estimated daily kWh values were not consistent with the average consumption for the last read to read period in transfer CS files. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as weak, because the process does not ensure that estimated daily kWh relates to previous read to read period. The audit risk rating is low because the average daily kWh information provided reflected the true average daily kWh for a longer period, and the other information in the CS files was correct.

Actions taken to resolve the issue	Completion date	Remedial action status
We always used yearly average consumption because it provides a better picture for seasonal ICPs. However; upon confirmation from EA & the Registry specs we have put immediate measures in place to manually calculate the average daily consumption based on last 2 actuals.	1/3/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We are working with our IT department to change the logic used in calculating the average daily consumption. We are estimating about 6 months for this change to be rolled out because intensive testing will be required to oversee the impact to the submission data & the billing processes.	Nov 2019	

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

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

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

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

- *the gaining trader may dispute the switch meter reading if the validated meter reading or permanent estimate provided by the losing trader differs by 200 kWh or more (clause 6(b)).*

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

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

Audit observation

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

The event detail report for 01/03/18 to 24/12/18 was analysed to identify all read change requests and acknowledgements during the audit period. No RRs were issued by Prime for transfer switches. All AC files issued for transfer switches were checked to confirm that Orion reflected the outcome of the RR process.

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

The switch breach report for the audit period was reviewed.

Audit commentary

When a high or low read is identified through the read validation process for a new switch in, the ICP is investigated to determine whether a read change is required. Prime will issue an RR file once they have received two actual readings if the difference is:

- more than ± 200 kWh;
- is negative and the actual reads are not expected to catch up within the month; or
- Prime has AMI readings which prove that the read is incorrect.

If there is a small negative difference, Prime waits for the AMI readings to "catch up" and exceed the switch read and estimates zero consumption. This process is discussed further in **section 9.5**.

No RR files were issued for transfer switches, and Prime issued three AC files for two transfer switches. One RR was accepted when issued, and the other was initially rejected and then accepted when reissued with a different reading. Both accepted RRs were checked and I confirmed that the correct readings were recorded in Orion.

Review of all three transfer CS files with estimated reads where no RR was issued confirmed that the correct readings were recorded in Orion for two of the ICPs. ICP 1002036815LC6CC had the correct reading recorded but was loaded with an incorrect read date (14/08/18 instead of 15/08/18) and read sub-type (actual instead of estimate) and was corrected during the audit. Switch event readings are loaded manually and the discrepancy occurred due to a processing error.

The switch breach report recorded did not record any late RR or AC files for transfer switches.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.4 With: 6(1) and 6A Schedule 11.3 From: 14-Aug-18 To: 15-Aug-18	One CS read was recorded in Orion with an incorrect date and read sub-type. 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 all other reads checked during the audit were found to be recorded correctly. The impact is assessed to be low: • The read type was correct, so there is no impact on the historic estimate calculations. Only the read sub-type, which is not used by the reconciliation process was incorrect. • The read date was moved back one day, but remained within the same month. There was minimal impact on the historic estimate calculations and correct data will be provided for revision submissions.

Actions taken to resolve the issue	Completion date	Remedial action status
This was corrected straight away during the audit.	14/2/19	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Switch Interface project is still in progress. We endeavour to have the switch processes automated by early 2020 as this requires intensive testing. By automating this process, we will eliminate the human errors. In the meantime, we are putting extra checks in place to ensure the start read dates in Orion match the switch event dates.	Jan-Feb 2020	

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 01/03/18 to 24/12/18 was reviewed to identify all read change requests and acknowledgements where clause 6(2) and (3) of schedule 11.3 applied.

Audit commentary

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

No read changes were issued to Prime under clause 6(2) and (3) of schedule 11.3 by other traders.

Prime is aware of the requirements of this clause and intends to comply.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 11.3

Code related audit information

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

Audit observation

Disputes were discussed with Prime.

Audit commentary

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

Audit commentary

Prime'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.

Most Prime switches are requested as switch moves (91%), rather than transfer switches (9%). Switch type is selected based on information provided by the customer on application. Following issues with other retailers not providing transfer CS files on the requested date for contract customers, Prime requests switches as move in where a certain contract start date is needed.

Three of the five NT files checked were requested as switch moves where the customers were not moving in effective from the switch date. This is recorded as non-compliance below.

Four of the five NT files were confirmed to be sent within two business days of pre-conditions being cleared. There was insufficient information available to confirm that the other NT file was sent on time.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.7 With: Clause 9 Schedule 11.3 From: 03-Apr-18, 01-Oct-18 and 03-Dec-18	Switch move NTs were sent for three ICPs where the customers were not moving in effective from the switch date. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating
Low	The controls are rated as moderate, because the switch type is not correctly applied in certain circumstances. The audit risk rating is low. There is no impact on settlement or other participants, and it helps to ensure ICPs are switched on the correct date. There is some impact on market switching statistics.

Actions taken to resolve the issue	Completion date	Remedial action status
The NTMI is a move switch but this also always the gaining retailer to choose the switch date. NTMI allows the losing retailers to set the dates. In some cases where customers are ending their fixed term contract with the losing retailer, they are adamant to start their account with PRME from a certain date as they do not wish to be billed on standard rates by the losing retailer. Some retailer put customers on auto rollover so the contract automatically rolls over & then customers are charged termination fee. In these instances, we sent the request as NTMI to abide by the contracted start date. All retailers mutually agreed to this process at the Retailer Switching Forum.		Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We ask customers to final their account with the losing retailer first but when sites are won by tenders or RFPs, then this is not always possible. May be the EA could consider a new NT code (NTTC – Transfer Contract or NTUC – Under Contract)? And the gaining retailer could set the event date. We are happy to discuss this further with EA and discuss other possible ways around this.		

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 01/03/18 to 24/12/18 was reviewed to identify AN files issued by Prime during the audit period, and:

- a sample of two ANs per response code were reviewed to determine whether the codes had been correctly applied; and
- assess compliance with the requirement to meet the setting of event dates requirement.

The switch breach report was examined for the audit period.

Audit commentary

The switch breach report recorded one late AN file, but the breach was not genuine.

The event detail report was reviewed for all 94 switch move ANs to assess compliance with the setting of event dates requirements:

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

AN response codes are selected manually. Eight of the nine AN response codes checked were correctly applied. The AA code is expected only used when none of the other codes were relevant, but I identified one ICP with an advanced meter where AA was applied:

ICP	Event date	Applied Code	Correct Code
0007121917RNBB2	23/05/2018	"AA" (accept and acknowledge)	"AD" (advanced metering)

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.8 With: Clause 10(1) Schedule 11.3 From: 23-May-18	An incorrect AN response code was applied for one switch move. 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 over AN responses are strong. Codes are manually selected but staff are trained to ensure that the correct response code will be applied most of the time. The impact is assessed as low. Information available on the registry confirmed that the ICP with an incorrect response code had advanced metering, and the switch was later withdrawn.

Actions taken to resolve the issue	Completion date	Remedial action status
It was just a one off instance and the AN was processed by a temp covering staff leave. The switch ended up being cancelled.		Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Proper training will be provided to all temps/new staff in the future. We have also created detailed procedure documents to be used for future training.	03/2019	

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

If the losing trader determines a different date, the losing trader must also complete the switch by providing to the registry manager as described in subclause (1)(a):

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

Audit observation

An event detail report for 01/03/18 to 24/12/18 was reviewed to identify AN files issued by Prime during the audit period, and assess compliance with the setting of event dates requirements.

Audit commentary

Analysis found all 94 switch move ANs had a valid switch response code and compliant proposed event dates. No ANs had proposed event dates earlier than the gaining trader's proposed date.

Switches were completed as required by this clause.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for 01/03/18 to 24/12/18 was reviewed to identify CS files issued by Prime during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of five files. 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 an average daily kWh that was negative, zero, or over 200 kWh were identified. A sample of five of these CS files were checked to determine whether the average daily consumption was correct.

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

Audit commentary

CS timeliness

Prime uses the switch breach report to identify files which are due, and aims to process all files within two business days. Prime is aware that the days due recorded on this report are not consistently accurate.

The switch breach report recorded four late CS files for transfer switches, none were genuine breaches.

CS content

CS files are created manually on the registry based on information recorded in Orion.

The Registry Functional Specification v22.21 states that average daily consumption within the CS file should be the average kWh per day for the last read period. Prime calculates the estimated daily consumption as the average daily consumption over the past year, or the period of supply if less than 12 months. While this is not technically consumption for the last read to read period, it provides a reasonable indication of the average daily consumption. Prime intends to change their estimated daily consumption calculation to reflect the consumption for the last read to read period.

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

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

Estimated daily kWh	Count of switch move CS files	Findings
Negative	-	
Zero	8	A sample of five files were checked, all had genuine zero consumption in the last read to read period.
More than 200 kWh	12	A sample of five were checked. All had different consumption in the last read to read period, because in some cases the consumption immediately before switching was not representative of the consumption history due to vacancy, or renovations being carried out by the landlord. Actual read to read period consumption was within -307 and +137 kWh (-96% and +48%) of the values provided in the CS files. In all cases, the estimated daily consumption in the CS file was a reasonable estimate of the average daily consumption over the past year.

The content of a sample of five switch move CS files were checked. I found all content was correct except:

- one last actual read date, which was entered with the date the CS file was processed in error; and
- three estimated daily consumption values, which did not match the consumption for the last read to read period.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.10 With: 11 Schedule 11.3 From: 21-Mar-18 To: 11-Oct-18	One incorrect last actual read date was recorded in a switch move CS file. At least eight estimated daily kWh values were not consistent with the average consumption for the last read to read period in switch move CS files. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3

Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as weak, because the process does not ensure that estimated daily kWh relates to previous read to read period. The audit risk rating is low because the incorrect last actual read date has a low impact, and the average daily kWh information provided reflected the true average daily kWh for a longer period.

