

ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT



For

FLICK ENERGY LIMITED

Prepared by: Tara Gannon

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Date audit report completed: 6 December 2017

Audit report due date: 19 January 2018

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EXECUTIVE SUMMARY

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

Flick's registry validation processes remain robust, and have been improved since the previous audit. Focus on compliance has increased, and a dedicated compliance manager was recently appointed.

Flick's registry processes, including switching, are largely completed manually on the registry. I believe the manual nature of these processes has significantly contributed to the small numbers of late files and data inaccuracies observed during the audit. Flick intends to migrate to a new system, and eventually automate switching processes, which should improve compliance by reducing the likelihood of manual processing errors.

Flick experienced high customer churn in winter 2017, and I saw an increase in late files and data inaccuracies as additional staff were brought in to cope with the increased workload. The instances of non-compliance dropped sharply later in the year as workload settled.

Flick's customer base has continued to grow, and the teams responsible for reconciliation participant activities have increased staff numbers. Some non-compliances found related to periods immediately after new staff began work, and Flick has been working to improve their process documentation and training, and increase monitoring and quality assurance. A new internal audit plan is currently in the review and approval process, and is expected to help improve compliance.

During the audit period, some incorrect read renegotiation files issued by Flick were identified, and the Authority requested emphasis on read changes, including the requirement to provide complete and accurate information when providing an RR request. Large numbers of files were reviewed during the audit, and I found that there were some cases where incorrect reads were applied in the read renegotiation files, or that the reads in Flick's data repository were inconsistent with the agreed read. This also affected the accuracy of reconciliation submissions. I found that most files were correct, and the issues largely seemed to be manual data processing errors.

The difference between as billed and submitted volumes continue to be larger than expected, and I repeat the previous audit's recommendation that this should be investigated.

The audit found 19 non-compliance issues, two recommendations are made, and no issues are raised.

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 38, which results in an indicative audit frequency of 12 months. I have considered this result in conjunction with Flick's responses, and agree with the indicative audit period.

The matters raised are shown in the tables below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	10.6, 11.2, 15.2	One ICP had an incorrect profile assigned.	Strong	Low	1	Cleared
Changes to registry information	3.3	10 Schedule 11.1	152 late status updates.	Moderate	Low	2	Identified
ANZSIC codes	3.6	9 (1(k) of Schedule 11.1	Incorrect ANZSIC codes were recorded on the registry for some business ICPs.	Moderate	Low	2	Cleared
AN files for standard switches	4.2	3 and 4 Schedule 11.3	Switch event dates were not within 10 business days after receipt of an NT file for five switches due to processing errors. The "AA" (accept and acknowledge) or "OC" (occupied premises) AN response codes were applied for four ICPs with advanced metering installed.	Moderate	Low	2	Identified
Information for standard switches	4.3	5 Schedule 11.3	Nine late CS files for transfer switches. Incorrect average daily consumption was provided for one ICP.	Weak	Low	3	Identified
Read changes for standard switches	4.4	6(1) and 6A Schedule 11.3	Three RR files for transfer switches did not contain correct readings. For eight ICPs, the readings recorded in Flick's Data Repository were inconsistent with the readings agreed with the other retailer.	Moderate	Medium	4	Investigating
NHH read changes for HHR submission type	4.5	6(2) and (3) Schedule 11.3	Three RR files issued under clause 6.2 of schedule 11.3 did not contain correct readings.	Moderate	Low	2	Investigating

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Information for switch moves	4.8	10(1) Schedule 11.3	Due to processing errors, switch event dates were earlier than the requested date for two switches. The "AA" (accept and acknowledge) AN response code was applied for two ICPs with advanced metering installed.	Moderate	Low	2	Identified
Switch dates for switch moves	4.9	10(2) Schedule 11.3	Two ICPs had event dates set earlier than the gaining trader requested date.	Strong	Low	1	Identified
Final information for switch moves	4.10	11 Schedule 11.3	At least one late switch move CS file. Incorrect average daily consumption was provided for one ICP.	Moderate	Low	2	Identified
Read changes for switch moves	4.11	12 Schedule 11.3	One AC file was one day late. One RR file for a switch move did not contain correct readings. For six ICPs, the readings recorded in Flick's Data Repository were inconsistent with the readings agreed with the other retailer.	Moderate	Medium	4	Investigating
Switch withdrawals	4.15	17 and 18 Schedule 11.3	15 switch withdrawal requests were backdated greater than two months from the event date.	Strong	Low	1	Identified
Maintaining shared unmetered load	5.1	11.14	0005039797RN40C had shared unmetered load connected between 13/03/2017 and 26/04/2017, which was not reported by Flick. This resulted in under submission by 3.6 kWh.	Strong	Low	1	Identified
Electricity conveyed	6.1	10.13 and clause 15.2	Energy is not metered and quantified according to the code where meters are bridged.	Moderate	Low	2	Investigating

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
NHH reading application	6.7	6 Schedule 15.2	Four incorrect RR readings were provided.	Moderate	Low	2	Investigating
HHR corrections	8.2	19(2) Schedule 15.2	There is no procedure to estimate unrecorded consumption during bridged periods. A correction was not processed for the period ICP 1000755980UNFB5's meter was bridged.	Moderate	Low	2	Investigating
ICP days	11.2	15.6	Inactive ICP days are included in the AV110 report, if an ICP is inactive and active during the month. AV110 data is not zeroed where Flick has previously submitted ICP days, but there are no ICP days reported in the current revision.	Moderate	Low	2	Identified
HHR Aggregates	11.4	15.8	HHR aggregates file does not contain electricity supplied information.	Strong	Low	1	Identified
Accuracy of submission information	12.7	15.12	Some submission information was incorrect, due to a correction not being processed, some volumes not being based on agreed switch readings, and an inaccurate correction for multipliers.	Moderate	Low	2	Investigating
Future Risk Rating						38	

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
CS creation	4.10	Clause 11 Schedule 11.3	Automate the CS process to

Subject	Section	Description	Recommendation
			reduce the likelihood of late files, and inaccurate file content.
Billed data	11.3	Clause 15.7	Monitor as billed versus submission volumes over the coming months. Investigate to confirm the reason for the variance between billed and submitted volumes.

ISSUES

Subject	Section	Description	Issue
		Nil	

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

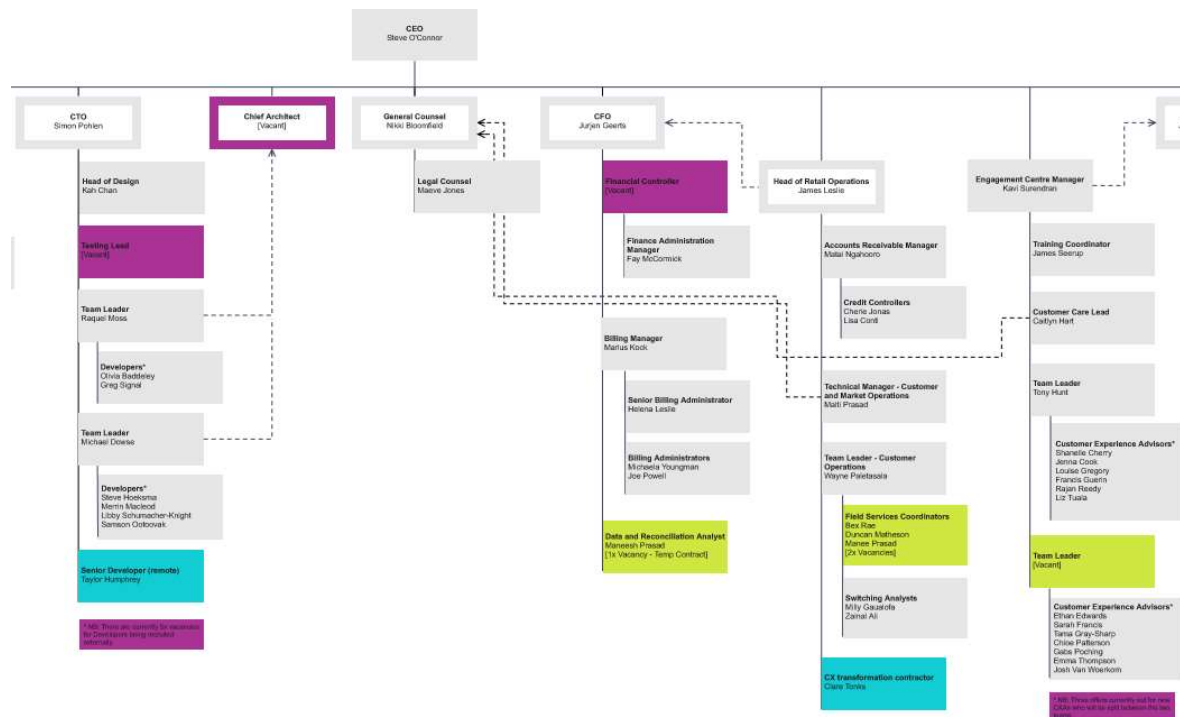
Audit observation

Current code exemptions were reviewed on the Electricity Authority website.

Audit commentary

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

1.2. Structure of Organisation



1.3. Persons involved in this audit

Auditor:

Tara Gannon

Veritek Limited

Electricity Authority Approved Auditor

Flick personnel assisting in this audit were:

Name	Title
Malti Prasad	Compliance Manager – Customer and Market Operations
Maneesh Prasad	Data Compliance and Reconciliation Analyst
Richard Wills	Independent Contractor
James Leslie	Head of Retail Operations
Simon Pohlen	Chief Technical Officer
Zainal Ali	Field Services & Switching Analyst

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

Flick receives HHR data from AMS, Arc and Metrix as MEPs. There are no agents involved in the process.

Audit commentary

Not applicable

1.5. Hardware and Software

The table below lists the systems used to meet Flick’s reconciliation participant obligations.

Service Provider	Service(s) provided
Axos	Billing system
SalesForce	SalesForce provides CRM functionality, integrating with following systems: Admin App (automatic one directional) Data Repository (manual) Axos (manual)

Service Provider	Service(s) provided
Umbrella (formerly DigiWeb)	Secure, hosted data warehousing services: Data Warehousing Server Back-ups DR/BCP of Reconciliation Function systems, Customer Portal, Website, Choice App, Provisioning System (Dev, UAT, Prod environments) Domain management services Hot cutover between data warehousing locations (if required)

1.6. Breaches or Breach Allegations

There has been one breach allegation relevant to the scope of this audit between 01/11/2016 and 19/10/2017.

The reconciliation manager alleged a breach of part 15 clause 15.2 (reference 1709FLCK1) on 31/10/2017, because Flick failed to take all practicable steps to ensure that submission data was accurate where a multiplier had been applied incorrectly. Once the error was identified, corrected information was submitted within an hour.

The Authority's Compliance Committee considered the breach and found there was a low impact, and steps had been taken to prevent recurrence. No further action was taken.

