

ELECTRICITY INDUSTRY PARTICIPATION CODE  
RECONCILIATION PARTICIPANT AUDIT REPORT



For

FLICK ENERGY LIMITED

Prepared by: Tara Gannon

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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 is a HHR only trader, which has approval to temporarily supply some NHH ICPs as HHR using their HHY profile until they can be upgraded.

Flick has continued to strive to improve their compliance.

- Flick's internal audit programme has continued during the audit period, and samples of switching and registry events are checked in a similar manner to this reconciliation participant audit. I saw evidence that issues were identified promptly and corrections, training, and process improvements may be carried out as a result of the audit findings.
- Most switching processes have been automated, and I found a marked improvement in the timeliness and accuracy of switching information once this occurred.
- To resolve historic under submission of 8.65 kWh of unmetered load, Flick has submitted a profile application to the Authority. Flick intends to use a manual process to apply a flat load profile, consistent with the Authority's NHH UML profile, to spread the daily unmetered kWh between the trading periods so that the unmetered load can be included in the HHR aggregates and volumes files. The application is currently being considered by the Authority.
- AV120 billed submission accuracy and monitoring has improved following the implementation of Flick Billing.
- The timeliness and accuracy of registry updates has improved.

To further improve compliance, the following issues should be addressed:

- **Estimate all missing HHR volumes**

Telemetry will only produce estimates for missing data where a minimum of one weekday, Saturday, and Sunday of actual data and/or boundary readings for the estimated period are available. Any ICP which does not have actual or estimated data for a period will be excluded from the HHR volumes, HHR aggregates and ICP days submissions. Once actual AMI data, or a removal reading or a switch event reading is received, actual or estimated trading period data will be recorded and the ICP will be included in revision submissions.

The impact of not producing estimates where insufficient history is available is increasing over time, as some ICPs have had NHH metering for up to 285 days. Flick is attempting to complete all upgrades required, and in the meantime has stopped accepting new NHH ICPs requiring HHR upgrades unless the ICP belongs to an existing Flick customer.

I recommend that Flick investigates creating a methodology to produce "default" estimates where Telemetry is unable to calculate estimates using its current process. This will help to prevent under submission of volumes and ICP days for ICPs where HHR data is not received.

- **Treatment of customer photo readings**

Where ICPs with HHY profile switch out on an unvalidated customer photo reading, the read type should be recorded as estimated in Telemetry and all switching files. I found that customer photo readings were treated as actual readings if obtained on Flick's last day of supply.

- **HHY profile ICPs**

Ensure that the terms of the profile application are consistently met, including the maximum period allowed for upgrade.

Where ICPs are supplied with HHY profile for more than four months, ensure that meter read frequency reporting obligations are met.

- **Consumption validation**

I recommend that consumption is validated to confirm whether it is consistent with historic or expected usage patterns at ICP level. Currently validations are at billing run, total submission and NSP level, unless issues are identified in the aggregated data.

The audit risk rating is 39, indicating that the next audit be due in 12 months. This increased rating does not reflect the significant improvements Flick has made during the audit period. Most of the switching non-compliances occurred early in the audit period and prior to automation of processes. Most of the switching and registry non-compliances were minor, isolated, and affected very few ICPs and events. Because of the nature of the non-compliances, some minor issues affecting a single ICP which were corrected during the audit were recorded as non-compliant in four or five sections of the report, inflating the overall risk rating.

Taking this into consideration along with Flick's comments, which indicate they intend to adopt all recommendations and resolve the non-compliances, I recommend that the next audit is completed in a minimum of 14 months.

The matters raised are shown in the tables below:

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	10.6, 11.2, 15.2	<p>Some registry data is incorrect.</p> <p>Historic unmetered load is excluded from submissions.</p> <p>Inactive consumption is excluded from submissions where the status remains incorrect.</p> <p>Estimated volumes for some unread and HHY profile ICPs are excluded from submissions, until AMI readings, meter removal readings, or customer readings are received.</p> <p>Some ICPs which are assigned HHY profile have not met the terms of the profile, particularly the requirement to be upgraded within 16 weeks.</p> <p>IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.</p> <p>Arc provides interval data to one decimal place, which is not considered to be sufficiently accurate.</p>	Moderate	Low	2	Investigating
Changes to registry information	3.3	10 Schedule 11.1	<p>38 late status updates to active status.</p> <p>Three late status updates to inactive status.</p> <p>36 late trader updates.</p> <p>38 late ANZSIC code updates for new connections or switch ins.</p>	Moderate	Low	2	Identified
Provision of information to the registry manager	3.5	Clause 9 Schedule 11.1	Two late status updates for new connections.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
ANZSIC codes	3.6	9 (1)(k) of Schedule 11.1	Five ICPs had incorrect ANZSIC codes applied and were corrected during the audit.	Strong	Low	1	Cleared
Management of "inactive" status	3.9	19 Schedule 11.1	<p>ICP 0005203376RN946 had an incorrect disconnection date applied and was corrected during the audit.</p> <p>ICP 0005764238RNA97 has an incorrect disconnection date applied, but cannot be easily corrected because the ICP is now decommissioned.</p> <p>ICP 0000017063TCB25 had an incorrect reconnection date applied and was corrected during the audit.</p> <p>ICP 0007135066RN5C2 had an incorrect status reason applied and was corrected during the audit.</p>	Moderate	Low	2	Cleared
Losing trader must provide final information - standard switch	4.3	5 Schedule 11	<p>At least eight transfer CS files contained average daily kWh inconsistent with the requirements of the registry functional specification.</p> <p>At least one transfer CS file contained an incorrect last actual read date.</p> <p>At least three transfer CS files contained an incorrect switch event read type.</p>	Moderate	Low	2	Identified
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	<p>One late RR file.</p> <p>Switch event readings for 0000018280CE85E (29/05/2020) and 0000608649HB27C (08/07/2020) were recorded as actual in Telemetry but should have been estimates.</p>	Moderate	Low	2	Identified
Non-half hour switch event meter reading - standard switch	4.5	6(1) and 6A Schedule 11.3	An incorrect switch event reading was provided in the RR file for 0005045312RN131's (29/01/20).	Strong	Low	1	Identified



Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	One late switch move CS file.  65 AN files has non-compliant proposed event dates.	Strong	Low	1	Identified
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	At least two CS files contained average daily kWh inconsistent with the requirements of the registry functional specification.  At least three switch move CS files contained an incorrect last actual read dates.  At least four switch move CS files contained an incorrect switch event read type.  At least one switch move CS file contained an incorrect switch event reading.	Moderate	Low	2	Identified
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	Four late RR files for switch moves.  Switch event readings for 0000509929CE98C (01/07/20) and 0001412478UN109 (07/03/20) were recorded as actual in Telemetry but should have been estimates.	Moderate	Low	2	Identified
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	Six switch withdrawal requests were issued more than two months from the event date.  Two NW files contained incorrect withdrawal codes.	Moderate	Low	2	Identified
Metering information	4.16	21 Schedule 11.3	For one transfer CS file issued by Flick, the switch event readings did not reflect the actual reading or estimated reading on the event date.	Strong	Low	1	Identified
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	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Electricity conveyed & notification by embedded generators	6.1	10.13 and clause 15.2	Eight bridged meters were identified during the audit period. Energy was not quantified in accordance with the code during the bridged periods.	Strong	Low	1	Identified
Derivation of meter readings	6.6	3(2) Schedule 15.2	Three customer photo readings were recorded as actual readings in CS files.	Strong	Low	1	Identified
NHH meter reading application	6.7	6 Schedule 15.2	One CS file contained a switch event reading which did not relate to the end of Flick's last day of supply, and was not a reasonable estimate of consumption on the last day of supply.	Strong	Low	1	Identified
NHH meters 90% read rate	6.10	Clause 9(1) and (2) Schedule 15.2	Meter reading frequency reports have not been provided to the market administrator for NHH ICPs continuously supplied for four months or more.	Weak	Low	3	identified
Identification of readings	9.1	Clause 3(3) Schedule 15.2	Unvalidated actual HHR data is classified as estimated.  Seven CS files contained switch event readings which were incorrectly classified as actual readings.  Telemetry classified estimated switch event readings for four ICPs as actual instead of estimate.	Moderate	Low	2	Identified
Half hour estimates	9.4	15 Schedule 15.2	HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate.  Flick did not meet the reasonable endeavours requirements for at least nine ICPs.	Moderate	Low	2	Investigating
Calculation of ICP days	11.2	15.6	ICP days are not provided for trading periods which do not have estimated or actual data.	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates file does not contain electricity supplied information.  HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate.	Moderate	Low	2	Identified
Creation of submission information	12.2	15.4	Historic unmetered load is excluded from submissions.  Inactive consumption is excluded from submissions where the status remains incorrect.  Estimated volumes for some unread and HHY profile ICPs are excluded from submissions, until AMI readings, meter removal readings, or customer readings are received.  IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.	Moderate	Low	2	Identified
Accuracy of submission information	12.7	15.12	Historic unmetered load is excluded from submissions.  Inactive consumption is excluded from submissions where the status remains incorrect.  Estimated volumes for some unread and HHY profile ICPs are excluded from submissions, until AMI readings, meter removal readings, or customer readings are received.  Some ICPs which are assigned HHY profile have not met the terms of the profile, particularly the requirement to be upgraded within 16 weeks.  IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			Arc provides interval data to one decimal place, which is not considered to be sufficiently accurate.				
Future Risk Rating						39	

Future risk rating	0	1-3	4-14	16-40	41-55	55+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

## RECOMMENDATIONS

Subject	Section	Description	Recommendation
Changes to registry information	3.3	Reconnection timeliness	<p>Improve monitoring of instances where reconnection paperwork is received before switch completion, to ensure that the status is updated as soon as possible once the switch completes.</p> <p>I found that some ICPs did sometimes not have their status updated until over a week after switch completion, although the paperwork was received on the switch in date.</p>
Trader responsibility for an ICP	3.4	MEP nomination rejections	Develop a process to promptly identify MEP nomination rejections, so that they can be checked and reissued. Rejected nominations will appear on the registry notification files.
ANZSIC codes	3.6	ANZSIC code validation	Expand the ANZSIC code validation to include blank ANZSIC codes, and metering category two or higher ICPs with residential ANZSIC codes. These are identified on the registry AC020 trader compliance report.
ANZSIC codes	3.6	ANZSIC code confirmation	Confirm the ANZSIC code for ICP 0000031838EA3AC and update the code if required.
Management of “inactive” status	3.9	Processing of disconnections and reconnections	To ensure that all consumption is captured, record active status for any part or full days where the ICP is active and/or has consumption recorded.
Derivation of meter readings	6.6	Read type for photo readings	<p>Where ICPs with HHY profile switch out on a customer photo reading, the read type should be recorded as estimated in Telemetry and all switching files.</p> <p>Customer photo reads may only be treated as validated actual readings if they have been validated against a set of actual readings from another source.</p>
Electronic meter readings and estimated readings	9.6	Comparison with previous or expected consumption patterns	I recommend that consumption is validated to confirm whether it is consistent with historic or expected usage patterns at ICP level.
Creation of submission information	12.2	Estimation where there is insufficient history for Telemetry to create estimates	Consider creating estimates using an alternative methodology where Telemetry does not have sufficient history or readings to calculate estimates.

## 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

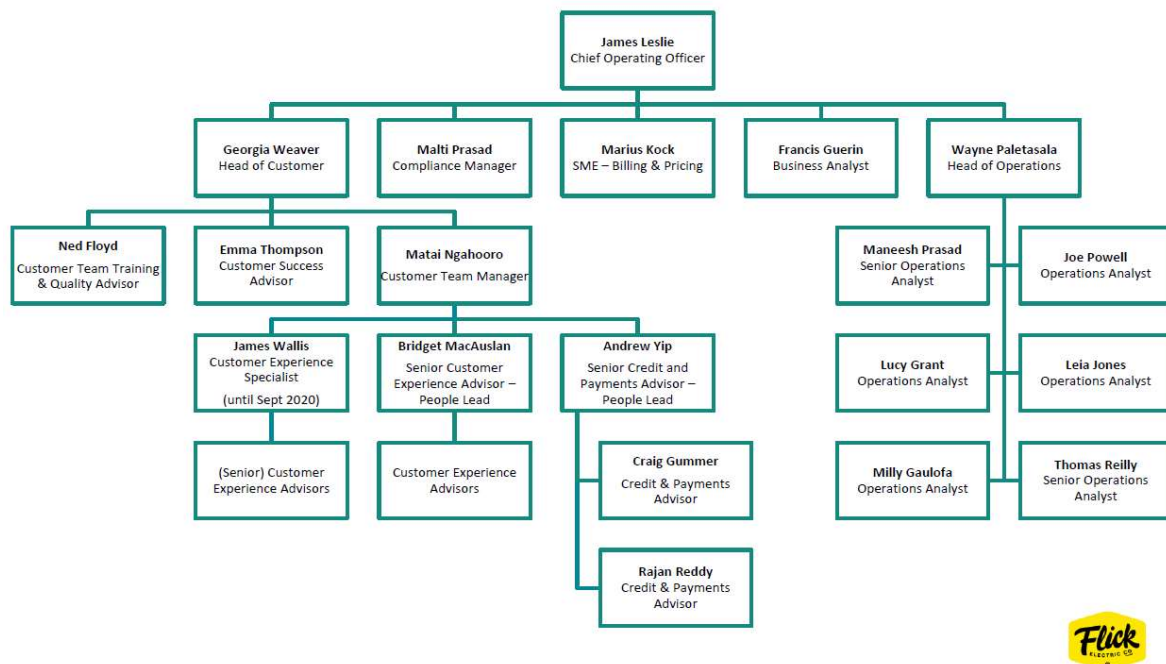
Current code exemptions were reviewed on the Electricity Authority website.

