ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

For

FLICK ENERGY LIMITED

Prepared by: Steve Woods

Date audit commenced: 30 October 2019

Date audit report completed: 27 November2019

Audit report due date: 03 December 2019

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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 have improved their controls in many areas, resulting in significant improvement in compliance. Internal audits and regular validation checks are addressing discrepancies as they arise.

The difference between "as billed" and submitted volumes continues to be larger than expected. Changes were made and a material change audit was conducted confirming the new reporting was accurate, but after four months of the report being accurate, it has become inaccurate again from June 2019 onwards.

Minor issues exist with submission information, as follows:

- NHH unmetered load submissions have not occurred for four ICPs, whilst the total kWh is only 8.19, the Code requires that submission occurs; and
- submission is not estimated when ICPs switch in and readings are not available, submission only occurs once readings are obtained although this does not affect many ICPs; and
- Flick has started using estimates and corrections supplied by IntelliHUB but a material change audit was not conducted prior to this change.

A recommendation is made, that Flick develops reporting to indicate the proportion of submissions derived from estimates per MEP. This will indicate whether any improvements are required. It is also recommended that Flick require IntelliHUB to undergo an agent audit for the estimation and correction activities, which do not form part of their MEP audit.

The audit found 16 non-compliance issues, two recommendations are made, and no issues are raised. The audit risk rating is 24, indicating that the next audit be due in 12 months. Taking into consideration Flick's comments, I agree with the 12 month recommendation.

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
Material Change Audit	1.11	16A.11	Material change audit not conducted prior to using estimates and corrections created by IntelliHUB.	Moderate	Low	2	Cleared
Relevant information	2.1	10.6, 11.2, 15.2	Electricity supplied information is still inaccurate. Unmetered load submissions are not occurring. Data is not submitted for new ICPs until a reading is obtained.	Strong	Low	1	Investigating
Electrical Connection of Point of Connection	2.11	10.33A	ICPs 0001301743CN073 & 0000100902DE109 not recertified within 5 business days of reconnection.	Strong	Low	1	Identified
Changes to registry information	3.3	10 Schedule 11.1	Some late status and trader updates.	Moderate	Low	2	Identified
Provision of information to the registry manager	3.5	Clause 9 Schedule 11.1	One late status update for a new connection.	Strong	Low	1	Identified
Losing trader must provide final information - standard switch	4.3	5 Schedule 11	At least three average daily consumption errors.	Moderate	Low	2	Identified
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	Five late switch move CS files. Incorrect daily consumption in three files.	Moderate	Low	2	Identified
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	19 switch withdrawal requests were backdated greater than two months from the event date.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Maintaining shared unmetered load	5.1	11.14	No unmetered volumes were reported for four ICPs with unmetered load for a short period.	Strong	Low	1	Investigating
Electricity conveyed & notification by embedded generators	6.1	10.13 and clause 15.2	Energy is not metered and quantified according to the code where meters are bridged.	Strong	Low	1	Investigating
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	Two NHH metered ICPs did not have a validated read during the period of supply.	Strong	Low	1	Identified
Identification of readings	9.1	Clause 3(3) Schedule 15.2	Unvalidated actual HHR data identified as estimated.	Moderate	Low	2	Identified
Calculation of ICP days	11.2	15.6	ICP days are not provided for new ICPs until readings are entered after the switch in read.	Strong	Low	1	Investigating
Electricity supplied information provision to the reconciliation manager	11.3	15.7	The AV120 report does not consistently reflect the quantity billed for the period.	Weak	Low	3	Identified
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates file does not contain electricity supplied information. Estimated submission data is not provided for new ICPs with no readings entered after the switch in read. One ICP with the incorrect NSP for the Day 4 file.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Accuracy of submission information	12.7	15.12	Some submission information was incorrect, due to not providing estimates where actual data was unavailable in some cases. Unmetered load not submitted.	Moderate	Low	2	Identified
Future Risk Rating							24

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

RECOMMENDATIONS

Subject	Section	Clause	Recommendation
Corrections	8.2	19(2) Schedule 15.2	Require IntelliHUB to undergo an audit as an agent to ensure compliance of the estimation and correction processes.
Permanence of meter readings for reconciliation.	12.8	4 Schedule 15.2	Develop reporting to show the proportion of estimated data at each revision per MEP.

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

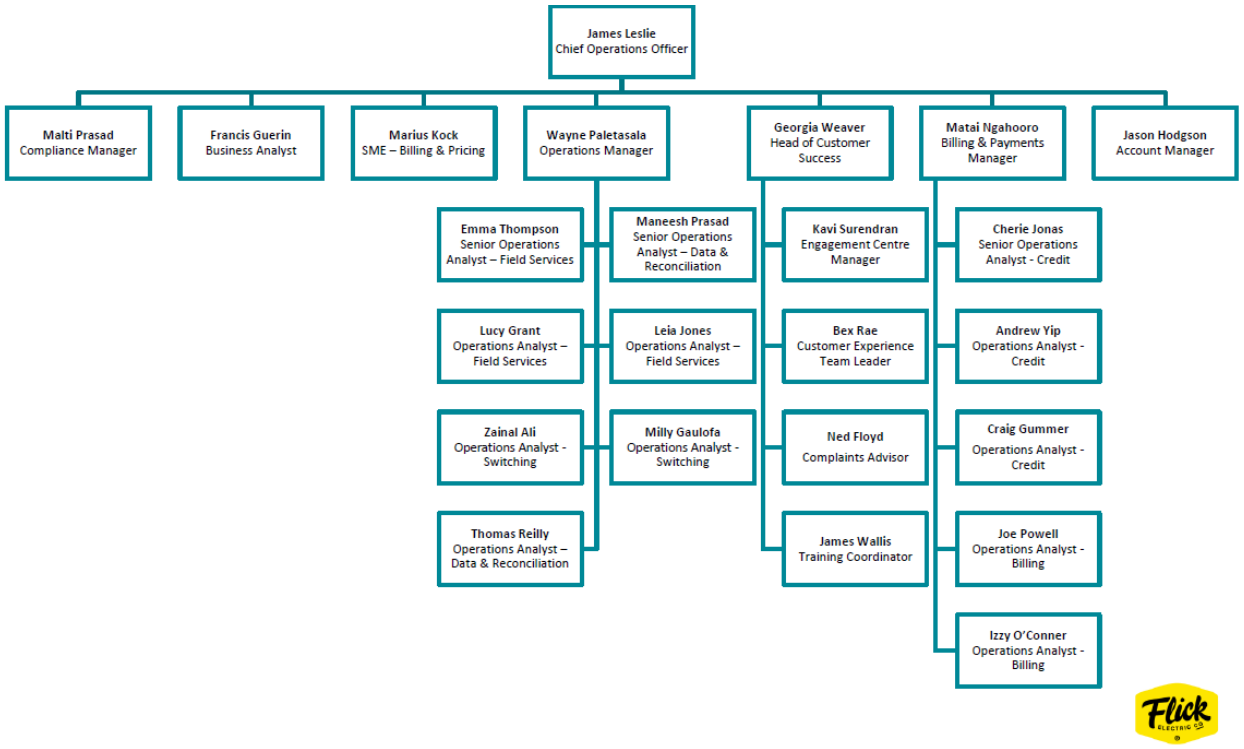
Current code exemptions were reviewed on the Electricity Authority website.

Audit commentary

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

1.2. Structure of Organisation

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



1.3. Persons involved in this audit

Auditor:

Steve Woods

Veritek Limited

Electricity Authority Approved Auditor

Flick personnel assisting in this audit were:

Name	Title
Malti Prasad	Compliance Manager – Customer and Market Operations
Maneesh Prasad	Senior Reconciliation 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 provided by AMS (for AMS and Smartco), IntelliHUB (for IntelliHUB and Counties Power), Arc, WASN and FCLM 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.

System/Provider	Function
AXOS	Billing system.
Data repository	Customer, registry, volume, and reconciliation information management until 31/03/18. Registry updates were processed manually.
Telemetry	Customer, registry, volume, and reconciliation information management from 01/04/18. Registry updates are processed manually. Automation of CS processes is being tested, with automation of RR and AC processes to follow.
SalesForce	Customer relationship management system which interfaces with the Admin App, Data Repository (until 31/03/18), Telemetry (from 01/04/18) and AXOS.
Umbrella	Secure, hosted data warehousing services including: • Data Warehousing • Server Back-ups

System/Provider	Function
	• 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 have been no alleged breaches relevant to the scope of this audit between November 2017 and September 2018.

1.7. ICP Data

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

Metering Category	2019	2018	2017	2016	2015
1	20,012	24,665	21,973	15,071	5,445
2	29	33	36	16	1
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
9	-	-	15	-	-

Status	Number of ICPs (2019)	Number of ICPs (2018)	Number of ICPs (2017)	Number of ICPs (2016)	Number of ICPs (2015)
Active (2,0)	20,041	24,698	21,946	15,015	5,446
Inactive – new connection in progress (1,12)	-	-	-	-	-
Inactive – electrically disconnected vacant property (1,4)	27	34	13	4	12
Inactive – electrically disconnected remotely by AMI meter (1,7)	145	156	26	67	0
Inactive – electrically disconnected at pole fuse (1,8)	5	2	-	-	-
Inactive – electrically disconnected due to meter disconnected (1,9)	1	2	-	-	-

Inactive – electrically disconnected at meter box fuse (1,10)	-	1	-	-	-
Inactive – electrically disconnected at meter box switch (1,11)	-	-	-	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	1	2	3	-	-
Inactive – reconciled elsewhere (1,5)	-	-	-	-	-
Decommissioned (3)	102	70	37	5	1

1.8. Authorisation Received

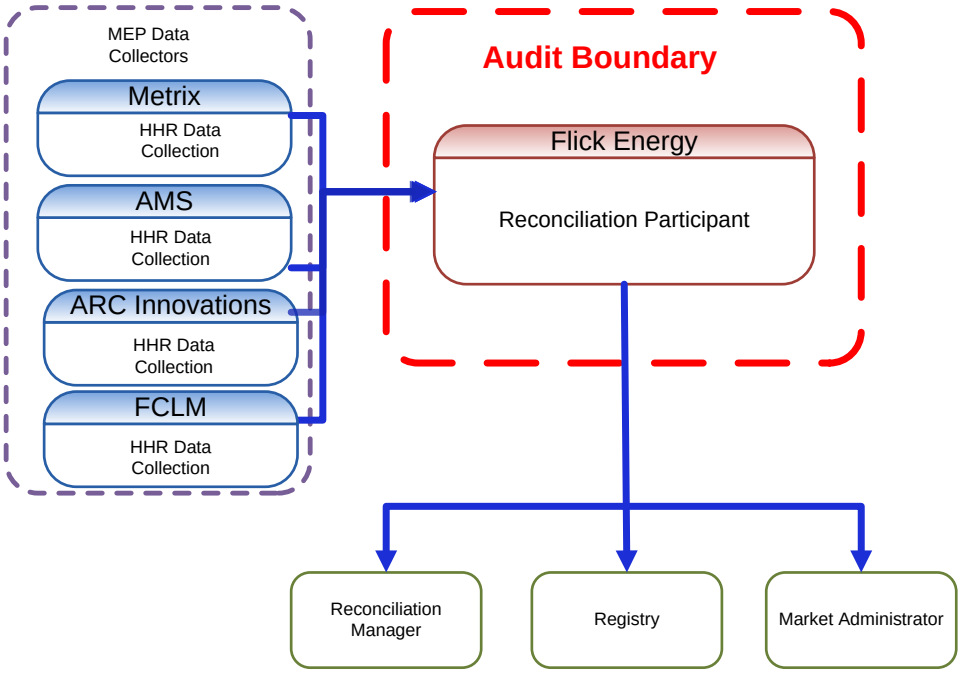
An authorisation letter was not required.

