

ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

VERITEK

For

ORBUS BUSINESS SERVICES LTD
TRADING AS POWER DIRECT

Prepared by: Tara Gannon

Date audit commenced: 26 June 2018

Date audit report completed: 6 July 2018

Audit report due date: 30 July 2018

TABLE OF CONTENTS

Executive summary	6
Audit summary	7
Non-compliances	7
Recommendations	7
Issues	7
1. Administrative	8
1.1. Exemptions from Obligations to Comply with Code (Section 11)	8
1.2. Structure of Organisation	8
1.3. Persons involved in this audit	9
1.4. Use of Agents (Clause 15.34)	9
1.5. Hardware and Software	9
1.6. Breaches or Breach Allegations	10
1.7. ICP Data	10
1.8. Authorisation Received	11
1.9. Scope of Audit	11
1.10. Summary of previous audit	13
Non-compliances	13
Recommendations	14
Issues 14	
2. Operational Infrastructure	15
2.1. Relevant information (Clause 10.6, 11.2, 15.2)	15
2.2. Provision of information (Clause 15.35)	16
2.3. Data transmission (Clause 20 Schedule 15.2)	16
2.4. Audit trails (Clause 21 Schedule 15.2)	17
2.5. Retailer responsibility for electricity conveyed - participant obligations (Clause 10.4)..	18
2.6. Retailer responsibility for electricity conveyed - access to metering installations (Clause 10.7(2),(4),(5) and (6))	18
2.7. Physical location of metering installations (Clause 10.35(1)&(2))	19
2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B)	20
2.9. Connection of an ICP (Clause 10.32)	20
2.10. Temporary Electrical Connection of an ICP (Clause 10.33(1))	21
2.11. Electrical Connection of Point of Connection (Clause 10.33A)	22
2.12. Arrangements for line function services (Clause 11.16)	22
2.13. Arrangements for metering equipment provision (Clause 10.36)	23
3. Maintaining registry information	24
3.1. Obtaining ICP identifiers (Clause 11.3)	24
3.2. Providing registry information (Clause 11.7(2))	24
3.3. Changes to registry information (Clause 10 Schedule 11.1)	25
3.4. Trader responsibility for an ICP (Clause 11.18)	26
3.5. Provision of information to the registry manager (Clause 9 Schedule 11.1)	27
3.6. ANZSIC codes (Clause 9 (1(k) of Schedule 11.1)	29
3.7. Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1)	29
3.8. Management of “active” status (Clause 17 Schedule 11.1)	30
3.9. Management of “inactive” status (Clause 19 Schedule 11.1)	30
3.10. ICPs at new or ready status for 24 months (Clause 15 Schedule 11.1)	31

4.	Performing customer and embedded generator switching.....	32
4.1.	Inform registry of switch request for ICPs - standard switch (Clause 2 Schedule 11.3)..	32
4.2.	Losing trader response to switch request and event dates - standard switch (Clauses 3 and 4 Schedule 11.3)	32
4.3.	Losing trader must provide final information - standard switch (Clause 5 Schedule 11.3)	33
4.4.	Retailers must use same reading - standard switch (Clause 6(1) and 6A Schedule 11.3)	34
4.5.	Non-half hour switch event meter reading - standard switch (Clause 6(2) and (3) Schedule 11.3)	35
4.6.	Disputes - standard switch (Clause 7 Schedule 11.3).....	35
4.7.	Gaining trader informs registry of switch request - switch move (Clause 9 Schedule 11.3)	36
4.8.	Losing trader provides information - switch move (Clause 10(1) Schedule 11.3)	37
4.9.	Losing trader determines a different date - switch move (Clause 10(2) Schedule 11.3)	37
4.10.	Losing trader must provide final information - switch move (Clause 11 Schedule 11.3)	38
4.11.	Gaining trader changes to switch meter reading - switch move (Clause 12 Schedule 11.3)	39
4.12.	Gaining trader informs registry of switch request - gaining trader switch (Clause 14 Schedule 11.3)	40
4.13.	Losing trader provision of information - gaining trader switch (Clause 15 Schedule 11.3)	41
4.14.	Gaining trader to advise the registry manager - gaining trader switch (Clause 16 Schedule 11.3)	41
4.15.	Withdrawal of switch requests (Clauses 17 and 18 Schedule 11.3).....	42
4.16.	Metering information (Clause 21 Schedule 11.3)	44
4.17.	Switch saving protection (Clause 11.15AA to 11.15AB).....	44
5.	Maintenance of unmetered load	46
5.1.	Maintaining shared unmetered load (Clause 11.14).....	46
5.2.	Unmetered threshold (Clause 10.14 (2)(b))	47
5.3.	Unmetered threshold exceeded (Clause 10.14 (5))	47
5.4.	Distributed unmetered load (Clause 11 Schedule 15.3, Clause 15.37B).....	48
6.	Gathering raw meter data	49
6.1.	Electricity conveyed & notification by embedded generators(Clause 10.13, Clause 10.24 and 15.13)	49
6.2.	Responsibility for metering at GIP(Clause 10.26 (6), (7) and (8)).....	50
6.3.	Certification of control devices (Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3)	50
6.4.	Reporting of defective metering installations (Clause 10.43(2) and (3))	51
6.5.	Collection of information by certified reconciliation participant (Clause 2 Schedule 15.2)	51
6.6.	Derivation of meter readings (Clause 3(1), 3(2) and 5 Schedule 15.2)	52
6.7.	NHH meter reading application (Clause 6 Schedule 15.2)	53
6.8.	Interrogate meters once (Clause 7(1) and (2) Schedule 15.2)	53
6.9.	NHH meters interrogated annually (Clause 8(1) and (2) Schedule 15.2)	54
6.10.	NHH meters 90% read rate (Clause 9(1) and (2) Schedule 15.2)	55
6.11.	NHH meter interrogation log (Clause 10 Schedule 15.2)	56
6.12.	HHR data collection (Clause 11(1) Schedule 15.2)	57
6.13.	HHR interrogation data requirement (Clause 11(2) Schedule 15.2)	57
6.14.	HHR interrogation log requirements (Clause 11(3) Schedule 15.2).....	58
7.	Storing raw meter data	59
7.1.	Trading period duration (Clause 13 Schedule 15.2)	59
7.2.	Archiving and storage of raw meter data (Clause 18 Schedule 15.2)	59

7.3. Non metering information collected / archived (Clause 21(5) Schedule 15.2).....	59
8. Creating and managing (including validating, estimating, storing, correcting and archiving) volume information.....	61
8.1. Correction of NHH meter readings (Clause 19(1) Schedule 15.2).....	61
8.2. Correction of HHR metering information (Clause 19(2) Schedule 15.2).....	61
8.3. Error and loss compensation arrangements (Clause 19(3) Schedule 15.2)	62
8.4. Correction of HHR and NHH raw meter data (Clause 22(1) and (2) Schedule 15.2)	62
9. Estimating and validating volume information.....	64
9.1. Identification of readings (Clause 3(3) Schedule 15.2).....	64
9.2. Derivation of volume information (Clause 3(4) Schedule 15.2).....	64
9.3. Meter data used to derive volume information (Clause 3(5) Schedule 15.2).....	65
9.4. Half hour estimates (Clause 15 Schedule 15.2).....	65
9.5. NHH metering information data validation (Clause 16 Schedule 15.2)	66
9.6. Electronic meter readings and estimated readings (Clause 17 Schedule 15.2)	66
10. Provision of metering information to the pricing manager in accordance with subpart 4 of Part 13 (clause 15.38(1)(f))	68
10.1. Generators to provide HHR metering information (Clause 13.136)	68
10.2. Un-offered & intermittent generation provision of metering information (Clause 13.137)	68
10.3. Loss adjustment of HHR metering information (Clause 13.138).....	69
10.4. Notification of the provision of HHR metering information (Clause 13.140)	69
11. Provision of submission information for reconciliation.....	71
11.1. Buying and selling notifications (Clause 15.3)	71
11.2. Calculation of ICP days (Clause 15.6)	71
11.3. Electricity supplied information provision to the reconciliation manager (Clause 15.7)	72
11.4. HHR aggregates information provision to the reconciliation manager (Clause 15.8)	74
12. Submission computation	76
12.1. Daylight saving adjustment (Clause 15.36)	76
12.2. Creation of submission information (Clause 15.4).....	76
12.3. Allocation of submission information (Clause 15.5)	77
12.4. Grid owner volumes information (Clause 15.9)	78
12.5. Provision of NSP submission information (Clause 15.10)	78
12.6. Grid connected generation (Clause 15.11).....	78
12.7. Accuracy of submission information (Clause 15.12)	79
12.8. Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2).....	79
12.9. Reconciliation participants to prepare information (Clause 2 Schedule 15.3)	80
12.10. Historical estimates and forward estimates (Clause 3 Schedule 15.3).....	81
12.11. Historical estimate process (Clause 4 and 5 Schedule 15.3)	82
12.12. Forward estimate process (Clause 6 Schedule 15.3)	83
12.13. Compulsory meter reading after profile change (Clause 7 Schedule 15.3).....	85
13. Submission format and timing	86
13.1. Provision of submission information to the RM (Clause 8 Schedule 15.3)	86
13.2. Reporting resolution (Clause 9 Schedule 15.3)	86
13.3. Historical estimate reporting to RM (Clause 10 Schedule 15.3)	87
Conclusion	90

Participant response	91
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EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Orbus Business Services Ltd trading as Power Direct (Power Direct)**, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits version 7.1.