Actions taken to resolve the issue	Completion date	Remedial action status
Our average daily consumption is based on yearly consumption to provide a better idea of the comm usage. It accounts for seasonal consumption which read-read doesn't do. We have gained sites with read-read average of 0 and being an irrigation pump on a large farm, the meter reader was unable to obtain reads until months later which resulted in the customer receiving a large catchup bill. So read-read average doesn't work for seasonal sites. However; to comply with the read-read requirement, as an interim fix we are manually calculating the average daily consumption for all switch losses.	Mar 2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We are working on a permanent fix to change the logic to calculate the average consumption based on last 2 actuals. This should be available by the end of the year.	Nov-Dec 2019	

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within 4 calendar months of the actual event date, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*

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

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

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 12(2A)(b));*
- *the gaining trader no later than 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 01/03/18 to 24/12/18 was analysed to identify all read change requests and acknowledgements during the audit period. All RR and AC files issued were checked to confirm that Orion reflected the outcome of the RR process.

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

The switch breach report for the audit period was reviewed.

Audit commentary

When a high or low read is identified through the read validation process for a new switch in, the ICP is investigated to determine whether a read change is required. Prime will issue an RR file once they have received two actual readings if the difference is:

- more than ± 200 kWh;
- is negative and the actual reads are not expected to catch up within the month; or
- Prime has AMI readings which prove that the read is incorrect.

If there is a small negative difference, Prime waits for the AMI readings to "catch up" and exceed the switch read and estimates zero consumption. This process is discussed further in **section 9.5**.

Prime issued seven RR files for switch moves, relating to six ICPs. Five were accepted when they were first issued, and one was accepted on reissue with the same reading. In all cases there was a genuine reason for Prime's RR, the file content was accurate, and the reads recorded in Prime's system reflected the outcome of the RR process. One of the RR files was supported by one validated reading and one customer reading, instead of two validated readings. This is recorded as non-compliance below. All other RRs were supported by two actual reads obtained by Prime (or contained readings requested by the other trader).

Prime issued two AC files for switch moves. Both were accepted, I confirmed that the correct readings were recorded in Orion.

Review of five transfer CS files with estimated reads where no RR was issued confirmed that the correct readings were recorded in Orion.

The switch breach report recorded two late RR files for transfer switches and no late AC files. Both late RR files were sent within one business day of the backdated switches being completed.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.11 With: Clause 12 Schedule 11.3 From: 04-May 18 and 01-Aug-18	Two late RR files for switch moves. One RR file was not supported by two validated actual readings. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as moderate as they are sufficient to ensure that RR files are normally provided within four months, and RR readings are usually supported by at least two validated readings The impact of the late files is low, because • the late files were provided within one business day of switch completion. • The RR supported by one actual read and one customer read was accepted, and the customer read is likely to be correct based on other reads received for the ICP.

Actions taken to resolve the issue	Completion date	Remedial action status
Late RR's were caused by backdated switches so not much we could do here to avoid a non-compliance. The RR was within 1 day of the CS completion date.		Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
When given a choice between late RR and the correction of data, we choose to correct the data as this is more likely to affect our other parts of the business, eg: RM submissions. We have already changed our process so customer photo reads are never treated as actuals so it won't be used for RR calculations	Mar 2019	

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

Code reference

Clause 13 Schedule 11.3

Code related audit information

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

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

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

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

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

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

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

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

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

Audit observation

An event detail report for 01/03/18 to 24/12/18 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for 01/03/18 to 24/12/18 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

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

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

> *16(a)- give the losing trader or MEP for the ICP an opportunity to interrogate the metering installation immediately before the ICP is electrically disconnected or the metering equipment is removed; or*
>
> *16(b)- carry out an interrogation and, no later than 5 business days after the metering installation is electrically disconnected or removed, advise the losing trader of the results and metering component numbers for each data channel in the metering installation.*

Audit observation

An event detail report for 01/03/18 to 24/12/18 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

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

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

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
  - *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

An event detail report for 01/03/18 to 24/12/18 was reviewed to:

- identify all switch withdrawal requests issued by Prime, the content of a sample of at least two ICPs from the event detail report for each withdrawal code (or all if less than two were available) were checked using the typical sampling methodology, including five withdrawal requests rejected by other traders;
- identify all switch withdrawal acknowledgements issued by Prime, a sample of ten rejections were checked; and
- confirm timeliness of switch withdrawal requests, as this is not currently being identified in the switch breach report.

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

Audit commentary

Withdrawals are processed manually on the registry, and the withdrawal code is chosen by the user based on the information available. Analysis of the switch withdrawal codes confirmed nine were correctly coded. Two were likely to be correctly coded, but insufficient information was available within the Orion notes and email archives to confirm this. I recommend that withdrawal reasons should be recorded in Orion's call notes, as good practice.

Description	Recommendation	Audited party comment	Remedial action
Reasons for withdrawal requests and rejections	Consistently record withdrawal request and withdrawal rejection reasons in the Orion call notes.	All staff have been notified to create call notes for all activities, not just NWs. This will be randomly selected for call quality purposes as well.	Identified

Two (1.7%) of the 56 NWs were issued more than 60 business days after the event date. Both related to the same ICP, and were sent within six business days of the backdated switch being completed.

Nine (26%) of the 34 AWs issued by Prime were rejections. I reviewed all rejections by Prime, and confirmed they were rejected based the information available at the time the response was issued. In some cases Prime accepted the withdrawal request on reissue.

The switch breach report recorded one late NW, and no late AW files. The breach for a late NW was not genuine.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.15 With: Clauses 17 and 18 Schedule 11.3 From: 07-May-18 To: 09-May-18	Two late switch withdrawals. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Prime have robust controls in place, and NW files are normally sent on time. The impact is low. The files were sent within six business days of the switch being completed.

Actions taken to resolve the issue	Completion date	Remedial action status
We always initiate the NWs within the acceptable timeframe but it's difficult to avoid this with backdated switches. We process backdated switches if the customers insist on being billed by Prime for the entire period.		Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
It is difficult to avoid a noncompliance on backdated switches because the timeframe is calculated from the event date rather than the CS completion date.		

4.16. Metering information (Clause 21 Schedule 11.3)

Code reference

Clause 21 Schedule 11.3

Code related audit information

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

> *21(a)- the trader who carries out the interrogation, switch event meter reading must ensure that the interrogation is as accurate as possible, or that the switch event meter reading is fair and reasonable.*
>
> *21(b) and (c) - the cost of every interrogation or switch event meter reading carried out in accordance with clauses 5(b) or 11(b) or (c) must be met by the losing trader. The costs in every other case must be met by the gaining trader.*

Audit observation

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

Audit commentary

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

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

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

> *11.15AB(4)(a)- making a counter offer to the customer; or*
>
> *11.15AB(4)(b)- offering an enticement to the customer.*

Audit observation

The Electricity Registry switch save protected retailer list was examined.

Winback processes were discussed. The event detail report for 01/03/18 to 24/12/18 was analysed to identify all withdrawn switches with a CX code applied prior to the switch completion date for any switch save protected retailer.

Audit commentary

Prime has been a switch save protected retailer since 10/02/2015 and does not complete any winback activity. Prime contacts customers in the process of switching out only confirm that they have initiated a switch, and to advise of break fees (if any).

The event detail report identified 16 NWs with the CX (customer cancellation) withdrawal reason code; all were requested after the switch was completed.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

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

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 01/03/18 to 24/12/18 was reviewed to identify all shared unmetered load.

Audit commentary

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

Processes to prevent ICPs with shared unmetered load from switching in, and to monitor existing ICPs for addition of unmetered load are discussed in **section 3.7**.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (2)(b)

Code related audit information

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

Audit observation

Examination of the list file as at 24/12/18 found 16 active ICPs have unmetered load recorded. The estimated kWh per annum was calculated based on the daily unmetered kWh recorded.

Audit commentary

Of the 16 active ICPs with unmetered load recorded:

- nine have unmetered load under 3,000 kWh per annum;
- four have unmetered load between 3,000 and 6,000 kWh per annum, which is predictable, and of a type approved and published by the authority; and
- three have DUML databases and are discussed in **section 5.4**.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

Examination of the list file as at 24/12/18 found three active ICPs which have exceeded the unmetered threshold of 6000 kWh per annum.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

Prime supplies three ICPs with distributed unmetered load, recorded in two databases.

Audit commentary

Wellington DUML Database

0001259564UN4AC	CKHK	WIL0331
0000156503CK186	CKHK	CPK0111

A database exists in the form of a spreadsheet and meets the minimum content requirements of the code. An audit trail is in place, additional date ranged sheets are added when data is changed.

Prime is continuing to work with the customer and Wellington Electricity to confirm that the database information is correct. Once unmetered load details have been confirmed for each item, Prime will arrange a distributed unmetered load audit for the database. The estimated load is 33,985 kWh per annum.

Auckland DUML Database

0000031344AAEF5	AIAL	AKL0331

A database exists in the form of a spreadsheet and meets the minimum content requirements of the code. An audit trail is in place, additional date ranged sheets are added when data is changed.

A DUML audit was conducted in May 2018 and recorded full compliance.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 5.4 With: Clause 11 Schedule 15.3, Clause 15.37B & 16A.26 From: 01-Mar-18 To: 14-Feb-19	Prime's Wellington DUML database has not been audited. One database audited late. Potential impact: Medium Actual impact: Unknown Audit history: None Controls: Moderate Breach risk rating: 4
Audit risk rating	**Rationale for audit risk rating**
Medium	The effectiveness of the controls is recorded as moderate as Prime are working to confirm database accuracy, and arrange an audit. The audit risk rating is assessed to be medium based on estimated load of 33,985 kWh per annum.