1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of 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 30 October 2019.

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, FCLM, and IntelliHUB 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) Arc – HHR (AMI) FCLM – HHR (AMI) IntelliHUB – HHR (AMI) WASN – HHR (AMI)
(c)(i) - Creation and management of volume information		AMS – HHR (AMI) Arc – HHR (AMI) FCLM – HHR (AMI) IntelliHUB – HHR (AMI) WASN – HHR (AMI)
(d) – Calculation of ICP days		
(da) - delivery of electricity supplied information under clause 15.7		
(db) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8		
(e) – Provision of submission information for reconciliation		

1.10. Summary of previous audit

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

Subject	Section	Clause	Non-compliance	Status
Relevant information	2.1	10.6, 11.2, 15.2	46 ICPs had incorrect profiles assigned and 44 ICPs had incorrect submission types assigned for NHH periods submitted as HHR using the HHY profile. Three ICPs had incorrect statuses recorded on the registry for some days. The data was corrected during the audit.	Still existing

Subject	Section	Clause	Non-compliance	Status
Arrangements for metering equipment provision	2.13	10.36	No MEP arrangements are in place with Delta, LMGL, or Trustpower.	Cleared
Changes to registry information	3.3	10 Schedule 11.1	79 late status updates. 76 late MEP nominations. 95 late trader updates.	Still existing
Provision of information to the registry manager	3.5	Clause 9 Schedule 11.1	Four late status updates for new connections.	Still existing
ANZSIC codes	3.6	9 (1(k) of Schedule 11.1	Incorrect ANZSIC codes were recorded on the registry for seven ICPs.	Cleared
Management of "inactive" status	3.9	19 Schedule 11.1	Three ICPs were incorrectly recorded as inactive on the registry when they were active. All have since been corrected.	Cleared
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	Nine transfer switches had incorrect AN response codes applied.	Cleared
Losing trader must provide final information - standard switch	4.3	5 Schedule 11	Four late CS files for transfer switches. Some incorrect CS content.	Still existing
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	One late RR file. One RR file contained an incorrect reading. 14 ICPs did not have the agreed switch reading recorded in Telemetry. One AC file was invalidly rejected.	Cleared
Gaining trader informs registry of switch request - switch move	4.7	9 Schedule 11.3	Two switch moves were requested more than two business days after pre-conditions were cleared.	Cleared
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	Four switch moves had incorrect AN response codes applied.	Cleared

Subject	Section	Clause	Non-compliance	Status
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	Two late switch move CS files. Some incorrect CS file content.	Still existing
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	Two late RR files. 13 ICPs did not have the agreed switch reading recorded in Telemetry.	Cleared
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	20 switch withdrawal requests were backdated greater than two months from the event date. Two switch withdrawal requests had incorrect advisory codes applied. One switch withdrawal request from another trader was rejected in error.	Still existing
Metering information	4.16	21 Schedule 11.3	One incorrect CS read and one incorrect RR read were provided.	Cleared
Maintaining shared unmetered load	5.1	11.14	No unmetered volumes were reported for two ICPs with unmetered load for part of the audit period.	Still existing
Electricity conveyed & notification by embedded generators	6.1	10.13 and clause 15.2	Energy is not metered and quantified according to the code where meters are bridged.	Still existing
Derivation of meter readings	6.6	3(1), 3(2) and 5 Schedule 15.2	Two photo readings were applied as actual readings in CS files, without being appropriately validated.	Cleared
NHH meter reading application	6.7	6 Schedule 15.2	One incorrect CS read and one incorrect RR read were provided.	Cleared
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	Two NHH metered ICPs did not have a validated read during the period of supply.	Still existing
Correction of HHR metering information	8.2	19(2) Schedule 15.2	A correction was not processed for the period ICP 0006891497RNC5D's meter was bridged.	Still existing

Subject	Section	Clause	Non-compliance	Status
Identification of readings	9.1	Clause 3(3) Schedule 15.2	Two photo readings were applied as actual readings in CS files, without being appropriately validated. One actual switch read was provided with a read type of estimated.	Still existing
Buying and selling notifications	11.1	15.3	No trading notification was provided for HHY profile for BRB0331, MTO0331, MPE1101 or TQB0011.	Cleared
Calculation of ICP days	11.2	15.6	ICP days are not provided for new ICPs until readings are entered after the switch in read.	Still existing
Electricity supplied information provision to the reconciliation manager	11.3	15.7	The AV120 report does not consistently reflect the quantity billed for the period.	Still existing
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates file does not contain electricity supplied information. Estimated submission data is not provided for new ICPs with no readings entered after the switch in read.	Still existing
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 not providing estimates where actual data was unavailable in some cases.	Still existing

Subject	Section	Clause	Recommendation	Status
ICPs at new or ready status for 24 months	3.10		A Registry List (type P) with proposed trader = FLCK and status = 000 and 999 should be run at least quarterly to identify ICPs which have been at “new” or “ready” status for more than 18 months and require follow up.	Cleared

Subject	Section	Clause	Recommendation	Status
Retailers must use same reading - standard switch	4.4		Telemetry does not allow replacement of actual AMI data via its front end. In some cases, the agreed switch reading does not match the AMI data. Under the code, Flick is required to apply the agreed switch reading for reconciliation. I recommend that as part of its review and automation of the RR process, Flick considers how they could ensure that the agreed switch reading is consistently applied.	Cleared

1.11. Material Change Audit (Clause 16A.11)

Code reference

Clause 16A.11

Code related audit information

If there is a material change to any of a participant's systems or processes that are the subject of regular audits under clause 10.17A, 11.8B, 11.10, 15.37A or 15.37B, the participant must arrange for an additional audit, which must be completed in accordance with this Part no later than 5 business days before the change is implemented.

For the purposes of subclause (1), a material change to a system or process is a change that is likely to affect the ability of the participant to comply with any relevant provision of this Code.

Audit commentary

Flick commenced using estimates and corrections created by IntelliHUB during the audit period. This is considered a material change, but a material change audit was not conducted. IntelliHUB has not had an agent audit conducted. Their MEP audit contains a brief summary indicating the estimation calculations are compliant, but there are other clauses relating to corrections that need to be checked for future audits.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 1.11 With: Clause 16A.11 From: 01-Dec-18 To: 13-Nov-19	Material change audit not conducted prior to using estimates and corrections created by IntelliHUB. Potential impact: Medium Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because Flick has demonstrated they are aware of the material change requirements as they have had other material change audits conducted. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Auditors request for IntelliHUB to conduct an agent material change audit to cover for the estimation and correction activities, which do not form part of their MEP audit, has been communicated to IntelliHUB.	25/11/2019	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
The requirement for an agent material change audit by an MEP for any future MEP process or system change has been noted. Flick systems are compliant with the estimations and correction requirements under the code. We have not changed any of our systems or processes and therefore we are not required to perform a material change audit. We do not believe that it is our responsibility to inform the MEP of their obligation to perform an agent material change audit under the code.	25/11/2019	

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

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

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

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

Audit observation

The process to find and correct incorrect information was examined. The registry validation process was examined in detail in relation to the achievement of this requirement. The list file as at 25/09/19 was examined to identify any registry discrepancies and confirm that all information was correct and not misleading.

Audit commentary

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. Telemetry is updated based on these reports.

Flick has appropriate processes to address instances of incorrect data. Each Tuesday and Thursday, safety net reporting is used to identify and resolve data discrepancies, including:

- status discrepancies, including ICPs which have switched in but remain disconnected and a check against a list of disconnected ICPs;
- any ICPs where daily unmetered kWh has been added;
- any ICPs with an unexpected MEP, which are checked to ensure that a meter replacement is in progress;
- unknown ANZSIC codes;
- ICPs with generation fields populated, which are checked to ensure that generation metering is installed, and the generation fuel type is as expected;
- invalid submission types and profiles; and
- invalid meter flags.

During the audit, I saw evidence that the safety net process was working successfully, and exceptions identified were followed up.

Telemetry stores and automatically applies the compensation factors.

The registry list was examined to identify inaccurate data:

Issue	2019 Qty	2018 Qty	2017 Qty	Comments
Blank ANZSIC codes	-	-	-	Compliant
ANZSIC "T99" series	-	-	-	Compliant
UML load = zero	-	-	-	Compliant
Incorrect UML load	-	-	-	Compliant
Shared unmetered load incorrect	-	-	-	Compliant
ICPs with Distributor unmetered load populated but retail unmetered load is blank and UML flag = N	-	-	-	Compliant
No MEP recorded or nominated and UML= "N"	-	-	-	Compliant
Incorrect status	-	3	-	Compliant
Incorrect profile	-	46	1	Compliant
Incorrect submission type	-	44	-	Compliant
Active date variance with initial electrical connection date	-	-	-	All active dates were consistent with the initial electrical connection date.
Active ICP with no MEP	-	-	-	Compliant
Active Category 9 and UML "N"	-	-	-	Compliant

The controls for registry accuracy are very strong and no discrepancies were found.

Three issues were found with submission information not being complete and accurate, and not being corrected as soon as practicable.

1. Electricity supplied information is still inaccurate.
2. Unmetered load submissions are not occurring.
3. Data is not submitted for new ICPs until a reading is obtained.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 10.6, 11.2, 15.2 From: 01-Dec-18 To: 13-Nov-19	Electricity supplied information is still inaccurate. Unmetered load submissions are not occurring. Data is not submitted for new ICPs until a reading is obtained. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong because they are sufficient to ensure that most information is recorded correctly. The risk rating is low because the impact on other participants and on settlement is minor.