#### 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:

Tara Gannon

**Veritek Limited**

**Electricity Authority Approved Auditor**

Flick personnel assisting in this audit were:

Name	Title
Malti Prasad	Compliance Manager – Customer and Market Operations
Maneesh Prasad	Senior Reconciliation Analyst
Leia Jones	Operations Analyst
Joe Powell	Operations 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

HHR data is provided by AMS (for AMS and Smartco), IntelliHUB (for Metrix, IntelliHUB and Counties Power), Arc, WASN and FCLM as MEPs. All ICPs have category 1 or 2 meters.

IntelliHUB provides some HHR estimates, and their agent audit will be submitted with this audit report.

#### Audit commentary

Compliant

### 1.5. Hardware and Software

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

System/Provider	Function
Flick Billing	Billing system.
Telemetry (and Provisioning)	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.
Zendesk	Customer relationship management system which interfaces with the Admin App, Telemetry and Flick Billing.
Umbrella	Secure, hosted data warehousing services including: <ul style="list-style-type: none"> <li>• Data Warehousing</li> <li>• Server Back-ups</li> <li>• DR/BCP of Reconciliation Function systems, Customer Portal, Website, Choice App, Provisioning System (Dev, UAT, Prod environments)</li> <li>• Domain management services</li> <li>• Hot cutover between data warehousing locations (if required).</li> </ul>

### 1.6. Breaches or Breach Allegations

There have been no alleged breaches relevant to the scope of this audit between February 2019 and August 2020.

### 1.7. ICP Data

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

Metering Category	2020	2019	2018	2017	2016	2015
1	23,005	20,012	24,665	21,973	15,071	5,445
2	34	29	33	36	16	1
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
9	-	-	-	15	-	-



Status	Number of ICPs (2020)	Number of ICPs (2019)	Number of ICPs (2018)	Number of ICPs (2017)	Number of ICPs (2016)	Number of ICPs (2015)
Active (2,0)	23,039	20,041	24,698	21,946	15,015	5,446
Inactive – new connection in progress (1,12)	5	-	-	-	-	-
Inactive – electrically disconnected vacant property (1,4)	17	27	34	13	4	12
Inactive – electrically disconnected remotely by AMI meter (1,7)	66	145	156	26	67	0
Inactive – electrically disconnected at pole fuse (1,8)	1	5	2	-	-	-
Inactive – electrically disconnected due to meter disconnected (1,9)	1	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)	5	1	2	3	-	-
Inactive – reconciled elsewhere (1,5)	-	-	-	-	-	-
Decommissioned (3)	140	102	70	37	5	1

#### 1.8. Authorisation Received

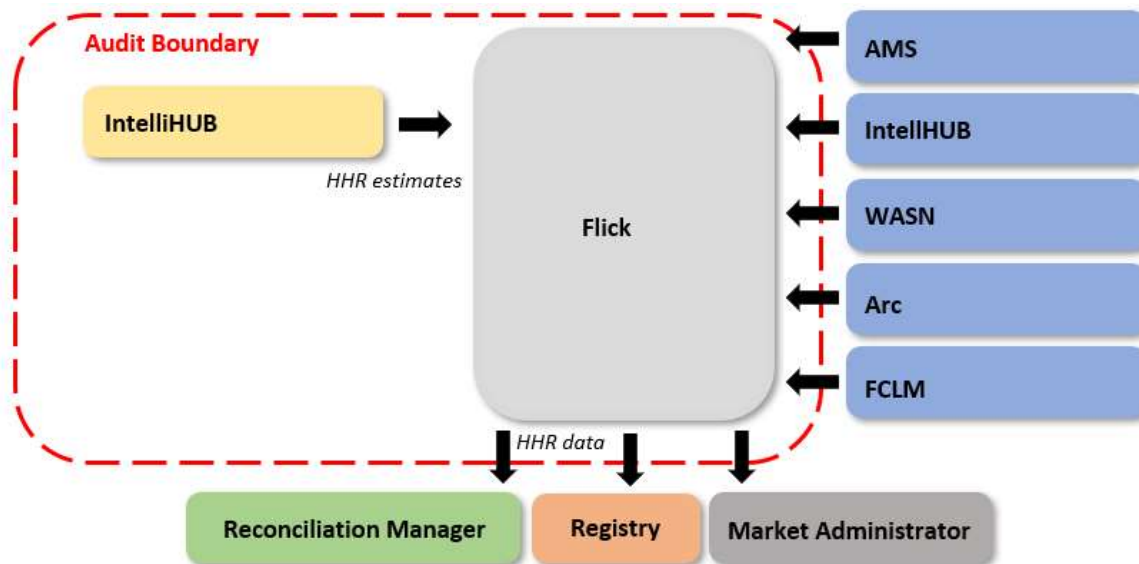
A letter of authorisation was provided.

## 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 22-23 October 2020.

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.

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	IntelliHUB – HHR (AMI) estimates	AMS – HHR (AMI) Arc – HHR (AMI) FCLM – HHR (AMI) IntelliHUB – HHR (AMI) WASN – HHR (AMI)
(d) – Calculation of ICP days		

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing AMI data
(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		

HHR data is provided by AMS (for AMS and Smartco), IntelliHUB (for Metrix, IntelliHUB and Counties Power), Arc, WASN and FCLM as MEPs. All ICPs have category 1 or 2 meters. IntelliHUB provides some HHR estimates, and their agent audit will be submitted with this audit.

#### 1.10. Summary of previous audit

Flick provided a copy of their previous audit conducted in November 2019 by Steve Woods 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
Material Change Audit	1.11	16A.11	Material change audit not conducted prior to using estimates and corrections created by IntelliHUB.	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.	Still existing
Electrical Connection of Point of Connection	2.11	10.33A	ICPs 0001301743CN073 & 0000100902DE109 not recertified within 5 business days of reconnection.	Cleared
Changes to registry information	3.3	10 Schedule 11.1	Some late status and trader updates.	Still existing
Provision of information to the registry manager	3.5	Clause 9 Schedule 11.1	One late status update for a new connection.	Still existing
Losing trader must provide final information - standard switch	4.3	5 Schedule 11	At least three average daily consumption errors.	Still existing

Subject	Section	Clause	Non-compliance	Status
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.	Still existing
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.	Still existing
Maintaining shared unmetered load	5.1	11.14	No unmetered volumes were reported for four ICPs with unmetered load for a short 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
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.	Cleared
Identification of readings	9.1	Clause 3(3) Schedule 15.2	Unvalidated actual HHR data identified as estimated.	Still existing
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.	Cleared
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.	Still existing
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.	Still existing

Subject	Section	Clause	Recommendation	Status
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.	Adopted.

Subject	Section	Clause	Recommendation	Status
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.	Investigated, but found the recommendation was too difficult to implement.

## 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 list file as at 12/08/20 and AC020 trader compliance report for 11/11/19 to 12/08/20 were examined to confirm that information was correct and not misleading. The registry validation process was examined in detail in relation to the achievement of this requirement, including review of reports used in the process and procedure documentation.

#### Audit commentary

##### Registry and static data accuracy

Status and trader updates are completed manually using the registry web interface, and data is updated in Telemetry at the same time. As part of this process, the user checks that the registry update is successful, and that the data recorded in Telemetry and on the registry matches. Flick is considering future automation of the status and trader update process.