Actions taken to resolve the issue	Completion date	Remedial action status
We have compiled the database, however; some site visits by the customer's contractors have indicated certain connections don't exist. They either do not have a power supply or have been supplied via the neighbouring buildings. The customer is carrying out onsite load tests to confirm the supply point, which of course has taken longer than we predicted.	30/6/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We have just submitted the data base we prepared for auditing. However; the total connections will change in the coming months, once the customer has completed their site investigations.	31/7/2019	

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

The registry list for 01/03/18 to 24/12/18 and meter installation details report were examined to determine whether any ICPs with generation were supplied during the audit period, and to check metering information. Processes for distributed generation were reviewed.

Audit commentary

Metering installations installed

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

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

No ICPs have submission information determined by subtraction.

Distributed generation

Prime's application process rejects any ICP which has "B" in the Installation Type field, and distributed generation ICPs are not usually supplied.

ICP 0007146643RNB87 had distributed generation added during the audit period. Prior to accepting the switch Prime confirmed with the network that distributed generation was not installed, but found that generation capacity was added on 05/01/19, after the switch was completed on 20/12/18 effective from 01/11/18.

The January 2019 initial submission reported all consumption as X flow against the RPS profile. For all future submissions, Prime intends to manually correct the EG register consumption to I flow and apply the PV1 profile. Prime also intends to correct the profile to RPS PV1 on the registry.

The incorrect profile on the registry is recorded as non-compliance in **section 2.1**, and the reporting of injection consumption against an incorrect flow direction and profile for the January 2019 initial submission is recorded as non-compliance in **section 12.7**.

Bridged meters

No bridged meters were identified 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.

Audit commentary

Review of the NSP table confirmed that Prime is not responsible for any GIPs. Compliance was not assessed.

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 01/03/18 to 24/12/18 was reviewed to identify any ICPs with profiles that require certification of the control device.

Audit commentary

Examination of the list file found that Prime has only used the RPS profile, and control devices are not used for reconciliation purposes.

Audit outcome

Compliant

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

Processes relating to defective metering were examined.

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

Audit commentary

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

A sample of three defective meters were examined, and the process was walked through. For two meters the MEP notified Prime of the defect and in the other case, the MEP was notified by Prime.

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

The data collection and clock synchronisation processes were examined.

MEPs are responsible for the collection of AMI data. Collection of data and clock synchronisation were reviewed as part of their MEP audits.

Manual readings are provided by Wells as an agent. Their processes were reviewed as part of their agent audit.

Audit commentary

All information used to determine volume information is collected from the services interface or the metering installation by Prime, their agents, or the MEP.

Wells' data collection processes were reviewed as part of their agent audit in June 2018 and found to be compliant.

Prime has not received notification of any clock synchronisation events outside the maximum permissible errors during the audit period and does not deal with HHR data.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

The data collection process was examined.

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

Processes for customer and photo reads were reviewed.

Audit commentary

Wells readings

Wells' data collection processes were reviewed as part of their agent audit in June 2018 and found to be compliant. I confirmed with Wells that there were no changes to their processes or systems since their May 2018 audit that could have a negative impact on Prime's compliance.

For manually collected readings, the meter register value is collected and entered into a hand held device. Wells provides end of month readings, accompanied by a notes file which contains meter condition information and reasons that reads cannot be obtained. The reports are reviewed and action is taken as required.

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

Prime confirmed that notes files mostly contain unread ICPs. I reviewed the notes files for November 2018 and January 2019, and found a small number of ICPs with new meters (which were timing differences and meter changes had been loaded in Orion) and meters with blank screens (which were confirmed to be disconnected). All other notes related to access issues, and the process to review these is discussed in **section 6.8**.

Customer and customer photo readings

Following the 2018 audit, Prime reviewed their read validation process and decided to consistently enter all customer supplied readings and customer supplied photo readings as customer readings.

These customer readings are not treated as validated readings by the historic estimate or switching processes.

I reviewed five examples of customer supplied readings, and confirmed that all were correctly classified as customer readings.

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

Staff photo readings

Where Wells cannot access a meter, Prime staff may take a photo reading instead. As part of their reading process they check the condition of the meter and take a clear photograph. These readings are entered into Orion from the photos and are correctly recorded as actual.

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 15.2

Code related audit information

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

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

Audit observation

The process of the application of meter readings was examined.

Audit commentary

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

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

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

The content of CS and RR files was examined in **sections 4.3**, **4.4**, **4.10** and **4.11**. I found one ICP which had an incorrect switch read date and read type recorded in Orion in **section 4.4**, and the details were corrected during the audit.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.7 With: Clause 6 Schedule 15.2 From: 14-Aug-18 To: 15-Aug-18	One CS read was recorded in Orion with an incorrect date and read sub-type. 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 all other reads checked during the audit were found to be recorded correctly. The impact is assessed to be low: • The read type was correct, so there is no impact on the historic estimate calculations. Only the read sub-type, which is not used by the reconciliation process was incorrect. • The read date was moved back one day, but remained within the same month. There was minimal impact on the historic estimate calculations and correct data will be provided for revision submissions.

Actions taken to resolve the issue	Completion date	Remedial action status
The date was corrected by 1 day during the audit process.	02/2019	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We have manual checks in place to ensure correct days are submitted in our AV-110 so incorrect date would not affect the submissions in any way. However; once the switch process is automated, the dates will automatically align with the Registry.	manual check was implemented 01/2019	

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

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

The process to manage missed reads was reviewed. Reporting on ICPs not read during the period of supply was examined.

Audit commentary

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

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

The process for missed reads was examined. Unread meters have no meter reading loaded in Orion, and an end of month system estimate is inserted.

Missing reads are identified as part of the meter read frequency reporting process, Wells no read reporting, and meter event reporting.

- Prime reviews the meter read frequency report each month and acts to obtain readings for unread ICPs. They focus on the ICPs with the longest period unread first, working backwards to the shortest period.
- AMI meter communication issues are also identified through the meter event reporting and communication from the MEPs. Daily AMI readings are loaded instead of only month end readings, which has improved read attainment for ICPs with intermittent communication issues. ICPs are moved to Wells reading routes if the MEP cannot resolve the issue quickly. If communication is restored, AMI readings will also be imported as soon as they are received.
- Wells provides no read reporting, which is loaded into an access database. Queries are run to identify read attainment issues, so they can be followed up with the customer. A new staff member has been hired, and is working to resolve the issues preventing read attainment.

Prime's sales representatives assist with contacting customers to arrange access, and arranging staff readings.

An Orion segment report identifies meters not read during the period of supply. I found that all meters were read at least once during the period of supply where the period of supply ended during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

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

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

Audit observation

The meter reading process was examined. Monthly reports for July to October 2018 were provided, and reviewed to determine whether they met the requirements of clauses 8 and 9 of schedule 15.2.

A sample of ten ICPs not read in the previous 12 months were reviewed to determine whether reasonable endeavours were used to attain reads, and if exceptional circumstances existed.

Audit commentary

Read attainment processes are discussed in **section 6.8**.

The monthly meter reading reports provided were reviewed.

Month	Total NSPs where ICPs were supplied > 12 months	NSPs <100% read	ICPs unread for 12 months	Overall percentage read
July 2018	89	2	2	99.73%
August 2018	89	1	1	99.86%
September 2018	92	2	2	99.74%
October 2018	95	2	3	99.62%

I reviewed all ICPs unread during the previous 12 months and found that Prime had met the best endeavours requirement in all cases.

I reviewed meter reading reports for July to October 2018, which confirmed that they met the meter reading frequency report requirements. The reports for July, August and September were submitted on time, but the October 2018 report was submitted one business day late. This is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.9 With: Clause 8(1) and (2) Schedule 15.2 From: 29-Oct-18 To: 30- Oct-18	One meter reading frequency report was submitted one business days late. Potential impact: Low Actual impact: None Audit history: Once Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating
Low	The controls are rated as strong, and the risk rating is low because all other reports checked were sent on time, and there was no impact. The submission was late due to a staff absences.

Actions taken to resolve the issue	Completion date	Remedial action status
The statutory days were incorrectly calculated which led to the late submission.		Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We are changing the report submission date from Day 20 to day 15. This will ensure the FRM is always submitted before the due date.	May 2019	

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

The meter reading process was examined. Monthly reports for July to October 2018 were reviewed.

All ICPs connected to NSPs that did not meet the threshold were checked to determine if exceptional circumstances existed.

Audit commentary

Read attainment processes are discussed in **section 6.8**.

The monthly meter reading reports provided were reviewed.

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	Total ICPs unread for 4 months	Overall percentage read
July 2018	116	7	19	97.91%

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	Total ICPs unread for 4 months	Overall percentage read
August 2018	117	6	17	98.33%
September 2018	118	5	13	98.80%
October 2018	120	4	9	98.92%

Unread ICPs on the NSPs where less than 90% read attainment was achieved were reviewed. In all cases Prime could demonstrate that exceptional circumstances existed, or the best endeavours requirement had been met.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

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

Audit commentary

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

I confirmed with Wells that there were no changes to their processes or systems since their May 2018 audit that could have a negative impact on Prime's compliance.

Audit outcome

Compliant

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

Review of a registry list for the period from 01/03/18 to 24/12/18 confirmed that Prime has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with these clauses was not assessed, because Prime does not deal with HHR readings.

Audit outcome

Not applicable

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

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

> *11(2)(a) - the unique identifier of the data storage device*
>
> *11(2)(b) - the time from the data storage device at the commencement of the download unless the time is within specification and the interrogation log automatically records the time of interrogation*
>
> *11(2)(c) - the metering information, which represents the quantity of electricity conveyed at the point of connection, including the date and time stamp or index marker for each half hour period. This may be limited to the metering information accumulated since the last interrogation*
>
> *11(2)(d) - the event log, which may be limited to the events information accumulated since the last interrogation*
>
> *11(2)(e) - an interrogation log generated by the interrogation software to record details of all interrogations.*

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

Audit observation

Review of a registry list for the period from 01/03/18 to 24/12/18 confirmed that Prime has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with these clauses was not assessed, because Prime does not deal with HHR readings.