Actions taken to resolve the issue	Completion date	Remedial action status
The discrepancy reason for incorrect electricity supplied information has been identified and the AV120 reporting has been corrected for the significant difference in reporting for the month of June 2019. The submission will be corrected through the R7 revision file. Unmetered load are not submitted to the reconciliation manager as Flick does not hold NHH certification. The reconciliation manager and Electricity Authority operations team have been contacted to check how this can be resolved. The initial incorrect submission of ICP days would be corrected through the revision files.	1/6/2020	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	

An internal audit process has been put in place for the AV120 reports to be regularly monitored and any discrepancy arising through this report to be remedied immediately. Flick systems do not allow ICP's with unmetered load to be switched in. Existing ICP's which get unmetered load added are identified through safety net. This process is monitored through regular Field QA and internal audit. Any identified unmetered load for short periods for existing ICP's will be submitted through the HHY profile after approval from EA and Reconciliation manager. Weekly safety net process has been put in place to avoid any ICP's with unmetered load being switched in. The issue of data not being submitted for new ICP's until a reading is obtained has been raised with the Tech team and an attempt will be made to resolve this non-compliance through system enhancement.	1/6/2020	

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

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

Audit observation

HHR data is provided by AMS (for AMS and Smartco), IntelliHUB (for IntelliHUB and Counties Power), Arc, WASN and FCLM as MEPs via SFTP.

To confirm the process, I traced a sample of reads and volumes for a diverse sample of seven HHR ICPs from the source files to Telemetry and HHR aggregates submissions. The sample included all MEPs.

Audit commentary

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

I traced a sample of data for seven HHR ICPs from the source files to system and the HHR aggregates files to confirm the data transmission process. All volumes matched.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

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

Audit observation

A complete audit trail was checked for all data gathering, validation and processing functions. I viewed audit trails in 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 customer terms and conditions.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The trader must use its best endeavours to provide access:

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

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

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

Audit observation

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

Audit commentary

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

Review of a registry list as at 25/19/19 confirmed that Flick do not supply any ICPs with metering category 3 or above.

Audit commentary

Flick only supplies ICPs with metering categories 1 and 2 and does not deal with any installations with loss compensation.

Audit outcome

Compliant

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

Code reference

Clause 11.15B

Code related audit information

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

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

- *the terms of the assigned contract to be amended on such an assignment to include a minimum term in respect of which the customer must pay an amount for cancelling the contract before the expiry of the minimum term (clause 11.15B(1)(c)); and*
- *the trader to provide information about the customer to the Authority and for the Authority to provide the information to another trader if required under Schedule 11.5 (clause 11.15B(1)(d)); and*
- *the trader to assign the rights and obligations of the trader to another trader (clause 11.15B(1)(e)).*

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

Audit observation

I reviewed Flick's current customer terms and conditions.

Audit commentary

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

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

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

The event detail report for 01/12/18 to 25/19/19 was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

Flick completed seven new connections during the audit period.

Flick accepts responsibility for the ICP and works with the MEP and electrician to progress the connection. The MEP is nominated on the registry once Flick claims the ICP and moves it to "new connection in progress" or "active" status.

Audit outcome

Compliant

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

Code reference

Clause 10.33(1)

Code related audit information

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

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

Audit observation

The new connection process was examined in detail to evaluate the strength of controls, and temporary electrical connections were discussed.

The event detail report for 01/12/18 to 25/19/19 was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

No temporary electrical connections were identified.

Audit outcome

Compliant

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

Code reference

Clause 10.33A(1)

Code related audit information

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

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

Audit observation

The new connection and reconnection processes were discussed.

The event detail report for 01/12/18 to 25/19/19 was examined to identify all new connections and reconnections during the audit period and assess compliance.

Audit commentary

Flick completes a monthly check to ensure all ICPs have full metering certification and follows up any discrepancies with the MEP. Flick also checks that ICPs are fully certified before reconnection.

Seven new connections and 752 reconnections were completed during the audit period.

- All seven new connections were fully certified on their electrical connection date.
- One reconnected ICP (0001301743CN073) was not certified within five business days. It is now certified.

Flick provided a list of seven meters which had been bridged during the audit period. ICP 0000100902DE109 was not recertified when the bridge was removed and is still not recertified.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.11 With: Clause 10.33A From: 11-Feb-19 To: 13-Nov-19	ICPs 0001301743CN073 & 0000100902DE109 not recertified within 5 business days of reconnection. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as strong because they mitigate risk to an acceptable level. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
MEP has confirmed that ICP 0000100902DE109 was recertified on 9/4/2019. A request has been sent to MEP to update registry.	25/11/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Registry update by MEP for this process has been included in the Field QA and internal audit assessment. Robust training has been conducted in regards to the process to avoid reoccurrence of this error.	Ongoing	

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

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

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

Audit observation

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

The registry list for 01/12/18 to 25/19/19 was reviewed to identify all networks Flick has traded on during the audit period.

Audit commentary

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

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, FCLM, WASN or IntelliHUB;
- valid price category for Flick;
- AMI flag is yes;
- unmetered flag is no; and
- installation type is L.

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

If an application is declined, the customer had the option of leaving their email address if they would like to be contacted. Flick contacts these customers to determine whether they could be eligible for supply if their meter is upgraded, and if the upgrade is likely to be possible, and may then manually approve acceptance for a NHH non-AMI meter.

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

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

The registry list for 01/12/18 to 25/19/19 was reviewed to identify the MEPs for Flick ICPs during the audit period.

Audit commentary

Flick demonstrated that arrangements are in place with AMS, Arc, Counties Power, FCLM, WASN and IntelliHUB.

Flick temporarily supplied ICPs with NHH non-AMI meters with several other MEPs. Flick now has arrangements in place with these MEPs.

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

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

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

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

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

Audit observation

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

The event detail report for 01/12/18 to 25/19/19 was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

This requirement is well understood and managed by Flick. The new connection process is detailed in **section 2.9**.

Audit outcome

Compliant

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

Code reference

Clause 11.7(2)

Code related audit information

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

Audit observation

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

The event detail report for 01/12/18 to 25/19/19 was analysed in relation to updating of the registry. This clause links directly to **sections 3.3** and **3.5** below, where findings on the timeliness of updates are recorded.

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

The process to manage status changes is discussed in detail in **sections 3.8** and **3.9**. In this section, the event detail report for 01/12/18 to 25/19/19 was analysed determine the overall performance for that period.

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

- 10 late active updates;
- all 11 late inactive updates;
- 7 late MEP nominations; and
- 8 late trader updates.

Audit commentary

The event detail report was examined to confirm whether the registry is notified within five business days when information referred to in clause 9 of schedule 11.1 changes.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Status updates						
Change to active (2,0)	2017	737	591	146	6	80%
	2018	114	99	15	1	87%
	2019	**633**	**568**	**65**	**2.38**	**90.3%**
Change to electrically disconnected	**2019**	1,089	**1,078**	**11**	**2.14**	**98.9%**
Trader updates						
Trader updates	**2019**	**3,570**	**264**	**3,306**	**27.1**	**7.39%**
	2018	192	97	95	117	51%

Status updates

A sample of ten late status changes to active were reviewed and found to be caused by:

- one backdated switch in;
- eight examples of ICPs switching in with the incorrect inactive status, which was corrected based on communication with the customer;
- one example of the losing trader changing the status to inactive for a period prior to Flick being the trader, Flick then had to correct the status.

All 11 late updates to inactive were reviewed and found to be caused by:

- errors when processing the disconnection, including not updating the event date;
- backdated corrections to status, where Flick had discovered the ICP was disconnected, or an incorrect status or date had initially been applied;
- delays in receiving and processing the disconnection paperwork.

The late updates are recorded as non-compliance.

Trader updates

Trader updates include MEP nominations. There were seven late MEP nominations, all due to meter replacement jobs being issued by the previous trader.

3,288 changes were from the HHY profile to the HHR profile to coincide with the date Metrix certified metering installations as HHR. Most of these were backdated 31 days.

I checked eight late updates. Six were ANZSIC code changes identified through Flick's comparison between price category code and ANZSIC code. One was a meter change performed for the losing trader but not updated prior to the switch, and one was late paperwork for a meter change.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: Clause 10 Schedule 11.1 From: 01-Dec-18 To: 13-Nov-19	Some late status and trader updates. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Trader updates were backdated to correct registry records.	19/11/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Robust refresher training has been provided to the team which included monitoring the timeliness of registry updates. This process is assessed through regular Field QA and scheduled internal audit.	19/11/2019	

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

- *advise the MEP responsible for the metering installation of the decommissioning (clause 11.18(3)(b)).*

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

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

Audit observation

Retailers Responsibility to Nominate and Record MEP in the Registry

The new connection process was discussed.

The audit compliance report, registry list as at 25/19/19 and event detail report for 01/12/18 to 25/19/19 were examined to identify:

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

ICP Decommissioning

The process for the decommissioning of ICPs was examined. A typical sample of ten decommissioned ICPs were checked to prove the process and confirm controls are in place.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

All active ICPs have a valid MEP recorded.

Flick nominates the MEP in the registry when the ICP is claimed and moved to "inactive new connection in progress" status, or "active" status.

There were no MEP nominations rejected during the audit period.

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

ICP Decommissioning

Flick continue with their obligations under this clause. ICPs that are vacant and active, or inactive are maintained in Telemetry.

33 ICPs were decommissioned during the period, of which ten were checked. Flick had met their obligation to arrange a meter interrogation prior to or upon meter removal and notify the MEP.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.1

Code related audit information

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

a) the participant identifier of the trader, as approved by the Authority (clause 9(1)(a))
b) the profile code for each profile at that ICP, as approved by the Authority (clause 9(1)(b))

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

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

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

Audit observation

The new connection process was discussed.

The event detail report from 01/12/18 to 25/19/19 was examined was examined to identify all new connections, and the timeliness of new connection status updates. All late updates were checked.

Audit commentary

The new connection process is described in **section 2.9**. The table below shows the timeliness of updates for new connections.

Event	Year	Total ICPs	ICPs notified within 5 days	ICPs notified greater than 5 days	Average notification days	Percentage compliant
Status updates						
Status update to active new connection (2,0)	**2019**	**7**	**6**	**1**	**3.67**	**83.3%**
	2018	7	3	4	10	42%
Status update to inactive new connection in progress (1,12)	**2019**	**7**	**7**	**0**	**1**	**100%**
	2018	1	1	-	5	100%

One new connection update was late due to incorrect advice from the MEP, indicating the ICP was not electrically connected when it was electrically connected.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.5 With: Clause 9 Schedule 11.1 From: 06-Dec-18 To: 13-Dec-18	One late status update for a new connection. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as strong because they mitigate risk to an acceptable level. The risk is low because there was only one late update.