Registry notification files are imported into Telemetry. Acknowledgement files are not routinely reviewed, but changes to registry information will be detected through Flick's safety net process, which identifies and corrects inaccurate data. Each Tuesday and Thursday, safety net reporting is used to identify and resolve data discrepancies, including:

- status discrepancies, including a check that any inactive ICPs are still disconnected and the status is valid,
- ICPs with generation fields populated are checked to ensure that generation metering is installed, and the generation fuel type is as expected,
- ICPs with distributor unmetered load details, daily unmetered kWh or the unmetered flag set to Y are not usually supplied, and arrangements are made for the switch to be withdrawn or the ICP to switch out,
- ANZSIC codes beginning with "T" which are checked and updated (there is also monthly validation of ANZSIC codes against the network price category, as discussed in **section 3.6**),
- ICPs with meter flags or submission types that indicate a NHH meter is present (if an AMI meter upgrade is not in progress, arrangements are made for the switch to be withdrawn, or the ICP to switch out),
- ICPs with the AMI flag = N, which are checked to determine whether a job to resolve the issue or upgrade the meter is in progress,

- ICPs with PP = Y are not usually supplied, and arrangements are made for the switch to be withdrawn, or the ICP to switch out,
- profiles which are inconsistent with the MEP, which are corrected, and
- expired meter certification, which is followed up with the MEP.

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

Flick's internal audit programme has continued during the audit period, and samples of switching and registry events are checked in a similar manner to this reconciliation participant audit. Corrections, training, and process improvements may be carried out as a result of the audit findings and I saw evidence of this during the audit.

The analysis of the list file and AC020 returned the following findings:

Issue	2020 Qty	2019 Qty	2018 Qty	2017 Qty	Comments
Active with blank ANZSIC codes	-	-	-	-	Compliant
Active with ANZSIC "T999" not stated	-	-	-	-	Compliant
Active with ANZSIC "T994" don't know	-	-	-	-	Compliant
Incorrect ANZSIC code	5	-	7	-	Five ICPs had incorrect ANZSIC codes applied and were corrected during the audit. See <b>section 3.6</b> .
Meter cat 3 or known commercial site with residential ANZSIC code	-	-	-	-	Compliant
ICPs with unmetered load flag Y but load is recorded as zero	-	-	-	-	Compliant
ICPs with incorrect unmetered load	-	-	-	-	Compliant
ICPs with Distributor unmetered load populated but retail unmetered load is blank and UML flag = N	-	-	-	-	Compliant
Active ICPs with blank MEP and no MEP nominated and UML = N	-	-	-	-	Compliant
Incorrect status	4	-	3	-	ICP 0005203376RN946 had an incorrect disconnection date and has now been corrected.  ICP 0005764238RNA97 has an incorrect disconnection date applied, but cannot be easily corrected because the ICP is now decommissioned.

Issue	2020 Qty	2019 Qty	2018 Qty	2017 Qty	Comments
					<p>ICP 0000017063TCB25 had an incorrect reconnection date applied, and was corrected during the audit.</p> <p>ICP 0007135066RN5C2 had an incorrect status reason applied and was corrected during the audit.</p> <p>See <b>section 3.9</b>.</p>
Incorrect profile	2	-	46	1	<p>The following ICPs were incorrectly assigned the HHY profile for periods where HHR profile should have applied. Both were corrected during the audit.</p> <p>ICP 0269911243LC6B6 had the HHY profile assigned in error, during switch out the ICPs HHR profile was reversed and the registry.</p> <p>ICP 0015867316ELD07 had a genuine HHR meter installed, but communication issues prevented readings from being obtained. The ICP should have been assigned the HHR profile for the entire period of supply.</p> <p>I checked all ICPs with NHH meter certification which had HHR profile applied. All were timing differences except ICP 0005138558RN3F6 meter 60B08J01339 which was NHH certified for the period between 11/02/20 and 09/03/20 because the meter was not communicating. It was updated to HHR once the meter was reconnected and communicating.</p>
Incorrect submission type	1	-	44	-	<p>ICP 0193087073LC92D had an incorrect (NHH) submission type recorded on the registry from 20/03/20 until it switched out effective from 17/06/20, and has now been corrected. See <b>section 11.2</b>.</p>
Active date variance with initial electrical connection date	-	-	-	-	<p>I confirmed that Flick's active date was correct for all variances. See <b>sections 3.5 and 3.8</b>.</p>
Active ICP with no MEP	-	-	-	-	Compliant
Active Category 9 and UML "N"	-	-	-	-	Compliant



The controls for registry data accuracy are strong, and only two discrepancies were not corrected by the time the audit was completed. The affected ICPs have either switched out or been decommissioned:

- ICP 0005764238RNA97 has an incorrect disconnection date applied, but cannot be easily corrected because the ICP is now decommissioned, and
- ICP 0193087073LC92D had an incorrect (NHH) submission type recorded on the registry from 20/03/20 until it switched out effective from 17/06/20, and was corrected during the audit.

### **Read and volume data accuracy**

As described in **section 12.2** and **12.7**, some submission accuracy issues are present.

1. Historic unmetered load is excluded from submissions.
2. Inactive consumption is excluded from submissions where the status remains incorrect.
3. Estimated volumes for some unread and HHY profile ICPs are excluded from submissions.
4. Some ICPs which are assigned HHY profile have not met the terms of the profile, particularly the requirement to be upgraded within 16 weeks.
5. IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.
6. There is an issue with ARC Innovations meters when used for HHR settlement. The on-site setup is that a meter pulses into a data storage device, which counts the pulses and “stores” them every 200 pulses which equals 0.1 kWh. There is only one decimal place, so the smallest increment of consumption is 0.1. The issue is made worse for installations with a multiplier, for example if the multiplier is 100, the smallest increment per interval is 10 kWh, which means the accuracy per interval is poor. Unfortunately for Flick, this means the HHR data derived from ARC meters is not considered to be accurate in accordance with Clause 15.2. The total kWh per month will be accurate but if volumes are not recorded and reported against the correct trading period, but Flick may not be charged at the wholesale rate that applied during the trading period when the electricity was consumed.

### **Corrections**

Read and volume accuracy issues are identified in the validation processes described in detail in **section 9.6**. I reviewed HHR correction processes, including checking correction examples where available.

#### Defective meters

Where a meter is confirmed not to be recording consumption accurately, Flick arranges meter replacement and manually estimates consumption for the faulty period once one month of reliable data is available on the replacement meter. I reviewed ten examples of defective meters and found corrections were processed and a reasonable estimate of consumption during the faulty period was reported.

#### Bridged meters

Where a meter is bridged, it will not record consumption during the bridged period. Flick arranges meter replacement and manually estimates consumption for the bridged period once one month of reliable data is available on the replacement meter. Seven meters were bridged, and corrections were processed and a reasonable estimate of consumption during the bridged period was reported.