Audit outcome

Not applicable

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

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

Review of a registry list for the period from 01/03/18 to 24/12/18 confirmed that Prime has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with these clauses was not assessed, because Prime does not deal with HHR readings.

Audit outcome

Not applicable

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

Review of a registry list for the period from 01/03/18 to 24/12/18 confirmed that Prime has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with these clauses was not assessed, because Prime does not deal with HHR readings.

Audit outcome

Not applicable

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

Code reference

Clause 18 Schedule 15.2

Code related audit information

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

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

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

Audit observation

Processes to archive and store raw meter data were reviewed. The oldest raw meter data available was viewed, to confirm it is retained.

Audit trails were reviewed in **section 2.4**.

Audit commentary

Data is retained for more than 48 months. I viewed raw meter reading information from 2013 on Prime's network.

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

Audit outcome

Compliant

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

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

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

Audit observation

Processes to record non-metering information were discussed.

Audit commentary

External control equipment logs are not used by Prime.

Prime records non-metering information associated with its DUML databases, and unmetered ICPs. I confirmed that unmetered load information from 2015 was available.

Audit outcome

Compliant

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

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

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

19(1)(c) - if the original meter reading cannot be confirmed or replaced by a meter reading from another interrogation, then an estimated reading is substituted and the estimated reading is marked as an estimate and it is subsequently replaced in accordance with clause 4(2).

Audit observation

Processes for the correction of NHH meter readings were reviewed.

Audit commentary

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

Defective meters

A sample of three corrections were examined, and the process was walked through.

Closing meter readings for the defective meters were estimated based on the best information available, either consumption on the meter prior to the fault, or consumption on the new meter. Corrected volume flowed through to the submissions.

Multiplier corrections

No incorrect multipliers were identified during the audit period, and there have been no multiplier corrections.

Multipliers are stored on the meters tab in Orion, and any corrections to this field will flow through to all reconciliation submissions for the affected meter.

Bridged meter corrections

No bridged meters were identified during the audit period.

Inactive ICPs with consumption

Inactive ICPs remain active in Orion, and continue to be read, with volumes submitted, and billed.

Prime provided a list of three ICPs with inactive status which had consumption recorded. For two ICPs all consumption occurred prior to disconnection, and for the other ICP the meter had creeped one unit between its disconnection in July 2016 and August 2018. Status was correctly recorded on the registry for all three ICPs.

Transposed meters

No examples of transposed meters were identified during the audit period. If a transposed meter is identified, the meter reader is informed and a correction is processed to move the readings to the correct meter register.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

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

Audit observation

Review of a registry list for the period from 01/03/18 to 24/12/18 confirmed that Prime has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with these clauses was not assessed, because Prime does not deal with HHR readings.

Audit outcome

Not applicable

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

Audit observation

The registry list for 01/03/18 to 24/12/18 was reviewed.

Audit commentary

Prime has only supplied ICPs with metering categories 1 and 2. No ICPs have required loss compensation.

Audit outcome

Compliant

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

Code reference

Clause 22(1) and (2) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

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

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

Audit commentary

Raw meter data is held by AMS, Metrix, Arc and FCLM as MEPs, and Wells as an agent. Compliance was confirmed as part of their agent and MEP audits.

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

Audit outcome

Compliant

9. ESTIMATING AND VALIDATING VOLUME INFORMATION

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

Code reference

Clause 3(3) Schedule 15.2

Code related audit information

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

Audit observation

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

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

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

Audit commentary

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

I found one ICP which had an incorrect read sub-type recorded in Orion, which is recorded as non-compliance in **sections 4.4** and **6.7**. The read details were corrected during the audit.

Customer provided readings and customer provided photo readings are recorded as customer readings in Orion. Customer readings are not treated as actual by the reconciliation process.

One meter reading classification issue was identified in the 2018 audit. For one ICP, an actual reading was omitted during the file reformatting. An estimate was manually created in Orion with a read type of actual. The reading has now been corrected and processes have been changed to minimise the likelihood of future issues. End of month estimates are now automatically created in Orion with the correct read type, and ICPs with missing reads do not have zeros added to the reformatted files.

On some occasions, such as when corrections are required, staff manually enter estimated readings. Training has been provided to staff to ensure they are aware of the correct read types. Spot checks are also conducted when reviewing the meter reading frequency reports where an ICP suddenly has a reading after an extended period with no readings.

Audit outcome

Compliant

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

Code reference

Clause 3(4) Schedule 15.2

Code related audit information

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

3(4)(a) - validated meter readings

3(4)(b) - estimated readings

3(4)(c) - permanent estimates.

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

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

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

Audit commentary

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

A sample of 20 reads were traced from the source files to Orion in **section 2.3**. The source files contained the raw unrounded data.

AMS, Smartco, Metrix and FCLM readings are rounded to zero decimal places on import. Arc and Wells readings are provided with zero decimal placed and are not rounded.

Audit outcome

Compliant

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

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

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

Audit observation

Review of a registry list for the period from 01/03/18 to 24/12/18 confirmed that Prime has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with these clauses was not assessed, because Prime does not deal with HHR readings.

Audit outcome

Not applicable

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

Code reference

Clause 16 Schedule 15.2

Code related audit information

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

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

Audit observation

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

Audit commentary

NHH data is validated by several processes.

Meter reader validation

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

I confirmed with Wells that there were no changes to their processes or systems since their May 2018 audit that could have a negative impact on Prime's compliance.

Orion validation

Once manual and AMI readings are received, further validation is completed:

1. Upon receipt of meter reading files Prime staff manually check that read dates are valid and reformat the data as described in **section 2.3**.
2. The Orion import process confirms that there is an open meter and ICP for the reading to be recorded against. If no open ICP or meter is found, an exception is created.

3. Exceptions are created for multiple readings on the same day, high readings, low readings, and zero readings. Every instance of zero consumption is investigated, and outbound calls and site visits are organised where necessary. If there is a small negative difference between a switch in read and subsequent reading, Prime waits for the AMI readings to "catch up" and exceed the switch read and estimates zero consumption. This is recorded as non-compliance below.
4. First invoices are validated by the billing team and account manager. Subsequent invoices are validated by the billing team, including a check against the previous invoice for reasonableness. Any anomalies are investigated.

Vacant and disconnected ICPs

Vacant and disconnected ICPs remain active in Orion, with open meters. ICPs are transferred to an "occupier" customer for any vacant periods, and an "occupier (disconnected)" customer for any inactive periods. This ensures that any consumption is captured and reported.

The validation process for vacant and disconnected ICPs is the same as for any active ICP. Vacant or disconnected consumption is billed, with the invoices reviewed by the billing team.

Pre submission checks

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

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 9.5 With: Clause 16 Schedule 15.2 From: 01-Mar-18 To: 14-Feb-19	Where a subsequent read is lower than the switch in reading, an estimated reading is applied. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as moderate, because most reads are expected to be recorded correctly. If a read difference is greater than ± 200 kWh, or if Prime doesn't expect the difference will catch up with a month, a read renegotiation request will be issued. The impact is low, because any differences are expected to be less than ± 200 kWh. Once reads catch up to the switch read, all consumption will be accounted for. Because almost all ICPs supplied by Prime are commercial, consumption is expected to catch up quickly.

Actions taken to resolve the issue	Completion date	Remedial action status
AMI - if actual reads are lower than gaining reads, we initiate RR regardless of the difference in the reads. NHH – If the actual reads are lower than gain reads by less than 200 units for transfer switches, then we bill zero consumption or slightly estimate usage based on the average daily consumption received in the CS file. If the actual read is lower than CS files for a move-in, then we insist on RR but this depends if the other retailer accepts or not.	03/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
All exceptions are investigated thoroughly before approving it. AMI differences will lead to RR despite the switch type of read variance.	03/2019	

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

Electronic read validation and meter event log processes were reviewed. Examples of meter events were reviewed.

Audit commentary

Prime receives AMI data for AMS, Metrix, Arc, and FCLM meters, and all other meters are read manually. Submission type is NHH for all ICPs, and data is validated as described in **section 9.5**.

Each MEP provides meter event information:

- AMS, Smartco, and Metrix provide meter event reports via SFTP (these reports rarely contain events requiring action, and are reviewed every two months) and AMS and Metrix also occasionally email events requiring field services jobs to be raised to Prime, and these are reviewed and acted upon on receipt;
- Arc email a no reads report, containing meter events requiring action by Prime which are actioned upon receipt; and
- FCLM have confirmed that they will email Prime if any meter events requiring action occur, but no events have been received from FCLM to date.

I reviewed examples of meter event reports from AMS, Smartco and Metrix, and no reads reports from Arc. I found that most events related to power outages and restoration, and non-communicating meters. I found that action had been taken by Prime where required.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

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

Audit outcome

Not applicable

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

Code reference

Clause 13.137

Code related audit information

Each generator must provide the pricing manager and the relevant grid owner half-hour metering information for:

- *any unoffered generation from a generating station with a point of connection to the grid 13.137(1)(a)*
- *any electricity supplied from an intermittent generating station with a point of connection to the grid. 13.137(1)(b)*

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

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

Audit outcome

Not applicable

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

Code reference

Clause 13.138

Code related audit information

The generator must provide the information required by clauses 13.136 and 13.137,
13.138(1)(a) - adjusted for losses (if any) relative to the grid injection point or, for embedded generators the grid exit point, at which it offered the electricity
13.138(1)(b) - in the manner and form that the pricing manager stipulates
13.138(1)(c) - by 0500 hours on a trading day for each trading period of the previous trading day.