1.7. ICP Data

Metering Category	(2017)	(2016)	(2015)
1	21,973	15,071	5,445
2	36	16	1
3	-	-	-
4	-	-	-
5	-	-	-
9	15	-	-

Status	Number of ICPs (2017)	Number of ICPs (2016)	Number of ICPs (2015)
Active (2,0)	21,946	15,015	5,446
Inactive – new connection in progress (1,12)	-	-	-

Inactive – electrically disconnected vacant property (1,4)	13	4	12
Inactive – electrically disconnected remotely by AMI meter (1,7)	26	67	0
Inactive – electrically disconnected at pole fuse (1,8)	-	-	-
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)	3	-	-
Inactive – reconciled elsewhere (1,5)	-	-	-
Decommissioned (3)	37	5	1

1.8. Authorisation Received

An emailed authorisation was received from Flick.

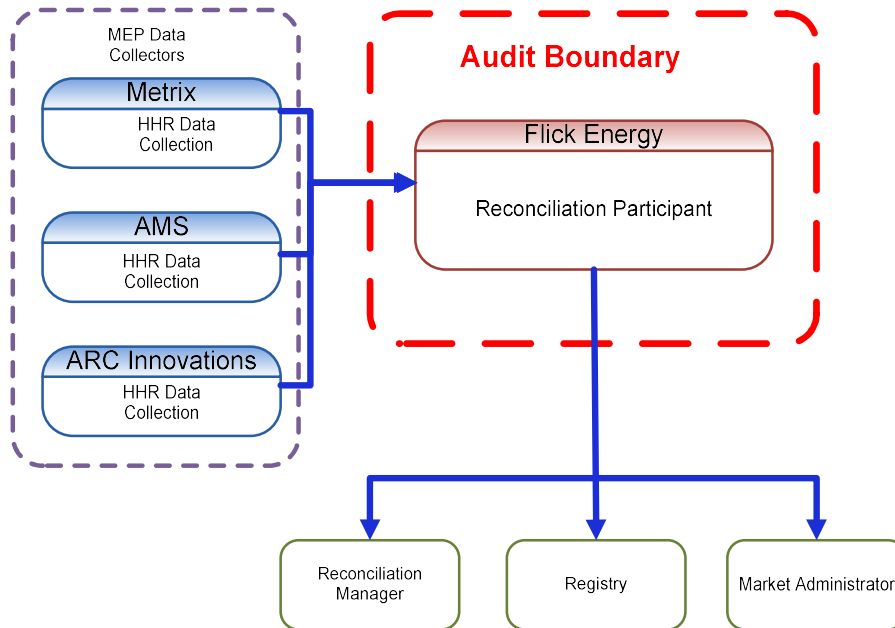
1.9. Scope of Audit

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

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.1.

The audit was carried out at Flick’s premises in Wellington on 15-16 November 2017.

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



The table below shows the tasks under clause 15.38 of part 15 for which Flick requires certification. AMS, Arc, and Metrix provide AMI data as MEPs, not as agents.

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

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing AMI data
(e) – Provision of submission information for reconciliation		

1.10. Summary of previous audit

Flick provided a copy of their previous audit conducted in December 2016 by Tara Gannon of Veritek Limited. The summary tables below show that five of the 10 non-compliances identified are cleared or partially cleared.

Further comment is made in the relevant sections of this report.

Table of non-compliance

Subject	Section	Clause	Non compliance	Remedial Action
Switching	2.1.2	Clause 3 of schedule 11.3	Two AN files contained an incorrect switch response code.	Still existing. Refer to section 4.2.
	2.1.4	Clause 5 of schedule 11.3	18 late CS files for transfer switches.	Still existing. Refer to section 4.3.
			One CS file contained some incorrect data.	Still existing. Refer to section 4.3.
	2.1.5	Clause 6 of schedule 11.3	Flick does not use the same read as the losing trader, where the losing trader has refused an RR request.	Still existing. Refer to section 4.4.
	2.2.1	Clause 9 of schedule 11.3	Two NT files contained an incorrect switch type.	Cleared. Refer to section 4.7.
2.2.2	11 of schedule 11.3	187 late CS files.	Still existing. Refer to section 4.10.	
		Two CS files contained some incorrect data.	Still existing. Refer to section 4.10.	

Subject	Section	Clause	Non compliance	Remedial Action
	2.4	3 of schedule 11.3	One NW contained an incorrect withdrawal code.	Cleared. All NWs reviewed contained the correct codes. Refer to section 4.14.
Registry changes	2.8.3	10 of schedule 11.1	81 late status changes on the registry. 1083 late trader updates on the registry.	Still existing. Refer to section 3.3.
	2.8.10	9(1)(k) of schedule 11.1	Incorrect ANZSIC codes were recorded on the registry for some business ICPs.	Still existing. Refer to section 3.6.
Correction of HHR metering data	4.1.2	15 of schedule 15.2	The best estimate of consumption was not consistently provided for ICP 0001420494UNAC1.	Cleared. Estimates reviewed during the audit period met the reasonable endeavours requirement. Refer to section 9.4.
HHR Aggregates	6.2	15.8 of part 15	HHR aggregates file does not contain electricity supplied information.	Still existing. Refer to section 11.4.

Table of recommendations

Subject	Section	Clause	Recommendation	Remedial Action
Provision of final switch information	2.2.2	10 & 11 of schedule 11.3	Consider further automation of the CS process to populate meter reading and average daily consumption, to ensure data provided is correct and consistent.	Still existing. Refer to sections 4.3 and 4.10.
Decommissioning ICPs	2.8.8	11.18 of part 11	Consider asking service providers to clarify the dates used on their meter removal paperwork and use consistent terminology.	Cleared. Paperwork has been discussed with MEPS. Refer to section 3.4.
Electronic meter readings	4.2.5	17 of schedule 15.2	Request Arc regularly provide meter event lists for review.	Cleared. This information is now provided by AMS. Refer to section 9.6.

Subject	Section	Clause	Recommendation	Remedial Action
Electricity supplied information	5.3	15.7 of part 15	Monitor as billed versus submission volumes over the coming months. Investigate to confirm the reason for the variance between billed and submitted volumes.	Still existing. Refer to section 11.3 .

Table of issues

Subject	Section	Clause	Issue	Remedial Action
Provision of final switch information	2.2.2	11 of schedule 11.3	Losing trader must send a CS within 5 days of the NT receipt but gaining trader can request up to 10 days in advance. This will cause the losing trader to be non-compliant.	Still existing in the code.

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

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

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

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

Audit observation

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

Audit commentary

Flick has appropriate processes to address instances of incorrect data.

This clause requires that Flick must check the list file against their own records and correct records as soon as practicable. Flick imports the PR010 and PR030 files to capture any registry changes. Their database is updated based on these reports.

A weekly safety net process is used to identify ICPs with data discrepancies, as described below. During the audit, I saw evidence that the safety net process was working successfully, and exceptions identified were followed up.

Check	Action
Daily unmetered kWh populated	Flick does not supply ICPs with unmetered load. If found, the details will be checked, and Flick will arrange for the ICP to switch out effective from the date the unmetered load was connected, or for the distributor to remove shared unmetered load for the ICP.
MEP is not AMS, Arc or Metrix	Flick only supplies ICPs with AMS, Arc or Metrix as MEP. Flick will arrange for the ICP to switch out effective from the date of the MEP change.
ANZSIC code is unknown	ANZSIC codes will be checked and updated.
Generation fields are populated	Flick will either arrange management approval to supply the ICP, or for the ICP to switch out effective from the date generation started.

Check	Action
Invalid submission types Submission type HHR = N Submission type NHH = Y	Submission types will be checked and updated.
Invalid meter flags HHR flag = N NHH flag = Y AMI flag = N	Flick only supplies ICPs with HHR flag = Y, NHH flag = N, and AMI flag = Y. If the flags are invalid, the ICP will be checked and if necessary, work scheduled to restore communications, or the ICP will be switched out.
Profile is valid for the MEP	Invalid profiles are checked and corrected. One exception was identified for ICP 0147779936LC182, and is recorded as non-compliance below.

Flick completes a daily reconciliation between the status recorded in the Flick Data Repository and on the registry, with all differences checked. I reviewed the checks and found the differences appeared to be due to timing.

Flick also maintains a list of ICPs with compensation factors, which is reconciled to the registry twice each month, prior to reconciliation submissions. I checked this list against the registry and found it was complete and accurate.

The registry list was examined to identify inaccurate data:

Issue	2017 Qty	Comments
Blank ANZSIC codes	-	Compliant
ANZSIC "T999" not stated	-	Compliant
ANZSIC "T994" don't know	-	Compliant
ANZSIC "T998 "response outside of scope"	-	Compliant
UML load = zero	-	Compliant, no unmetered load identified
Incorrect UML load	-	Compliant, no unmetered load identified
No MEP recorded or nominated and UML= "N"	-	Compliant
Shared unmetered load incorrect	-	Compliant, no unmetered load identified
ICPs with Distributor unmetered load populated but retail unmetered load is blank and UML flag = N	-	Compliant, no unmetered load identified

Issue	2017 Qty	Comments
Incorrect profile	1	ICP 0147779936LC182 has profile HHR and a Metrix meter. The profile has now been corrected effective from the switch in date.
Active date variance with Initial Energisation Date	-	No new connections have been processed.
Active ICP with no MEP	-	Compliant
Active Category 9 and UML "N"	-	Compliant

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: Clause 10.6, 11.2, 15.2 From: entire audit period	One ICP had an incorrect profile assigned. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong as they are sufficient to mitigate risk most of the time. The exception was an isolated incident, and occurred due to a training issue for a new staff member. The risk rating is low; the meter owner was correctly recorded, and check sum processes were completed.		
Actions taken to resolve the issue		Completion date	Remedial action status
Correct profile has now been assigned and registry updated.		1/11/2017	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Safety net in place will now be monitored and re-checked by the Field and Switch Team leader to ensure all discrepancies are identified and exceptions followed.		1/11/2017	

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

I reviewed the method to receive meter reading information. I traced a sample of volumes for 15 HHR ICPs from the source files to the Data Repository.

Audit commentary

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

I traced a sample of volumes for five HHR ICPs each for AMS, Arc, and Metrix from the source files to the Data Repository. The reads and volumes matched the source files.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10.4

Code related audit information

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

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

Audit observation

I reviewed Flick's current standard residential and standard business terms and conditions.

Audit commentary

Flick's current terms and conditions with their customers 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 Flick's current standard residential and standard business terms and conditions, and discussed compliance with these clauses.

Audit commentary

Flick's current terms and conditions with their customers include consent to access for authorised parties for the duration of the contract. Flick confirmed that they have been able to arrange access for other parties when requested.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

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

Audit observation

The registry list was reviewed.

Audit commentary

Flick has only supplied ICPs with metering categories 1 and 2, and has not completed any new connections. No ICPs have required loss compensation.

Audit outcome

Compliant

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

Code reference

Clause 11.15B

Code related audit information

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

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

The terms specified in 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 Flick's current standard residential and standard business terms and conditions.

Audit commentary

Flick's current terms and conditions with their customers include assignment by the Electricity Authority in the event of retailer default.

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

The registry list and event detail report for 01/11/2016 to 10/10/2017 were reviewed to identify all new connections.

Audit commentary

Flick has not completed any new connections during the audit period.

Audit outcome

Not applicable

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 registry list with history and event detail reports for 01/11/2016 to 10/10/2017 were reviewed to identify all new connections.