#### Multipliers

Telemetry stores the meter multiplier, which is applied to the raw meter data it imports to create the reconciliation submission data and billed data. The multipliers are extracted from the registry along with other meter attributes, and multiplier changes will be identified through the registry notification process. Validation including the checksum is completed on the raw data. No incorrect multipliers were identified, and review of a sample of ICPs with multipliers confirmed that the stored multipliers and their application were correct.

### Unmetered load

Flick has historically supplied some ICPs with unmetered load for short periods, but unmetered volumes were not submitted to the reconciliation manager because Flick is a HHR trader and does not have a process for unmetered submissions.

Flick has submitted an application for an engineered profile (HHU), which will allow submission of unmetered load to the reconciliation manager. Flick intends to use a manual process to apply a flat load profile, consistent with the Authority's NHH UML profile, to spread the daily unmetered kWh between the trading periods so that the unmetered load can be included in the HHR aggregates and volumes files. The application is currently being considered by the Authority.

### Inactive consumption

Consumption during inactive periods is recorded in Telemetry, but excluded from submission. If an ICP is connected for part of any day, it should have active status recorded in order to be included in submission information. Both disconnection and reconnection dates should have active status. Inactive consumption is identified as part of the safety net check described in **section 2.1**. The ICP status is usually returned to active for any inactive periods with consumption.

Two ICPs with consumption during inactive periods were identified, and the incorrect statuses are recorded as non-compliance in the table above. Non-compliance is recorded in **sections 12.2** and **12.7** for under submission of volumes during the inactive periods.

### Vacant consumption

Consumption for vacant ICPs is captured and reported.

### **Audit outcome**

Non-compliant

Non-compliance	Description
Audit Ref: 2.1  With: Clause 10.6, 11.2, 15.2          From: 01-Nov-19 To: 23-Oct-20	Some registry data is incorrect.  Historic unmetered load is excluded from submissions.  Inactive consumption is excluded from submissions where the status remains incorrect.  Estimated volumes for some unread and HHY profile ICPs are excluded from submissions, until AMI readings, meter removal readings, or customer readings are received.  Some ICPs which are assigned HHY profile have not met the terms of the profile, particularly the requirement to be upgraded within 16 weeks.  IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.  Arc provides interval data to one decimal place, which is not considered to be sufficiently accurate.  Potential impact: Low  Actual impact: Low  Audit history: Twice  Controls: Moderate  Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as moderate because they are sufficient to ensure that most information is recorded correctly. 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
<p>Approval has now been gained from the Authority for an Engineered profile (HHU) to submit unmetered load. This will allow future submission of unmetered load to the reconciliation manager using a manual process through applying a flat load. The 8.6 units of historical unmetered load has been exempted from reconciliation by the authority as this does not meet the 14 months revision period.</p> <p>System enhancement to overcome a Telemetry constraint which does not allow estimation of data if no historical data is present has been added to our Tech prioritization list.</p> <p>We have put on hold on our smart upgrade process for new customers. This will significantly reduce the issue of not meeting the approved timeframe of 16 weeks for the HHY profile use. The delays were mainly caused due to COVID-19 restrictions which meant contractors could not be sent to site to replace meters.</p> <p>IntelliHUB is looking into extending the timeframe for issuing their backdated data from 15 days to 30 days. They currently have a system constraint which does not allow this.</p> <p>AMS are in the process of displacing ARC meters, the issue of interval data being received as one decimal place should then be resolved. In the meantime, this issue has been raised with ARC.</p>		Nov 2021	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>All unmetered volumes are now going to be submitted through the HHU profile.</p> <p>A robust training has been completed on registry updates and HHY profile use.</p> <p>The registry update process and HHY profile use will be assessed and monitored through the monthly Field QA and quarterly internal audit.</p>		Ongoing	

## 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 Metrix, IntelliHUB and Counties Power), Arc, WASN and FCLM as MEPs via SFTP.

Flick also supplies a small number of ICPs with legacy meters, which are intended to be promptly upgraded to AMI meters. Readings are not received for these meters until 1) they are upgraded and a removal reading is provided or 2) they switch out prior to upgrade and customer photo reading is used to create an estimated switch reading. The process is discussed further in **sections 6.6** and **12.2**.

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 data providers.

#### 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.

- The volumes recorded in Telemetry were consistent with the raw data provided by the MEP for all ICPs. I found that IntelliHUB had an issue with their daylight savings process in September 2020 which affected their midnight reading accuracy, caused by data being processed in Australia which has different daylight savings dates to New Zealand. Flick has derived the correct midnight reads so that the data can be validated, and the checksum process does not create unnecessary estimates.
- The volumes recorded in the aggregates file were consistent with the raw data provided by the MEP for all ICPs except 0000017063TCB25 (FCLM). Inactive trading periods are excluded from submission. ICP 0000017063TCB25 was inactive from 07/09/20 until 22/09/20. The meter recorded 27.88 kWh on 22/09/20 after the time it was reconnected, which was excluded from submission because the day was inactive. During the audit, the status was corrected to be active from 22/09/20 and I confirmed that all consumption will be provided in the revision submissions.

Non-compliance is recorded in **sections 2.1** and **3.9** for the incorrect event date, and **sections 12.2** and **12.7** for the unreported inactive consumption.

Compliance is recorded in this section because the data transfer process is operating correctly.

#### 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 for the person who performed the activity (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 12/08/20 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 registry list file as at 12/08/20 and the AC020 report for 01/11/19 to 12/08/20 were analysed to confirm process compliance and that controls are functioning as expected.

#### **Audit commentary**

Flick's new connection process requires all ICPs to be taken to the 1,12 ("inactive new connection in progress") status in the registry and the MEP is nominated at the same time. The design of the new connections process does not allow ICPs to be connected without authorisation by Flick, or an arrangement with an MEP.

Trader acceptance for new connections is normally provided on a case by case basis via email, to ensure that ICPs meet Flick's supply requirements before they are accepted. There are no blanket acceptance agreements in place.

Progress with new connections is monitored. A monthly registry list of ICPs with Flick as the proposed trader is reviewed to identify any new connections which do not have applications, which are followed up with the network.

#### **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 a MEP to temporarily electrically connect a point of connection, only if:*

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
- *the reconciliation participant is recorded in the registry as the trader responsible for the ICP*
- *if the ICP has metered load, 1 or more certified metering installations are in place*
- *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*

### Audit observation

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

The registry list file as at 12/08/20 and the AC020 report for 01/11/19 to 12/08/20 were analysed to confirm process compliance and that controls are functioning as expected.

### Audit commentary

Flick claims ICPs at 1,12 (“inactive new connection in progress”) status which helps to ensure that the trader is recorded on the registry if an ICP is temporarily electrically connected. 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:*

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
- *the reconciliation participant is recorded in the registry as the trader responsible for the ICP*
- *if the ICP has metered load, 1 or more certified metering installations are in place*
- *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*

### Audit observation

The new connection and reconnection processes were examined in detail to evaluate the strength of controls.

The registry list file as at 12/08/20 and the AC020 report for 01/11/19 to 12/08/20 were analysed to confirm process compliance and that controls are functioning as expected.

### Audit commentary

### Active ICPs without metering

Review of the registry list and AC020 reports confirmed that all active ICPs have an MEP recorded and metering category 1 or 2.