Actions taken to resolve the issue	Completion date	Remedial action status
New connection status update was backdated to correct registry records. This was due to incorrect advise from MEP, indicating the ICP was not electrically connected when it was electrically connected.	18/11/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Robust training has been provided to Field team regarding ensuring MEP's are monitored on accuracy and timely delivery of paperwork for service requests.	Ongoing	

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

Code reference

Clause 9 (1(k) of Schedule 11.1

Code related audit information

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

Audit observation

The process to capture and manage ANZISC codes was examined. The registry list as at 25/19/19 was reviewed to check ANZSIC codes.

To confirm the validity of the ANZSIC codes selected I checked a diverse sample of 40 ICPs, including all ICPs with ANZSIC code 0 with metering category 2.

Audit commentary

ANZSIC codes are set based on information provided on the customer application. ANZSIC codes are checked when ICPs switch in, and during the pricing and load group checks to confirm that the ANZSIC code is consistent with the price and load group. Unknown ANZSIC codes are checked as part of the twice weekly safety net checks described in **section 2.1**. Flick has checked and cleansed their ANZSIC code information during the audit period.

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

The accuracy of the ANZSIC codes for 40 ICPs were checked using google streetview:

- 34 ICPs were found have correct ANZSIC codes, including three ICPs with meter category 2 and domestic ANZSIC codes; and
- the ANZSIC code was queried with Flick for six ICPs and investigations have commenced to determine if there are any errors.

Audit outcome

Compliant

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

Code reference

Clause 9(1)(f) of Schedule 11.1

Code related audit information

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

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 01/12/18 to 25/19/19 was reviewed to identify all ICPs with unmetered load.

Audit commentary

Flick does not currently supply any ICPs with unmetered load.

Applications to become a customer are not accepted if the ICP has unmetered load connected. 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.

One Flick ICP had shared unmetered load added by the distributor during the audit period. Two were added during the previous audit period and one was added in the 2017 audit period. Flick asked the Distributor to remove their ICP from the shared unmetered list or they switched the customer out. In all cases, there is a short period where unmetered load is present, and Flick is responsible for submission.

Although it's only 8.19 kWh in total, non-compliance is recorded in **section 5.1** in relation to submission of unmetered volumes for these ICPs.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

New connections

The new connection process was examined in detail as discussed in **sections 2.9** and **3.5** above. Review of the registry list as at 25/19/19 confirmed that no ICPs had "inactive - new connection in progress" status with an initial electrical connection date populated.

Seven new connections were completed during the audit period. I checked for variances between the active date, meter certification date, and the initial electrical connection date.

Reconnections

The ICP reconnection process was examined. The event detail report for 01/12/18 to 25/19/19 was analysed, and the findings on the timeliness of registry updates are recorded in **section 3.3**.

Audit commentary

Flick's system will not allow more than one party per ICP, nor will it allow an ICP to be set up without both a meter and Metering Equipment Provider. Processes have been automated to prevent an ICP being recorded against a customer account for any day that it is active against another account. A monthly report is generated to check for ICPs that do not have open meters.

New connections

Flick processed seven new connections during the audit period. In all cases, Flick's active date was consistent with the initial electrical connection date and meter certification date. I checked the active dates to the connection paperwork and confirmed that Flick's dates were correct.

Reconnections

Reconnections are processed manually on the registry once paperwork is received.

A typical sample of ten reconnections were checked, all had the correct status and date applied.

All reconnected ICPs had metering installations. Two were not certified on the reconnection date, which is recorded as non-compliance in **section 2.11**. Late registry updates to active are recorded as a non-compliance in **section 3.3**.

Audit outcome

Compliant

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

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

Audit observation

The event detail report for 01/12/18 to 25/19/19 was examined to identify all status changes to inactive. A typical sample of five ICPs at each inactive status (or all ICPs if less than five were available) were checked. The findings in relation to the timeliness of updates to registry are recorded in **section 3.3**.

The list file as at 25/19/19 was examined and found no ICPs were at “inactive - new connection in progress status”.

Audit commentary

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

Flick provided a list of four ICPs which had consumption recorded during an inactive period. It turned out that the consumption was estimated consumption provided by IntelliHUB for inactive ICPs, it was not actual consumption.

No incorrect statuses were identified.

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

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

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

A registry list as at 25/19/19 was reviewed to identify all ICPs with “new” or “ready” status and Flick recorded as the proposed trader.

Audit commentary

Flick completed seven new connections during the audit period. New connections in progress are monitored manually.

No ICPs currently have “new” or “ready” status and Flick recorded as the proposed trader, and no requests for information on “new” or “ready” ICPs have been received from distributors. If received these would be actioned on a case by case basis.

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

Code reference

Clause 2 Schedule 11.3

Code related audit information

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

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

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

Audit observation

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

A typical sample of five transfer switches were checked to confirm that they were notified to the registry within two business days, and that the correct switch type was selected.

The internal audit process was discussed, and internal audit reporting was reviewed.

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.

Switch type is selected based on information provided by the customer on application. The customer is asked their move in date and whether they have been billed at the property by another retailer as part of the application process.

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

NT processes have been subject to a Flick internal audit, which found compliance for the sample checked. Switching audits are intended to be carried out monthly.

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

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

Audit observation

An event detail report for 01/12/18 to 25/19/19 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 three ANs per response code were reviewed to determine whether the response codes had been correctly applied.

The switch breach report was examined for the audit period.

Audit commentary

AN timeliness

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

AN content

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

All transfer AN files were examined on the event detail report. All proposed event dates for 3,135 AN files were within five business days of NT receipt.

All ICPs had correct response codes.

Audit outcome

Compliant

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

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

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

Audit observation

The process to manage the sending of the CS file within five business days of the event date was examined. The switch breach history report was reviewed to identify late CS files, and an extreme case sample of the latest ten files were checked.

An event detail report for the period from 01/12/18 to 25/19/19 was reviewed, to identify CS files issued by Flick. The accuracy of the content of CS files was confirmed by checking a sample of seven records. The content checked included:

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

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

Audit commentary

CS timeliness

Flick has implemented improved processes to ensure that switches are completed on time. Internal reporting on switch due dates is used, as well as the switch breach report from the registry. The switch breach history report confirmed there were no late files.

CS content

The accuracy of the content of CS files was confirmed by checking a sample of seven transfer CS files. The information recorded in the files was correct, apart from average daily consumption.

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, estimated daily consumption is calculated as the average daily consumption over the past 60 days in Telemetry. While this is not technically consumption for the last read to read period, it provides a reasonable indication of the average daily consumption. Analysis of the estimated daily kWh on the event detail report identified:

For the seven ICPs checked above, the average daily consumption figures were accurate based on the 60-day analysis period. I checked a sample of five ICPs where the consumption was over 100 kWh per day. Two were incorrect due to calculation errors. One ICP was showing negative consumption and this was also incorrect. One potential future issue was identified. If an MEP provides “unvalidated” data (where

the sum-check was not performed), the data is labelled as an estimate and if one of these reads is used in a CS file it will be labelled "E" when it should be labelled as an actual. The sum-check is performed by the MEP to support metering certification and data should not be considered estimated just because the sum-check was not performed. No examples were found but this could become an issue in future.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.3 With: Clause 5 Schedule 11.3 From: 01-Dec-18 To: 13-Nov-19	At least three average daily consumption errors. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Refresher training on the Switch process which included the CS file submission has been completed on 19/11/2019.	19/11/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
This process is assessed through regular Switch QA and scheduled internal audit. 75% of the CS file submission is automated. Attempt will be made to get the remaining 25% CS file automated to prevent the recurrence of this error.	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 01/12/18 to 25/19/19 was reviewed to identify all read change requests and acknowledgements during the audit period.

- 148 RR files were issued to Flick by other traders for transfer switches. 121 of those were rejected. I reviewed ten rejected files to confirm the reasons for rejection were valid and confirm that Flick's system reflected the outcome of the RR process, and ten accepted files to confirm that Flick's system reflected the outcome of the RR process. I note that a high proportion of the rejected files were issued by Electric Kiwi, who had issued some RRs where the RR reading matched the CS reading or where the readings in the RR files were incorrect and Flick's reads were correct.
- 687 RR files were issued by Flick for transfer switches. 193 of those were rejected. I reviewed ten rejected and ten accepted files to confirm that the requests were supported by at least two actual readings, that the content of the files was accurate, and that Flick's system reflected the outcome of the read change process.

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

The internal audit process was discussed, and internal audit reporting was reviewed.

Audit commentary

Application of CS readings

Switch ins are monitored. The data team compare actual AMI data to the switch read to determine whether an RR is required and advise the switching team. The Telemetry system calculates the start read based on the AMI reading at the end of the first day Flick has supplied the ICP and deducts the sum of the trading periods for that day to determine the expected start read.

If Flick receives AMI data confirming that the expected start read is more than ±1 kWh different to the switch event reading provided within five business days, an RR will be issued. If the difference is less than ±1 kWh an RR is not issued. Small differences between CS readings and AMI midnight readings can arise where the losing trader has provided an actual reading that is not a midnight reading on the switch date. To address this, Flick is now estimating the first day of consumption in this scenario, based on the start read from the CS file and the first actual read at the end of the first day.

If AMI data is not received for the first day of supply and the CS read cannot be checked, Telemetry will estimate the consumption based on the CS reading and next available reading, using its estimation process discussed in **section 9.4**. I reviewed ICPs with missing AMI data where this process had been followed during the audit. I found that where an ICP switched in and no subsequent readings were entered,

Telemetry would not create an estimate. There is no "forward default estimate" process. This is discussed further and recorded as non-compliance in **sections 11.4** and **12.7**.

To confirm the process for CS readings where no RR was issued, I checked a sample of five transfer CS files with estimated readings where no RR had been issued to confirm that the correct readings were recorded in Telemetry. In all cases, the CS estimate was used and the intervals for the first day were estimated based on the difference between the CS read and the first actual read.

RR

Where an RR issued by Flick is accepted, Flick does not need to make any changes in Telemetry. The expected start read recorded in the RR and AMI data are automatically applied. To confirm this, I checked a sample of five transfer RRs which were accepted and found that the reads recorded and used for submission by Flick reflected the outcome of the RR process.

Where an RR issued by Flick is rejected, the file is passed to the data team for action by the switching team. I saw evidence of these notifications. The data team will adjust the reading and interval data to match the CS file. I checked five examples and found the correct reads were used in all cases.

AC

Where another trader issues an RR to Flick, the values are checked against Telemetry to determine whether it should be accepted, and an AC file is issued.