Audit commentary

Flick has not completed any new connections. No ICPs have been temporarily electrically connected by Flick.

Audit outcome

Not applicable

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

Code reference

Clause 10.33A(1)

Code related audit information

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

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

Audit observation

The registry list with history and event detail reports for 01/11/2016 to 10/10/2017 were reviewed to identify all status changes to active, and determine compliance.

Audit commentary

Flick has not completed any new connections.

737 ICPs had status changes to active during the audit period; all had final certified metering installations in place.

From November 2017, Flick will:

- complete a monthly check to ensure all ICPs have final metering certification and follow up any discrepancies with the MEP; and
- modify the reconnection process to check that ICPs are final certified before reconnection.

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.

The online application process was reviewed.

Audit commentary

Flick has arrangements in place for line function services where they intend to trade. If additional arrangements are required these will be established prior to marketing campaigns.

When a customer applies using Flick's application process, registry data for the ICP is retrieved and validated. The application will only be accepted if the following criteria are met:

- valid network for Flick
- MEP is AMS, Arc or Metrix
- valid price category for Flick
- AMI flag is yes
- unmetered flag is no
- installation type is L.

I observed the process and noted that applications that do not meet these criteria are declined automatically.

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

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

The online application process was reviewed.

Audit commentary

Flick demonstrated that arrangements are in place with AMS, Arc and Metrix.

As discussed in **section 2.12** above, the application process will automatically reject any application where Flick does not have an arrangement with the MEP.

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 registry list with history and event detail reports for 01/11/2016 to 10/10/2017 were reviewed to identify all new connections.

Audit commentary

Flick has not completed any new connections.

Audit outcome

Not applicable

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 and event detail report for 01/11/2016 to 10/10/2017 were reviewed to identify all new connections.

Audit commentary

Flick has not completed any new connections.

Audit outcome

Not applicable

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

The process to manage status changes is discussed in detail in **sections 3.8** and **3.9**. In this section, the event detail report for 01/11/2016 to 10/10/2017 was analysed determine the overall performance for that period.

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

Audit commentary

The timeliness of registry updates is reviewed in the table below.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Change to active (2,0)	2016	457	383	74	4	84%
	2017	737	591	146	6	80%
Change to electrically disconnected vacant property (1,4)	2016	4	1	3	200	25%
	2017	55	53	2	3	96%

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Change to electrically disconnected ready for decommissioning (1,6)	2017	12	9	3	30	75%
Change to electrically disconnected remotely by AMI meter (1,7)	2016	295	291	4	3	99%
	2017	54	53	1	1	98%

The table above records that the Registry was not updated within five business days for:

- 146 (20%) of the 737 ICPs where the status had been updated to active
- 2 (4%) of the 55 ICPs where the status had been updated to electrically disconnected vacant property
- 3 (25%) of the 12 ICPs where the status had been updated to electrically disconnected ready for decommissioning
- 1 (2%) of the 54 ICPs where the status had been updated to electrically disconnected remotely by AMI meter.

A sample of 15 late status changes were reviewed. Late updates occurred for several reasons, including:

- backdated switches
- late receipt of paperwork, or advice of decommissioning
- Flick required the network to update the status before processing a correction
- typos and errors in the date field when updating the registry
- late processing by new staff members, or during periods of high workload.

The late updates are recorded as non-compliance. The team leader responsible intends to complete additional monitoring to help detect errors and improve timeliness.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: Clause 10 Schedule 11.1 From: entire audit period	152 late status updates. Potential impact: Low Actual impact: Low Audit history: Three times previously Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are adequate to ensure that the registry is updated on time most of the time, but there is room for improvement.</p> <p>The risk is low as most updates were completed on time or soon after they were due.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Re-training has been provided to staff to ensure compliance is met for status update. Out of the 152 late status updates over half of this was due to timing issue where switches were completed 5 days after the reconnection date.		21/11/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The daily status report will now be monitored by Field team leader and any discrepancies actioned asap.		14/12/2017	

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

The registry list and event detail report for the period from 01/11/2016 to 10/10/2017 were reviewed to:

- identify all new connections during the period
- confirm whether all active, metered ICPs have an MEP recorded
- identify all MEP nominations during the period; and
- identify all decommissions during the period.

Audit commentary

No new connections were completed.

Review of the registry list confirmed that all active ICPs have an MEP recorded. Flick do not supply any ICPs with unmetered load.

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

31 Flick ICPs were decommissioned. A sample of ten decommissioned ICPs were checked to confirm a final interrogation took place prior to or upon meter removal.

- In five cases reads were obtained prior to decommissioning.
- In the other five cases, Flick was advised by the network that the ICP was already decommissioned. I saw evidence that Flick has requested reads from the MEP, and the MEP had found that the meters were already removed when they went to the site. In these cases the last read held by Flick was an AMI reading provided by the MEP, and the sites were vacant prior to decommissioning.

Flick had met their obligation to arrange a meter interrogation prior to or upon meter removal, but were unable to complete the interrogation because another party had already removed the meter without their knowledge.

The previous audit found some date discrepancies within meter removal paperwork. A recommendation was raised to ask service providers to clarify the dates used on their meter removal paperwork and to use consistent terminology. This recommendation was implemented by Flick, and I saw evidence that the MEPs had been contacted regarding the dates on their paperwork. Dates were consistent for the sample of meter removals reviewed during this audit.

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:

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

- *except if the ICP exists for the purposes of reconciling an embedded network or the ICP has distributor status, the trader must provide the relevant business classification code applicable to the customer (clause 9(1)(k)).*

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

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

Audit observation

The registry list and event detail report for 01/11/2016 to 10/10/2017 were reviewed to identify all new connections.

Audit commentary

Flick has not completed any new connections.

Audit outcome

Not applicable

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 was reviewed to check ANZSIC codes.

Audit commentary

The list file was examined. All active ICPs have an ANZSIC code recorded. None have an ANZSIC code recorded as T994 "Don't know" or blank.

During the previous audit, some ICPs with a domestic ANZSIC code, a meter category of 2 or higher, and/or a business network price code were identified. This issue was still existing when the 2017 audit commenced, which is recorded as non-compliance below. The affected ICPs were promptly corrected during the audit after I queried them with Flick.

To prevent recurrence of this issue, from November 2017:

- ANZSIC codes will be checked when ICPs switch in; and
- an additional step will be added to the pricing and load group checks to confirm that the ANZSIC code is consistent with the price and load group.

These checks are expected to ensure compliance is achieved most of the time.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 9 (1)(k) of Schedule 11.1 From: entire audit period	Incorrect ANZSIC codes were recorded on the registry for some business ICPs. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate, and are expected to improve to strong with the implementation of the new procedure to check ANZSIC codes. The audit risk rating is low, because the data has been corrected.		
Actions taken to resolve the issue		Completion date	Remedial action status
ANZSIC code has been corrected to match price Category code.		1/11/2017	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
ANZSIC codes is now being checked during switch request process. A monthly report is also now being run to check ANZSIC codes against price Category code. This will catch any discrepancies which are missed. A safety net check is done weekly to ensure that any 'T944 – unknown codes" are updated.		Ongoing	

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

Code reference

Clause 9(1)(f) of Schedule 11.1

Code related audit information

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

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list was reviewed to identify all unmetered load.

Audit commentary

Flick does not supply any ICPs with unmetered load, and does not intend to. Flick's weekly safety net checks discussed in **section 2.1** will identify any ICPs where unmetered load is added. The details will be checked for any affected ICPs, and Flick will arrange for the ICP to switch out effective from the date the unmetered load was connected, or for the distributor to remove shared unmetered load for the ICP.

Audit outcome

Not applicable

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

- *the ICP has only 1 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 reconnection process was examined. The event detail report for 01/11/2016 to 10/10/2017 was analysed. The findings in relation to the timeliness of updates to registry is recorded in **section 3.3**.

Audit commentary

Flick has not completed any new connections, but has updated ICP status to active where ICPs have been reconnected.

737 ICPs had status changes to active during the audit period; all had final certified metering installations in place. Late registry updates to active are recorded as a non-compliance in **section 3.3**.

Flick's Data Repository only allows one active customer account per ICP.

Audit outcome

Compliant

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

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

Audit observation

The disconnection process was discussed. The event detail report for 01/11/2016 to 10/10/2017 was analysed to identify all disconnections during the period.

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

The findings in relation to the timeliness of updates to registry is recorded in **section 3.3**.

Audit commentary

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

121 ICPs were disconnected during the audit period. I reviewed the reason codes and disconnection dates for the sample of 30 disconnections, and confirmed that they had been applied appropriately.

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

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

The registry list and event detail report for 01/11/2016 to 10/10/2017 were reviewed to identify all new connections.

Audit commentary

Flick has not completed any new connections.

Audit outcome

Not applicable

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

Code reference

Clause 2 Schedule 11.3

Code related audit information

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

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

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

Audit observation

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

Audit commentary

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

A switch request was sent within two business days of all pre-conditions being cleared for the typical sample of ten ICPs checked.

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

- providing a request for withdrawal of the switch in accordance with clause 17 (clause 3(c) of Schedule 11.3).

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

Audit observation

An event detail report for 01/11/2016 to 10/10/2017 was reviewed to:

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

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

The switch breach report was examined for the audit period.

Audit commentary

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

Event dates set by losing trader must be no more than 10 business days after receipt of an NT file. Over a 12 month period 50% of event dates must be within five business days. The event detail report for the period 01/11/2016 to 10/10/2017 was examined; there were five ICPs with switch dates greater than 10 business days. 99.9% of switches occurred within five business days.

Total transfer switches	Backdated switches	Total within 10 days	Total within 5 days	% within 5 days
5,260	5	5,255	5,253	99.9%

All event dates not within 10 business days were checked and found to have had their dates corrected using the switch withdrawal process, or Flick liaised with the other retailer who accepted the dates. The non-compliant dates occurred due to data entry errors, Flick processes switches manually using the registry user interface. Four of the five backdated switches occurred during winter 2017, when additional staff temporarily processed switches due to high switching volumes. A higher number of late switches and processing errors than usual occurred during this period. Event dates not within 10 business days of NT receipt are recorded as non-compliance below. Flick intends to migrate to a new system, and eventually automate switching processes, which should improve compliance by reducing the likelihood of manual processing errors.

The 2016 audit found some AN files had the AA (accept and acknowledge) code applied, when they should have had AD (advanced metering). I reviewed a sample of two ANs for each AN response code used. I specifically checked whether the AA code was only used when none of the other codes were relevant. I found four cases where incorrect response codes were applied.

- “OC” (occupied premises) was applied for two ICPs when “AD” (advanced metering) should have been applied.
- “AA” (acknowledge and accept) was applied for two ICPs when “AD” (advanced metering) should have been applied.

Flick intends to implement more checks on AN response codes as part of their internal audit regime, and conduct staff training to prevent recurrence of this issue.