### Certification on connection

Flick checks that all ICPs have full metering certification and follows up any discrepancies with the MEP as part of their safety net checks described in **section 2.1**. Flick also checks that ICPs are fully certified before reconnection.

The AC020 report showed that all new connections and reconnections were certified on time.

### Certification on unbridging

Flick provided a list of eight meters which had been bridged during the audit period, and I confirmed that all were certified on unbridging.

### Audit outcome

Compliant

## 2.12. Arrangements for line function services (Clause 11.16)

### Code reference

*Clause 11.16*

### Code related audit information

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

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

### Audit observation

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

The registry list for 01/11/19 to 12/08/20 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.

Applications that do not meet these criteria are declined automatically.

If an application is declined, the customer has 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 01/11/19 to 12/08/20 was reviewed to identify the MEPs for Flick ICPs during the audit period.

#### **Audit commentary**

Flick demonstrated that arrangements are in place with the MEPs for their ICPs.

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

##### Audit commentary

This requirement is well understood and managed by 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 registry list file as at 12/08/20 and the AC020 report for 01/11/19 to 12/08/20 were analysed to confirm process compliance and that controls are functioning as expected.

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** below. The process to manage trader updates, including MEP nominations was reviewed.

The AC020 trader compliance report for 01/11/19 to 12/08/20 was reviewed. A sample of late updates were checked, including:

- the ten latest active status updates,
- all four late inactive status updates, and
- 23 late trader updates.

### Audit commentary

The AC020 trader compliance report was reviewed to determine the timeliness of registry updates.

### Status updates

Status updates are completed manually using the registry web interface, and Telemetry is updated at the same time. As part of this process, the user checks that the registry update is successful, and that the data recorded in Telemetry and on the registry matches. The status is only updated once paperwork confirming the correct status and date has been received.

### Active status

The timeliness of status updates to active (for reconnections) is set out on the table below.

Year	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
2017	146	80%	6
2018	15	87%	1
2019	65	90.3%	2.38
2020	38	94.63%	1.56

27 of the late updates were within 10 business days of the event date, 37 were within 25 business days and 38 were within 43 business days.

The ten latest late status changes to active were reviewed and found to be caused by:

- corrections where usage was identified on an inactive account,
- backdated switch ins, where the status could not be updated until Flick was recorded as the trader on the registry, and
- delays in processing reconnection paperwork, which were most common where the paperwork was received before the switch was completed on the registry; these ICPs are expected to be identified through the safety net checks completed twice each week, but I recommend improving monitoring so that these ICPs are updated as soon as possible after the switch completes to prevent late files.

All of the late updates recorded the correct status and event date.

Description	Recommendation	Audited party comment	Remedial action
Reconnection timeliness	<p>Improve monitoring of instances where reconnection paperwork is received before switch completion, to ensure that the status is updated as soon as possible once the switch completes.</p> <p>I found that some ICPs did sometimes not have their status updated until over a week after switch completion, although the paperwork was received on the switch in date.</p>	We agree with this recommendation and has put processes in place to monitor timeliness of the status update.	Identified

#### Inactive status

The timeliness of status updates to inactive is set out on the table below.

Year	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
2018	-	100%	5
2019	11	99.00%	2.13
2020	4	99.30%	2.54

The late updates were between 22 and 470 business days late, and were found to be caused by either delays in receiving the disconnection paperwork or an incorrect event date being applied. ICP 0005203376RN946 had a disconnection date of 18/07/20 applied instead of 18/08/20 because of a typing error, as is recorded as non-compliance in **sections 2.1** and **3.8**. The update was processed on 19/08/20 so was on time, and the event date has now been corrected. The other late updates had correct event dates and statuses applied.

### Trader updates

Trader updates are completed manually using the registry web interface, and data is updated in Telemetry at the same time. As part of this process, the user checks that the registry update is successful, and that the data recorded in Telemetry and on the registry matches. Trader information is only updated once the correct values have been confirmed.

MEP nominations are made at the time the service request for a meter change is made. For new connections MEP nominations are made at the time the ICP is claimed at 1,12 ("new connection in progress") status.

The timeliness of trader updates is set out on the table below.

Year	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
2018	95	51%	117
2019	3,306	7.39%	27.1
2020	36	91.47%	2.43

14 of the late updates were within 10 business days of the event date, 28 were within 30 business days, and all were within 70 business days.

21 late updates were profile changes, 12 were MEP nominations and three were ANZSIC code changes. I checked the five latest profile changes and MEP nominations, and all late ANZSIC code changes, and found the late updates were caused by late notification of metering changes, corrections, and backdated switch ins.

The AC020 also identified 38 switched in and newly connected ICPs where the ANZSIC code was not populated within 20 business days. I checked the ten latest updates and found they were changes made as part of the ANZSIC code validation process described in **section 3.6**.

### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.3</p> <p>With: Clause 10 Schedule 11.1</p> <p>From: 20-Nov-19</p> <p>To: 28-Aug-20</p>	<p>38 late status updates to active status.</p> <p>Three late status updates to inactive status.</p> <p>36 late trader updates.</p> <p>38 late ANZSIC code updates for new connections or switch ins.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>The controls are rated as moderate because they are adequate to ensure that the registry is updated on time most of the time, but there is room for improvement.</p> <p>The risk is low as most updates were completed on time or soon after they were due unless they were backdated corrections.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>The issue of late ANZSIC codes update through switch-ins cannot be resolved fully as this is dependent on customers advising of correct ANZSIC when signing up. The non-compliance is due to the backdated date used to correct registry records. If current date was used to update the ANZSIC code, then incorrect records will be reflected in the registry.</p> <p>Most of the late active status and trader updates were due to the inability to update registry status while an ICP was in Switch which needs to be resolved through the Switch Process review process by the authority.</p>		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A robust training has been completed on trader and status updates on 17/11/2020.</p> <p>The registry status and trader update process will be monitored and assessed through the monthly Field QA and quarterly internal audit.</p>		17/11/20	

### 3.4. Trader responsibility for an ICP (Clause 11.18)

#### Code reference

Clause 11.18

#### Code related audit information

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



*A trader ceases to be responsible for an ICP if:*

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

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

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

#### **Audit observation**

##### **Retailers Responsibility to Nominate and Record MEP in the Registry**

The registry list file as at 12/08/20 and the AC020 report for 01/11/19 to 12/08/20 were examined to confirm whether all active ICPs have an MEP recorded, and MEP nominations were accepted.

##### **ICP decommissioning**

The process for the decommissioning of ICPs was examined. The event detail report 01/11/19 to 12/08/20 was reviewed to identify all ICPs decommissioned during the period. A diverse 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.

MEP nominations are made at the time the service request for a meter change is made. For new connections MEP nominations are made at the time the ICP is claimed at 1,12 ("new connection in progress") status. Late MEP nominations are recorded as non-compliance in **section 3.3**.

There is no process to identify rejected MEP nominations; Flick relies on the MEP sending an email if they reject a nomination. The event detail report recorded 338 MEP nominations which had a corresponding MN record. None of the MEP nominations were rejected by the MEP.