In Telemetry actual AMI readings from the MEP cannot be invalidated and replaced with other readings. This means that if an ICP switches out on an actual AMI reading, Flick cannot modify that reading in Telemetry. For this reason, Flick normally only accepts RRs if they contain data matching Telemetry because either an error was made when entering the reads into the original CS file, or the CS reading was estimated and AMI data has later become available and is consistent with the RR. If Flick accepts an RR from another trader where an actual value is already recorded in Telemetry, Flick is unable to apply the switch reading.

I checked seven rejections and in five cases, the rejection was correct because Flick had AMI reads. Many of the RRs received were for one kWh difference or for the same reading as that in the CS file. Two files were rejected then subsequently accepted. Flick used the RR file read in Telemetry as the final read.

Timeliness of RR and AC files

The switch breach history report was examined. No late files were sent.

Summary

Flick implemented the changes they stated in the last audit report. There is now internal auditing in place and process changes were implemented to ensure compliance.

Audit outcome

Non-compliant

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

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

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

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

Audit observation

The event detail report for the period from 01/12/18 to 25/19/19 was reviewed to identify all read change requests and acknowledgements where clause 6(2) and (3) of schedule 11.3 applied.

Audit commentary

Other retailers cannot issue read change requests to Flick under clause 6(2) and (3) of schedule 11.3 because Flick is a HHR only trader.

67 RR files sent within five business days were rejected. In this scenario Flick uses their read if it is based on an actual AMI read. There were a small number of examples where the RR was sent greater than five business days and the CS read was used with the first day being estimated.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 11.3

Code related audit information

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

Audit observation

I confirmed with 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 typical sample of 10 switch moves were checked to confirm that they were notified to the registry within two business days, and that the correct switch type was selected.

Audit commentary

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.

Switch type is selected based on information provided by the customer on application. The customer is asked their move in date and whether they have been billed at the property by another retailer as part of the application process.

The ten NT files checked had the correct switch type selected. All ten were sent within two business days of all conditions being met.

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for 01/12/18 to 25/19/19 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 three ANs per response code (or all if less than three were available) were reviewed to determine whether the response codes had been correctly applied.

The switch breach report was examined for the audit period.

Audit commentary

AN timeliness

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

AN content

All 4,645 switch move AN files were examined on the event detail report:

- no ANs had proposed event dates later than 10 business days after receipt of the NT; and
- no ANs had a proposed transfer date earlier than the gaining trader's proposed date.

Audit outcome

Compliant

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for 01/12/18 to 25/19/19 was reviewed to:

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

Audit commentary

Switches were completed as required by this clause.

As described in **section 4.8**, proposed event dates for switch moves were compliant.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 11.3

Code related audit information

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

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

Audit observation

The process to manage the sending of the CS file within five business days of NT receipt was examined. The switch breach history report was reviewed to identify late CS files; all late files were checked.

An event detail report for the period from 01/12/18 to 25/19/19 was reviewed, to identify CS files issued by Flick. The accuracy of the content of CS files was confirmed by checking a sample of eight records. The content checked included:

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

CS files with average daily kWh that was negative, zero, or over 100 kWh were identified. A sample of 14 of these CS files were checked to determine whether the average daily consumption was correct.

Audit commentary

CS timeliness

Flick has implemented improved processes to ensure that switches are completed on time. Internal reporting on switch due dates is used, as well as the switch breach report from the registry. The switch breach history report recorded five late files, all by one day.

CS content

The accuracy of the content of CS files was confirmed by checking a sample of eight CS files. The information recorded in the files was correct, apart from average daily consumption.

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, estimated daily consumption is calculated as the average daily consumption over the past 60 days in Telemetry. While this is not technically consumption for the last read to read period, it provides a reasonable indication of the average daily consumption. Analysis of the estimated daily kWh on the event detail report identified:

For the eight ICPs checked above, the average daily consumption figures were accurate based on the 60-day analysis period. I checked a sample of four ICPs where the consumption was over 100 kWh per day. Three were incorrect due to calculation errors. One potential future issue was identified. If an MEP provides "unvalidated" data (where the sum-check was not performed), the data is labelled as an estimate and if one of these reads is used in a CS file it will be labelled "E" when it should be labelled as an actual. The sum-check is performed by the MEP to support metering certification and data should not be

considered estimated just because the sum-check was not performed. No examples were found but this could become an issue in future.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.10 With: Clause 11 Schedule 11.3 From: 13-Mar-18 To: 19-Sep-18	Five late switch move CS files. Incorrect daily consumption in three files. 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	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
Refresher training on the Switch process which included the CS file submission has been completed on 19/11/2019.	19/11/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
This process is assessed through regular Switch QA and scheduled internal audit. 75% of the CS file submission is automated. Attempt will be made to get the remaining 25% CS file automated to prevent the recurrence of this error.	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 change requests was examined.

The event detail report for 01/12/18 to 25/19/19 was reviewed to identify all read change requests and acknowledgements during the audit period.

- 130 RR files were issued to Flick by other traders for switch moves. 96 of those were rejected. I reviewed ten rejected files to confirm the reasons for rejection were valid and confirm that Flick's system reflected the outcome of the RR process, and ten accepted files to confirm that Flick's system reflected the outcome of the RR process. I note that a high proportion of the rejected files were issued by Electric Kiwi, who had issued some RRs where the RR reading matched the CS reading.
- 1,677 RR files were issued by Flick for switch moves. 381 of those were rejected. I reviewed 10 rejected and ten accepted files to confirm that the requests were supported by at least two actual readings, that the content of the files was accurate, and that Flick's system reflected the outcome of the read change process.

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

Audit commentary

The read recording and read renegotiation processes are the same for transfer switches and switch moves. These processes are discussed in **section 4.4**.

Application of CS readings

To confirm the process for CS readings where no RR was issued, I checked a sample of five switch move CS files with estimated readings where no RR had been issued. In all cases, the CS estimate was used and the intervals for the first day were estimated based on the difference between the CS read and the first actual read.

RR

Where an RR issued by Flick is accepted, Flick does not need to make any changes in Telemetry. The expected start read recorded in the RR and AMI data are automatically applied. To confirm this, I checked

a sample of five transfer RRs which were accepted and found that the reads recorded and used for submission by Flick reflected the outcome of the RR process.

Where an RR issued by Flick is rejected, the file is passed to the data team for action by the switching team. I saw evidence of these notifications. The data team will adjust the reading and interval data to match the CS file. I checked five examples and found the correct reads were used in all cases.

AC

Where another trader issues an RR to Flick, the values are checked against Telemetry to determine whether it should be accepted, and an AC file is issued.

In Telemetry actual AMI readings from the MEP cannot be invalidated and replaced with other readings. This means that if an ICP switches out on an actual AMI reading, Flick cannot modify that reading in Telemetry. For this reason, Flick normally only accepts RRs if they contain data matching Telemetry because either an error was made when entering the reads into the original CS file, or the CS reading was estimated and AMI data has later become available and is consistent with the RR. If Flick accepts an RR from another trader where an actual value is already recorded in Telemetry, Flick is unable to apply the switch reading.

I checked seven rejections and in all cases the rejection was correct because Flick had AMI reads. Many of the RRs received were for one kWh difference or for the same reading as that in the CS file.

Timeliness of RR and AC files

The switch breach history report was examined. No late files were sent.

Audit outcome

Compliant

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

Code reference

Clause 13 Schedule 11.3

Code related audit information

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

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

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

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

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

a) a proposed event date; and

b) that the switch type is HH.

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

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

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

Audit observation

An event detail report for 01/12/18 to 25/19/19 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for 01/12/18 to 25/19/19 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

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

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

> *16(a)- give the losing trader or MEP for the ICP an opportunity to interrogate the metering installation immediately before the ICP is electrically disconnected or the metering equipment is removed; or*
>
> *16(b)- carry out an interrogation and, no later than 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 01/12/18 to 25/19/19 was reviewed to determine whether any HH switches occurred during the period.

Audit commentary

No HH switches occurred during the audit period.

Audit outcome

Not applicable

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

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

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

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

Audit observation

The switch withdrawal process was examined.

The event detail report for 01/12/18 to 25/9/19 was reviewed to:

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

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

Audit commentary

NW

733 NWs were issued by Flick; 68 (9.3%) were rejected by the other trader. The content of a sample of 14 files were checked. All had the correct withdrawal advisory codes.

The switch breach report did not record any late NW files. Analysis of the event detail report found 19 NWs were issued more than two months after the switch date. 12 of these late withdrawals used the code for wrong premises, and I note that this issue often does not become apparent for an extended period after a switch completes. I checked all 19, and I found they were delayed while investigation was carried out to determine whether a withdrawal was required.

AW

704 NWs were issued to Flick, and 129 (18%) of these were rejected. I reviewed a sample of ten rejected NWs and found nine of the rejections were based on the information available at the time the response was issued.

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

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.15 With: Clauses 17 and 18 Schedule 11.3 From: 01-Dec-18 To: 13-Nov-19	19 switch withdrawal requests were backdated greater than two months from the event date. Potential impact: Low Actual impact: Low Audit history: Multiple times 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 audit risk rating is low, a small number of files were affected.
Actions taken to resolve the issue	**Completion date** / **Remedial action status**

The backdated withdrawals were either initiated by customers or other retailers. It was essential to raise these to correct customer accounts. Flick actions requests for withdrawals as soon as incorrect property or incorrect sign ups are identified.	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
The two month switch withdrawals causes operation inefficiencies and this issue is going to be resolved through the Electricity Authority's switch process review consultation.	1/12/2020	

4.16. Metering information (Clause 21 Schedule 11.3)

Code reference

Clause 21 Schedule 11.3

Code related audit information

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

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

Audit observation

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

Audit commentary

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

There were no examples of meter reading errors.

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. The event detail report for 01/12/18 to 25/19/19 was analysed to identify all withdrawn switches with a "CX" code applied prior to the switch completion date for any switch save protected retailer.

The internal audit process was discussed, and internal audit reporting was reviewed.

Audit commentary

Flick became a switch save protected retailer on 01/11/2017, and no win-back activity is completed.

The event detail report was checked and found no "CX" coded switch withdrawal requests were sent prior to the switch completion date.

Switch save protection processes have been subject to a Flick internal audit, which found compliance.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

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

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for 01/12/18 to 25/19/19 was reviewed to identify all ICPs with shared unmetered load during the period.

Audit commentary

Flick does not currently supply any ICPs with shared unmetered load.

Processes to prevent ICPs with unmetered load from switching in, and to monitor existing ICPs for addition of unmetered load are discussed in **sections 2.1** and **3.7**.