The generator must provide the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of the generator's volume information.

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

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

Audit outcome

Not applicable

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

Code reference

Clause 13.140

Code related audit information

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

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

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

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

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

Audit observation

A registry list was reviewed for the period from 01/03/18 to 24/12/18 to confirm the profiles used.

Audit commentary

Prime only uses standard profiles; trading notifications are not required.

Audit outcome

Compliant

11.2. Calculation of ICP days (Clause 15.6)

Code reference

Clause 15.6

Code related audit information

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

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

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

Audit observation

The process for the calculation of ICP days was examined by checking 70 NSPs to confirm the AV110 ICP days calculation was correct.

Review of a registry list 01/03/18 to 24/12/18 confirmed that all ICPs had submission type HHR, and no upgrades or downgrades were completed.

I reviewed variances for 13 months of GR100 reports and investigated the causes of all variances for one month.

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

Audit commentary

ICP days continue to be reported for ICPs with inactive status. This is not compliant with clause 15.6, which requires traders to report ICP days, defined in the code as "any day when an ICP with the installation type "L" or "B" is recorded on the registry as having the status of Active". Consumption is only reported where there are ICP days and active status in Orion, and Prime's method ensures that if any consumption occurs during an inactive period it will be reported.

During the audit period, Prime found that the Orion ICP days calculation is currently based on the date the ICP was physically created in Orion, rather than the start date entered in Orion's front end. This affects both new connections and switches, because in either case the ICP may be created on a different day to the correct start date. To resolve the incorrect start date issue, after October 2018:

- Prime arranged for Agility to update the creation dates to match the correct start dates for each affected ICP.
- AV110 days are compared to the expected active days calculated from a date ranged registry list, as recommended in the 2018 audit, discrepancies are investigated and ICP days are manually updated as required; and
- Agility is currently investigating a permanent fix for this issue.

I did not find any ICPs currently affected by this issue during my review of ICP days data, and Prime confirmed that its AV080 NHH volumes submissions are not affected.

The following table shows the ICP days difference between Prime's database and the RM return file (GR100) for all available revisions for 13 months. The consistent negative percentage figures indicate that the Prime's ICP days are higher than those on the registry, because inactive ICP days are included in Prime's submissions.

Month	Ri	R1	R3	R7
Oct 2017	-1.07%	-1.26%	-1.40%	-0.57%
Nov 2017	-0.77%	-0.82%	-0.82%	-0.61%
Dec 2017	-1.33%	-1.30%	-0.76%	0.03%
Jan 2018	-0.78%	-0.81%	-0.63%	-0.70%
Feb 2018	-0.76%	-0.94%	-0.79%	-0.60%
Mar 2018	-1.04%	-1.07%	-1.20%	-1.04%
Apr 2018	-1.09%	-1.26%	-0.89%	-1.18%
May 2018	-1.26%	-1.20%	-1.25%	-
Jun 2018	-4.70%	-1.25%	-1.38%	-
Jul 2018	-1.29%	-1.17%	-1.03%	-

Month	Ri	R1	R3	R7
Aug 2018	-1.37%	-0.92%	-1.22%	-
Sep 2018	-1.27%	-1.24%	-	-
Oct 2018	-1.16%	-1.28%	-	-

All 12 NSP level ICP days differences were reviewed for May 2018:

- 11 differences were caused by inclusion of inactive days in the AV110 report, resulting in over submission where an ICP is inactive; and
- one difference was caused by an ICP not being set up properly in Orion after switching in, the Orion data was later updated, and correct information was submitted for revision three onwards.

The process for the calculation of ICP days was examined by checking 70 NSPs on the October 2018 ICP days submission against the active days on a date ranged registry list:

- ICP days were aggregated correctly for 67 NSPs;
- Inactive ICP days were included in the calculation for two NSPs; and
- four ICP days were incorrectly submitted as HHR at one NSP, due to an incorrect submission type being recorded, Prime does not supply any HHR ICPs, but the submission type field was changed in error before an ICP undergoing an upgrade with another retailer switched out.

Breach information provided by the Electricity Authority did not identify any late ICP days submissions.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.2 With: Clause 15.6 From: 01-Mar-18 To: 14-Feb-19	The AV110 report includes inactive ICP days. The AV110 calculates the ICP days from the date the ICP was entered into Orion, which may differ from the actual start date. Four ICP days were reported with an incorrect submission type. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Weak Breach risk rating: 3

Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as weak, because they are unlikely to consistently prevent errors in the ICP days calculations. The impact is rated as low. Because consumption is only reported where an ICP is active in Orion, Prime's method ensures that if any consumption occurs during an inactive period it will be reported. Review of the registry list showed Prime supplies 13 inactive ICPs. For 67 of the 70 NSPs checked (96%), the ICP days reported were consistent with the registry.

Actions taken to resolve the issue	Completion date	Remedial action status
We are now actively validating our ICPs submission against the LIS files to ensure accuracy.	Feb 2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We can mark sites as inactive in Orion but it means they are not included in any submission process. However; we need inactive sites in the network reports, AV-120 & AV-080 if any consumption was reported on the meter. We are working with Agility to develop a process where we can differentiate different types of inactive sites and include them in all the reports, other than AV-110. This process will require intensive pre & post release testing.	Dec 2019	

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

Code reference

Clause 15.7

Code related audit information

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

> *15.7(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*
>
> *15.7(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

Audit observation

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

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

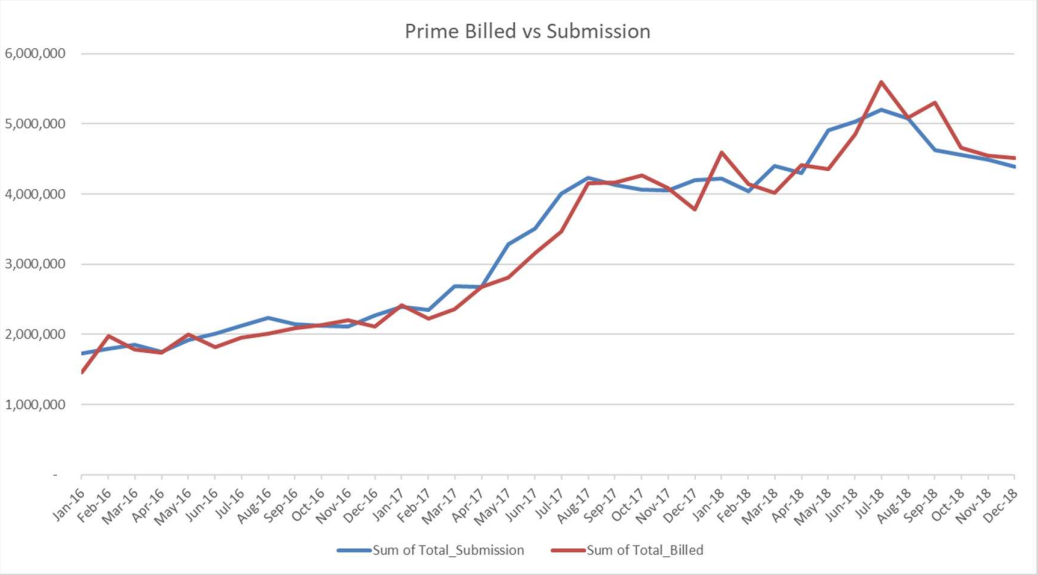
Audit commentary

The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs against Prime's invoice information for October 2018. Submissions for four NSPs were correct, but the submission for FHL0331 was incorrect:

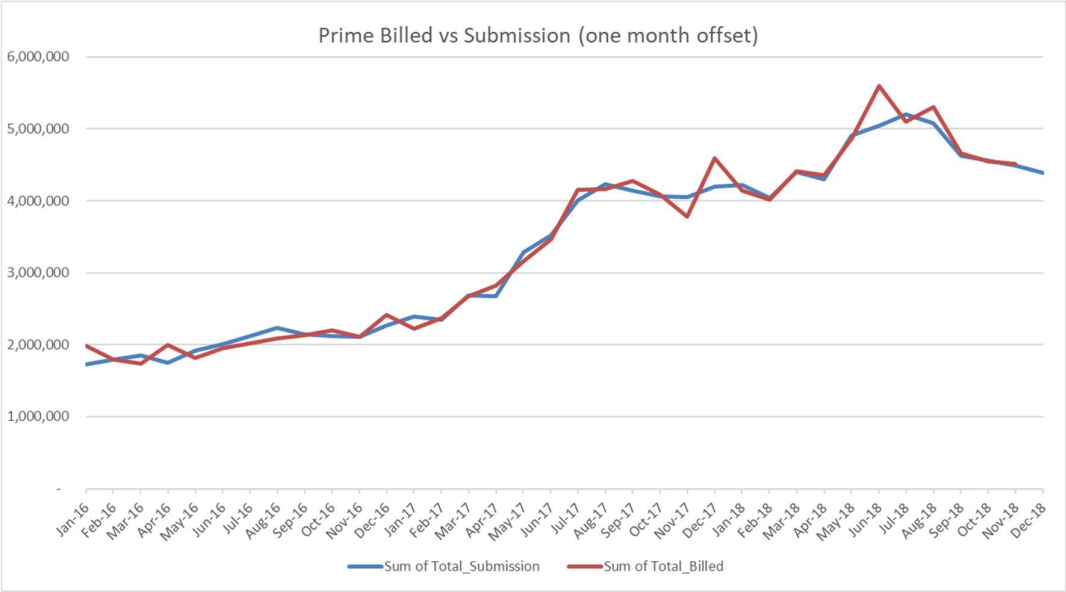
NSP	Submitted total	Billed total in Orion	Difference
FHL0331	3871 kWh (401 kWh + 3471 kWh)	4020 kWh (416 kWh + 3604 kWh)	149 kWh

It appears that the difference relates to reversal and rebilling. In October, both ICPs were invoiced, reversed, reinvoiced, reversed again and then reinvoiced a second time. During previous audits we had found that where there were multiple invoices or reversals, as billed data was sometimes incorrect and it appears this issue has not been fully resolved. Agility are currently investigating the issue.