This is recorded as non-compliance below:

Audit outcome

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 4.2 With: Clauses 3 and 4 Schedule 11.3</p> <p>From: 21-Dec-16 To: 25-Jul-17</p>	<p>Switch event dates were not within 10 business days after receipt of an NT file for five switches due to processing errors.</p> <p>The “AA” (accept and acknowledge) or “OC” (occupied premises) AN response codes were applied for four ICPs with advanced metering installed.</p> <p>Potential impact: Low Actual impact: Low</p> <p>Audit history: Once previously</p> <p>Controls: Moderate Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
<p>Low</p>	<p>Controls are rated as moderate, most of the incorrect dates and codes related to period where switching volumes were unusually high, and extra staff were processing switching files. No instances of incorrect event dates were identified after 25/07/2017.</p> <p>The impact is assessed as low, because:</p> <ul style="list-style-type: none"> • all event dates not within 10 business days were either corrected using the withdrawal process, or accepted by the gaining trader • information on the metering type was available on the registry. 	
Actions taken to resolve the issue	Completion date	Remedial action status
<p>Most of the event dates not within 10 business days were corrected using the withdrawal process at the time of switch process. For others the gaining retailers agreed on the event date, so no withdrawal process was required.</p>	<p>25/7/2017</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>Retraining has been provided to staff in regards to the usage of correct AN codes. More checks have been put in place to ensure switch event dates are within regulated timeframes. The team has been advised not to be solely dependent on registry breach report. An internal check has been put in place to ensure that the switch event dates are compliant.</p>	<p>20/11/2017</p>	

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for the period from 01/11/2016 to 10/10/2017 was reviewed, to identify CS files issued by Flick. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

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

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

The switch breach history report for the audit period was reviewed to identify late CS files, and all late files were checked.

Audit commentary

The switch breach report recorded 15 late transfer CS files. All were checked, and nine were found to be genuine breaches which are recorded as non-compliance below. This is an improvement from 18 late files last year. The late files had occurred due a misunderstanding, Flick had thought that switches could be completed up to ten days after the event date. Flick intends to investigate options to monitor switch timeliness, and is aware that the registry switch breach report is unreliable. Five of the nine late files occurred during winter 2017, when additional staff temporarily processed switches due to high switching volumes.

The accuracy of the content of CS files was confirmed by checking a sample of five transfer CS files. The sample checked found meter readings, read types and dates were all recorded correctly.

The Registry Functional Specification v22.21 states that average daily consumption within the CS file should be the average kWh per day for the last read period. Because Flick receives daily readings, they manually calculate the average daily consumption based on the previous 60 days. I checked the average daily consumption calculations for a sample of five transfer CS files and found that the average daily consumption recorded in the file was 6 kWh (33%) lower than the calculated daily average for the past 60 days for one ICP. Averages for the other four ICPs were as expected.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.3 With: Clause 5 Schedule 11.3 From: 02-Nov-16 To: 10-Jul-17	Nine late CS files for transfer switches. Incorrect average daily consumption was provided for one ICP. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as weak, due to being based on incorrect assumptions about CS due dates. Controls are expected to improve to moderate/strong once new reporting is established to monitor the timeliness of CS files. The impact is assessed as low, eight files were sent within five business days of the due date, and one file was sent 20 business days late. One average daily consumption was found to be incorrect.		
Actions taken to resolve the issue		Completion date	Remedial action status
Controls are put in place ensure that regulatory timeframes for CS files are met. Retraining has been provided to staff.		21/11/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
A switch breach history report will be run monthly to check that the regulated switch timeframes are being met. Internal report has been created to check that the switch timeframes are being met. This will be monitored monthly. The average consumption is now being calculated by the system (Deprovisioner) which should now eliminate the use of incorrect daily consumption in the CS file.		Ongoing	

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

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

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

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

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

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

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

Audit observation

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

The event detail report for the period from 01/11/2016 to 10/10/2017 was reviewed to identify all read change requests and acknowledgements.

The Authority requested emphasis on read changes, including the requirement to provide complete and accurate information when providing an RR request, particularly those RR requests provided under, or that appear to be provided under clause 6(3) of Schedule 11.3 or 12(2B) of Schedule 11.3.

A diverse characteristics sample of 25 read change requests for transfer switches were reviewed to confirm that information provided in the request was correct, and that the reads recorded in Flick's Data Repository were consistent with the acceptance or rejection provided by the other retailer.

A diverse characteristics sample of 12 read changes for transfer switches issued by other retailers were reviewed, including changes accepted and rejected by Flick to ensure that they had been handled correctly.

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

Audit commentary

The switch breach history report was examined, and no late RR files or acknowledgements were found for transfer switches.

Because Flick does not receive AMI data for the last day of supply by the previous retailer, the RR read is calculated as the midnight read on the first day Flick has supplied the ICP – the sum of the trading period volumes for that day. The RR file is then processed manually on the registry using these readings. For Arc meters, Flick uses the controller read (because it is recorded at midnight) to calculate the RR read. This can result in differences where the other trader has switched the ICP using an actual Arc read, recorded during the day. To address this, Flick has logged a rule change request with the authority to require retailers to use AMI midnight reads for switching.

I used the source AMI data to calculate the RR read that should have been applied for 25 transfer switches. I found 22 RR files contained the correct read, and three exceptions:

ICP	Date	RR read	Correct read	Difference	Comment
0000034677DE5D4	04/05/2017	44621	43695	926 kWh	The read provided does not match the AMI data.
0000110568HB085	21/04/2017	31674 13660	31641 13660	33 kWh 0 kWh	The read provided for one meter does not match the AMI data.

ICP	Date	RR read	Correct read	Difference	Comment
0000215452UND73	30/08/2017	35827	35975	148 kWh	The read provided does not match the AMI data.

If the read to be applied by Flick differs from the AMI data they have received, estimated HHR volumes must be created. I checked whether the sample of 25 read changes had been accepted or rejected, and then checked that the reads and volumes recorded in the Data Repository were correct. 18 were processed correctly, seven were not.

ICP	Date	Agreed read	Data Repository read	Difference	Comment	RR validly rejected by other retailer
0000001721DE35B	13/09/2017	15239	15285	46 kWh	Repository matches AMI data and RR request, which was rejected. Re-requested and accepted November 2017.	No, requirements of Clause 6(2) and (3) Schedule 11.3 were met.
0000002237EN5D2	18/05/2017	7597	7635	38 kWh	Repository matches AMI data and RR request, which was rejected. Re-requested and accepted November 2017.	No, requirements of Clause 6(2) and (3) Schedule 11.3 were met.
0000030581WEF81	06/11/2016	24985 22842	25009 22873	24 kWh 31 kWh	Repository matches AMI data and RR request, which was rejected.	Yes, an actual CS read was provided.
0000110568HB085	21/04/2017	31449 13690	31641 13660	225 kWh -30 kWh	Repository does not match AMI read for the first meter, but matches for second. Rejected read change request.	Yes, request was not within five business days.
0000115419UNDB6	05/09/2017	52094	52122	28 kWh	Repository matches AMI data and RR request, which was rejected.	No, requirements of Clause 6(2) and (3) Schedule 11.3 were met.

ICP	Date	Agreed read	Data Repository read	Difference	Comment	RR validly rejected by other retailer
0000215452UND73	30/08/2017	35827	35975	-148 kWh	Repository matches AMI data, but not RR request, which was accepted.	Accepted read request contained a read which did not match the AMI data.
0000312193HB9DF	30/05/2017	16551 6214	16645 6227	94 kWh 13 kWh	Repository matches AMI data and RR request, which was rejected.	No, requirements of Clause 6(2) and (3) Schedule 11.3 were met.

A sample of read changes issued by other retailers were checked to confirm that they were validly accepted or rejected, and that the correct reads were recorded in Flick's Data Repository. One exception was identified.

ICP	Date	Agreed read	Data Repository read	Difference	Comment
0005277957RNE65	12/09/2017	122927 <i>Total read for registers</i>	122930 <i>Total read for registers</i>	3 kWh	Flick has applied the AMI readings, not the RR reading they accepted.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.4</p> <p>With: Clause 6(1) and 6A Schedule 11.3</p> <p>From: entire audit period</p>	<p>Three RR files for transfer switches did not contain correct readings.</p> <p>For eight ICPs, the readings recorded in Flick's Data Repository were inconsistent with the readings agreed with the other retailer.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Once previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 4</p>

Audit risk rating	Rationale for audit risk rating		
Medium	<p>The controls are rated as moderate, as they are sufficient to ensure that the correct read is applied most of the time. The manual processes to both estimate where the switch read is different to the AMI read, and process RR files can result in data entry errors or missed data.</p> <p>For four of the eight ICPs with inconsistent readings, the other retailer had invalidly rejected Flick's request. For two of those, the read change was re-requested and subsequently accepted by the other retailer.</p> <p>The audit risk rating is medium, the issues could have a moderate impact on settlement outcomes, other participants, and consumers if not addressed.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
An attempt is being made to make corrections to the incorrect reads submitted through the RR process.		Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Retraining has been provided to staff on the RR process. These errors occurred due to RR process being a manual process. The RR is in the process of being automated which should eliminate most of the above errors.		Ongoing	

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 process for the management of read requests was examined.

The event detail report for the period from 01/11/2016 to 10/10/2017 was reviewed to identify all read change requests and acknowledgements.

The Authority requested emphasis on read changes, including the requirement to provide complete and accurate information when providing an RR request, particularly those RR requests provided under, or that appear to be provided under clause 6(3) of Schedule 11.3 or 12(2B) of Schedule 11.3.

A diverse characteristics sample of 49 read change requests issued within five business days of the event date were reviewed to confirm the accuracy of the information in the request, and that the reads recorded were consistent with the read change acceptance or rejection.

A sample of 26 read changes issued by other retailers were reviewed.

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

Audit commentary

The read change process is the same for transfer switches and switch moves, and is described in **section 4.4**.

The switch breach history report was examined, and no late RR files or acknowledgements were found for transfer switches.

For three of the RR files issued, I found that the read requested did not match the AMI data and the request met the requirements of clause 6.2. Non-compliance is recorded for ICPs 0000034677DE5D4, 0000110568HB085, and 0000215452UND73.

All read changes rejected by Flick were found to be validly rejected.

Incorrect application of agreed readings is discussed in **section 4.4** for standard switches, and **section 4.11** for switch moves.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.5 With: Clause 6(2) and (3) Schedule 11.3 From: entire audit period	Three RR files issued under clause 6.2 of schedule 11.3 did not contain correct readings. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate, as they are sufficient to ensure that the correct read is applied most of the time. The manual processes to both estimate where the switch read is different to the AMI read, and process RR files, can result in data entry errors or missed data. The audit risk rating is low, because small volumes are affected. This rule only applies for a small proportion of switches which meet all the criteria of clause 6.2 of schedule 11.3.		
Actions taken to resolve the issue		Completion date	Remedial action status
The reads for the three ICPs mentioned above are in the process of being corrected.		Ongoing	Investigating

Preventative actions taken to ensure no further issues will occur	Completion date	
RR process is currently a manual process which led to this error. Flick is in the process of automating this process which will eliminate this error. Staff has been retrained on RR process.	Ongoing	

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

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

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

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

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

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

Audit observation

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

Audit commentary

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

A switch request was sent within two business days of all pre-conditions being cleared for the typical sample of ten ICPs checked.