Power Direct began trading in February 2017. At the beginning of the audit period, Power Direct supplied two NHH ICPs. On 24 October 2017 Power Direct changed the submission type for the ICPs to HHR, and further HHR customers were gained from December 2017 onwards.

In May 2018, Power Direct switched in ICPs 1001287453UNF44 and 1001295576UNDFB which have Metrix as an MEP. Because the meters are not certified as HHR, Power Direct will submit the consumption as NHH until Metrix can provide certified data, or an approved profile can be arranged.

John Candy Consulting (JCC) provides reconciliation services and support for both HHR and NHH meters. Chrissy Burrows of Momentous Consulting has provided extensive training and assisted the Power Direct team to understand their obligations, and to develop and document compliant business processes.

Improvements have been made during the audit period, and all non-compliances and recommendations raised in the previous audit have been cleared. Three minor non-compliances were identified, and are set out in the table below.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of three, which results in an indicative audit frequency of 24 months. Power Direct intends to grow their customer base significantly over the next two years and I recommend that their next audit be completed in approximately 18-20 months, to confirm that processes and controls are operating as expected with a larger volume of activity.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Provision of information to the registry manager	3.5	9 Schedule 11.1	Four late trader updates.	Strong	Low	1	Identified
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	One ICP had an incorrect NW code applied.	Strong	Low	1	Identified
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates file does not contain electricity supplied information.	Strong	Low	1	Identified. No action can be taken by Power Direct because the report contains volumes as required by the reconciliation manager functional specification.
Future Risk Rating						3	

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
		Nil	

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

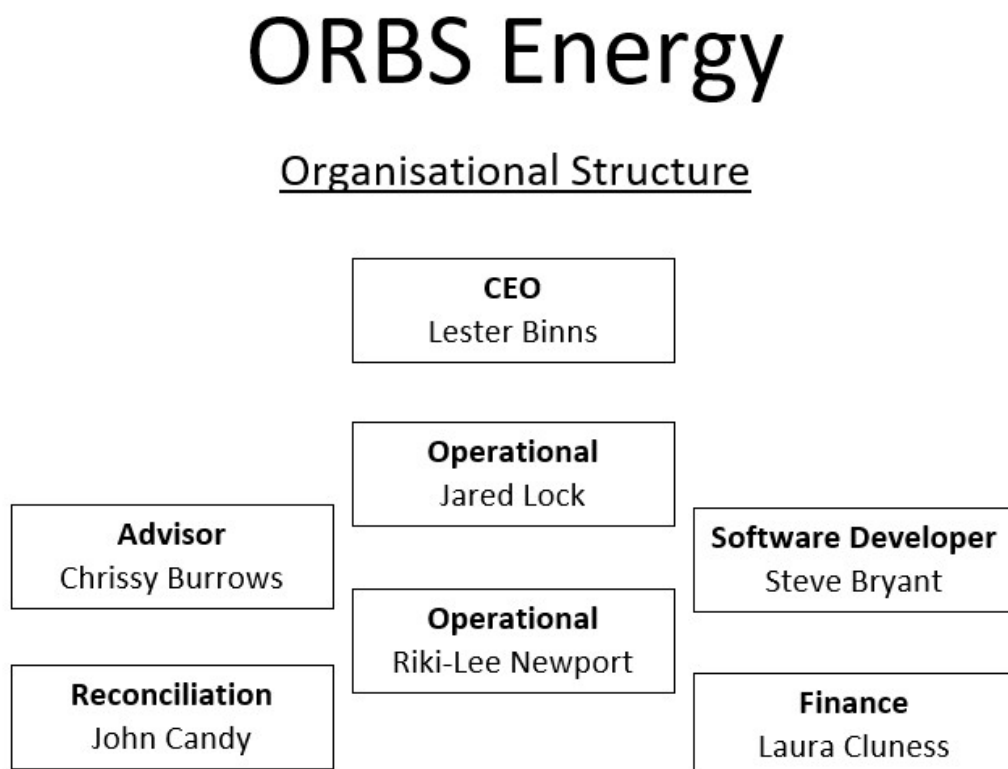
Current code exemptions were reviewed on the Electricity Authority website.

Audit commentary

Power Direct's exemption for certification until after 30 September 2017 (exemption 252) has expired, and no current exemptions are in place.

1.2. Structure of Organisation

Power Direct provided their current organisational structure:



1.3. Persons involved in this audit

Auditor:

Name	Company
Tara Gannon	Veritek Limited

Personnel assisting in this audit were:

Name	Title	Company
Jared Lock	Operations Manager	Power Direct
John Candy	Director	John Candy Consulting
Steve Bryant	Software Developer	Power Direct

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 Power Direct.

Audit commentary

Power Direct uses some agents for functions covered by the scope of this audit. They are identified in **section 1.9**.

- JCC prepares and submits electricity reconciliation data.
- Momentous Consulting Limited provides business process support and advice.

AMS, Metrix, Smartco, and FCLM provide AMI data as MEPs, and are subject to a separate audit regime.

1.5. Hardware and Software

Power Direct's PowerCentre system is used to manage customer and ICP data. The SQL database and application are hosted by CCL (Computer Concepts Limited).

Power Direct uses the registry interface to manage interactions with the registry except for NT files, which have been generated by PowerCentre since March 2018.

CCL manage backups of the database. Full data back-ups are completed hourly, and transactional data backups occur every 15 minutes. The system source code is version controlled, backed up, and hosted by Beanstalk.

All Power Direct file servers are fully backed up each Saturday, with incremental backups every Monday, Tuesday, Wednesday and Thursday evening. A business recovery plan is in place, which covers applications and infrastructure.

Reconciliation processes are completed by JCC, acting as an agent.

1.6. Breaches or Breach Allegations

Power Direct has no breach allegations recorded by the Electricity Authority during the audit period.

1.7. ICP Data

All active ICPs are summarised by metering category in the table below.

Metering Category	(2018)	(2017)
1	59	2
2	-	-
3	-	-
4	-	-
5	-	-
9	-	-

Status	Number of ICPs (2018)	Number of ICPs (2017)
Active (2,0)	59	2
Inactive – new connection in progress (1,12)	-	-
Inactive – electrically disconnected vacant property (1,4)	-	-
Inactive – electrically disconnected remotely by AMI meter (1,7)	-	-
Inactive – electrically disconnected at pole fuse (1,8)	-	-

Status	Number of ICPs (2018)	Number of ICPs (2017)
Inactive – electrically disconnected due to meter disconnected (1,9)	-	-
Inactive – electrically disconnected at meter box fuse (1,10)	-	-
Inactive – electrically disconnected at meter box switch (1,11)	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	-	-
Inactive – reconciled elsewhere (1,5)	-	-
Decommissioned (3)	-	-

1.8. Authorisation Received

All information was provided directly by Power Direct and JC Consulting.

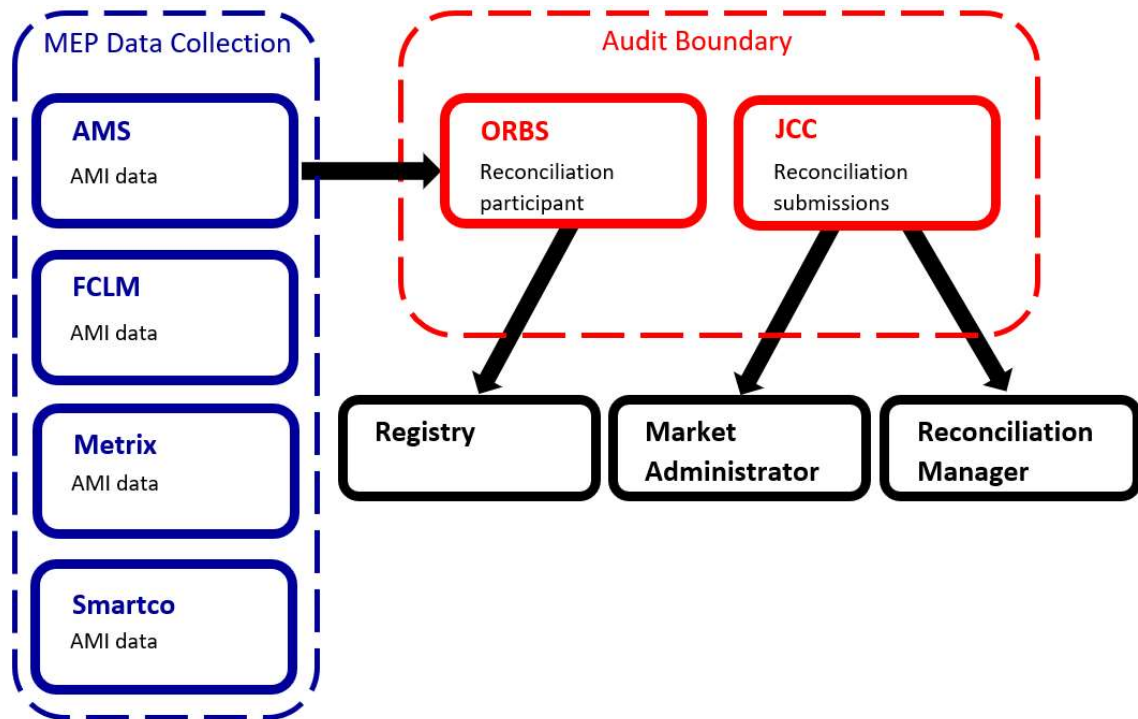
1.9. Scope of Audit

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

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits version 7.1. The audit was carried out at Power Direct's premises in Nelson on 26 July 2018.