I also checked the difference between submission and electricity supplied information for a 36 month period, and the results are shown in the chart below. The total difference is 1.5% for the year ended December 2018 (billed higher than submission), and 1.2% for the two years ended December 2018 (billed lower than submission).



Due to Prime's billing cycle, billed consumption always relates to the month before the submission consumption. Prime bills customers up to the end of the month, at the beginning of the month after consumption has occurred. This results in misalignment between billed and submitted data, for example 1st-28th February normalised consumption is compared to 1st-31st January billed consumption (which is invoiced in early February). Once the billing and submission periods are aligned, the close relationship between billed and submitted data is visible. There are some peaks and troughs in the data which are believed to be due to invoice timing. I recommend these differences are investigated to confirm that there are no other issues.



Description	Recommendation	Audited party comment	Remedial action
Billed data	Monitor billed versus submission volumes over the coming months. Investigate to confirm the reason for the variances between billed and submitted volumes.	We investigated this & are happy with the findings. Billed Data is for invoice volumes billed in the month, whereas NHH volumes is consumption for the month. Therefore, catchup invoices result in spikes. Both these spikes are a result of catchup invoice where consumption on at a register level was submitted but wasn't billed. It happened for 2 different ICPs, & the catchup consumption covered a longer billing period of almost 12 months. We have reports in place now to highlight unbilled meters at register levels.	Cleared

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.3 With: Clause 15.7 From: 01-Mar-18 To: 14-Feb-19	Where multiple invoices and reversals occurred billed consumption does not always reflect what was billed during the month. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as moderate as they were sufficient to ensure that most NSPs had accurate information reported, but there was room for improvement. The impact is low. In most cases one invoice is produced per month covering the entire month.

Actions taken to resolve the issue	Completion date	Remedial action status
We have raised this concern with Agility and they are investigating this at the moment. We are hoping to have a permanent fix in place by the next audit	Dec 2019	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Previously our AV-120 data was pro rata so we fixed this and its working fine. Once we fix the reversal issue, we will automate the av-120 vs AV-080 analysis for every submission. This is an area we haven't explored before but we are keen to have a robust submission database for detailed checks against previous submissions & different submission files.	Nov – Dec 2019	

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

Code reference

Clause 15.8

Code related audit information

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

> *15.8(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*

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

Audit observation

Review of a registry list for the period from 01/03/18 to 24/12/18 confirmed that Prime has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with these clauses was not assessed, because Prime does not deal with HHR readings.

Audit outcome

Not applicable

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using one of the techniques set out in clause 15.36(3) specified by the Authority.

Audit observation

Review of a registry list for the period from 01/03/18 to 24/12/18 confirmed that Prime has not supplied any ICPs with submission type HHR.

Audit commentary

Compliance with these clauses was not assessed, because Prime does not deal with HHR readings.

Audit outcome

Not applicable

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

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

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

Audit observation

Prime prepares NHH submissions using Orion. Processes to ensure that submissions are accurate were reviewed.

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

Audit commentary

Prime prepares reconciliation submissions using reconciliation consumption generated by Orion. Further information on calculation of historic estimate is recorded in **section 12.11**, and aggregation of the AV080 report is checked in **section 12.3**. No breaches had been recorded for late provision of submission information.

A sample of NHH ICPs were checked to make sure they are handled correctly, including vacant, disconnected, unmetered, and distributed generation ICPs.

Vacant and disconnected consumption

The 2018 audit found that vacant consumption was not reported if the site status was made inactive in Orion in error. Following this, Prime identified and corrected the statuses of all affected ICPs and provided correct revision submissions through the wash up process. All active and inactive ICPs are now recorded in Orion with active site status.

Procedures have been changed to prevent recurrence of this issue:

- inactive and vacant ICPs are recorded as active in Orion, to ensure that all consumption is captured and reported, ICPs are transferred to an "occupier" customer in Orion for any vacant periods, and an "occupier (disconnected)" customer for any inactive periods; and
- training has been provided to all affected staff, and ICP days submissions are matches to the registry list to ensure that ICP days and therefore volumes are reported for any vacant or disconnected ICPs with consumption.

27 ICPs with vacant consumption were checked, and consumption was correctly submitted. 26 submissions of zero consumption for vacant ICPs were checked, and confirmed to have genuine zero volumes.

Prime provided a list of three ICPs with inactive status which had consumption recorded. For two ICPs all consumption occurred prior to disconnection, and for the other ICP the meter had creeped one unit between its disconnection in July 2016 and August 2018. Consumption was correctly reported.

Unmetered consumption

Five ICPs with unmetered volumes were reviewed, and correct consumption was submitted.

Distributed generation

One ICP had distributed generation added during the audit period. The January 2019 initial submission reported all consumption as X flow against the RPS profile, and this is recorded as non-compliance in **section 12.7**. For all future submissions, Prime intends to manually correct the EG register consumption to I flow and apply the PV1 profile. Prime also intends to correct the profile to RPS PV1 on the registry.

Audit outcome

Compliant

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

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

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

Audit observation

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

The process to ensure that AV080 submissions are accurate was discussed, and reports used in the process were viewed.

The process for aggregating the AV080 was examined by checking the total submitted against detailed ICP level information for the same period, and five NSPs with a small number of ICPs.

The GR170 to AV080 files for four revision submissions were compared, to confirm zeroing occurs.

Audit commentary

The process for the calculation of NHH volumes was examined by checking the total submitted against detailed ICP level information for the same period, and five NSPs with a small number of ICPs. NHH volume calculation was confirmed to be correct.

I found that one ICP with distributed generation did not have the correct profile and flow direction applied, and this is recorded as non-compliance in **section 12.7**.

GR170 and AV080 files for four revision submissions were compared, and found to contain the same NSPs, confirming that zeroing is occurring as required.

AV080 submissions are reviewed by Prime prior to being submitted, including:

- review of ICP level differences more than ±2000 kWh and ±10% compared to the previous month for initial submissions, and previous submissions for the same month for revision submission; and
- review of the aggregation factors against a date ranged registry list.

Other consumption validation checks are discussed in **section 9.5**.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

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

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

Audit observation

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

Audit commentary

Prime is not a grid owner.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

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

Audit commentary

Prime 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

Prime is not a grid connected generator.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

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

Audit observation

Alleged breaches during the audit period were reviewed to determine whether any reconciliation submissions were late. Corrections were reviewed in **section 8.1**.

Audit commentary

Corrections were processed as required and are discussed in **section 8.1**. Review of alleged breaches confirmed that no reconciliation submissions were made late.

Some inaccurate submission information was identified during the audit:

Historic estimate

During review of a sample of volume differences between revisions I identified some large fluctuations in total volumes submitted when the historic estimate percentage was close to 100%:

Balancing area	Month	kWh submitted for revision				
		0	1	3	7	14
TTS0011TENCE	Jun 17	3,155.16	3,905.96 *100% HE*	4,177.75 *100% HE*	0.52 *100% HE*	0.52 *100% HE*
PRM0331ELECG	Feb 18	34,220.31	34,187.68 *97.29% HE*	34,186.09 *100% HE*	64,657.23 *100% HE*	-

For TTS0011TENCE, the current historic estimate recorded in Orion for June 2017 is 3,905 kWh. It appears that the consumption submitted for revisions 7 and 14 for this NSP was incorrect due to a GXP data entry error.

For PRM0331ELECG the difference related to one ICP, which was reported with 38,541.45 kWh of historic estimate for February 2018 revision 7 due to a misread. The data has now been corrected and the current historic estimate recorded in Orion for February 2018 is 8,080 kWh, which is consistent with the reading data for the ICP. It is expected that correct data will be submitted for revision 14. This difference was identified through Prime's validation processes, but was accepted because the reviewer thought it related to seasonal profiles.

I completed further checks of all NSPs since June 2017 with volume differences between revisions of more than ±30%. I reviewed each of the 108 differences and took into consideration whether the difference appeared reasonable, and related to an increase in historic estimate between revisions. This analysis found:

- 66 of the differences appeared reasonable with consumption changes in line with historic estimate percentages;

- 24 of the differences had relatively large fluctuations in consumption between revisions that had 100% or close to 100% historic estimate (we generally expect that there will not be large fluctuations in historic estimate between revisions with a high proportion of historic estimate, as the only differences are expected to be caused by changes in seasonal adjusted profiles);
- nine had reasonable consumption but the historic estimate proportions fluctuated unexpectedly (this was most common for October 2017 revisions); and
- nine had consumption drops to zero for later submissions.

Prime intends to refine their validation checks to ensure differences between revisions are identified and investigated. The 42 unexplained volume differences have been provided to Prime, and I recommend they are investigated to determine whether they are valid and why they occurred.

Description	Recommendation	Audited party comment	Remedial action
Differences between revisions	Investigate the reasons for discrepancies between revisions.	An actual read was obtained from the Wells exception file prior to M7 revision but was manually entered for the wrong date (Typo error, date entered as 27/2 instead of 27/7) and M7 revision file was submitted. This read was later picked up as an exception with processing the next actual and was changed to a MISREAD. Recent M14 revision submitted 201904 reported 34187.79 PRM0331,ELEC,GN,PRME,RPS,1,X,N,02/2018,34187.79,34187.79	Cleared

Two other issues affected the accuracy of historic estimate:

- Some estimated switch out reads have not been treated as permanent estimates. The closing estimate read type is not treated as actual in Orion. In late 2017, Prime updated their processes to record permanent estimate readings as "actual" with a reference that indicates they are estimates to ensure that they are used by the reconciliation process. Some closing estimates have been incorrectly classified for switched ICPs, resulting in forward estimate remaining. Prime intends to update the read types for the affected ICPs.
- Where Prime identifies ICPs that are missing from submissions in their pre submission reconciliation, the missing ICP is manually added. Due to a misunderstanding, in some cases only the total estimate field was updated instead of the total estimate and historic estimate. The 2018 audit recorded that some ICPs had been missed due to incorrect statuses being recorded in Orion. A series of system jobs resolved the issues that were causing ICPs to be missed, and now only occasional additions are made for switch timing.