The previous audit found two ICPs had been incorrectly requested with switch type MN. These were corrected using the withdrawal process, and no MN switches were identified on the event detail report.

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

- *10(1)(a) If the losing trader accepts the event date proposed by the gaining trader, the losing trader must complete the switch by providing to the registry manager:
 - o *confirmation of the switch event date; and*
 - 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 process to manage the sending of switch information within five business days of the event date was examined.

An event detail report for the period from 01/11/2016 to 10/10/2017 was reviewed, to identify AN files issued by Flick during the audit period. A sample of two ANs per response code were reviewed to determine whether the codes had been correctly applied.

The switch breach history report for the audit period was reviewed in relation to both late AN files.

Audit commentary

The switching process was examined in relation to Flick as the "losing trader" for a selection of NHH ICPs, in most instances the proposed event date is the date the customer moved into the premise.

I reviewed 1786 switch moves, and found that for all but two the event date was within ten business days of the NT receipt date and/or on or after the gaining trader’s requested date. For two switch moves an incorrect date earlier than the losing trader’s requested event date was applied. Both ICPs had their dates corrected using the switch withdrawal process. Flick processes switches manually using the registry user interface, and some data entry errors occurred. This is recorded as non-compliance below. Flick intends to migrate to a new system, and eventually automate switching processes, which should improve compliance by reducing the likelihood of manual processing errors.

I reviewed a sample of two ANs for each AN response code used. I specifically checked whether the AA code was only used when none of the other codes were relevant. I found two cases where an “AA” (acknowledge and accept) was applied for ICPs with advanced metering installed. This is recorded as non-compliance below. Flick intends to implement more checks on AN response codes as part of their internal audit regime, and implement further staff training to prevent recurrence of this issue.

The switch breach report was examined and no late AN files.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 4.8 With: Clause 10(1) Schedule 11.3 From: 24-Feb-17 To: 08-May-17	Due to processing errors, switch event dates were earlier than the requested date for two switches. The “AA” (accept and acknowledge) AN response code was applied for two ICPs with advanced metering installed. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are rated as moderate. No instances of incorrect event dates were identified after 08/05/2017 for switch moves. The impact is assessed as low, because: <ul style="list-style-type: none"> • the event dates were corrected using the withdrawal process • information on the metering type was available on the registry. 	
Actions taken to resolve the issue	Completion date	Remedial action status
The event dates were corrected for the two ICPs through the withdrawal process.	8/5/2017	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Re-training has been provided to staff in regards to use of correct AN code. A monthly check is in place to monitor the use of correct AN code. A switch breach history report will be run monthly to check that the regulated switch timeframes are being met. Internal report has been created to check that the switch timeframes are being met. This will be monitored monthly.	Ongoing	

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

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

Audit observation

The setting of event dates for move switches was examined. The event detail report for 01/11/2016 to 10/10/2017 was examined, comparing the NT requested event date with the AN event date sent by Flick for any switches dated earlier than the NT requested date for the 4083 switch moves recorded. The report was also checked for any event dates that were set greater than ten days from the NT receipt date.

Audit commentary

Analysis found two ICPs where the event date was set earlier than the gaining trader requested date. All were checked. In both cases, the date was entered in error, and the other retailer and customer accepted the date recorded by Flick.

Analysis found no ICPs where the event date was set greater than ten days after the NT receipt date.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.9 With: Clause 10(2) Schedule 11.3 From: February 2017 To: June 2017	Two ICPs had event dates set earlier than the gaining trader requested date. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as strong. The incidents were isolated date processing errors, affecting two of the 4083 files sent.</p> <p>The impact is low, in both cases the customer and other retailer accepted the dates.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
An attempt was made to correct the event dates during the switch process but the gaining trader agreed to the date which we had set so no correction was required.		8/5/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Retraining has been provided to the switch team to ensure correct date is entered.		21/11/2017	

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

Code reference

Clause 11 Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for the period from 01/11/2016 to 10/10/2017 was reviewed, to identify CS files issued by Flick. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

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

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

The switch breach history report for the audit period was reviewed to identify late CS files, and all late files were checked.

Audit commentary

The switch breach history report recorded 221 late move CS files. The latest 31 files were reviewed; 30 were found not to be genuine. ICP 1001163956UN04A had an NT received on 16/11/2016 but the CS was not sent until 25/11/16, for an event date of 31/10/16. The file was overlooked because the staff member responsible was monitoring compliance using the switch breach report.

The accuracy of the content of CS files was confirmed by checking a sample of five transfer CS files. The sample checked found meter readings, read types and dates were all recorded correctly.

The Registry Functional Specification v22.21 states that average daily consumption within the CS file should be the average kWh per day for the last read period. Because Flick receives daily readings, they manually calculate the average daily consumption based on the previous 60 days. I checked the average daily consumption calculations for a sample of five transfer CS files and found that the average daily consumption recorded in the file was 4.5 kWh (25%) lower than the calculated daily average for the past 60 days for one ICP. Averages for the other four ICPs were as expected.

The previous audit recommended automation of the switching process ensure that switch file content is accurate. I repeat this recommendation to maintain visibility.

Description	Recommendation	Audited party comment	Remedial action
Clause 11 Schedule 11.3 CS creation	Automate the CS process to reduce the likelihood of late files, and inaccurate file content.	The automating of the CS process is on the radar. This will follow the automation of the RR process.	Investigating

The previous audit raised an issue in relation to the switch breach report not accurately recording the days remaining before a CS must be provided. The switch breach report remains unchanged, and Flick intends to modify their processes so that this report is not relied upon to identify pending breaches.

The previous audit found ICP 0000175889TR6DD, register 1 was switched out with a 0 reading that did not reflect the actual register read. This switch was completed in September 2016 and has not been withdrawn, and the read has not been corrected.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.10 With: Clause 11 Schedule 11.3 From: entire audit period	At least one late switch move CS file. Incorrect average daily consumption was provided for one ICP. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate, based on the sample reviewed they appear sufficient to ensure that CS files are sent on time, and average daily consumption is correct most of the time.</p> <p>The impact is assessed as low, the only confirmed late file was sent two business days late, and one average daily consumption was found to be incorrect.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Gaining retailer has been contacted to amend the CS read. The gaining retailer confirmed that meter change was completed just after the gain and correct reading has been used to bill the customer.</p>		13/12/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Internal report has been created to check that the switch timeframes are being met. This will be monitored monthly. The average consumption is now being calculated by the system (Deprovisioner) which should now eliminate the use of incorrect daily consumption in the CS file.</p>		Ongoing	

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

The process for the management of read requests was examined.

An event detail report for 01/01/2017 to 31/07/2017 was analysed to identify all read change requests and acknowledgements during the audit period.

A diverse characteristics sample of 25 read change requests for switch moves were reviewed to confirm that information provided in the request was correct, and that the reads recorded in Flick's Data Repository were consistent with the acceptance or rejection provided by the other retailer.

A diverse characteristics sample of 14 read changes issued by other retailers for switch moves were reviewed, including five accepted and five rejected by Flick to ensure that they had been handled correctly.

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

Audit commentary

The read change process is the same for transfer switches and switch moves, and is described in **section 4.4**.

The switch breach history report was examined, and no late RR files were found. One read change acknowledgement file was one day late. This occurred because the read change affected two switches for the ICP, and assistance was required from the registry administrator to load the read change file.

I used the source AMI data to calculate the RR read that should have been applied for 25 switches moves. I found 24 RR files contained the correct reads, and one exception:

ICP	Date	RR read	Correct read	Difference	Comment
0000015748TR44C	26/03/2017	2338	2335	3 kWh	The read for 26/03/2017 was applied instead of 25/03/2017.

If the read to be applied by Flick differs from the AMI data they have received, estimated HHR volumes must be created in the Data Repository. I checked whether the sample of 25 read changes had been accepted or rejected, and then checked that the reads and volumes recorded in the Data Repository were correct. 21 were processed correctly, four were not.

ICP	Date	Agreed read	Data Repository read	Difference	Comment	RR validly rejected by other retailer
0000001139DEDE4	13/02/2017	27940	27997	57 kWh	Repository matches AMI data and RR request, which was rejected.	Yes, an actual CS read was provided.

ICP	Date	Agreed read	Data Repository read	Difference	Comment	RR validly rejected by other retailer
0000009103TRD5A	11/11/2016	26340 9472	26343 9520	3 kWh 48 kWh	Repository matches AMI data and RR request, which was rejected.	Yes, an actual CS read was provided.
0000009273DE3D3	15/12/2016	10116	10136	20 kWh	Repository matches AMI data and RR request, which was rejected.	No, requirements of Clause 6(2) and (3) Schedule 11.3 were met.
0007016212RN4D3	27/06/2017	44 61	392 458	-348 kWh -397 kWh	Repository matches AMI data and RR request, which was rejected.	Yes, an actual CS read was provided.

A sample of read changes issued by other retailers were checked to confirm that they were validly accepted or rejected, and that the correct reads were recorded in Flick's Data Repository. Two exceptions were identified.

ICP	Date	Agreed read	Data Repository read	Difference	Comment
0005182131RNE1F	26/06/2017	111139 <i>Controller read</i>	111151 <i>Controller read</i>	12 kWh	Flick has applied the AMI readings, not the RR reading they accepted.
0006431500RN352	24/03/2017	64436	64432	-4 kWh	Flick has applied the AMI readings, not the RR reading they accepted.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.11</p> <p>With: Clause 12 Schedule 11.3</p> <p>From: entire audit period</p>	<p>One AC file was one day late.</p> <p>One RR file for a switch move did not contain correct readings.</p> <p>For six ICPs, the readings recorded in Flick's Data Repository were inconsistent with the readings agreed with the other retailer.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Once previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 4</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Medium</p>	<p>The controls are rated as moderate, as they are sufficient to ensure that the correct read is applied most of the time. The manual processes to both estimate where the switch read is different to the AMI read, and process RR files can result in data entry errors or missed data.</p> <p>For one of the six ICPs with inconsistent readings, the other retailer had invalidly rejected Flick's request. For two of those, the read change was re-requested and subsequently accepted by the other retailer.</p> <p>The audit risk rating is medium, the issues could have a moderate impact on settlement outcomes, other participants, and consumers if not addressed.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>An attempt is being made to correct the RR read which has been previously rejected by other retailers. This was a training issue at our end and retraining has been provided to staff.</p>		<p>12/12/2017</p>	<p>Investigating</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>RR process is currently a manual process which led to this error. Flick is in the process of automating this process which will eliminate this error. Staff has been retrained on RR process.</p>		<p>Ongoing</p>	

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

Code reference

Clause 13 Schedule 11.3

Code related audit information

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

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

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

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

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

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

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

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

14(4)(a) – the proposed event date is in the same month as the date on which the gaining trader advised the registry manager; or

14(4)(b) – the proposed event date is no more than 90 days before the date on which the gaining trader advises the registry manager and this date is agreed between the losing and gaining traders.

Audit observation

An event detail report for the period from 01/11/2016 to 10/10/2017 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

HH switching is unlikely to occur because metering will be AMI. No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

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

15(a) - provide to the registry manager a valid switch response code as approved by the Authority; or

15(b) - provide a request for withdrawal of the switch in accordance with clause 17.