Flick has no ability to submit volumes for unmetered load, and do not accept customer applications for ICPs with unmetered load connected. Unmetered load was added by the distributor after some ICPs switched to Flick, and no unmetered load was submitted for Flick's period of supply with unmetered load. The table below shows four ICPs where shared unmetered load was present for a short period where Flick was responsible.

ICP	UNM start date	UNM end date	Expected daily kWh	kWh for period with unmetered load
0005039797RN40C	13/03/2017	26/04/2017	0.08	3.52 kWh
0005253993RN7CD	8/05/2018	20/05/2018	0.16	2.1 kWh
0005313244RNBB2	11/01/2018	15/01/2018	0.33	1.6 kWh
0007154094RN6A8	01/07/19	14/07/19	0.11	1.43 kWh

Whilst the total kWh is small, submission is required for these ICPs and no corrections have been processed.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 5.1 With: Clause 11.14 From: 13-Mar-17 To: 14-Nov-19	No unmetered volumes were reported for four ICPs with unmetered load for a short period Potential impact: Low Actual impact: Low Audit history: Twice Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong, as they 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 8.19 kWh.

Actions taken to resolve the issue	Completion date	Remedial action status
Unmetered load are not submitted to the reconciliation manager as Flick does not hold NHH certification. The reconciliation manager and Electricity Authority operations team has been contacted to check how this can be resolved.	1/4/2020	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Flick systems do not allow ICP's with unmetered load to be switched in. Existing ICP's which get unmetered load added are identified through safety net. This process is monitored through regular Field QA and internal audit. Any identified unmetered load for short periods for existing ICP's will be submitted through the HHY profile after approval from EA and Reconciliation manager.	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 registry list for 01/12/18 to 25/19/19 was reviewed to identify all ICPs with unmetered load during the period and assess compliance.

Audit commentary

Flick does not currently supply any ICPs with unmetered load. None of the ICPs with unmetered load temporarily recorded had unmetered load of over 3,000 kWh per annum.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The registry list for 01/12/18 to 25/19/19 was reviewed to identify all ICPs with unmetered load during the period and assess compliance.

Audit commentary

Flick does not currently supply any ICPs with unmetered load. None of the ICPs with unmetered load temporarily recorded had unmetered load of over 3,000 kWh per annum.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

The registry list for 01/12/18 to 25/19/19 was reviewed to identify all ICPs with unmetered load during the period.

Audit commentary

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

Audit outcome

Compliant

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

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

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

Audit observation

Processes for distributed generation were reviewed. The registry list as at 25/19/19 was reviewed to confirm whether Flick had supplied any ICPs with generation during the audit period.

Audit commentary

Metering installations installed

Seven new connections were processed during the audit period. Flick ensured that metering was installed prior to electrical connection.

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

The Authority has approved Flick to apply the HHY profile and HHR submission type for NHH non-AMI meters which will be promptly upgraded to HHR or AMI meters. Flick uses the switch event reading and meter removal read from the NHH meter to quantify consumption for the NHH period.

Distributed Generation

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

Analysis of the registry list found that Flick supplies 218 ICPs with generation entered by the distributor, all of which have import/export metering installed.

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

Bridged meters

Flick provided a list of seven ICPs where remote disconnection had occurred then the meter had been bridged to reconnect. This is recorded as non-compliance below. I reviewed the bridged meters and noted that they had all later been unbridged.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.1 With: Clause 10.13 and clause 15.2 From: 22-Jun-18 To: 02-Jul-19	Energy is not metered and quantified according to the code where meters are bridged. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong as they are sufficient to mitigate risk most of the time. 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
Some MEP's bridge meters to supply customers electricity after hours. Operations Manager has contacted MEP's to see if they process could be changed to avoid this breach.	25/11/2019	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Any future requests for after hours reconnection will be monitored and MEP's requested to change their current process to avoid breach.	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 to confirm whether Flick is responsible for any GIPs.

Audit commentary

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

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

Audit observation

The registry list for 01/12/18 to 25/19/19 was reviewed, to identify any ICPs with profiles that require certification of the control device.

Audit commentary

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

Audit outcome

Not applicable

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

Processes relating to defective metering were examined.

A list of 12 defective meters and seven bridged meters were provided. All examples were reviewed to determine whether the MEP was advised and if appropriate action was taken.

Audit commentary

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

I reviewed 19 examples of potential defective meters, including 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 is does not exceed the maximum interrogation cycle in the registry.

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

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

- *a) ensure the system is to within +/- 5 seconds of NZST or NZDST*
- *b) compare the meter time to the system time*
- *c) determine the time error of the metering installation*
- *d) if the error is less than the maximum permitted error, correct the meter's clock*
- *e) if the time error is greater than the maximum permitted error then:*
  - *i) correct the metering installation's clock*
  - *ii) compare the metering installation's time with the system time*
  - *iii) correct any affected raw meter data.*
- *f) download the event log.*

2(6) – The interrogation systems must record:

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

Audit observation

HHR data is provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of 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 emails for each MEP during the audit.

When clock synchronisation notifications are received, they are used to determine whether any action is required. 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

The data collection process was examined.

Under their HHY profile, Flick is allowed to temporarily supply NHH non-AMI meters until they are upgraded to HHR or AMI meters. Flick submits the volumes as HHR using their approved HHY profile, and estimates volumes based on the switch event reading and meter removal read from the NHH meter.

While Flick endeavours to ensure that the customer wants to remain with Flick, and that the meter upgrade will be able to be completed, in some cases the ICP switches out before the upgrade is complete. When this occurs Flick uses the customer's photo read and switch in read to calculate an estimated switch out read. The treatment and validation of these photo readings was checked.

Flick also considers photo readings when preparing estimates where actual AMI data cannot be obtained due to communications issues.

Audit commentary

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

Flick is aware of the requirements to ensure that photo readings are validated against a set of validated actual reading from another source. If photo readings are used to calculate consumption, the interval data is labelled as estimated. Examples were checked to confirm this.

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 15.2

Code related audit information

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

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

Audit observation

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

All ICPs have metering category 1 or 2, and are switched as NHH:

- Switch event meter readings in CS files were reviewed in **sections 4.3** and **4.10**.
- Switch event meter readings in RR files were reviewed in **sections 4.4**, **4.5** and **4.11**.

Audit commentary

All reads are correctly applied in accordance with this clause.

Audit outcome

Compliant

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

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters until they are upgraded to HHR or AMI meters.

The registry list for 01/12/18 to 25/19/19 was reviewed to identify all ICPs with NHH non-AMI metering, and they were checked to determine whether actual readings were obtained during the period of supply.

Audit commentary

Read attainment processes for NHH non-AMI ICPs were reviewed:

- where the upgrade from NHH to AMI metering was successfully completed, Flick received an actual reading during the period of supply;
- where a switch was withdrawn before the upgrade was completed, Flick's period of supply was removed, and they were relieved of their obligation to obtain a reading during the period of supply; and
- where an ICP switched out before the upgrade, Flick used the switch in read and photo reads received from the customer to estimate a CS reading; an actual reading is not obtained during the period of supply unless the switch in read is actual.

I checked the two NHH non-AMI ICPs which switched out before the meter upgrade was complete:

- ICPs 0000019806CPFB6 and 0000053480UN639 both switched in on estimated readings, and no validated actual readings were obtained during the period of supply, this is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.8 With: Clause 7(1) and (2) Schedule 15.2 From: 17-Mar-19 To: 14-Oct-18	Two NHH metered ICPs did not have a validated read during the period of supply. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are assessed to be strong, as Flick endeavours to complete upgrades or withdraw switches for any NHH ICPs. Switches out during the NHH period are relatively rare. The impact is low because only two ICPs were affected.

Actions taken to resolve the issue	Completion date	Remedial action status
A process has been put in place for readings to be obtained for any failed smart upgrades before ICP's are being switched away.	25/11/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

To ensure compliance is met in this area, this process will be monitored through regular QA and internal audit process.	Ongoing	

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

Processes for NHH non-AMI read attainment are discussed in **section 6.8**.

The registry list for 01/12/18 to 25/19/19 was reviewed to identify all ICPs with NHH non-AMI metering.

Audit commentary

Review of the registry list confirmed that no ICPs with NHH non-AMI metering have been supplied for 12 months or more. Meter reading frequency reporting to the Electricity Authority was not required during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

In relation to each NSP, each reconciliation participant must ensure that for each NHH ICP at which the reconciliation participant trades continuously for each 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

Processes for NHH read attainment are discussed in **section 6.8**.

The registry list for 01/12/18 to 25/19/19 was reviewed to identify all ICPs with NHH non-AMI metering.

Audit commentary

Review of the registry list found one ICP which had NHH non-AMI metering for four months or more. ICP 0000053480UN639 had NHH non-AMI metering from 17/03/19, until it switched out on 11/09/19. Validated reads were not obtained but the 90% threshold was met for the relevant NSP.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

Under their HHY profile, Flick is allowed to temporarily supply NHH non-AMI meters until they are upgraded to HHR or AMI meters. Flick uses the switch event reading and meter removal read from the NHH meter to quantify consumption for the NHH period.

Audit commentary

Flick does not receive readings from NHH meter interrogation logs.

All validated NHH reads are received from incoming CS files, and meter exchange paperwork. Customer photo reads are considered in certain circumstances, as discussed in **section 6.6**.

Audit outcome

Compliant

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

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

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

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

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

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

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

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

Audit commentary

MEPs are responsible for trading period duration, and compliance is recorded in their audit reports.

Audit outcome

Compliant

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

Code reference

Clause 18 Schedule 15.2

Code related audit information

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

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

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

Audit observation

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

Processes to archive and store raw meter date were reviewed.

Audit commentary

Compliance is recorded in the MEP audit reports.

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

All meter reading data is archived, and is retained by Flick for at least 48 months. Raw read and volume data from 2015 was viewed during the audit.

I traced a sample of data for seven HHR ICPs from the source files to Telemetry and the HHR aggregates files. All volumes matched, confirming that the reads had not been modified.

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

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

Audit commentary

All ICPs have submission type HHR and this clause does not apply.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

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

Audit observation

Processes for correction and estimation were reviewed.

A list of 12 defective meters and seven bridged meters were provided. All defective meters and all bridged meters were reviewed to confirm the correction process.

Audit commentary

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

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

I reviewed all 12 defective meters and found ten of the defects related to communications issues leading to meter replacements. Data was able to be obtained from one meter and correction wasn't required. One meter had failed, and correction was made based on historic patterns. All corrections appeared sound and consumption was accounted for.

Seven meters were bridged and consumption for the bridged period was accounted for.