Power Direct began trading in February 2017. At the beginning of the audit period, Power Direct supplied two NHH ICPs. On 24 October 2017 Power Direct changed the submission type for the ICPs to HHR, and further AMI HHR customers were gained from December 2017 onwards. Two ICPs with Metrix as the MEP are temporarily being submitted as NHH until they are HHR certified, or an approved profile can be arranged.

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



The table below shows the tasks under clause 15.38 of part 15 for which Power Direct requires certification, and the agents who assist with these tasks. This table also lists the MEPs who assist with these tasks:

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

1.10. Summary of previous audit

Power Direct provided a copy of their previous audit report conducted in July 2017 by Tara Gannon of Veritek Limited. The summary tables below shows that the non-compliances and recommendations raised in the 2017 audit have been cleared. Further comment is made in the relevant sections of this report.

NON-COMPLIANCES

Subject	Section	Clause	Non compliance	Status
Audit trails	2.4	18 and 21 of Schedule 15.2	There is no audit trail for meter readings within PowerCentre.	Cleared. Refer to section 2.4 .
Terms and conditions	2.8	10.4, 10.7(2), 10.7(4), 10.7(5), 10.7(6) and 11.15B	Power Direct terms and conditions are draft, and have not been finalised. The draft terms and conditions adequately cover the trader default processes.	Cleared. Refer to section 2.8 .
AN response codes	4.8	3 of Schedule 11.3	An incorrect AN response code was provided for one ICP with AMI metering. AA was applied instead of AD.	Cleared. Refer to section 4.8 .
Derivation of meter readings	6.6	3(1), 3(2), 3(3), 3(4) and 5 of Schedule 15.2	Customer reads were incorrectly classified as actual reads, when they were not validated against actual reads and all the checks required were not completed.	Cleared. Customer reads are no longer accepted. Refer to section 6.6 .
Identification of readings	9.1	3(3) of Schedule 15.2	PowerCentre records all reads entered as actual.	Cleared. Reads are recorded as actual or estimate in PowerCentre. Refer to section 9.1 .
Calculation of historic estimate	12.11	4 and 5 Schedule 15.3	Customer reads were incorrectly classified as actual reads, resulting in them being used to calculate historic estimate.	Cleared. Customer reads are no longer provided. Refer to sections 12.11 and 6.6 .

RECOMMENDATIONS

Subject	Section	Clause	Recommendation	Status
Relevant information	2.1	15.2	Check for notification files from the Registry daily. Review the files and update data as necessary.	Cleared. Notification files are monitored by JCC, and Power Direct intends to make a system change to allow these files to be imported directly into Power Centre. Refer to section 2.1 .
Inform registry of switch request	4.1	2 of Schedule 11.3	Clarify agreement dates to identify where the date of first contact is different to the date agreement is reached.	Cleared. The date of agreement is clear. Refer to section 4.1 .
AN response codes	4.2	3 of Schedule 11.3	Update the switching – switch loss document to explain that the AD code may be applied where AMI metering is installed.	Cleared. The procedure document was reviewed and has been updated.

ISSUES

Subject	Section	Clause	Issue	Status
CS file content	4.10	11 of schedule 11.3	The switch file must contain the date of the last actual reading for the meter. The code does not state whether this last actual reading must be during the period of supply. In some cases, a retailer may have received a reading for the day that the ICP switches to the new retailer, due to timing.	No further communication on this issue have been received from the EA. Last read dates checked in CS files during this audit were confirmed to be correct. Refer to section 4.3 and 4.10 .

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 list file as at 29 May 2018 was examined to confirm that all information was correct and not misleading, and to identify any registry discrepancies. The registry validation process was examined in detail in relation to the achievement of this requirement, and procedural documentation was reviewed.

Audit commentary

Power Direct's switching – business rules were reviewed and clearly state that Power Direct must comply with the requirements of this rule, and correct information as soon as possible.

- Each Friday, JCC completes a check of registry notification files and advises Power Direct of any changes to their ICP data so that PowerCentre can be updated. Power Direct intends to make a system change to allow the registry notification files to be imported into PowerCentre.
- Monthly, Power Direct matches a registry list to PowerCentre and identifies any ICPs with ANZSIC code which is not residential, a pricing code which is not approved in PowerCentre or capacity over 15. Any anomalies identified are checked.

JCC refreshes reconciliation data from the registry immediately prior to running reconciliation reports to ensure that aggregation factors and statuses are correct. This is discussed further in **section 12.3**.

The list file was analysed, and I found the following:

Issue	2018 Qty	2017 Qty	Comments
Blank ANZSIC codes	-	-	No blank ANZSIC codes were found
ANZSIC "T999" not stated	-	-	No T999 ANZSIC codes were found
ANZSIC "T994" don't know	-	-	No T994 ANZSIC codes were found
UML load = zero	-	-	No unmetered load was identified
Incorrect UML load	-	-	No unmetered load was identified
No MEP recorded or nominated and UML= "N"	-	-	No unmetered load was identified

Issue	2018 Qty	2017 Qty	Comments
UML load removed and an MEP is nominated but is still UML in SAP	-	-	No unmetered load was identified
Shared unmetered load incorrect	-	-	No unmetered load was identified
ICPs with different UNM load to that recorded by the Distributor	-	-	No unmetered load was identified
ICPs with Distributor unmetered load populated but retail unmetered load is blank and UML flag =N	-	-	No unmetered load was identified
Incorrect profiles	-	-	No incorrect profiles were identified

Audit outcome

Compliant

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

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

Audit observation

HHR read data is received via SFTP from AMS (for AMS and Smartco meters), Metrix and FCLM.

To confirm the process

- I traced a sample of reads and volumes for a diverse sample of 12 HHR ICPs from the source files to PowerCentre, and HHR aggregates submissions.
- I also viewed screenshots confirming that data was obtained via SFTP by JCC and Power Direct.

NHH reads were provided by Smartco for 0000044469NT0DB and 0000045112NTFF7 up to October 2017 via SFTP. I traced all reads from July 2017 to October 2017 for these ICPs from the source files to the submission calculations.

Metrix end of month AMI reads for ICPs 1001287453UNF44 and 1001295576UNDFB are provided in the body of an email. The ICPs switched in during May 2018, and I viewed the end of month emailed reads for May 2018.

Audit commentary

HHR

HHR read data is transferred to Power Direct and JCC via SFTP.

I traced a sample of data for five HHR ICPs (or all if less than five were available) each for AMS, Smartco, Metrix, and FCLM from the source files to PowerCentre and the HHR aggregates files to confirm the data transmission process. All volumes matched.

NHH

The NHH reads for ICPs 0000044469NT0DB and 0000045112NTFF7 from July 2017 to October 2017 were traced from the source files to the submission calculations. All reads matched.

The NHH reads for ICPs 1001287453UNF44 and 1001295576UNDFB are transferred embedded in the body of an email, which prevents accidental editing. I viewed the May 2018 end of month email to confirm the process.

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

Audit Commentary

The 2017 audit found there was no audit trail for reads within PowerCentre. This issue has now been cleared, compliant audit trails are created when reads are modified. Read changes usually only occur when a read is changed through the read renegotiation process.

A complete audit trail was viewed for data gathering, validation and processing functions. The logs of these activities for 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 Power Direct's current terms and conditions.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The trader must use its best endeavours to provide access:

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

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

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

Audit observation

I reviewed Power Direct's current terms and conditions.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

Audit observation

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

Review of a registry list as at 29 May 2018 confirmed that Power Direct do not supply any ICPs with metering category 3 or above.

Audit commentary

Power Direct only supplies ICPs with metering category 1, and does not deal with any installations with 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 sub-clause (1) must be expressed to be for the benefit of the Authority for the purposes of the Contracts (Privacy) Act 1982, and not be able to be amended without the consent of the Authority (clause 11.15B(2)).

Audit observation

I reviewed Power Direct's current terms and conditions.

Audit commentary

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

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

The new connection process was discussed.

The registry list as at 29 May 2018 and event detail report from 1 June 2017 to 29 May 2018 were examined to determine whether any new connections were completed during the audit period.

Audit commentary

Power Direct does not intend to handle new connections. If new connections are required in the future, Power Direct will seek advice on developing a compliant process from Momentous Consulting Ltd.

Review of the registry list and event detail report confirmed that Power Direct has not completed any new connections during the audit period.

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 discussed.

The registry list as at 29 May 2018 and event detail report from 1 June 2017 to 29 May 2018 were examined to determine whether any temporary new connections were completed during the audit period.

Audit commentary

Power Direct does not intend to handle new connections.

Review of the registry list and event detail report confirmed that Power Direct has not completed any new connections during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 10.33A(1)

Code related audit information

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

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

Audit observation

The new connection and reconnection processes were discussed.

The registry list as at 29 May 2018 and event detail report from 1 June 2017 to 29 May 2018 were examined to determine whether any new connections or reconnections were completed during the audit period.

Audit commentary

Review of the registry list and event detail report confirmed that Power Direct has not completed any new connections or reconnections during the audit period.

Power Direct understands their obligations in relation to clause 10.33A.

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, and controls were checked.

The registry list as at 29 May 2018 was reviewed to confirm that Power Direct trades on Nelson Electricity, Network Tasman and United Networks.

Audit commentary

I viewed Power Direct's signed agreements with Nelson Electricity, Network Tasman, and United Networks.

Customers sign up through Power Direct's website. When the customer enters their address, the system checks the details against the registry and PowerCentre and declines the application if:

- The network and/or network price code are not approved in PowerCentre
- The MEP is not approved in PowerCentre; and/or
- The meter is not AMI.

I observed this process, and found it was operating as intended.