Audit observation

An event detail report for the period from 01/11/2016 to 10/10/2017 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

HH switching is unlikely to occur because metering will be AMI. No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

An event detail report for the period from 01/11/2016 to 10/10/2017 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

HH switching is unlikely to occur because metering will be AMI. No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

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

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

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
 - o *the participant identifier of the trader making the withdrawal request (clause 18(c)(i));*
 - o *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 content of a sample of two ICPs for each withdrawal code from the event detail report were checked using the typical sampling methodology. A sample of five switch rejections were checked using the typical sample methodology.

The switch breach report was checked for any late switch withdrawal requests and acknowledgements and found none were recorded.

The event detail report for 01/11/2016 to 10/10/2017 was analysed to confirm timeliness of switch withdrawal requests. 15 of the 1105 withdrawal requests were backdated greater than two months from the event date. A sample of ten of these were checked using the extreme case methodology.

The event detail report was also analysed to confirm timeliness of switch withdrawal acknowledgements. All 1630 withdrawal acknowledgements were provided within five business days after the request was received.

Audit commentary

The content of a sample of 12 NW files was examined. In all cases the correct withdrawal reason codes were applied.

I reviewed a sample of five NWs rejected by Flick. I found that all were validly rejected.

I reviewed a sample of ten NWs backdated more than two months and found:

- Seven related to wrong properties being switched. Flick became aware of the issue when advised by the customer, another retailer, or the MEP when work was carried out on the meter. Flick investigated to confirm what had happened, and requested the withdrawal.
- Four were double, or triple withdrawals requested by other retailers.

Non-compliance is recorded for the backdated NWs below.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.15 With: Clauses 17 and 18 Schedule 11.3 From: entire audit period	15 switch withdrawal requests were backdated greater than two months from the event date. Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong as they are sufficient to mitigate risk most of the time. A small proportion of NWs (1%) were late. None of the 12 NWs reviewed had an incorrect response code.		
Actions taken to resolve the issue		Completion date	Remedial action status
All of the backdated withdrawals completed were requested by other retailers due to incorrect properties or customer requested.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
FLCK actions requests for withdrawals as soon as we become aware of situations like incorrect properties. This is something which we cannot totally avoid as we are dependent on customers providing us correct information during sign up. It has been reiterated to staff to check address and metering details before sign up.		14/12/2017	

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 **section 4.3**.

Flick'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 examined to determine whether they are compliant.

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

Audit commentary

Flick became a switch save protected retailer on 01/11/2017.

Flick briefly completed win back processes during winter 2017, but contact with the customer was only initiated after switches were completed. All win back activity was ceased approximately two months before Flick became a switch save protected retailer, to ensure compliance.

The event detail report was checked and found four "CX" coded switch withdrawal requests were sent prior to the switch completion date.

- Two were issued to retailers that were not save protected, and before Flick became a save protected retailer.
- The other two were issued to save protected retailers. I listened to the calls from the customers and confirmed that the customers contacted Flick, and no counter offers or enticements were made to the customers by Flick.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

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

11.14(2) - The distributor must give written notice to the traders responsible for the ICPs across which the unmetered load is shared, of the ICP identifiers of the ICPs.

11.14(3) - A trader who receives such a notification from a distributor must give written notice to the distributor if it wishes to add or omit any ICP from the ICPs across which unmetered load is to be shared.

11.14(4) - A distributor who receives such a notification of changes from the trader under (3) must give written notice to the registry manager and each trader responsible for any of the ICPs across which the unmetered load is shared.

11.14(5) - If a distributor becomes aware of any change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must give written notice to all traders affected by that change as soon as practicable after that change or decommissioning.

11.14(6) - Each trader who receives such a notification must, as soon as practicable after receiving the notification, adjust the unmetered load information for each ICP in the list for which it is responsible to ensure that the entire shared unmetered load is shared equally across each ICP.

11.14(7) - A trader must take responsibility for shared unmetered load assigned to an ICP for which the trader becomes responsible as a result of a switch in accordance with Part 11.

11.14(8) - A trader must not relinquish responsibility for shared unmetered load assigned to an ICP if there would then be no ICPs left across which that load could be shared.

11.14(9) - A trader can change the status of an ICP across which the unmetered load is shared to inactive status, as referred to in clause 19 of Schedule 11.1. In that case, the trader is not required to give written notice to the distributor of the change. The amount of electricity attributable to that ICP becomes UFE.

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list was reviewed to identify all unmetered load.

Audit commentary

Flick does not supply any ICPs with unmetered load, and does not intend to. Flick's weekly safety net checks discussed in **section 2.1** will identify any ICPs where unmetered load is added.

I saw evidence that two ICPs with shared unmetered load were identified:

- For ICP 0006402020RN8CE written notice was provided under clause 11.14(3) and shared unmetered load was removed effective from 24/03/2017. No unmetered load was required to be reported by Flick.

- ICP 0005039797RN40C had shared unmetered load added on 13/03/2017, and switched to another retailer effective from 27/04/2017. No unmetered load was reported for the period from 13/03/2017 to 26/04/2017, resulting in under reporting of 3.6 kWh.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 5.1 With: Clause 11.14 From: 13-Mar-17 To: 26-Apr-17	0005039797RN40C had shared unmetered load connected between 13/03/2017 and 26/04/2017, which was not reported by Flick. This resulted in under submission by 3.6 kWh. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong, as they prevent shared unmetered ICPs from switching in, and promptly identify added shared unmetered load so that appropriate action can be taken. The impact is very low, and resulted in under reporting by 3.6 kWh.		
Actions taken to resolve the issue		Completion date	Remedial action status
Retraining has been provided to staff on safety net and staff have been advised to switch out ICPs from the event date of the discrepancy to avoid reconciliation issues.		20/11/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The operations team leader will now monitor the safety net to ensure compliance		Ongoing	

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

Code reference

Clause 10.14 (2)(b)

Code related audit information

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list was reviewed to identify all unmetered load.

Audit commentary

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

Audit outcome

Not applicable

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list was reviewed to identify all unmetered load.

Audit commentary

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

Audit outcome

Not applicable

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list was reviewed to identify all unmetered load.

Audit commentary

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

Audit outcome

Not applicable

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

A registry list was examined to confirm whether Flick had supplied any ICPs with generation during the audit period.

Audit commentary

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

Flick requires management approval to supply ICPs with generation capability. Analysis of the registry list found that Flick supplies three ICPs with generation entered by the distributor, all the ICPs have been approved by management. Of those:

- two have injection/export registers installed
- installation of injection/export registers has been requested for ICP 0007120079RNF70, which is not generating yet.

Generation fields are checked weekly as part of Flick's safety net process, discussed in **section 2.1**.

Flick provided a list of six ICPs where remote disconnection had occurred then the meter had been bridged to reconnect. This is recorded as non-compliance below. I reviewed the six bridged meters and noted that they had all later been unbridged. Non-compliance is recorded in **section 8.2** in relation to estimation of consumption during bridged periods.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.1 With: Clause 10.13 and clause 15.2 From: entire audit period	Energy is not metered and quantified according to the code where meters are bridged. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate as they are sufficient to mitigate risk most of the time, but there is room for improvement. Bridging only occurs where a soft reconnection cannot be performed after hours and the customer urgently requires their energy supply for health and safety reasons.		
Actions taken to resolve the issue		Completion date	Remedial action status
Flick is going to investigate options over the next few months to estimate data for bridged meter where no consumption has been recorded.		Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
All bridged meters where consumption is not recorded on the meter is going to be monitored and once process is concluded the loss consumption will be accounted for.		Ongoing	

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

Code reference

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

Code related audit information

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

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

The participant responsible for the metering installation must:

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

Audit observation

The NSP table was reviewed.

Audit commentary

Review of the NSP table confirmed that Flick is not responsible for any GIPs.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

Audit observation

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with these clauses was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

Processes relating to defective metering were examined. 15 examples of defective meters were reviewed, to determine whether the MEP was advised and if appropriate action was taken.

Audit commentary

Defective meters are typically identified through the meter reading validation process, or from information provided by the meter read provider.

Upon identifying a possible defective meter, Flick raises a field services job to investigate. I reviewed 15 examples of potential defective meters, including stopped or faulty and bridged meters. In all cases a field services job was raised and the MEP advised.

Corrections related to the meter faults are discussed in **section 8.2**.

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

HHR data is provided by AMS, Arc and Metrix as MEPs. Interrogation requirements and clock synchronisation were reviewed as part of their MEP audits.

Audit commentary

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

The MEPs provide clock synchronisation information via email, and I viewed examples of these for Metrix and AMS meters during the audit. No clock synchronisation events requiring action by Flick were identified during the audit period.

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with these clauses was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

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

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

Audit commentary

Compliance was confirmed for CS file content, in **sections 4.3** and **4.10**.

Three RR files for transfer switches, and one RR file for a switch move did not contain correct readings, and are discussed further in **sections 4.4** and **4.11** respectively.

Incorrect readings provided in the RR files are recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.7 With: Clause 6 Schedule 15.2 From: entire audit period	Four incorrect RR readings were provided. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate, as they are sufficient to ensure that the correct read is applied most of the time. The manual processes to both estimate where the switch read is different to the AMI read, and process RR files, can result in data entry errors or missed data. The audit risk rating is low, because most reads provided are correctly applied.		
Actions taken to resolve the issue		Completion date	Remedial action status
An attempt is being made to make corrections to the incorrect reads submitted through the RR process.		Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
RR process is currently a manual process which led to this error. Flick is in the process of automating this process which will eliminate this error. Staff has been retrained on RR process.		Ongoing	

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with these clauses was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with these clauses was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with these clauses was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

HHR data is provided by AMS, Arc, and Metrix 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 Flick 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 data is provided by AMS, Arc, and Metrix as MEPS.

Audit commentary

MEPs are responsible for meeting the meter interrogation data requirements, and this is reviewed as part of their 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 data is provided by AMS, Arc, and Metrix 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 data is provided by AMS, Arc and Metrix as MEPs.

A sample of five volumes files for each MEP were checked using the typical case sample methodology to confirm trading period duration.

Audit commentary

MEPs are responsible for trading period duration, and this is reviewed as part of their audits.

Review of five HHR volumes files each for AMS, Arc, and Metrix also confirmed that trading period duration is 30 minutes.

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 reviewed to ensure that it is retained.

I traced a sample of volumes for 15 HHR ICPs from the source files to the Data Repository.

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

Audit commentary

All meter reading data is archived, and intended to be retained by Flick for at least 48 months. Meter read data from 8 January 2014 for ICP 0000170550TR7E6 was sighted during the audit, and is almost 48 months old.

I traced a sample of volumes for five HHR ICPs each for AMS, Arc, and Metrix from the source files to the Data Repository. The reads and volumes matched the source files. This confirmed that the reads had not been modified.

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

Audit outcome

Compliant

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

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

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

Audit observation

Processes to record non-metering information were discussed.

Audit commentary

Non metering information is not collected by Flick, therefore compliance was not assessed.

Audit outcome

Not applicable

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

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

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

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

Audit observation

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

Processes for correction of HHR meter readings were reviewed. A sample of 10 corrections were provided, these were reviewed to confirm the correction process.