Description	Recommendation	Audited party comment	Remedial action
MEP nomination rejections	Develop a process to promptly identify MEP nomination rejections, so that they can be checked and reissued. Rejected nominations will appear on the registry notification files.	We agree to this recommendation and will monitor the MEP nominations through the NOT files.	Identified

##### **ICP Decommissioning**

Flick continues with their obligations under this clause. ICPs that are vacant and active, or inactive are maintained in Telemetry. An attempt is made to read the meter at the time of removal and if this is not

possible then the last actual meter reading is used. This last actual reading is normally the one taken at the time of disconnection. Flick also advises the MEP responsible that their metering can be removed, and the site is to be decommissioned, or has been decommissioned, dependent on the distributor's process.

98 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 examined in detail. The registry list and event detail reports for 01/11/19 to 12/08/20 were reviewed to determine compliance. All late updates were checked.

#### Audit commentary

##### New connection information timeliness

The new connection process is described in detail in **section 2.9**. MEP nomination occurs when the ICP is at 1,12 ("inactive new connection in progress") status as part of the service request process.

The timeliness of status updates to active (for new connections) is set out on the table below.

Year	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
2018	4	42%	10
2019	1	83.3%	3.67
2020	2	90.91%	2.95

The late new connections were delayed by late receipt of connection paperwork or delays in processing the paperwork once it was received. Both ICPs were claimed at 1,12 (“inactive new connection in progress”) prior to initial electrical connection, and the MEP was also nominated prior to initial electrical connection. The correct status and event dates were applied for both late updates.

#### New connection information accuracy

The AC020 report found five new connections which had an initial electrical connection date which matched the meter certification date, but no initial electrical connection date was populated. I confirmed that Flick’s active date was correct for all five ICPs.

All other active status dates for new connections were consistent with the initial electrical connection date and meter certification date.

The AC020 report found ICP 0007192847RN657 had an initial electrical connection date populated by Orion but had not been made active. Flick confirmed with Orion that the meters are not installed and the ICP is not connected, and is working with the MEP to arrange metering. Flick’s application of 1,12 (“inactive new connection in progress”) status is correct.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 9 Schedule 11.1  From: 02-Dec-19 To: 12-Mar-20	Two late status updates for new connections. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as strong, as the late updates were isolated and occurred early in the audit period. The risk is assessed to be low based on the number of late updates.		
Actions taken to resolve the issue		Completion date	Remedial action status
A robust training will be has completed on new connection updates on 17/11/20.		17/11/20	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
The registry new connection status update is going to be monitored and assessed through the monthly Field QA and quarterly internal audits.	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 ANZSIC codes was examined.

The registry list file as at 12/08/20 and AC020 trader compliance report for 01/11/19 to 12/08/20 were examined to check ANZSIC codes, including active ICPs with T99 series or blank ANZSIC codes.

To confirm the validity of the ANZSIC codes selected, I checked a diverse sample of 50 active ICPs across ten different ANZSIC codes which were assigned to 0.5% of active ICPs or more.

#### Audit commentary

ANZSIC codes are set based on information provided on the customer application. The twice weekly safety net check identifies ICPs with ANZSIC codes beginning with "T" (unknown) which are checked and updated. ANZSIC codes are validated against the network price category monthly, to identify ICPs with residential price categories and business ANZSIC codes, or business ANZSIC codes with residential price categories. Any exceptions are validated by checking the address on Google maps and/or contacting the customer. I recommend that Flick also checks for blank ANZSIC codes, and ICPs with metering category two or higher with residential ANZSIC codes.

The validity of ANZSIC codes was checked using the AC020 report:

- no ICPs had blank or unknown (T99 series) ANZSIC codes, and
- no ICPs have meter category three, and no ICPs with meter category two have residential ANZSIC codes.

The accuracy of the ANZSIC codes for 50 ICPs were checked using Google streetview:

- 44 ANZSIC codes were confirmed to be correct,
- five ANZSIC codes were incorrect, and were updated during the audit, and
- the ANZSIC code for ICP 0000031838EA3AC is I53 (Warehousing and Storage Services) and Flick have attempted to contact the customer to confirm whether the code was correct; I recommend this is followed up to ensure that the correct code is applied.

Description	Recommendation	Audited party comment	Remedial action
ANZSIC code validation	Expand the ANZSIC code validation to include blank ANZSIC codes, and metering category two or higher ICPs with residential ANZSIC codes. These are identified on the registry AC020 trader compliance report.	We agree to this recommendation and have expanded the ANZIC code validation to include blank ANZSIC codes and metering category two or higher ICPs with residential ANZSIC codes.	Identified
ANZSIC code confirmation	Confirm the ANZSIC code for ICP 0000031838EA3AC and update the code if required.	We agree to this recommendation and have made several attempts to contact the customer. This customer is in the debt cycle and is not engaging. We will continue to try and resolve this ANZSIC code issue.	Identified

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 9 (1(k) of Schedule 11.1  From: 12-Aug-20 To: 23-Oct-20	Five ICPs had incorrect ANZSIC codes applied and were corrected during the audit.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are strong because good validation is in place and a small number of exceptions were identified.  There is no impact on other participants or settlement, but there is a minor impact on the Authority because this information is used for reporting.		
Actions taken to resolve the issue		Completion date	Remedial action status
Five ANZSIC code discrepancies identified through this audit has been resolved.		29/10/2020	Cleared

Preventative actions taken to ensure no further issues will occur	Completion date	
<p>We have expanded the ANZIC code validation as recommended above to include blank ANZSIC codes and metering category two or higher ICPs with residential ANZSIC codes. However, this will not fully resolve the ANZSIC code discrepancies as we are dependent on our customers advising us of the correct end use during sign up.</p> <p>ANZIC validation report will be run monthly to identify ANSZIC code discrepancies.</p>	Ongoing	

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

#### Code reference

*Clause 9(1)(f) of Schedule 11.1*

#### Code related audit information

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

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

#### Audit observation

The process to manage unmetered load was examined. The registry list file for 01/11/19 to 12/08/20 and AC020 trader compliance report for 01/11/19 to 12/08/20 were examined to identify any ICPs with unmetered load.

#### Audit commentary

Flick has not supplied any ICPs with unmetered load during the audit period.

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.

The 2017, 2018 and 2019 audits found Flick had historically supplied some ICPs with unmetered load for short periods, but unmetered volumes were not submitted to the reconciliation manager because Flick is a HHR trader and does not have a process for unmetered submissions. 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

ICP	UNM start date	UNM end date	Expected daily kWh	kWh for period with unmetered load
0007154094RN6A8	1/07/2019	14/07/2019	0.11	1.43 kWh
Total				8.65 kWh

Flick has submitted an application for an engineered profile (HHU), which will allow submission of unmetered load to the reconciliation manager. Flick intends to use a manual process to apply a flat load profile, consistent with the Authority's NHH UML profile, to spread the daily unmetered kWh between the trading periods so that the unmetered load can be included in the HHR aggregates and volumes files. The application is currently being considered by the Authority.