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 examined, and controls were checked.

The registry list as at 29 May 2018 was reviewed to confirm that Power Direct supplies ICPs where AMS, Smartco, FCLM or Metrix is the MEP.

Audit commentary

I viewed Power Direct's signed agreements with AMS (including Smartco), FCLM, and Metrix.

Customers sign up through Power Direct's website. When the customer enters their address, the system checks the details against the registry and PowerCentre and declines the application if:

- The network and/or network price code are not approved in PowerCentre
- The MEP is not approved in PowerCentre; and/or
- The meter is not AMI.

I observed this process, and found it was operating as intended.

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 discussed.

The registry list as at 29 May 2018 and event detail report from 1 June 2017 to 29 May 2018 were examined to determine whether any new connections were completed during the audit period.

Audit commentary

Power Direct does not intend to handle new connections. If new connections are required in the future, Power Direct will seek advice on developing a compliant process from Momentous Consulting Ltd.

Review of the registry list and event detail report confirmed that Power Direct has not completed any new connections during the audit period.

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 registry list as at 29 May 2018 and event detail report from 1 June 2017 to 29 May 2018 were examined to determine whether any new connections were completed during the audit period.

Audit commentary

Power Direct does not intend to handle new connections.

Review of the registry list and event detail report confirmed that Power Direct has not completed any new connections during the audit period.

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 5 business days after the change.

Audit observation

The process to manage status changes is discussed in **sections 3.8** and **3.9** below.

In this section I have examined the event detail report for 1 June 2017 to 29 May 2018 to identify all status and MEP changes during the audit period.

Audit commentary

Power Direct has not completed any status or MEP changes since they began trading. Power Direct is aware of their responsibility to complete these updates within five business days.

Event	Year	Total ICPs	ICPs notified within 5 days	ICPs notified greater than 5 days	Average notification days	Percentage compliant
Status changes	2017	-	-	-	-	100%
	2018	-	-	-	-	100%
MEP changes	2017	-	-	-	-	100%
	2018	-	-	-	-	100%

Audit outcome

Compliant

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

Retailers Responsibility to Nominate and Record MEP in the Registry

The new connection process was discussed and the list file as at 29 May 2018 was examined to identify any active ICPs that do not have an MEP recorded.

The event detail report for 1 June 2017 to 29 May 2018 was examined to identify all MEP nominations during the audit period.

ICP Decommissioning

The process for the decommissioning of ICPs was examined. The list file as at 29 May 2018 and event detail report for 1 June 2017 to 29 May 2018 were examined to identify all decommissioned ICPs.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

Review of the registry list confirmed all active ICPs have a valid MEP recorded in the registry.

No MEP nominations occurred during the audit period. Power Direct ensures that ICPs have a valid MEP prior to switching in. The customer application process includes a check that the MEP is approved, as described in **section 2.13**.

Power Direct does not intend to complete any new connections.

ICP Decommissioning

Review of the registry list and event detail reports confirmed that no ICPs were decommissioned during the audit period.

Power Direct is aware of their responsibility to notify the MEP where an ICP is decommissioned, and to obtain a final reading.

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

In this section I have examined the event detail report for 1 June 2017 to 29 May 2018 to identify all trader updates during the audit period. All late trader updates were checked.

Audit commentary

Power Direct has not completed any new connections during the audit period. A trader record is provided on completion of a switch and when any of the details in Clause 9 of Schedule 11.1 change.

The table below shows the timeliness of registry updates.

Event	Year	Total ICPs	ICPs notified within 5 days	ICPs notified greater than 5 days	Average notification days	Percentage compliant
Trader changes	2017	3	3	-	2	100%
	2018	66	62	4	4	94%

Trader updates for 66 ICPs were made; 64 of those were provided as soon as the CS was received from the losing trader. The other two trader updates related to changes of submission type and profile.

All four late updates were checked:

- Two late updates were completed as soon as the CS file was received from the losing retailer, and were delayed by late completion of the switch.
- One late update related to a backdated correction to submission type and profile because HHR data could not be provided.
- One late update related to a processing error when ICP 0000045112NTFF7 changed from NHH to HHR. The ICP was accidentally updated effective from 12/04/2017 instead of 25/10/2017. The trader record was reversed and the record was corrected in less than 20 minutes.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 9 Schedule 11.1 From: 01-Oct-17 To: 01-May-18	Four late trader updates. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong. Two late updates were beyond Power Direct control, one was a backdated correction and one was a processing error which was promptly identified and corrected. The impact is assessed to be low, because the updates were all processed prior to reconciliation submissions being generated.		
Actions taken to resolve the issue		Completion date	Remedial action status
Metrix MEP ICPs are now sent to manually processing so we can ensure that their profile and reconciliation type is correctly set. This is a short-term fix until Metrix can provide us with certified HHR data.		IMMEDIATELY	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The original issue stemmed from the unavailability of certified HHR data from Metrix. Any Metrix customers that come through are immediately changed to NHH with an RPS profile until Metrix can provide us with HHR data. While our system picks up this and alerts us, John Candy also notifies me when a Metrix MEP has come through and when profiles need to be updated. Metrix have advised they expect this issue to be fixed early August.		IMMEDIATELY	

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

Code reference

Clause 9 (1(k) of Schedule 11.1

Code related audit information

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

Audit observation

The process to capture and manage ANZSIC codes was examined. A registry list as at 29 May 2018 was reviewed to check ANZSIC codes were valid.

I checked a diverse sample of ten active ICPs against Google street view data to confirm the correct ANZSIC code. The sample included all ICPs with non domestic ANZSIC codes and six ICPs with domestic ANZSIC codes.

Audit commentary

Power Direct checks any non domestic ANZSIC codes when ICPs switch in, and adjusts them if necessary.

Review of the registry list found all ICPs had a valid ANZSIC code provided. All ANZSIC codes checked were found to be correct.

Audit outcome

Compliant

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 for 1 June 2017 to 29 May 2018 was examined to identify any ICPs where:

- unmetered load is identified by the Distributor, but none is recorded by Power Direct
- unmetered load is present, but Power Direct's unmetered load figure doesn't match with the Distributor's figure.

Audit commentary

Review of the registry list confirmed that no unmetered load is recorded by the distributor or trader for any Power Direct ICP.

If an ICP is found to have unmetered load during the application process, the ICP will not be accepted. If an ICP is found to have unmetered load after switching in, Power Direct will either ask the customer to switch out, or incorporate the unmetered load into submissions following industry best practice.

Changes to unmetered load for existing ICPs will be identified through JCC's weekly check of registry notification files. JCC advises Power Direct if any ICP details have changed.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

The process for status changes to active was discussed.

The event detail report for 1 June 2017 to 29 May 2018 was reviewed to identify all status changes to active during the audit period.

Processes to ensure there is only one party per ICP and that all active ICPs have an MEP were confirmed by viewing PowerCentre.

Audit commentary

Status is checked during the application process. Customers sign up through Power Direct's website. When the customer enters their address, the system checks the details against the registry and will create a warning if the ICP does not have active status.

Review of the event detail report confirmed that there have been no status changes to active during the audit period. Power Direct understands their obligations in relation to maintaining status information on the registry.

PowerCentre will not allow more than one party per ICP, nor will it allow an ICP to be set up without both a meter and MEP.

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 process for status changes to inactive was discussed.

The event detail report for 1 June 2017 to 29 May 2018 was reviewed to identify all status changes to inactive during the audit period.

Audit commentary

Review of the event detail report confirmed that there have been no status changes to inactive during the audit period.

If disconnections are required in the future, Power Direct will seek advice on developing a compliant process from Momentous Consulting Ltd. It is intended that the status for disconnected ICPs will be updated on the registry as soon as possible, and disconnected ICPs will continue to be read.

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

Audit commentary

Power Direct has not dealt with any new connections since they commenced trading in February 2017, and it is unlikely they will be selected as the expected retailer for any new or ready ICPs.

No ICPs have been at new or ready status for more than 24 calendar months. Power Direct intends to deal with any queries about new or ready ICPs from Distributors on a case by case basis.

Monthly from June 2018 onwards, Power Direct will run a registry list for status 000 and 999 with their participant code as the proposed trader, to identify any ICPs at new or ready status. These ICPs will be followed up with the distributor, to confirm whether Power Direct has been listed as the proposed trader in error.

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 2 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 Power Direct deem all conditions to be met.

Analysis of the event detail report for 1 June 2017 to 29 May 2018 confirmed that Power Direct requested 62 transfer switches during the audit period. A typical sample of five NTs were checked to ensure that they were requested within two business days of clearing any pre-conditions.

Audit commentary

Some direct marketing is completed, and Power Direct is aware of the requirements 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. The NTs checked were sent within two business days of all conditions being met.

The previous audit recommended that the customer agreement form was amended to clarify the date that agreement is reached. The date the customer agreed to Power Direct's terms and conditions is now clearly indicated.

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

The AN response process was reviewed, including review of the switch loss procedure document.

Analysis of the event detail report for 1 June 2017 to 29 May 2018 confirmed that Power Direct did not send any AN files for transfer switches during the audit period.

The switch breach report was examined for the audit period.

Audit commentary

The 2017 audit found that the switch loss document incorrectly stated that the AD advanced metering code would not be used. This code should be used where an AMI meter is installed, and I confirmed that the switch loss document has been updated.

No ANs were issued for transfer switches during the audit period, and no late AN files were recorded on the switch breach history report.

Audit outcome

Compliant

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

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

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

Audit observation

The CS process was reviewed, including review of Power Direct's switching business rules.