Distributed generation

ICP 0007146643RNB87 had distributed generation added during the audit period. The January 2019 initial submission reported all consumption as X flow against the RPS profile. For all future submissions, Prime intends to manually correct the EG register consumption to I flow and apply the PV1 profile. Prime also intends to correct the profile to RPS PV1 on the registry.

Incorrect read type and date

I found one ICP which had an incorrect switch read date and read type recorded in Orion in **section 4.4**, and the details were corrected during the audit. The impact on submission data is minimal and correct data will be washed up.

Review of 2018 audit accuracy issues

Inaccuracies identified during the 2018 audit were followed up:

2018 findings	2019 findings
Inactive ICP days are included in AV110 submissions.	**Still existing**, as discussed in **section 11.2**.
Billed information was sometimes not recorded against the correct period.	**Still existing**, as discussed in **section 11.3**.
Historic estimate proportions were not always correctly recorded.	**Cleared.** The examples checked in **section 12.11** showed the correct historic estimate proportions.
Vacant consumption for one ICP was not reported for February, March and April 2017 due to an Orion status issue. The status has been corrected, and the ICP will be correctly included in future submissions.	**Cleared.** Prime identified and corrected the statuses of all affected ICPs and provided correct revision submissions through the wash up process. Inactive and vacant ICPs are now recorded as active in Orion, to ensure that all consumption is captured and reported. ICPs are transferred to an "occupier" customer in Orion for any vacant periods, and an "occupier (disconnected)" customer for any inactive periods. Training has been provided to all affected staff, and ICP days submissions are matches to the registry list to ensure that ICP days and therefore volumes are reported for all active ICPs.
One metered ICP had unmetered load recorded on the registry, but no unmetered load details recorded in Orion and no unmetered load submissions have been made.	**Cleared.** I confirmed that Orion has been corrected, and revision submissions have been provided for all affected periods.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.7 With: Clause 15.12 From: 01-Mar-18 To: 14-Feb-19	Some submission information was incorrect. Potential impact: Low Actual impact: Low Audit history: Once Controls: Weak Breach risk rating: 6

Audit risk rating	Rationale for audit risk rating
Medium	The controls are weak as they will not consistently prevent errors in submission information. Prime have improved some controls over submission information during the period, and cleared two of the issues raised in the previous audit. The impact is assessed to be medium based on the volume differences between revisions. Prime has or intends to submit revision reports containing correct information.

Actions taken to resolve the issue	Completion date	Remedial action status
Our manual checks were carried out against the last submission only. We were in the process of implementing checks against all previous submissions, but we don't have enough resource to carry this out manually. However; we are already working on an automated database to check every submissions against previous files.	Nov – Dec 2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Once we have the automated database available, it won't only check AV-080 M1 against D4, but also validate the data against the LIS file and compare with the AV-120. The scope is to have same validation for all file types (AV-110, AV-120, AV-080)	Nov – Dec 2019	

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

NHH volumes 14 month revisions were reviewed for June to August 2017 to identify any forward estimate still existing.

Audit commentary

Review of the 14 month revisions for June to August 2017 showed that not all estimated meter readings had been replaced with validated meter readings. This is recorded as non-compliance below.

Month	Forward estimate
Jun-17	42,715.55
Jul-17	38,423.35
Aug-17	55,853.63
Total	**136,992.53**

I checked ten ICPs with forward estimate remaining and found it was caused by:

- **Not treating estimated switch out reads as permanent estimates.** The closing estimate read type is not treated as actual in Orion. In late 2017, Prime updated their processes to record permanent estimate readings as "actual" with a reference that indicates they are estimates to ensure that they are used by the reconciliation process. Some closing estimates have been incorrectly classified for switched ICPs, resulting in forward estimate remaining. Prime intends to update the read types for the affected ICPs.
- **Entering permanent estimate reads too late for revision 14, where reads had not been attained.** Prime has a process to insert permanent estimate reads, but in some cases the permanent estimate reads were entered after revision 14 was completed.
- **Manual amendments not processed correctly.** Where Prime identifies ICPs that are missing from submissions in their pre submission reconciliation, the missing ICP and associated consumption is manually added. Due to a misunderstanding, in some cases only the total estimate field was updated instead of the total estimate and historic estimate. A series of system jobs resolved the issues that were causing ICPs to be missed, and now only occasional additions are made for switch timing.

I did not see any evidence of the previous audit issues relating to historic estimate proportions being calculated pro rata based on the number of days, instead of the seasonal adjusted daily profiles.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.8 With: Clause 4 of Schedule 15.2 From: Jun-17, Jul-17 and Aug-17 r14	Some estimates were not replaced by revision 14. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as moderate as they were sufficient to ensure that most NSPs had 100% historic estimate by revision 14, but there was room for improvement. Total forward estimate for the three months reviewed was 136,922 kWh. This was not true forward estimate, because most of the forward estimate was caused by incorrect classification of the historic estimate, and the estimated closing reads which should have been treated as permanent estimate were used to calculate the forward estimate.

Actions taken to resolve the issue	Completion date	Remedial action status
We have corrected all historic opening and closing switch read types so they are treated as Actuals for submission purposes. This only affects the HE calc so no impact on the volume submissions.	Mar 2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We are implementing a report to capture the opening & closing read types and the reference notes. We will run this report on a monthly basis and check all sw/in & sw/out read types are correct.	Jul – Aug 2019	

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:

- all Prime's ICPs have metering category 1 or 2 and are submitted as NHH;
- unmetered load submissions were checked in **section 12.2** and found to be correct;
- no profiles requiring a certified control device are used;
- no loss or compensation arrangements are required; and
- aggregation of the AV080 reports is compliant.

Audit outcome

Compliant

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

Code reference

Clause 3 Schedule 15.3

Code related audit information

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

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

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

Audit observation

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

Permanence of meter readings is reviewed in **section 12.8**. The methodology to create forward estimates is reviewed in **section 12.12**.

Audit commentary

I reviewed nine AV080 submissions for a diverse sample of months and revisions and confirm that forward and historic estimates are included and identified as such.

Audit outcome

Compliant

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

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

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

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

Audit observation

To assist with determining compliance of the Historical Estimate (HE) processes, Prime were supplied with a list of scenarios, and for some individual ICPs a manual HE calculation was conducted and compared to the result from Orion.

Audit commentary

In all cases, the calculated figure matched the total consumption for the ICP. Because in most cases, Prime ICPs are read as at the last day of the month, consumption between readings usually matches the consumption in the reconciliation period, minimising the risk of errors.

In February 2018, a historic non-compliance which caused incorrect reporting of historic estimate proportions was resolved. While the total consumption was correctly reported, the historic estimate was sometimes incorrect because Orion used a pro rata calculation based on the number of days in the month historic estimate was present. This pro rata calculation could result in less than 100% historic estimate being reported for a month if the read period was longer than the reconciliation month. The affected reports were re-run following the system fix, and historic estimate proportions should be correctly reported for new and revision submissions. I checked an example where the consumption period spanned more than one month, and found that the historic estimate was calculated correctly.

The table below shows that all scenarios which occurred during the audit period are calculating as expected and correct SASV (seasonal adjusted shape values) are applied.

Test	Scenario	Test Expectation	Result
a	ICP becomes Active part way through a month	Consumption is only calculated for the Active portion of the month.	Compliant
b	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Compliant
c	ICP become Inactive then Active again within a month.	Consumption is only calculated for the Active portion of the month.	Has not occurred
d	ICP switches in part way through a month on an estimated switch reading	Consumption is calculated to include the 1st day of responsibility.	Compliant

Test	Scenario	Test Expectation	Result
e	ICP switches out part way through a month on an estimated switch reading	Consumption is calculated to include the last day of responsibility.	Compliant
f	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	Has not occurred
g	Continuous ICP with a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
h	Continuous ICP without a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
i	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Has not occurred
j	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Compliant
k	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Has not occurred
l	Network/GXP/Connection (POC) alters partway through a month.	Consumption is separated and calculated for the separate portions of where it is to be reconciled to.	Compliant
m	ICP with a customer read during the month	Customer reads are not used to calculate historic estimate, unless they are validated against a set of actual reads not provided by the customer.	Compliant, customer reads are not treated as validated reads
n	ICP with a photo read during the month	Photo reads are not used to calculate historic estimate, unless they are validated against a set of actual reads not provided by the customer.	Compliant, customer provided photo reads are not treated as validated reads
o	ICP has a meter with a multiplier greater than 1	The multiplier is applied correctly	Compliant

Audit outcome

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

The process to create forward estimates was reviewed.

Forward estimates were checked for accuracy by analysing the GR170 file for variances between revisions for 12 months.

Audit commentary

Prime attempts to gain end of month readings for each ICP supplied. In the event that an end of month reading cannot be obtained, forward estimate is created using the end of month read estimated for billing, which is based on the average daily consumption for the meter. Where no historical information is available, a "forward default" estimate of 25 units per day is used.

Before making submissions Prime reviews any ICPs with differences between revisions over ±10% and/or ± 2000kWh.