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

(a) the date of the correction or alteration; and

(b) the time of the correction or alteration; and

(c) the operator identifier for the person within the reconciliation participant who made the correction or alteration; and

(d) the half hour meter reading data or the non half hour meter reading data corrected or altered, and the total difference in volume of such corrected or altered data; and

(e) the technique used to arrive at the corrected data; and

(f) the reason for the correction or alteration.

When Flick conducts corrections, the journal contains the details listed above. During the audit period, Flick has started using estimates created by IntelliHUB. Some of these estimates will be considered corrections, because estimates can only be used if there is an issue with the timeliness of the provision of data. If an estimate is created due to a meter failure or due to missing data that is never replaced, this is considered a correction. IntelliHUB also conducts corrections, but no specific examples were identified. I recommend Flick requires IntelliHUB to undergo an audit as an agent to Certified Reconciliation Participants, because this activity is not conducted by them as an MEP. This audit would check correction journals.

Clause	Description	Audited party comment	Remedial action
19(2) Schedule 15.2	Require IntelliHUB to undergo an audit as an agent to ensure compliance of the estimation and correction processes	Auditors request for IntelliHUB to conduct an agent material change audit to cover for the estimation and correction activities, which do not form part of their MEP audit, has been communicated to IntelliHUB.	25/11/2019

Audit outcome

Compliant

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

Audit observation

The registry list as at 25/19/19 was reviewed to identify any ICPs which require loss compensation.

Audit commentary

Flick has only supplied ICPs with metering category 1 or 2. No ICPs have required error or loss compensation.

Audit outcome

Compliant

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

Code reference

Clause 22(1) and (2) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

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

Raw meter data is collected by MEPs; data retention was reviewed as part of their MEP audits.

Audit commentary

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

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

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

Audit outcome

Compliant

9. ESTIMATING AND VALIDATING VOLUME INFORMATION

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

Code reference

Clause 3(3) Schedule 15.2

Code related audit information

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

Audit observation

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

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

Audit commentary

Read types and input methods are recorded in Telemetry. The combination of these fields is sufficient to confirm whether the reads are estimated or actual.

When data arrives from NGCM, it is sometimes identified as “unvalidated” if the sum-check has not been performed. Flick then identifies this data as “estimated". The sum-check is conducted to support certification of the metering installations as HHR and this data should be identified as “actual” not estimated.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 9.1 With: Clause 3(3) Schedule 15.2 From: 01-Dec-18 To: 13-Nov-19	Unvalidated actual HHR data identified as estimated. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status

We do not believe that we are non-compliant in this area. All estimated data is marked as such in our systems. The issue of unvalidated actual HHR data being marked as an estimated in Telemetry will be raised with Tech team an attempt will be made to resolve this non-compliance through system enhancement.	1/6/2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
This issue will be resolved once system enhancement is in place.	1/6/2020	

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

Code reference

Clause 3(4) Schedule 15.2

Code related audit information

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

3(4)(a) - validated meter readings

3(4)(b) - estimated readings

3(4)(c) - permanent estimates.

Audit observation

Processes for derivation of volumes were discussed and observed.

Audit commentary

All validated NHH reads are received from incoming CS files, and meter exchange paperwork. Customer photo reads are considered in certain circumstances, as discussed in **section 6.6**. Where an ICP switches out during a NHH period, an estimated switch read is provided.

Where AMI HHR readings are received, volumes are sourced from the AMI metering information. Where an estimated or switch reading is used, the HHR volumes are derived from actual readings or estimates.

Audit outcome

Compliant

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

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

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

Audit commentary

The 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 ten estimates were reviewed. Revised data was compared to estimates where the estimates had been replaced.

Audit commentary

Estimates are generated within the Telemetry, and are compliant with the requirements of the code.

Where errors are detected, or data is missing, total volume is estimated based on the information available, and apportioned to trading periods based on historic trading period data for the previous four weeks.

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

I checked 11 examples where MEPs were unable to supply complete data. In nine cases, "catchup" data was provided within two business days. There were two examples where estimates were conducted by Flick because the data could not be provided. These estimates are technically considered corrections.

Estimates are created and supplied by IntelliHUB. The process for calculating the estimates was checked during their MEP audit and the methodology is sound. One issue Flick is dealing with is that IntelliHUB estimates for inactive periods, so Flick has to ensure these estimates are not submitted.

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

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

Audit commentary

All NHH ICPs have HHR consumption estimated during the NHH period. This consumption is subject to the HHR validation process described in **section 9.6**.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

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

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

Audit commentary

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

Telemetry 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.

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.

MEPs compare meter readings against half hour interval data, known as the sum-check process. Flick is the owner of the HHY profile, which allows HHR data to be submitted although the meters are certified as NHH. IntelliHUB supplies midnight reads and HHR data, which are compared in Telemetry to ensure there is no difference between midnight reads and the total of the 48 trading periods. Midnight reads are still unavailable for three phase ICPs, and Flick manually derives midnight reads based on the 9pm NZST reads and interval data received from IntelliHUB, and enters them into Telemetry so that the sum-check can be completed. I viewed the validation reports for the sum-check, which most commonly fails where there are missing trading periods and in these cases Telemetry estimates replacement data. Where data is available for all trading periods and the sum-check is not within ± 1 kWh, the ICP is queried with the MEP.

Meter event reports are provided by MEPs. The reports are imported into Telemetry and reviewed weekly to identify events that require investigation or action. AMS and IntelliHUB also send emails to Flick where they require field services jobs to be raised.

IntelliHUB reviews meter event data for Counties Power, and advises Flick if any events occur that affect the accuracy of meter data or action is required. Arc also review their own meter event information, and email events that require action to Flick. I saw evidence of this process.

FCLM recently began providing meter event logs and information to Flick via email when issues that require action occur.

WASN checks events and notifies if action is required.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

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

Processes to create buying and selling notifications were reviewed.

A registry list for 01/12/18 to 25/19/19 was reviewed confirm the profiles used.

Audit commentary

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

Flick also uses the HHY profile, which allows HHR data from NHH and NHH AMI metering installations to be submitted as HHR. Trading notifications are not required because the submission is not as HHY.

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 15 NSPs with a small number of ICPs to confirm the AV110 ICP days calculation was correct.

I reviewed variances for 25 months of GR100 reports. A sample of 44 variances were reviewed to determine the cause of the variance.

Audit commentary

Flick's AV110 reports are produced from Telemetry's MDM usage reporting, which combines Telemetry's volume information and registry information to ensure that aggregation is correct. Registry information is updated in MDM daily.

The process for the calculation of ICP days was examined by checking 15 NSPs a small number of ICPs on the August 2018 ICP days submission, against the active days for ICPs connected to the NSP on the registry list with history. The ICP days calculation was confirmed to be correct for the sample checked.

GR100 ICP comparison reports are reviewed by Flick, and discrepancies are investigated. The GR100 differences for the past 25 months are set out below.

ICP Days difference between the registry and Flick database

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

Month	R0	R1	R3	R7
Sep-18		0.07%	0.03%	0.01%
Oct-18		0.07%	0.03%	0.02%
Nov-18		0.04%	0.01%	0.00%
Dec-18		0.05%	0.01%	0.00%
Jan-19		0.02%	0.02%	0.00%
Feb-19		0.00%	0.01%	
Mar-19		0.06%	0.00%	
Apr-19		0.04%	0.01%	
May-19		0.06%	0.01%	
Jun-19		0.09%		
Jul-19		0.08%		
Aug-19	0.09%			

I reviewed a sample of nine ICP days discrepancies and found they were due to two reasons. Backdated switches, or the issue that's been present for some time, which is that ICPs that have not received readings after switching in are not reported. Missing trading period data is populated based on actual or estimated readings entered into Telemetry. Where an ICP switches in and no readings are received, no estimates

will be calculated and no ICP days will be reported. Once AMI data is received, or a removal read is received for an upgrade, missing data will be populated and the ICP days will be reported.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.2 With: Clause 15.6 From: 01-Dec-18 To: 13-Nov-19	ICP days are not provided for new ICPs until readings are entered after the switch in read. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as strong as they are sufficient to ensure that most data is correctly reported. For a small subset of new switch ins, ICP days will not be provided until actual readings are received. The impact is assessed to be low, as updated data will be provided through the revision process.

Actions taken to resolve the issue	Completion date	Remedial action status
The initial incorrect submission of ICP days are corrected through the revision files.	Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
The issue of ICP days not provided for new ICPs until readings are entered after the switch in read, has been raised with the Tech team and an attempt will be made to resolve this non-compliance through system enhancement.	1/6/2020	

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

Code reference

Clause 15.7

Code related audit information

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

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

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

Audit observation

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

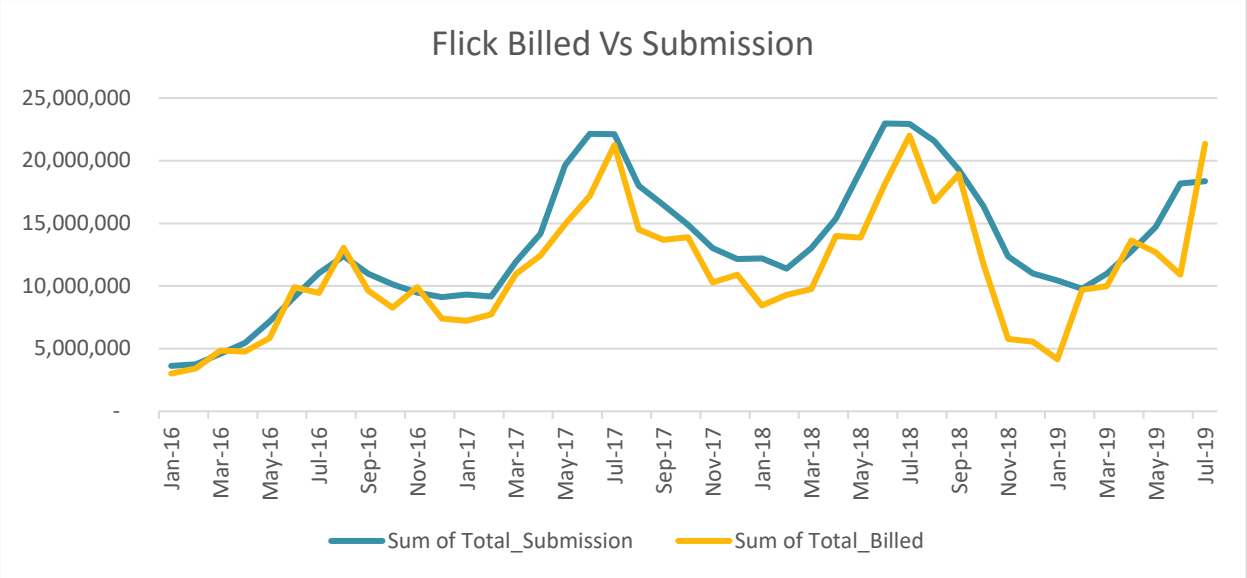
GR130 reports for January 2016 to July 2019 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Audit commentary

Previous audits have raised concerns about the difference between "as billed" and submission data, and recommended Flick investigate to determine the reasons for these differences. Changes were made to Telemetry to resolve the inaccuracy issues, and this appears to have been successful for the period from February to May 2019, but as the graph below shows, the electricity supplied figure is inaccurate again from June 2019. A check of one NSP with four ICPs found that the AV120 total was very different to the sum of the invoices.