Analysis of the event detail report for 1 June 2017 to 29 May 2018 confirmed that Power Direct did not send any CS files for transfer switches during the audit period.

The switch breach report was examined for the audit period.

Audit commentary

The process documented in the switching business rules achieves compliance.

No CS files were issued for transfer switches during the audit period, and no late CS files were recorded on the switch breach history report.

Audit outcome

Compliant

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 requests was examined.

The event detail report for 1 June 2017 to 29 May 2018 was analysed to identify:

- All read change requests and acknowledgements during the audit period. A sample of seven read changes for transfer switches were reviewed, to confirm that they were based on two validated reads and that Power Direct had the correct reads recorded in their system.
- All estimated CS files sent by other retailers, where no RR had been sent by Power Direct. Two transfer switch CS files with estimated reads and no RR were identified, both were checked.

The switch breach history report for the audit period was reviewed.

Audit commentary

Power Direct issued 24 read changes for transfer switches during the audit period. No read changes for transfer switches were issued to Power Direct.

PowerCentre creates a system notification when two actual reads are received which indicate that the switch read may be incorrect. A user reviews these notifications and determines whether a read

renegotiation is required. Read change requests and acknowledgements are processed manually on the registry.

Review of a sample of seven read change requests issued by Power Direct found that the file content was accurate, and the reads recorded in PowerCentre reflected the outcome of the RR process.

Review of the estimated CS reads where no RR was issued found that the CS reads were correctly recorded in PowerCentre.

JCC's system applies the agreed switch readings for reconciliation purposes. The agreed readings are obtained from the registry.

No late read change requests or acknowledgements were identified on the switch breach history report.

Audit outcome

Compliant

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

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

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

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

Audit observation

The event detail report for 1 June 2017 to 29 May 2018 was analysed to identify all read change requests issued under clause 6(2) and (3) of schedule 11.3.

Audit commentary

22 RRs were issued by Power Direct within five business days of the switch event, where Power Direct intended to use a HHR submission type.

21 of the RRs were validly accepted by the other retailer. The read change for ICP 0000011663NTC19 was requested within five business days but was validly rejected by Contact Energy because the read they had provided in the CS file was actual.

No read change requests were issued to Power Direct.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 11.3

Code related audit information

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

Audit observation

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

Audit commentary

Power Direct confirms 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 Power Direct deem all conditions to be met.

Analysis of the event detail report for 1 June 2017 to 29 May 2018 confirmed that Power Direct requested 11 switch moves during the audit period. A typical sample of five NTs were checked to ensure that they were requested within two business days of clearing any pre-conditions.

Audit commentary

Some direct marketing is completed, and Power Direct is aware of the requirements 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. The NTs checked were sent within two business days of all conditions being met.

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

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

Audit observation

The AN response process was reviewed, including review of the switch loss procedure document.

Analysis of the event detail report for 1 June 2017 to 29 May 2018 confirmed that Power Direct sent one AN for a switch move during the audit period. The AN was reviewed.

The switch breach report was examined for the audit period.

Audit commentary

One AN for a switch move ICP was sent during the audit period. The file was sent within three business days and the correct AN response code was used.

No late AN files were recorded on the switch breach history report.

Audit outcome

Compliant

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

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

Audit observation

Analysis of the event detail report for 1 June 2017 to 29 May 2018 confirmed that Power Direct sent one AN file for a switch move during the audit period. Power Direct's proposed event date was compared to the gaining trader's proposed event date.

Audit commentary

One AN was sent during the audit period, and the Power Direct proposed event date matched the gaining trader's proposed event date.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 11.3

Code related audit information

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

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

Audit observation

The CS process was reviewed, including review of Power Direct's switching business rules.

Analysis of the event detail report for 1 June 2017 to 29 May 2018 confirmed that Power Direct sent one CS file for a switch move during the audit period. The accuracy of the content of the CS file was confirmed by checking for:

- correct identification of meter readings and correct date of last meter reading
- accuracy of meter readings
- accuracy of average daily consumption (this is based on the last month's consumption ending on the last day of supply).

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

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

Audit commentary

The process documented in the switching business rules achieves compliance.

The content of the CS file was reviewed and found to be accurate.

No late CS files were recorded on the switch breach history report.

Audit outcome

Compliant

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

The process for the management of read requests was examined.

The event detail report for 1 June 2017 to 29 May 2018 was analysed to identify all read change requests and acknowledgements during the audit period. All three switch move read changes were reviewed, to confirm that they were based on two validated reads and that Power Direct had the correct reads recorded in their system.

I did not identify any estimated switch move CS files sent by other retailers where no RR had been sent by Power Direct.

The switch breach history report for the audit period was reviewed.

Audit commentary

Power Direct issued three read changes for switch moves during the audit period. No read changes for switch moves were issued to Power Direct.

Review of all three read changes found that the file content was accurate, and the reads recorded in PowerCentre reflected the outcome of the RR process.

JCC's system applies the agreed switch readings for reconciliation purposes. The agreed readings are obtained from the registry.

No late read change requests or acknowledgements were identified on the switch breach history report.

Audit outcome

Compliant

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 1 June 2017 to 29 May 2018 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period. Power Direct does not intend to supply any meters with category 3 or higher.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

Within 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 1 June 2017 to 29 May 2018 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period. Power Direct does not intend to supply any meters with category 3 or higher.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

An event detail report for 1 June 2017 to 29 May 2018 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period. Power Direct does not intend to supply any meters with category 3 or higher.

Audit outcome

Compliant

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

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

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

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

Audit observation

The switch withdrawal process was examined.

The event detail report for 1 June 2017 to 29 May 2018 was examined to identify all switch withdrawal requests and acknowledgements.

- 10 switch withdrawal requests (NWs) were issued by other retailers. Of those, eight were accepted by Power Direct and two were rejected.
- Three NWs were issued by Power Direct, and accepted by the other retailer.

The content of all three NWs issued by Power Direct was checked, to confirm that the withdrawal codes provided were accurate.

The two AWs which rejected another trader's NW were checked, to confirm that the rejection was valid.

The switch breach report was reviewed. The event detail report was also analysed to confirm timeliness of switch withdrawal requests, as this is not currently being identified in the switch breach report.

Audit commentary

The process documented in the switching business rules, switching send withdrawal, and switching receive withdrawal documents achieves compliance.

Review of all NWs issued confirmed that the correct withdrawal codes were applied for two of the three NWs. For ICP 0000006358NTCB1, the metering issue (MI) code was applied. The metering issue code was selected because the customer had a pre-pay meter, which Power Direct does not normally supply. Power Direct could configure the meter not to be pre-pay, and the switch was ultimately withdrawn because the customer decided to cancel the switch, so the customer cancellation (CX) code should have been applied. This is recorded as non-compliance below.

All AW rejections were reviewed and found to be valid.

No late NW or AW files were identified on the switch breach report. Analysis of the event detail report found that all NW requests were issued within four working days.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.15 With: Clauses 17 and 18 Schedule 11.3 From: 21-Feb-18 To: 21-Jul-18	One ICP had an incorrect NW code applied. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because Power Direct staff are aware of when each code should be used, and most NWs had the correct code applied. This was the first NW and first pre-pay meter for Power Direct, and an incorrect code was selected due to human error. The impact is rated as low, and the NW was accepted by the other retailer.		
Actions taken to resolve the issue		Completion date	Remedial action status
No backdate of this information can be completed but we have made notes on the customer's account to advise of the error. This NW was actually the first one in this situation that we completed and therefore we have spent time understanding the applicable codes and when each one should be used. Meters are now checked carefully before an arrangement with the customer is undertaken to ensure that only AMI communicating meters are in fact switched in.		DONE	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
We now understand when the MI code can be applied and have re-added comments to our documentation to ensure the correct codes are added into the NW files moving forward – should any confusion arise, we will seek the advice of Chrissy to ensure that compliance moving forward is maintained. Also comments as above.	DONE	

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. Examples to confirm this procedure have been examined as part of the sending of final information for switches and read requests made.

Audit commentary

All meter readings used in the switching process are validated meter readings or permanent estimates. This process is discussed further in **sections 4.3** and **4.10**.

Power Direct'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.

Win-back processes were discussed, and the switching business rules document was reviewed.

The event detail report for 1 June 2017 to 29 May 2018 was analysed to identify all withdrawn switches with a CX code applied prior to the switch completion date.

Audit commentary

The process documented in the switching business rules achieves compliance.

Power Direct has been a save protected retailer since 16/08/2017 and does not complete any win-back activity.

The event detail report identified two NWs with the CX (customer cancellation) withdrawal reason code; both 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 list file for 1 June 2017 to 29 May 2018 was examined to identify any ICPs with distributor or trader unmetered load details recorded.

Processes to identify ICPs with unmetered load were discussed.

Audit commentary

Review of the registry list confirmed that no unmetered load is recorded by the distributor or trader for any Power Direct ICP.

If an ICP is found to have unmetered load during the application process, the ICP will not be accepted. If an ICP is found to have unmetered load after switching in, Power Direct will either ask the customer to switch out, or incorporate the unmetered load into submissions following industry best practice.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (2)(b)

Code related audit information

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

Audit observation

The list file for 1 June 2017 to 29 May 2018 was examined to identify any ICPs with distributor or trader unmetered load details recorded.

Audit commentary

Review of the registry list confirmed that no unmetered load is recorded by the distributor or trader for any Power Direct ICP.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The list file for 1 June 2017 to 29 May 2018 was examined to identify any ICPs with distributor or trader unmetered load details recorded, and the unmetered threshold is exceeded.