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

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

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Jun 2017	-	-	-	-	59
Jul 2017	-	-	-	-	65
Aug 2017	-	-	-	-	66
Sep 2017	-	-	-	-	69
Oct 2017	-	-	-	-	69

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Jan 2018	-	-	-	-	72
Feb 2018	-	-	-	-	73
Mar 2018	-	-	-	-	73
April 2018	-	-	-	-	75
May 2018	-	-	-	-	76
June 2018	-	-	-	-	77
July 2018	-	-	-	-	76

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

Month	Revision 1	Revision 3	Revision 7	Revision 14
Jun 2017	-4.59%	-7.25%	-5.49%	-4.43%
Jul 2017	0.15%	-0.75%	0.14%	3.31%
Aug 2017	0.04%	-0.42%	-0.43%	0.32%
Sep 2017	-4.35%	-0.28%	-0.28%	-4.35%
Oct 2017	1.77%	2.06%	3.73%	1.77%
Jan 2018	-0.21%	7.33%	7.60%	-
Feb 2018	0.28%	1.77%	1.05%	-
Mar 2018	0.10%	2.82%	3.82%	-
April 2018	1.27%	0.87%	1.82%	-
May 2018	0.07%	1.06%	-	-
June 2018	0.70%	0.11%	-	-

Month	Revision 1	Revision 3	Revision 7	Revision 14
July 2018	0.03%	-1.38%	-	-

I investigated eight balancing area differences of more than 30% and 2,000 kWh to confirm the reasons for the differences:

- six of the differences related to forward estimate being higher than the actual consumption for the period; these differences occurred in January, when many of Prime's commercial customers may have been closed for part of the month; and
- two of the differences related to incorrect data:

Balancing area	Month	kWh submitted for revision				
		0	1	3	7	14
TTS0011TENCE	Jun 17	3,155.16	3,905.96 *100% HE*	4,177.75 *100% HE*	0.52 *100% HE*	0.52 *100% HE*
PRM0331ELECG	Feb 18	34,220.31	34,187.68 *97.29% HE*	34,186.09 *100% HE*	64,657.23 *100% HE*	-

For TTS0011TENCE, the current historic estimate recorded in Orion for June 2017 is 3,905 kWh. It appears that the consumption submitted for revisions 7 and 14 for this NSP was incorrect due to a GXP data entry error.

For PRM0331ELECG the difference related to one ICP, which was reported with 38,541.45 kWh of historic estimate for February 2018 revision 7 due to a misread. The data has now been corrected and the current historic estimate recorded in Orion for February 2018 is 8,080 kWh, which is consistent with the reading data for the ICP. It is expected that correct data will be submitted for revision 14. This difference was identified through Prime's validation processes, but was accepted because the reviewer thought it related to seasonal profiles.

Prime intends to refine their validation checks to prevent recurrence of this issue. Further investigation to identify any other NSPs with significant balancing area differences, and a recommendation to investigate the reasons for the discrepancies is raised in **section 12.7**.

Compliance is recorded in this section, because all differences between revisions fall within the thresholds specified by the code.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 15.3

Code related audit information

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

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

Audit observation

The registry list and event detail reports for 01/03/18 to 24/12/18 were reviewed, to identify any ICPs which have had profile changes.

Audit commentary

Examination of the list file found that Prime has only used the RPS profile, and no ICPs have had profile changes.

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

The process to ensure that AV080 submissions are accurate was discussed in **section 12.2**.

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

Zeroing in the AV080 submission is discussed in **section 12.3** and was found to be compliant.

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.

Aggregation factors for each ICP are checked against a registry list for the period prior to each AV080 and AV110 submission.

Non-compliance is recorded in **section 11.2** in relation to some AV110 ICP days not being calculated correctly. Compliance is recorded in **section 12.3** for AV080 NHH volumes aggregation.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

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

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

Audit observation

I reviewed the rounding of data on the AV080 reports as part of the aggregation checks.

Audit commentary

Review of nine AV080 reports confirmed that submission information is appropriately rounded to two decimal places.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.3

Code related audit information

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

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

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

Audit observation

The timeliness of submissions of historic estimate was reviewed in **section 12.2**.

I reviewed nine months of AV080 reports to determine whether historic estimate requirements were met.

Audit commentary

The quantity of historical estimates is contained in the submission file and is not a separate report. The proportion of HE in the revision files was checked for nine separate months, and the table below shows that compliance has not been achieved in all instances.

I checked ten ICPs with forward estimate remaining at revision 14 and found it was caused by:

- **Not treating estimated switch out reads as permanent estimates.** The closing estimate read type is not treated as actual in Orion. In late 2017, Prime updated their processes to record

permanent estimate readings as "actual" with a reference that indicates they are estimates to ensure that they are used by the reconciliation process. Some closing estimates have been incorrectly classified for switched ICPs, resulting in forward estimate remaining. Prime intends to update the read types for the affected ICPs.

- **Entering permanent estimate reads too late for revision 14, where reads had not been attained.** Prime has a process to insert permanent estimate reads, but in some cases the permanent estimate reads were entered after revision 14 was completed.
- **Manual amendments not processed correctly.** Where Prime identifies ICPs that are missing from submissions in their pre submission reconciliation, the missing ICP and associated consumption is manually added. Due to a misunderstanding, in some cases only the total estimate field was updated instead of the total estimate and historic estimate. A series of system jobs resolved the issues that were causing ICPs to be missed, and now only occasional additions are made for switch timing.

Quantity of NSPs where revision targets were met

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Jun 2017	-	-	81	91
Jul 2017	-	-	87	101
Aug 2017	-	-	92	102
Jan 2018	-	108	-	112
Feb 2018	-	110	-	112
Mar 2018	-	109	-	112
Jun 2018	114	-	-	115
Jul 2018	113	-	-	114
Aug 2018	117	-	-	117

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

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Jun 2017	-	-	98.78%
Jul 2017	-	-	99.04%

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Aug 2017	-	-	98.68%
Jan 2018	-	99.07%	-
Feb 2018	-	98.53%	-
Mar 2018	-	99.18%	-
Jun 2018	98.06%	-	-
Jul 2018	98.40%	-	-
Aug 2018	99.47%	-	-

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 13.3 With: Clause 10 of Schedule 15.3 From: Jun-Aug 17 (r14), Jan-Mar 18 (r7) and Jun-Aug 18 (r3)	Historic estimate thresholds were not met for some revisions. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as moderate as they were sufficient to ensure that most NSPs are close to the target values, but there was room for improvement. The impact is assessed to be low. Much of the forward estimate was caused by incorrect classification of the historic estimate, and the estimated closing reads which should have been treated as permanent estimate were used to calculate the forward estimate.

Actions taken to resolve the issue	Completion date	Remedial action status
We already have staff making outbound access calls to ensure we can obtain actual reads every month or at least once a quarter. We believe this will help us improve the HE%.	Feb 2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We have been processing permanent estimates for sites that don't have 100%HE at 14 months and are now at 12months. We are now processing permanent estimates on a monthly basis for sites not read once every 12months.	Apr 2019	

CONCLUSION

Prime has worked hard to resolve issues identified during the previous audit and has made some good progress:

- all switching files were on time, except two RR files which were unavoidably late due to backdated switch event dates;
- the timeliness of status updates has improved overall;
- all AMI reads are now imported into Orion, which has improved historic estimate accuracy and read attainment;
- read handling processes have been improved to reduce the likelihood of processing errors when importing MEP and agent data, or entering manual readings;
- customer read and photo read handling processes have improved to prevent them from incorrectly being classified as validated; and
- changes to the way status is managed in Orion have helped to ensure that consumption is reported if it occurs during an inactive or vacant period.

Prime had continued to work with their system provider, Agility, to resolve some ongoing reconciliation reporting issues.

- Improvements have been made to the AV080 report to correct historic estimate proportions. Some data accuracy issues relating to incorrect data inputs were identified, and I recommend that some further potential data accuracy issues are investigated. Prime intends to improve its pre-submission validation to ensure that accuracy issues are identified, investigated and resolved prior to submission.
- The AV120 report still does not appear to handle reversal of invoicing and re-invoicing correctly.
- ICP days continue to be reported for ICPs with inactive status. Although not compliant with clause 15.6, it ensures that if any consumption occurs during an inactive period, it will be reported.

Where issues are occurring, Prime has both short-term fixes and medium-term plans to fully investigate and resolve the issues.

The audit found 21 non-compliance issues and makes three recommendations. The breach risk rating total is 44, which gives an indicative next audit due date of six months. The non-compliances related to switching, registry, meter reading, and read attainment affected small numbers of ICPs and events. These non-compliances were either cleared or actions to prevent future non-compliances have been identified. The reconciliation submission accuracy issues affecting NHH volumes, ICP days, and billed information require further investigation before implementing system changes. In the meantime Prime has put additional monitoring controls in place to monitor and improve submission accuracy until these system changes are made. I recommend that the next audit be completed in ten months.

PARTICIPANT RESPONSE

Prime Energy is a small participant in the energy market, and this of course has some pros & cons. Since we have limited staff resources, sometimes it's difficult to actively investigate & check the processes are working. We really appreciate recent changes in the audit requirement for the detailed checks by the auditor.

One of the biggest advantages of being part of the small organisation, is that we don't have to go through hoops to gain approval for new projects & process changes. It was very easy for us to start new projects to improve our processes. One of the projects is creating a robust database to automate the submission analysis which will highlight the discrepancies between revisions. Another major project is to fix our current version of the switching interface as it is outdated and that's why we process the switches manually.

At Prime Energy, we are determined to improve our processes. Our audit score suggests the next audit in 6 months however; the projects we are working on may take over 6 months. These projects will require intensive testing before & after the release and might be ready by the end of this year or early Jan 2020. We hope the Electricity Authority will kindly allow us the time to complete these projects and set the next audit date to 1 year.