Audit commentary

Where errors are detected during validation of half-hour metering information, and check metering data is not available, data may be substituted from another period if the total of all substituted intervals matches the total consumption recorded on a meter, if available, and the pattern of consumption is

materially similar to the period in error. Estimates are generated within the Data Repository, and are compliant with the requirements of the code.

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

I reviewed 15 defective meters to determine whether corrections had been processed, and found:

- Six corrections for defective meters had been correctly processed.
- Three meters did not require corrections, as the defects were confirmed not to affect data accuracy.
- There is no process in place to estimate consumption while a meter is bridged. Six bridged meters were identified during the audit period, none had corrections processed. For five ICPs, the relay was bridged and consumption was recorded during the bridged period. I reviewed the consumption before bridging, during the bridged period, and after unbridging, and noted it was consistent, suggesting that the bridged relay did not affect consumption recorded by the meter and no correction was required. For ICP 1000755980UNFB5 (unbridged on 23/01/2017), there was a gap in consumption during the bridged period, which should have been estimated. This, and the lack of a process to correct for unrecorded consumption during bridged periods, is recorded as non-compliance below.

The previous audit identified two corrections which had been incorrectly processed. I confirmed that both issues have been resolved:

- 0002601134EN4E4 was estimated using Flick’s own readings, although Flick’s RR request was rejected by the losing retailer. Flick’s data has been updated to use the correct readings.
- 0001420494UNAC1 switched in on 21 January 2016, and was upgraded to an AMI meter in March 2016. It was subject to a read renegotiation, and the agreed switch read was not applied. Flick’s data has been updated to use the correct readings.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 8.2 With: Clause 19(2) Schedule 15.2</p> <p>From: entire audit period</p>	<p>There is no procedure to estimate unrecorded consumption during bridged periods. A correction was not processed for the period ICP 1000755980UNFB5’s meter was bridged.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Once previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
Audit risk rating	Rationale for audit risk rating
<p>Low</p>	<p>The controls are rated as moderate, as most corrections are processed appropriately. Improvement is required to ensure that that corrections for unrecorded consumption during bridged periods is captured.</p> <p>The impact is low, because only one meter was affected.</p>

Actions taken to resolve the issue	Completion date	Remedial action status
Flick is going to investigate options over the next few months to estimate data for bridged meter where no consumption has been recorded.	Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
All bridged meters where consumption is not recorded on the meter is going to be monitored and once process are concluded the loss consumption will be accounted for.	Ongoing	

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

Error and loss compensation arrangements were discussed.

Audit commentary

No error or loss compensation arrangements are in place.

Audit outcome

Not applicable

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

Code reference

Clause 22(1) and (2) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

Corrections are discussed in **section 8.2**. I confirmed that raw meter data is not overwritten as part of the correction process. Audit trails are discussed in **section 2.4**.

Raw meter data is collected by AMS, Arc, and Metrix; data retention was reviewed as part of their MEP audits.

Audit commentary

Raw meter data is held by MEPs.

Flick only corrects working data and they keep an appropriate audit trail. Date, time, operator identifier and the data modified are recorded within the Data Repository system logs.

Additional information such as the reason for the correction is recorded in an Excel spreadsheet of all corrections. Flick uses a standard technique to process corrections.

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

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

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

Audit commentary

Review of switching files confirmed that read types were correctly identified.

Non-compliance relating to the accuracy of the reads provided in some RR files is raised in **sections 4.4, 4.5, 4.11** and **6.7**.

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

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

I traced a sample of volumes for five HHR ICPs each for AMS, Arc and Metrix from the source files to the Data Repository, to determine whether data is rounded or truncated on import.

Audit commentary

The MEP retains raw, unrounded data. Meter reading data is not rounded or truncated on import.

Audit outcome

Compliant

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

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

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

Audit observation

The HHR estimate process was examined, and a sample of 20 estimates were reviewed. Revised data was compared to estimates where the estimates had been replaced.

Audit commentary

Where errors are detected, or data is missing, data may be substituted from another period if the total of all substituted intervals matches the total consumption recorded on a meter, if available, and the pattern of consumption is materially similar to the period in error. Estimates are generated within the Data Repository, and are compliant with the requirements of the code.

I reviewed 20 examples of estimates.

- Where the meter was removed, estimated data for any missing periods was calculated based on the difference between the removal read and the last read received, and the expected profile for the missing periods.
- Where data was missing due to a communication issue, estimates were created based on the historic consumption for the meter.

AMS does not currently retrieve missing data for Flick, and Flick intends to enter into an ad hoc missing data agreement with AMS. Arc and Metrix do retrieve missing data.

Flick used reasonable endeavours to ensure that submitted information was within the percentage specified by the Authority in all cases reviewed.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

I reviewed the HHR data validation process, including meter event logs, validation checks, and the sum-check process.

Validation of electronic readings was also reviewed as part of the AMS, Arc, and Metrix's MEP audits.

Audit commentary

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

The Data Repository validates data on import. The validation includes:

- Checks for missing data; and
- Checks for invalid dates and times.

Any files that fail to import, or are imported with errors, are checked daily.

ICPs with zero consumption billed for the week are checked weekly. If zero consumption persists for more than four weeks without a known and valid reason, action is taken to check the meter.

Comparison with expected or previous consumption is checked as part of the bill validation process. Any anomalies are investigated by Flick, and the meter is checked if necessary.

AMS and Arc compare meter readings against half hour interval data, known as the sum-check process. Flick conducts the sum-check process for Metrix data. Flick is the owner of the HHY profile, which allows HHR data to be submitted although the meters are certified as NHH. Metrix supplies midnight reads and HHR data, which are compared in the Data Repository to ensure there is no difference between midnight reads and the total of the 48 trading periods. Midnight reads are unavailable for 13 three phase ICPs, and Flick manually derives midnight reads based on the 9pm NZST reads and interval data received from Metrix, and enters them into the Data Repository so that the sum-check can be completed. Calculations were checked for three ICPs and confirmed to be correct.

MEPs review meter event lists, investigating any event that could affect the integrity of the metering data, and undertake appropriate action accordingly. AMS (including Arc) and Metrix provide meter event information to Flick's field services team via email. I reviewed examples of these and noted that appropriate action was taken by Flick.

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

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

Audit outcome

Not applicable

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

Code reference

Clause 13.137

Code related audit information

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

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

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

Flick 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

Flick 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

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

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

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

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

Audit observation

A registry list was reviewed to confirm the profiles used. Processes to create buying and selling notifications were reviewed.

Audit commentary

Flick uses the HHR profile, which does not require a trading notification.

Flick also uses the HHY profile, and a trading notification has been sent. The HHY profile allows HHR data from Metrix NHH metering installations to be submitted as HHR.

The switching team identifies any new NSPs through the application process, and advises the data compliance and reconciliation team, who create trading notifications as necessary.

Audit outcome

Compliant

11.2. Calculation of ICP days (Clause 15.6)

Code reference

Clause 15.6

Code related audit information

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

15.6(1)(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period

15.6(1)(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.

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

Audit observation

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

The registry list and event detail report for 01/11/2016 to 10/10/2017 were reviewed to identify any upgrades from NHH to HHR.

I reviewed variances for 21 months of GR100 reports. A sample of 23 variances were reviewed to determine the cause.

Audit commentary

The process for the calculation of ICP days was examined by checking ten NSPs a small number of ICPs on the August 2017 ICP days submission. The ICP days calculation was confirmed to be correct for the sample checked.

Review of a registry list and event detail report confirmed that there have been no upgrades from NHH to HHR during the audit period.

ICP Days difference between the registry and Flick database

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

Month	R1	R3	R7	R14
Oct 2015	-0.10%	0.29%	0.80%	0.17%
Nov 2015	0.19%	0.01%	0.65%	0.01%
Dec 2015	0.20%	0.14%	0.53%	0.20%
Jan 2016	0.43%	0.17%	0.51%	0.12%
Feb 2016	-0.73%	0.26%	0.89%	0.34%
Mar 2016	0.49%	0.01%	0.58%	0.13%
Apr 2016	0.33%	0.07%	0.18%	0.09%
May 2016	0.04%	0.02%	0.10%	0.13%
Jun 2016	-0.27%	-0.24%	-0.20%	-
Jul 2016	-0.27%	-0.17%	-0.13%	-0.12%
Aug 2016	-0.07%	-0.07%	-0.03%	-
Sep 2016	0.00%	0.00%	0.00%	-
Oct 2016	-0.19%	-0.18%	-0.16%	-
Nov 2016	-0.06%	-0.02%	-0.02%	-

Month	R1	R3	R7	R14
Dec 2016	-0.03%	-0.01%	0.01%	-
Jan 2017	0.12%	0.07%	-	-
Feb 2017	-0.01%	-0.02%	-0.02%	-
Mar 2017	-0.04%	-0.03%	-	-
Apr 2017	-0.37%	-0.06%	-	-
May 2017	-0.05%	-	-	-
Jun 2017	-0.11%	-0.09%	-	-

I reviewed a sample of 23 ICP days discrepancies and found the following reasons for ICP days differences:

- Switch timing differences.
- The AV110 report is expected to include active ICP days only. Inactive ICP days are included in the AV110 report, if an ICP is inactive and active during the month reported. If an ICP is inactive for the whole month, the inactive ICP days will be correctly omitted from the AV110 report. This resulted in over reporting for July 2017 of eight days at TSP0011, and two days at OPK0331.
- If ICP days have been reported in a previous revision, but are not required in a later revision due to a backdated switch out or switch withdrawal, Flick does not submit a zero line in the AV110 report. The reconciliation manager's database retains the previously submitted value for the NSP, which creates an ICP days difference. This resulted in over reporting at ETT0011 of 22 days for November 2015, and 31 days for December 2015.