Audit commentary

Review of the registry list confirmed that no unmetered load is recorded by the distributor or trader for any Power Direct ICP.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

The list file for 1 June 2017 to 29 May 2018 was examined to identify any ICPs with distributed unmetered load.

Audit commentary

Review of the registry list confirmed that no distributed unmetered load is recorded for any Power Direct ICP.

Audit outcome

Compliant

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

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

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

Audit observation

Processes for distributed generation were reviewed.

A registry list file for 1 June 2017 to 29 May 2018 was examined to confirm whether Power Direct had supplied any ICPs with generation during the audit period, and to determine whether all ICPs are metered.

Audit commentary

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

ICP 0000052041NTEBA has generation capacity and import/export metering installed and switched in during March 2018. Review of HHR aggregates submissions for February and March 2018 confirmed that generation consumption is being recorded and reported.

Changes to distributed generation details for existing ICPs will be identified through JCC's weekly check of registry notification files discussed in **section 2.1**.

No bridged meters were identified during the audit period. Power Direct ensures that only active ICPs switch in, and has not disconnected or reconnected any ICPs.

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 Power Direct 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 1 June 2017 to 29 May 2018 was reviewed, to identify any ICPs with profiles that require certification of the control device.

Audit commentary

Examination of the list file found that Power Direct has only used the RPS and HHR profiles. 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. No defective meters were identified during the audit period.

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, Power Direct raises a field services job to investigate.

No defective meters have been identified during the audit period. There have been a small number of meters with communication issues which were followed up with the MEP.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.2

Code related audit information

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

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

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

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

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

- a) ensure the system is to within +/- 5 seconds of NZST or NZDST*
- b) compare the meter time to the system time*
- c) determine the time error of the metering installation*

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

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

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

Audit observation

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

MEPs are to advise Power Direct of clock synchronisation discrepancies and adjustments. I discussed clock synchronisation events with Power Direct, and viewed a file showing analysis of AMS meter event logs.

Audit commentary

All information used to determine volume information is collected from the services interface or the metering installation by the MEP. Compliance with this clause has been demonstrated by as part of their MEP audits.

MEPs are to advise Power Direct of clock synchronisation discrepancies and adjustments. The data received is reviewed and acted upon by JCC:

- Metrix and FCLM advise of clock synchronisation events via email, and no events have been received to date.
- AMS provide full meter event logs including clock synchronisation events. JCC reviews these weekly and no issues have been identified between 21 March 2017 and 20 June 2018.

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. No manual, customer, or photo reads are received.

Audit commentary

AMI data is provided by AMS, Metrix, Smartco, and FCLM. Validated readings are derived from actual meter readings.

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

Since 24 October 2017, consumption has been submitted as HHR except for two ICPs which Metrix temporarily cannot provide half hour data for.

Application of NHH reads was reviewed as part of the historic estimate checks in **section 12.11** and found to be compliant. The content of CS files was examined in **sections 4.3** and **4.10**. Switch in readings are appropriately treated as if they have occurred at midnight on the switch in date.

Audit outcome

Compliant

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

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

The process to manage missed reads was examined.

The event detail report for 1 June 2017 to 29 May 2018 was reviewed to identify all ICPs which had a period of supply end during the audit period. The ICPs were reviewed to determine whether they had an actual reading during the period of supply.

Audit commentary

All ICPs have AMI metering.

Four ICPs have had a NHH submission type at some stage during the audit period; all received at least one actual AMI reading during the period of supply.

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 the months of June 2017 to April 2018 were reviewed.

The reports were reviewed to confirm that they were accurate and submitted on time.

Audit commentary

Review of the monthly meter reading reports confirmed that the read attainment requirements were met.

Month	Total NSPs where ICPs were supplied > 12 months	NSPs <100% read	ICPs unread for 12 months	Overall percentage read
June 2017	0	0	0	100%
July 2017	0	0	0	100%
August 2017	0	0	0	100%

Month	Total NSPs where ICPs were supplied > 12 months	NSPs <100% read	ICPs unread for 12 months	Overall percentage read
September 2017	0	0	0	100%
October 2017	0	0	0	100%
November 2017	0	0	0	100%
December 2017	0	0	0	100%
January 2018	0	0	0	100%
February 2018	0	0	0	100%
March 2018	0	0	0	100%
April 2018	0	0	0	100%

As discussed in **section 6.8**, all ICPs have AMI metering and most are submitted as HHR. Power Direct works with the MEPs to resolve any issues preventing read attainment.

I reviewed meter reading reports for September 2017 to May 2018, and confirmed that they met the meter reading frequency report requirements and were sent before the 20th business day of each month.

Audit outcome

Compliant

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

The meter reading process was examined. Monthly reports for the months of June 2017 to April 2018 were reviewed.

Audit commentary

Review of the monthly meter reading reports confirmed that the read attainment requirements were met.

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	ICPs unread for 4 months	Overall percentage read
June 2017	2	0	0	100%
July 2017	2	0	0	100%
August 2017	1	0	0	100%
September 2017	1	0	0	100%
October 2017	1	0	0	100%
November 2017	1	0	0	100%
December 2017	1	0	0	100%
January 2018	1	0	0	100%
February 2018	0	0	0	100%
March 2018	0	0	0	100%
April 2018	0	0	0	100%

As discussed in **section 6.8**, all ICPs have AMI metering and most are submitted as HHR. Power Direct works with the MEPs to resolve any issues preventing read attainment.

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 AMI data is collected by MEPs. The data interrogation log requirements were reviewed as part of their MEP audits.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

HHR AMI data is provided by AMS, FCLM, and Smartco as MEPs.

Audit commentary

MEPs are responsible for HHR data collection, and this is reviewed as part of their audits. Only the MEPs can interrogate the meters where Power Direct is the trader.

Audit outcome

Compliant

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

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

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

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

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

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

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

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

Audit observation

HHR AMI data is provided by AMS, FCLM, and Smartco as MEPs.

Audit commentary

MEPs are responsible for meeting the meter interrogation data requirements, and compliance was demonstrated as part of their MEP audits.

Audit outcome

Compliant

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

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

HHR AMI data is provided by AMS, FCLM, and Smartco as MEPs.

Audit commentary

MEPs are responsible for meeting the meter interrogation log requirements, and this is reviewed as part of their audits.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

HHR AMI data is provided by AMS, FCLM, and Smartco as MEPs.

Audit commentary

Compliance with this clause has been demonstrated by the MEPs as part of their MEP audits.

Audit outcome

Compliant

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

Code reference

Clause 18 Schedule 15.2

Code related audit information

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

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

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

Audit observation

Processes to archive and store raw meter data were reviewed. Raw meter data was viewed to ensure that it is retained.

Audit Commentary

I confirmed that reads are retained from the date that the customer switches in. Power Direct intends to retain meter reading data for at least seven years, and I confirmed that the earliest reads for Power Direct's first customer were still available.

I confirmed that readings cannot be modified without an audit trail being created **section 2.4.**

Audit outcome

Compliant

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

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

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

Audit observation

Processes to record non-metering information were discussed.

Audit commentary

No non-metering information is collected by Power Direct.

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

Correction of NHH meter readings is completed by JCC as Power Direct's agent. JCC's RM and Network Submission Processes document was reviewed.

Audit commentary

No NHH corrections were made during the audit period. JCC has processes in place to ensure that any corrections are compliant.

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

Correction of HHR meter readings is completed by JCC as Power Direct's agent. JCC's RM and Network Submission Processes document was reviewed.

Audit commentary

No HHR corrections were made during the audit period. JCC has processes in place to ensure that any corrections are compliant.

Audit outcome

Compliant

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

Audit observation

The registry list for 1 June 2017 to 29 May 2018 was reviewed.

Audit commentary

Power Direct has only supplied ICPs with metering category 1. 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

Correction of NHH and HHR meter readings is completed by JCC as Power Direct's agent. JCC's RM and Network Submission Processes document was reviewed.

Audit commentary

No corrections occurred during the audit period. Retention of raw metering data is discussed in **section 7.2** and audit trails are discussed in **section 2.4**.

Audit outcome

Compliant

9. ESTIMATING AND VALIDATING VOLUME INFORMATION

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

Code reference

Clause 3(3) Schedule 15.2

Code related audit information

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

Audit observation

The event detail report for 1 June 2017 to 29 May 2018 was reviewed to identify all CS and RR files provided to other participants during the audit period. Each file was checked and found to contain only actual reads. The accuracy of readings provided in all CS files, all switch move RR files and a sample of transfer RR files was checked in **sections 4.4, 4.10 and 4.11**.

The estimation process and classification of estimate reads was discussed.

Audit commentary

Reads are correctly classified as actual or estimate in PowerCentre and JCC's system. Review of a sample of reads confirmed this.

No NHH estimates were created by Power Direct during the audit period, but I verified that estimated switch in reads were correctly labelled.

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

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

Meter data is collected by AMS, Smartco, FCLM and Metrix as MEPs. Compliance was assessed as part of their MEP audits.

Audit commentary

The MEPs retain the raw, unrounded data.

Compliance with this clause has been demonstrated by AMS, Smartco, FCLM and Metrix as part of their MEP audits.

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

HHR estimates are created by JCC as Power Direct's agent.

The HHR estimate process was examined including review of the RM and Network Submission Processes document. A sample of nine estimates were reviewed.

Audit commentary

When HHR data has not been received data prior to the deadline for providing submission information, estimated data is provided.

Missing data requiring estimation is identified through JCC's pre submission checks or through Power Direct's billing process. JCC creates estimates where they are required and communicates these to Power Direct via email. Power Direct loads these estimates into PowerCentre.