There is a 19% difference for the period shown in the graph below. For the period since February 2019, the difference is lower but still significant, at 8.3%.

Comparison between Submitted Volumes and Electricity Supplied



Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.3 With: Clause 15.7 From: 01-Dec-18 To: 13-Nov-19	The AV120 report does not consistently reflect the quantity billed for the period. Potential impact: Low Actual impact: Low Audit history: Once Controls: Weak Breach risk rating: 3
Audit risk rating	**Rationale for audit risk rating**

Low	Controls are rated as weak because they do not ensure accurate data. The impact is assessed to be low, because there is no impact on settlement.

Actions taken to resolve the issue	**Completion date**	**Remedial action status**
The discrepancy reason for incorrect electricity supplied information has been identified and the AV120 reporting has been corrected for the significant difference in reporting from the month of June 2019. The submission will be corrected through the R7 revision file.	20/11/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
An internal audit process has been put in place for the AV120 reports to be regularly monitored and any discrepancy arising through this report to be remedied immediately.	ongoing	

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 nine submissions.

The GR090 ICP missing files received during the audit period for July 2018 to August 2019 were examined. A sample of 12 missing ICPs were reviewed to determine the reasons they were missing.

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

- matching HHR aggregates information to the volumes for nine submissions, which confirmed that the differences between the volumes and aggregates were small - a detailed reconciliation at NSP level was completed for one submission which confirmed that the differences were very small at each NSP and related to rounding;

- matching HHR aggregates volumes to the source files received from the MEP for seven ICPs - I found that the volumes matched; and
- checking 10 ICPs with vacant consumption since November 2018 to confirm that vacant consumption is reported - all ICPs with consumption while disconnected had been returned to active status or switched out.

Flick reviews all GR090 (ICP missing) reports and investigates and corrects any data discrepancies. The GR090 ICP missing files received during the audit period were examined. A sample of 12 differences were reviewed, and found to be caused by:

- One ICP with an NSP change which was not processed from the correct date in the Data Repository. Telemetry imports registry information to ensure that aggregation factors are correct and wash up submissions should be correct for these ICPs.
- ICPs that have not received readings after switching in are not reported. Missing trading period data is populated based on actual or estimated readings entered into Telemetry. Where an ICP switches in and no readings are received, no estimates will be calculated and no ICP days will be reported. Once AMI data is received, or a removal read is received for an upgrade, missing data will be populated and the ICP days will be reported. The ICP missing review identified six ICPs with missing data because of this issue.
- Backdated switches, withdrawals, and status updates. Late switching files are discussed in **section 4**, and late registry updates are discussed in **section 3**.

I also reviewed Flick's volumes and aggregates for September and October 2018 for reasonableness, and did not find any evidence of under submission of volumes for these months.

Audit outcome

Non-compliant

<table>
<tr><th>Non-compliance</th><th colspan="3">Description</th></tr>
<tr><td>Audit Ref: 11.4
With: Clause 15.8

From: 01-Dec-18
To: 13-Nov-19</td><td colspan="3">HHR aggregates file does not contain electricity supplied information.
Estimated submission data is not provided for new ICPs with no readings entered after the switch in read.
One ICP with the incorrect NSP for the Day 4 file.
Potential impact: Low
Actual impact: Low
Audit history: Three times
Controls: Strong
Breach risk rating: 1</td></tr>
<tr><th>Audit risk rating</th><th colspan="3">Rationale for audit risk rating</th></tr>
<tr><td>Low</td><td colspan="3">Controls are rated as strong as they are sufficient to ensure that most data is correctly reported. For a small subset of new switch ins, estimated data will not be provided until actual readings are received.
The impact is assessed to be low, as updated data will be provided through the revision process.</td></tr>
<tr><th colspan="2">Actions taken to resolve the issue</th><th>Completion date</th><th>Remedial action status</th></tr>
</table>

Non-compliance	Description	
The initial incorrect submission will be corrected through the revision files.	1/6/2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
The issue of data not being submitted for new ICP's until a reading is obtained has been raised with the Tech team and an attempt will be made to resolve this non-compliance through system enhancement.	1/6/2020	

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

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

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

Audit commentary

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

I viewed the adjustment process in Telemetry. I checked a sample of ICPs to confirm that where data is provided in NZST, Telemetry adjusts the data during the daylight savings period using the trading period run on technique.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

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

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

Audit observation

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

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

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. NHH ICPs have HHR consumption estimated during the NHH period.

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.

Multipliers are being applied correctly in Telemetry.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

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

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

Audit observation

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

Audit commentary

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

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

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

Audit commentary

Flick is not required to provide NSP submission information.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

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

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

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

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.

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

Audit commentary

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

The following issues which impacted on the accuracy of volume information submitted to the reconciliation manager were identified:

- where an ICP switches in and no readings are received, no estimates will be calculated then once AMI data is received, or a removal read is received for an upgrade, any missing trading periods will be populated according to Telemetry's estimation process; in the meantime no consumption is estimated for the ICP and no ICP days are reported; and
- Flick has no ability to submit volumes for unmetered load therefore no unmetered volumes were submitted for four ICPs, resulting in under submission of 8.19 kWh.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.7 With: Clause 15.12 From: 01-Dec-18 To: 13-Nov-19	Some submission information was incorrect, due to not providing estimates where actual data was unavailable in some cases. Unmetered load not submitted Potential impact: Medium Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are rated as 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 initial incorrect submission of data would be corrected through the revision files. Unmetered load had not been submitted to the reconciliation manager as Flick does not hold NHH certification. The reconciliation manager and Electricity Authority operations team had been contacted to check how this can be resolved.	1/6/2020	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
The issue of data not being submitted for new ICP's until a reading is obtained has been raised with the Tech team and an attempt will be made to resolve this non-compliance through system enhancement. Weekly safety net process put in place avoids any ICP's with unmetered load being switched in.	1/6/2020	

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

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

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

Audit commentary

All ICPs were submitted as HHR. There is no NHH data submitted.

When estimates are created and used for submission, it is not possible to differentiate between estimate types or between estimates and corrections. If HHR data is calculated between register reads, the total kWh is correct, and this is a very low risk. If estimates or corrections are conducted without register reads this may be less accurate, but Flick cannot report on the quantity and type of estimates still present at 14 months. Also, when NGCM supplies "unvalidated" data, it remains labelled as estimated.

I recommend Flick develops reporting to show the proportion of estimated data at each revision per MEP. This will at least provide an indication of whether any improvements are required.

Clause	Recommendation	Audited party comment	Remedial action
4 Schedule 15.2	Develop reporting to show the proportion of estimated data at each revision per MEP.	An attempt will be made to develop reporting to show the proportion of estimated data at each revision per MEP. This will require Tech system enhancement to put this reporting in place.	Investigating

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

- *half hour volume information for each ICP notified in accordance with clause 11.7(2) for which there is a category 3 or higher metering installation (clause 2(1)(a))*

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

Audit observation

Aggregation and content of reconciliation submissions was reviewed.

Audit commentary

Compliance with this clause was assessed:

- 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; and
- aggregation of the AV090 and AV140 reports is compliant.

Audit outcome

Compliant

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

Code reference

Clause 3 Schedule 15.3

Code related audit information

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

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

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

Audit observation

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

Audit commentary

All ICPs were submitted as HHR, and this clause does not apply.

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

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

Audit commentary

All ICPs were submitted as HHR, and this clause does not apply.

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

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

Audit commentary

All ICPs were submitted as HHR, and this clause does not apply.

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 the registry list for 01/12/18 to 25/19/19 and discussion with Flick confirmed that all ICPs had submission type HHR.

Review of the event detail report for 01/12/18 to 25/19/19 confirmed that some ICPs have had a profile change.

Audit commentary

All ICPs were submitted as HHR, but some ICPs have the HHY profile in the registry. I checked a sample of 10 changes and they all occurred on a meter reading.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

Audit observation

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

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

Audit commentary

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

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

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

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

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.3

Code related audit information

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

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

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

Audit observation

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they are upgraded to HHR or AMI meters.

Audit commentary

All ICPs were submitted as HHR, and this clause does not apply.

Audit outcome

Not applicable

CONCLUSION

Flick have improved their controls in many areas, resulting in significant improvement in compliance. Internal audits and regular validation checks are addressing discrepancies as they arise.

The difference between "as billed" and submitted volumes continues to be larger than expected. Changes were made and a material change audit was conducted confirming the new reporting was accurate, but after four months of the report being accurate, it has become inaccurate again from June 2019 onwards.

Minor issues exist with submission information, as follows:

- NHH unmetered load submissions have not occurred for four ICPs, whilst the total kWh is only 8.19, the Code requires that submission occurs; and
- submission is not estimated when ICPs switch in and readings are not available, submission only occurs once readings are obtained although this does not affect many ICPs; and
- Flick has started using estimates and corrections supplied by IntelliHUB but a material change audit was not conducted prior to this change.

A recommendation is made, that Flick develops reporting to indicate the proportion of submissions derived from estimates per MEP. This will indicate whether any improvements are required. It is also recommended that Flick require IntelliHUB to undergo an agent audit for the estimation and correction activities, which do not form part of their MEP audit.

The audit found 16 non-compliance issues, two recommendations are made, and no issues are raised. The audit risk rating is 24, indicating that the next audit be due in 12 months. Taking into consideration Flick's comments, I agree with the 12 month recommendation.

PARTICIPANT RESPONSE

We take compliance very seriously and seek to adhere to best practices. We have put internal audits and regular QA's in place to ensure compliance in all areas. We see participant audit as an opportunity to improve our current processes and to meet regulatory compliance obligations.

While best endeavours are made to be compliant, non-compliances do occur due to manual data entry errors or system constraints. Every effort is made to minimize these non-compliances through regular QA, internal audit and staff trainings.

We believe that a number of elements of the code are outdated and irrelevant and we welcome any EA initiatives to improve the code itself or the practical application thereof, such as the Switch Process Review.

We look forward to next year's participant audit.