The previous audit found there were large differences in ICP days for revisions for August 2015 and September 2015. The issue occurred because a registry list file was imported into the registry with an incorrect start date for some ICPs. To resolve the issue, the reconciliation manager scaled Flick's submissions for the affected periods. To prevent recurrence of this issue, Flick has conducted further staff training. GR100 ICP comparison reports are reviewed, and discrepancies are investigated. Review of the GR100 reports from October 2015 onwards did not reveal any significant differences in ICP days.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 11.2 With: Clause 15.6</p> <p>From: entire audit period</p>	<p>Inactive ICP days are included in the AV110 report, if an ICP is inactive and active during the month.</p> <p>AV110 data is not zeroed where Flick has previously submitted ICP days, but there are no ICP days reported in the current revision.</p> <p>Potential impact: None</p> <p>Actual impact: None</p> <p>Audit history: Twice previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are sufficient to ensure that ICP days are correctly reported most of the time. Both errors result in over reporting of ICP days in certain circumstances.</p> <p>The audit risk rating is low:</p> <ul style="list-style-type: none"> • If other ICPs are still supplied at an NSP after a backdated switch out or withdrawal occurs, ICP days will be reported for subsequent revisions correctly. • Only 42 ICPs supplied by Flick are inactive. Inactive ICPs are only affected where they are inactive for part of a month. • GR100 ICP comparison reports are reviewed, and discrepancies are investigated. 		
Actions taken to resolve the issue		Completion date	Remedial action status
A manual process has been put in place for AV110 data to be zeroed where Flick has previously submitted ICP days.		14/12/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Flick is migrating to a new system 'Telemetry' which would eliminate inactive ICPs in the AV110 report.		At the latest Mid 2018	

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

Code reference

Clause 15.7

Code related audit information

A retailer must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each NSP, aggregated by invoice month, for which it has provided submission information to the

reconciliation manager, including revised submission information for that period as non-loss adjusted values in respect of:

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

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

Audit observation

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

GR130 reports for January 2015 to August 2017 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Audit commentary

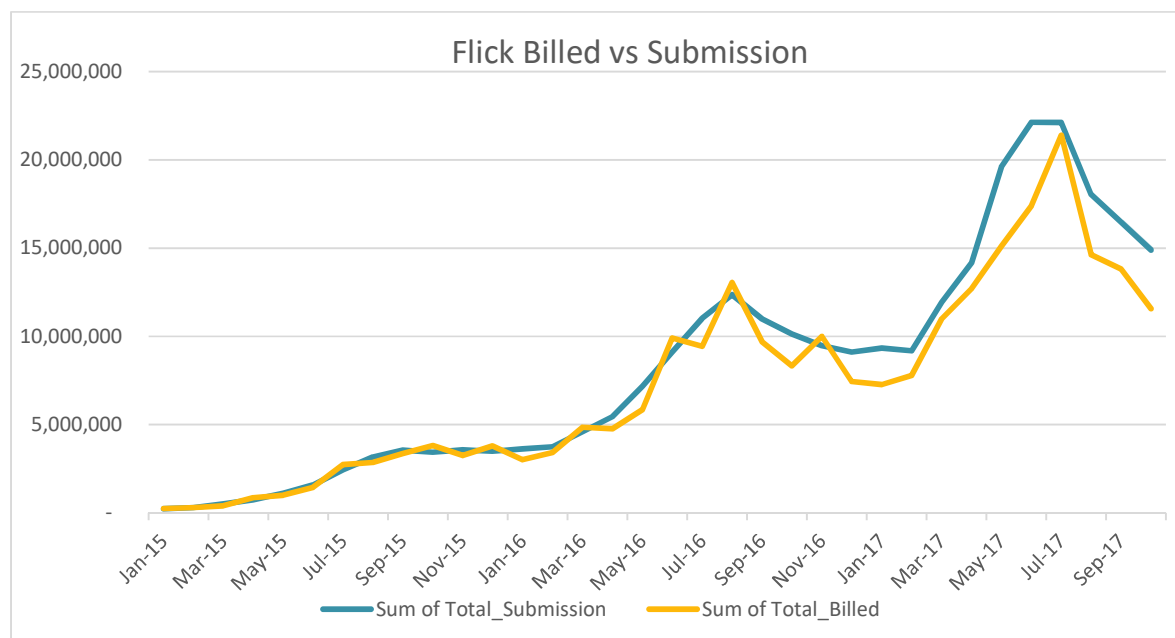
The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs against invoice information. The AV120 billed consumption calculation was confirmed to be correct for the sample of NSPs checked.

I checked the difference between submission and electricity supplied information for a 34 month period, and the results are shown and discussed in the charts below.

The total difference is -14.09% for the two years ended October 2017 (billed lower than submission). This difference is higher than expected, and may in part be attributed to:

- not routinely disconnecting or billing vacant ICPs
- not billing some customers where the wrong property was switched in, and the losing retailer refused Flick’s withdrawal request
- not billing some customers until their agreed start date, where they switched in earlier
- holding billing where metering issues, or meter communication issues are present
- switching activity
- a weekly billing cycle resulting in some months having more invoice runs than others.

Comparison between Submitted Volumes and Electricity Supplied



The last audit recommended monitoring of as billed data compared to submission data to identify the reason for the large discrepancy. Analysis was completed following the last audit, but no issues were found. To maintain visibility, I repeat the recommendation to monitor billed and submitted data to try to determine the reasons for the difference, and whether there are any issues with the billed or submitted data.

Description	Recommendation	Audited party comment	Remedial action
Clause 15.7 Billed data	Monitor as billed versus submission volumes over the coming months. Investigate to confirm the reason for the variance between billed and submitted volumes.	Steps will be taken to investigate billed vs submission data and reveal reasons for discrepancy. This will be in the interest of Flick as submission data is way more than billed which is a financial risk to the business.	Investigating

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

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 12 submissions.

The GR090 ICP Missing files were examined for March 2015 to August 2017. Flick's own checks of ICP missing data were reviewed.

Audit commentary

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

I confirmed checked the process for aggregation of HHR data is correct, by matching HHR aggregates information to the volumes for 12 submissions. I also confirmed that data for ten ICPs matched what was recorded in the Data Repository for September 2017.

Flick reviews all GR090 (ICP missing) reports promptly, and investigates and corrects any data discrepancies.

The GR090 ICP Missing files were examined for all revisions for March 2015 to August 2017. A sample of 20 differences were reviewed, and found to relate to switch timing and withdrawals. I saw evidence that Flick reviews these reports as they are received, and any discrepancies are investigated and resolved.

Late switching files are discussed in **section 4**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.4 With: Clause 15.8 From: entire audit period	HHR aggregates file does not contain electricity supplied information. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong, and the impact as low, because the requirement to report electricity supplied information is an error in the code, and Flick is providing submission information as expected. In most cases, billed volumes would match reported volumes.		
Actions taken to resolve the issue	Completion date	Remedial action status	
Flick is providing submission information as expected.	14/12/2017	Identified	
Preventative actions taken to ensure no further issues will occur	Completion date		
The requirement to report electricity supplied information is an error in the code.	14/12/2017		

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

Data processes for AMS, Arc, and Metrix were reviewed as part of their MEP audits.

A diverse characteristics sample of 14 daylight savings adjustments were reviewed, covering changes to and from daylight savings, and all MEPS.

Audit commentary

Daylight savings processes for AMS, Arc, and Metrix were reviewed as part of their audits, and found to be compliant.

The sample of 14 daylight savings adjustments reviewed were processed correctly. The “trading period run on” technique is used for daylight saving adjustment, except when an ICP first switches in during the daylight savings period. For switch ins during daylight savings, Flick estimates the first two trading periods by using the last two trading periods (which should be a similar value being the same time of the night). The reason they don’t have “actual” data is because it is technically deemed to belong to the losing trader and not to Flick. The basis for estimates is sound. Ongoing estimation is not required, only for the first day for switched in ICPs.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

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

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

Audit observation

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

Correction are discussed in section **8.2**, there were no corrections during the audit period.

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

Audit commentary

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

I checked the accuracy of the HHR aggregates and HHR volumes files in **section 11.4** and confirm compliance.

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**.

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

Audit commentary

Flick has validation processes to ensure that submissions are correct, including:

- comparison between the volumes and aggregates files; and
- checks of any ICPs where no data has been received since switch in, with action taken to retrieve data before the next revision where possible.

Flick's Data Repository does not automatically apply multipliers. Flick manually applies the multiplier to consumption for the affected meters and adjusts the HHR volumes and aggregates submissions. Prior to submission, a reconciliation to the registry is conducted to ensure that all ICPs with multipliers have been identified and included in this adjustment. From November 2017, additional checks were implemented to identify any changes to meters with compensation factors. I verified that prior to the implementation of this check, multiplier details were correct. The multiplier process was reviewed, and found to be working correctly.

The manual application of multipliers did result in one breach, discussed in **section 1.6**. It was closed by the compliance committee with no action taken.

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

Flick is not responsible for any GIPs, therefore 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

Flick is not a local or embedded network owner, therefore 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

Flick is not a grid connected generator, therefore compliance was not assessed.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

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

Audit observation

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

The impact of issues identified on the accuracy of submissions was considered.

Audit commentary

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

Some submission information was found to be incorrect:

- a correction to capture unrecorded consumption during a bridged period for 1000755980UNFB5 was not processed, this is discussed further in **section 8.2**.
- for some ICPs where reads were renegotiated, the HHR volumes were not consistent with agreed switch reading, this is discussed further in **sections 4.4, 4.5, 4.11 and 6.7**.
- the manual application of multipliers did result in one breach, discussed in **sections 1.6** which was closed by the compliance committee with no action taken.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 12.7 With: Clause 15.12 From: entire audit period	Some submission information was incorrect, due to a correction not being processed, some volumes not being based on agreed switch readings, and an inaccurate correction for multipliers. Potential impact: Medium Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate as they are sufficient to ensure that submission data is accurate most of the time. The audit risk rating is low, because submission information can be corrected washed up through the revision process.		
Actions taken to resolve the issue		Completion date	Remedial action status
The automating of RR process and setting up a process in place for estimating bridged period consumption should eliminate above errors and will ensure that submission volumes are correct.		Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Retraining has been provided to staff in regards to RR process.		14/12/2017	

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

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

Audit observation

Aggregation and content of reconciliation submissions was reviewed.

Audit commentary

Compliance with this clause was assessed:

- all Flick's ICPs have metering category 1 or 2, and are submitted as HHR
- 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 AV090 and AV140 reports is compliant.

Audit outcome

Compliant

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

Code reference

Clause 3 Schedule 15.3

Code related audit information

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

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

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

Audit observation

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

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

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

13. SUBMISSION FORMAT AND TIMING

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

Audit observation

The process to ensure that submissions are accurate was discussed in **section 12.2**, and aggregation was checked in **section 11.4**.

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

Audit commentary

Processes to ensure aggregation factors are correct are discussed in **section 2.1**. Submissions were found to be correctly aggregated.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

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

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

Audit observation

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

Audit commentary

Review of 12 AV090 and AV140 reports confirmed that submission information is appropriately rounded to two decimal places.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.3

Code related audit information

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

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

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

Audit observation

Review of a registry list confirmed that Flick has not supplied any ICPs with submission type NHH.

Audit commentary

Compliance with this clause was not assessed, because Flick does not deal with NHH readings.

Audit outcome

Not applicable

CONCLUSION

Flick's registry processes, including switching, are largely completed manually on the registry. I believe the manual nature of these processes has significantly contributed to the small numbers of late files and data inaccuracies observed during the audit.

The audit found 19 non-compliance issues, two recommendations are made, and no issues are raised.

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 38, which results in an indicative audit frequency of 12 months. I have considered this result in conjunction with Flick's responses, and agree with the indicative audit period.

PARTICIPANT RESPONSE

We take regulatory compliance very seriously and are pleased with the level of detail and reporting throughout the audit process. As a growing retailer, we are continuously working on our systems to provide our customers a great experience while also ensuring that we meet our regulatory obligations under the code.

We have appointed a Compliance Manager and are currently in the process of developing a formal internal audit plan which will focus on strengthening our internal control environment and provide early identification of issues which arise. We intend to implement the plan early in 2018.

With better technology, readily available data and new innovative industry participants the code will need to adapt to market conditions. We are engaging the EA and have proposed amendments to the code and intend to assist regulators as and where appropriate.

We value the input of the auditors and look forward to engaging with them as we continue to evolve our technology and enhance our internal controls.