There is a requirement to use "reasonable endeavours" to ensure this data is accurate to within 10%. The process documented in JCC's RM and Network Submission Processes document is sufficient to achieve

compliance. A sample of nine HHR estimates were reviewed. In one case, actual data was later provided and the estimated data was accurate within 10%.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

NHH metering information validation is completed by JCC as an agent to Power Direct. JCC's RM and Network Submission Processes document was reviewed.

Four ICPs have had a NHH submission type at some stage during the audit period.

Audit commentary

JCC's NHH validation process meets the requirements of Clause 16 of Schedule 15.2, and will identify invalid data and consumption outside of the expected pattern or range.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

17(4)(c) - checks of unexpected 0 values

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

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

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

Audit observation

HHR metering information validation is completed by JCC as an agent to Power Direct.

I reviewed the process to identify meter events that require investigation, and viewed a file showing analysis of AMS meter event logs.

Audit commentary

Each validity check of a meter reading obtained by electronic interrogation and each estimated reading must be at a frequency that will allow a further interrogation of the data storage device before the data is overwritten, and before the data can be used for any purpose under this Code. The MEPs each undertake some validation checks as part of their MEP function.

The Code requires “...a review of meter and data storage device event log. Any event that could have affected the integrity of metering data must be investigated.”

MEPs are to advise Power Direct of meter events. The data received is reviewed and acted upon by JCC:

- Metrix and FCLM advise of events via email, and no events have been received to date. Given that Metrix and FCLM are MEPs for two Power Direct ICPs each, this level of monitoring is sufficient.
- AMS provide full meter event logs. JCC reviews these weekly and no issues have been identified between 21 March 2017 and 20 June 2018.

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

Power Direct 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. Un-offered & 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 un-offered 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

Power Direct 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

Power Direct 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

Power Direct 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

The registry list for 1 June 2017 to 29 May 2018 was reviewed, to identify the profiles applied by Power Direct.

Audit commentary

Examination of the list file found that Power Direct has only used the RPS and HHR profiles. Trading notifications were 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

ICP days reporting is completed by JCC as Power Direct's agent. The process for the calculation of ICP days was examined by checking all NSPs for April 2018.

The GR100 ICP comparison files were reviewed for 11 months.

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

Audit commentary

AV110 ICP days reporting is based on the registry list file report. The process to identify and resolve registry discrepancies is discussed in **section 2.1**.

The calculation of ICP days was examined by checking all NSPs for April 2018. The ICP days calculation was confirmed to be correct.

The following table shows there were no differences between Power Direct files and the RM return file (GR100) for all available revisions for the 11 months reviewed.

Month	Ri	R1	R3	R7	R14
Jun 2017	0.00%	0.00%	0.00%	0.00%	-
Jul 2017	0.00%	0.00%	0.00%	0.00%	-
Aug 2017	0.00%	0.00%	0.00%	0.00%	-
Sep 2017	0.00%	0.00%	0.00%	0.00%	-
Oct 2017	0.00%	0.00%	0.00%	0.00%	-
Nov 2017	0.00%	0.00%	0.00%	-	-
Dec 2017	0.00%	0.00%	0.00%	-	-
Jan 2018	0.00%	0.00%	0.00%	-	-
Feb 2018	0.00%	0.00%	0.00%	-	-
Mar 2018	0.00%	0.00%	-	-	-
Apr 2018	0.00%	0.00%	-	-	-

No breaches were identified for late provision of ICP days submissions.

Audit outcome

Compliant

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

As billed reporting was completed by JCC as Power Direct's agent based on the initial allocation submission up until the April 2018 initial submission.

From the May 2018 initial submission onwards, submissions have been prepared by Power Direct based on the billed volumes for the calendar month. The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs to confirm the May 2018 AV120 calculation was correct.

GR130 reports for February 2017 onwards were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

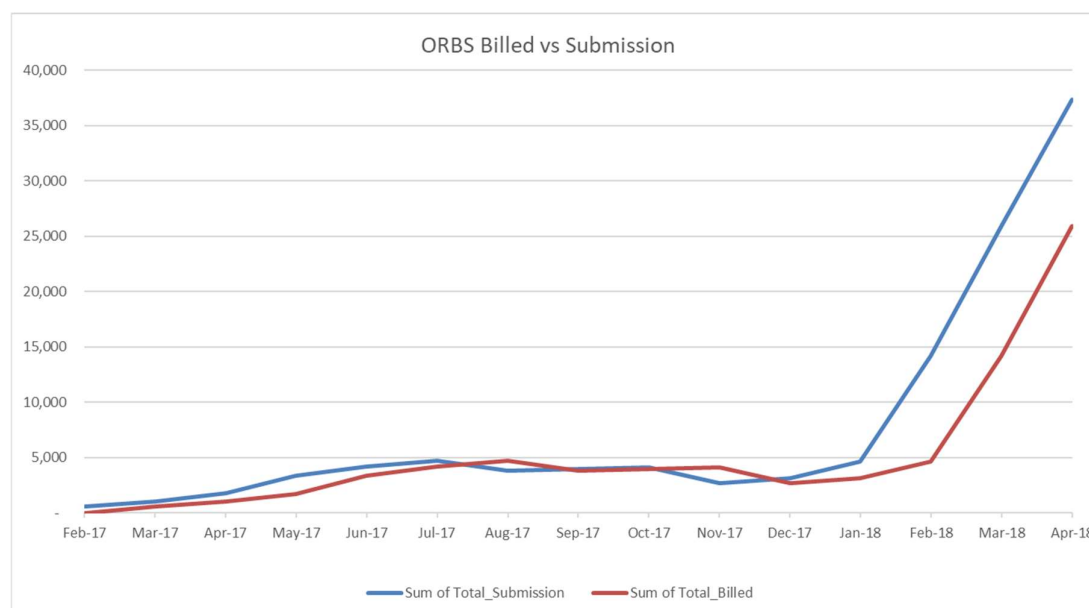
Audit commentary

Initially, Power Direct's as billed submissions were based upon the initial allocation submission data for the month prior. This process effectively treated consumption as though it was being billed with a zero charge, because Power Direct was not producing invoices.

In June 2018, once the reporting process had been changed to report on actual billing information, revised AV120 reports were provided for September 2017 to April 2018. I saw evidence that these revision files were submitted to the RM.

For February 2017 to April 2018, I compared submissions and electricity supplied information. The differences related to timing; once the different periods for billed and submitted data were accounted for the data matched within 0.1%. This is as expected, because the GR130 reports reviewed were created using the earlier revisions of the AV120 reports (based on the initial allocation data).

Comparison between Submitted Volumes and Electricity Supplied



For May 2018, I checked that the AV120 submission was consistent with the ICP level supporting data for all NSPs. I also checked that the ICP level supporting data matched the total consumption invoiced to the ICP during the month for five ICPs and 25 invoices.

Audit outcome

Compliant

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

Code reference

Clause 15.8

Code related audit information

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

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

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

Audit observation

HHR volumes and aggregates reporting is completed by JCC as Power Direct's agent.

I confirmed that the process for the calculation and aggregation of HHR data is correct by

- matching HHR aggregates information with the HHR volumes data for 20 submissions; and
- matching one month's aggregate volumes for 12 ICPs to the source files.

The GR090 ICP Missing files were examined for all revisions from October 2017 to April 2018.

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

Audit commentary

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

I confirmed that the process for the calculation and aggregation of HHR data is correct, by matching HHR aggregates information with the HHR volumes data for 20 submissions. There were only small rounding differences between the volumes and aggregates, with differences less than $\pm 0.02\%$ and ± 6 kWh across each submission. One month's volumes for 12 ICPs were traced from the HHR aggregates submission to source information and found to be consistent.

GR090 ICP Missing files were examined for all revisions for February 2017 to January 2018, and no missing ICPs were identified.

No breaches were identified for late provision of HHR volumes or aggregates.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.4 With: Clause 15.8 From: June 2017 To: April 2018	HHR aggregates file does not contain electricity supplied information. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Actions taken to resolve the issue	Completion date		
Low	The issue relating to content of the aggregates file is an error in the code, Power Direct is providing submission information as expected.		
Preventative actions taken to ensure no further issues will occur	Completion date	Remedial action status	
N/A – this is an issue for the EA to fix and not something that ORBS processes can rectify	N/A	Identified. No action can be taken by Power Direct because the report contains volumes as required by the reconciliation manager functional specification.	
Actions taken to resolve the issue	Completion date		
N/A – this is an issue for the EA to fix and not something that ORBS processes can rectify	N/A		

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

Daylight savings processes for MEPs were reviewed as part of their audits.

A diverse characteristics sample of 12 daylight savings adjustments in April 2018 were reviewed. The sample including AMS, Smartco, and FCLM meters.

No HHR ICPs were supplied when daylight savings began in 2017, and no Metrix HHR meters have had a daylight savings adjustment to date.

Audit commentary

Daylight savings processes for MEPs were reviewed as part of their audits.

The “trading period run on” technique is used for daylight saving adjustment. This was confirmed by checking data recorded for the end of daylight savings in April 2018. The correct number of trading periods were recorded for the sample of daylight savings adjustments reviewed.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

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

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

Audit observation

NHH and HHR reconciliation submissions are created by JCC as Power Direct’s agent.

Prior to October 2017 all ICPs had submission type NHH. From 24 October 2017, ICPs have had submission type HHR with the exception of two Metrix ICPs temporarily being reported with submission type NHH from May 2018.

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

Audit commentary

A sample of HHR submissions and NHH submissions were checked for accuracy in **sections 11.4, 12.11 and 12.12**. No issues were identified.

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

Audit outcome

Compliant

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

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

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

Audit observation

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

The process for aggregating the AV080 was examined by checking submissions for July to October 2017. The GR170 to AV080 files for July to October 2017 were compared, to confirm zeroing occurs.

Two upgrades to HHR were completed on 24 October 2017. NHH and HHR submission data for October 2017 was checked to confirm that the ICPs were treated correctly. No downgrades occurred during the audit period.

Audit commentary

JCC refreshes reconciliation data from the registry immediately prior to running reconciliation reports to ensure that aggregation factors and statuses are correct.

JCC provides a copy of reconciliation submissions to Power Direct. Power Direct staff check the submission data for reasonableness, and query any issues found with JCC.

A registry list for 1 June 2017 to 29 May 2018 was compared to detailed and summary AV080 submissions for July to October 2018, which confirmed aggregation factors were applied for the correct dates.

GR170 and AV080 files were compared for July to October 2017, and found to contain the same NSPs.

I checked the process for NHH to HHR upgrades, and confirmed that all consumption was accounted for.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

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

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

Audit observation

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

Audit commentary

Power Direct is not responsible for any GIPs; compliance was not assessed.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

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

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

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

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

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

Power Direct is not a grid connected generator; compliance was not assessed.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

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

Audit observation

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

Correction processes are discussed in **sections 8.1** and **8.2**.

Audit commentary

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

No inaccurate submission information was identified during the audit.

Audit outcome

Compliant

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

Code reference

Clause 4 Schedule 15.2

Code related audit information

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

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

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

Audit observation

No NHH ICPs have been supplied for more than 14 months.

Submission information was reviewed to confirm whether actual or permanent estimate readings were applied when ICPs changed from NHH to HHR.

Audit commentary

Four ICPs have had a NHH submission type at some stage during the audit period; two have been upgraded to HHR, and two switched in during May and are expected to upgrade to HHR.

Review of submission information confirmed that the final readings for the two NHH ICPs which upgraded to HHR were actual.

The affected ICPs all have AMI metering and receive regular actual readings. It is not expected that any ICPs will have a NHH submission type for 14 months or longer.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

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

- b) for each NSP the compensation factor that is recorded in the metering installations most recent certification report. (clause 2(3)(b))*

Audit observation

Aggregation and content of reconciliation submissions was reviewed.

Audit commentary

JCC prepares submission information for each NSP for the relevant consumption periods in accordance with these clauses.

Compliance with this clause was assessed:

- all Power Direct's ICPs have metering category 1
- no ICPs with unmetered load are supplied
- no profiles requiring a certified control device are used
- no loss or compensation arrangements are required
- aggregation of the AV080 reports is compliant.

Audit outcome

Compliant

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

Code reference

Clause 3 Schedule 15.3

Code related audit information

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

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

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

Audit observation

41 AV080 submissions for revisions 0 to 7 were reviewed, 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 41 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

Historic estimate is calculated by JCC as Power Direct's agent.

Four NHH ICPs were supplied during the audit period:

- two were submitted as NHH until they upgraded to HHR on 24 October 2017
- two Metrix ICPs switched in during May 2018 and will be submitted as NHH until they are upgraded or an approved profile can be arranged.

JCC provided July 2017 to October 2017 reconciliation submissions, accompanied by supporting data and seasonal adjusted daily shape values (SASV) used to calculate the submissions. I re-performed the calculations for one revision each for July, August, September and October 2017. This included a check that the correct shape files had been applied.

Audit Commentary

Historic estimate was manually recalculated using the correct SASV files for one revision each for July, August, September and October 2017. All scenarios that occurred were found to be compliant.

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.	Did not occur
b	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Did not occur
c	ICP become Inactive then Active again within a month.	Consumption is only calculated for the Active portion of the month.	Did not occur
d	ICP switches in part way through a month on an estimated switch reading	Consumption is calculated to include the 1st day of responsibility.	Did not occur
e	ICP switches out part way through a month on an estimated switch reading	Consumption is calculated to include the last day of responsibility.	Did not occur
f	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	Did not occur

Test	Scenario	Test expectation	Result
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.	Did not occur
I	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Did not occur
J	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Did not occur
k	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Did not occur
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.	Did not occur
m	ICP with a customer read during the month	Customer reads are not used to calculate historic estimate unless appropriately validated.	Did not occur
n	ICP with a photo read during the month	Photo reads are not used to calculate historic estimate.	Did not occur
o	ICP has a meter with a multiplier greater than 1	The multiplier is applied correctly.	Did not occur
p	ICP is upgraded to HHR part way through the month	Consumption is calculated up to the last day the ICP is NHH	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

Forward estimate is calculated by JCC as Power Direct's agent.

I reviewed all AV080 submissions to date, to confirm the amount of forward estimate. Forward estimates were checked for accuracy by analysing variances between revisions over the audit period.

Audit Commentary

Power Direct has supplied four ICPs with NHH submission type during the audit period.

Power Direct's forward estimate process is based on the average daily consumption for the previous read period for each meter register. If previous read period information is not available, the forward estimate consumption is based on the estimated daily consumption provided by the previous retailer in the CS file.

Forward estimate is rarely applied because readings are obtained at the end of each month. Review of the AV080 submissions for February 2017 to November 2017 confirmed that there was zero forward estimate.

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

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

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Feb 2017	0	0	0	-	2
Mar 2017	0	0	0	-	2
Apr 2017	0	0	0	-	2
May 2017	0	0	0	-	2
Jun 2017	0	0	0	-	2
Jul 2017	0	0	0	-	2
Aug 2017	0	0	0	-	2
Sep 2017	0	0	-	-	2
Oct 2017	0	0	-	-	2

Total Variation between Revisions

Month	Revision 1	Revision 3	Revision 7	Revision 14
Feb 2017	-5.88%	0.15%	0.15%	-
Mar 2017	0.11%	-0.27%	-0.26%	-

Month	Revision 1	Revision 3	Revision 7	Revision 14
Apr 2017	0.00%	-0.30%	-0.30%	-
May 2017	0.00%	0.00%	0.00%	-
Jun 2017	0.00%	0.00%	0.00%	-
Jul 2017	0.00%	0.00%	0.00%	-
Aug 2017	0.00%	0.00%	0.00%	-
Sep 2017	0.00%	0.00%	-	-
Oct 2017	0.00%	0.00%	-	-

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

Two upgrades to HHR were completed on 24 October 2017. NHH and HHR submission data for October 2017 was checked to confirm that an actual read occurred on the day of the profile change. No downgrades occurred during the audit period.

Audit commentary

I checked the process for NHH to HHR upgrades, and confirmed that all consumption was accounted for and actual reads were applied.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

Audit observation

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

The content of a sample of reports to the reconciliation manager were reviewed.

Audit commentary

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

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

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

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

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

Audit observation

I reviewed the rounding of data on the AV080, AV090 and AV140 and reports as part of the aggregation checks.

Audit commentary

Review of 20 AV080 non half hour volumes reports confirmed that submission data is rounded to two decimal places.

Review of 20 AV090 half hour volumes reports confirmed that submission data is rounded to two decimal places.

Review of 20 AV140 half hour aggregates reports confirmed that submission data is 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

Historic estimate is reported by JCC as Power Direct's agent.

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

I reviewed nine months of AV080 reports to confirm that historic estimate requirements were met.

Audit commentary

The quantity of historical estimates is contained in the submission file and is not a separate report. The table below shows that the three and seven month targets were met. No NHH ICPs were supplied for more than 14 months.

Quantity of NSPs where revision targets were met.

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Quantity of NSPs
Feb 2017	2	2	-	2

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Quantity of NSPs
Mar 2017	2	2	-	2
Apr 2017	2	2	-	2
May 2017	2	2	-	2
Jun 2017	2	2	-	2
Jul 2017	2	2	-	2
Aug 2017	2	2	-	2
Sep 2017	2	-	-	2
Oct 2017	2	-	-	2

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

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met
Feb 2017	100%	100%	-
Mar 2017	100%	100%	-
Apr 2017	100%	100%	-
May 2017	100%	100%	-
Jun 2017	100%	100%	-
Jul 2017	100%	100%	-
Aug 2017	100%	100%	-
Sep 2017	100%	-	-
Oct 2017	100%	-	-

Audit outcome

Compliant

CONCLUSION

Power Direct began trading in February 2017. At the beginning of the audit period, Power Direct supplied two NHH ICPs. On 24 October 2017 Power Direct changed the submission type for the ICPs to HHR, and further HHR customers were gained from December 2017 onwards.

In May 2018, Power Direct switched in ICPs 1001287453UNF44 and 1001295576UNDFB which have Metrix as an MEP. Because the meters are not certified as HHR, Power Direct will submit the consumption as NHH until Metrix can provide certified data, or an approved profile can be arranged.

John Candy Consulting (JCC) provides reconciliation services and support for both HHR and NHH meters. Chrissy Burrows of Momentous Consulting has provided extensive training and assisted the Power Direct team to understand their obligations, and to develop and document compliant business processes.

Improvements have been made during the audit period, and all non-compliances and recommendations raised in the previous audit have been cleared. Three minor non-compliances were identified, and are set out in the audit summary.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of three, which results in an indicative audit frequency of 24 months. Power Direct intends to grow their customer base significantly over the next two years and I recommend that their next audit be completed in approximately 18-20 months, to confirm that processes and controls are operating as expected with a larger volume of activity.

PARTICIPANT RESPONSE

Power Direct have reviewed this report and their comments are contained within its body.