#### 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. The process to manage status updates was examined. The registry list file as at 12/08/20 and AC020 trader compliance report for 01/11/19 to 12/08/20 were reviewed to determine compliance.

##### Reconnections

The ICP reconnection process was examined. The timeliness of data for reconnections is assessed in **section 3.3**, and a sample of ten updates were checked for accuracy.

#### 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. ICPs that do not have open meters are identified through the weekly safety net check described in **section 2.1**.

Late registry updates to active are recorded as a non-compliance in **sections 3.3** and **3.5**.

#### New connection information accuracy

The AC020 report found five new connections which had an initial electrical connection date which matched the meter certification date, but no initial electrical connection date was populated. I confirmed that Flick's active date was correct for all five ICPs.

All other active status dates for new connections were consistent with the initial electrical connection date and meter certification date.

The AC020 report found ICP 0007192847RN657 had an initial electrical connection date populated by Orion but had not been made active. Flick confirmed with Orion that the meters are not installed and the ICP is not connected, and is working with the MEP to arrange metering. Flick's application of 1,12 ("inactive new connection in progress") status is correct.

#### **Reconnection information accuracy**

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 and were appropriately certified.

#### **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 registry list file as at 12/08/20 and AC020 trader compliance report for 01/01/20 to 12/08/20 were reviewed to determine compliance.

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**.

#### **Audit commentary**

##### **Use of inactive statuses**

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

I reviewed a sample of 15 updates to inactive status, including at least five ICPs updates to each inactive status. I confirmed the status reason codes and event dates were correctly applied based on the paperwork provided at the time of the update apart from:

- ICP 0005203376RN946 which had a disconnection date of 18/07/20 recorded instead of 18/08/20 because of a typing error; the event date has now been corrected, and
- ICP 0005764238RNA97 which had a disconnection date of 26/04/20 recorded instead of 28/04/20 because of a typing error; the event date has not been corrected because the ICP has now been decommissioned.



14 ICPs with the AMI metering flag set to no had the 1,7 (“Electrically disconnected remotely by AMI meter”) status applied. I checked the disconnection paperwork and confirmed that 13 of the ICPs had HHR metering and were remotely disconnected. ICP 0007135066RN5C2 was electrically disconnected at meter box switch, and the status reason was corrected during the audit.

Five ICPs were at “inactive - new connection in progress” status. ICP 0007192847RN657 had an initial electrical connection date populated by Orion but had not been made active. Flick confirmed with Orion that the meters are not installed and the ICP is not connected, and is working with the MEP to arrange metering. Flick’s application of 1,12 (“inactive new connection in progress”) status is correct.

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

### Inactive ICPs with consumption

Consumption during inactive periods is recorded in Telemetry, but excluded from submission. If an ICP is connected for part of any day, it should have active status recorded in order to be included in submission information. The disconnection and reconnection dates should have active status. Inactive consumption is identified as part of the safety net check described in **section 2.1**, and ICPs are usually returned to active for any inactive periods with consumption.

ICP 0000017063TCB25 was inactive from 07/09/20 until 22/09/20 and the meter recorded 27.88 kWh on 22/09/20 after the time it was reconnected, which was excluded from submission because the day was inactive; during the audit, the status was corrected to be active from 22/09/20 and I confirmed that all consumption will be provided in the revision submissions.

Description	Recommendation	Audited party comment	Remedial action
Processing of disconnections and reconnections	To ensure that all consumption is captured, record active status for any part or full days where the ICP is active and/or has consumption recorded.	We agree with this recommendation and will ensure that status on the registry is updated correctly and the consumption is captured.	Identified

### Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 3.9</p> <p>With: Clause 19 Schedule 11.1</p> <p>From: 26-Apr-20</p> <p>To: 18-Jul-20</p>	<p>ICP 0005203376RN946 had an incorrect disconnection date applied and was corrected during the audit.</p> <p>ICP 0005764238RNA97 has an incorrect disconnection date applied, but cannot be easily corrected because the ICP is now decommissioned.</p> <p>ICP 0007135066RN5C2 had an incorrect status reason applied and was corrected during the audit.</p> <p>ICP 0000017063TCB25 had an incorrect reconnection date applied and was corrected during the audit.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>

Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate, because the process to update the registry is manual, increasing the likelihood of data processing errors. There are some monitoring controls in place to check that details are recorded correctly at the time the update is processed.</p> <p>There is a small impact because consumption during inactive periods is excluded from submissions.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
All the issues raised above have been corrected except for 1 ICP (0005764238RNA97) which cannot be corrected as the ICP has been decommissioned.		22/10/2020	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Refresher training has been provided to the team which included monitoring of the timeliness and accuracy of registry status updates.</p> <p>Registry updates process will be monitored through monthly Field QA and quarterly Field Internal Audits.</p>		17/11/2020	

### 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.

I analysed the registry list of ICPs with "new" or "ready" status.

#### Audit commentary

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.

A monthly registry list of ICPs with Flick as the proposed trader is reviewed to identify any new connections which do not have applications, which are followed up with the network.

#### Audit outcome

Compliant

## 4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

Internal audits are conducted for all switching processes every second month. As part of this process a sample of switch events are checked to determine whether they are compliant. Corrections, training, and process improvements may be carried out as a result of the audit findings.

### 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.

#### 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.

NTs have been automatically sent from the provisioning system since June 2019. The five NT files checked were sent within two business days of pre-conditions being cleared, and the correct switch type was selected.

#### Audit outcome

Compliant

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

##### Code reference

*Clauses 3 and 4 Schedule 11.3*

##### Code related audit information

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

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

*When establishing an event date for clause 4, the losing trader may disregard every event date established by the losing trader for an ICP for which when the losing trader received notice from the registry manager under clause 22(a) the losing trader had been responsible for less than 2 months.*

##### Audit observation

The event detail report for 01/01/20 to 12/08/20 was reviewed to:

- identify AN files issued by Flick during the audit period,
- assess compliance with the requirement to meet the setting of event dates requirement, and
- a sample of three (or all) ANs per response code were reviewed to determine whether the codes had been correctly applied.

The switch breach report was examined for the audit period.

##### Audit commentary

###### AN content

AN files have been generated by the provisioning system since November 2019. The AN process assigns response codes based on a hierarchy, which should ensure that correct codes are provided. Where the system cannot determine the correct code, an exception is sent to the errors app, and a user will assign the correct code. The AN proposed event date is set by the provisioning system as the receipt date + five business days for transfer switches.

A sample of five transfer ANs were checked for accuracy, and confirmed to be correct.

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

The event detail report was reviewed for all 1,887 transfer ANs to assess compliance with the setting of event dates requirements.

- 1,885 ANs (99.9%) had proposed event dates within five business days of the NT receipt date.
- All 1,887 had proposed event dates within ten business days of the NT receipt date.

###### AN timeliness

The switch breach report is monitored daily to identify ICPs which require AN files. The switch breach report for the audit period confirmed all AN files were sent within the allowable timeframes.

##### 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 event detail report for 01/11/19 to 12/08/20 was reviewed to identify CS files issued by Flick during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

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

CS files with average daily kWh that was negative, zero, or over 200 kWh were identified. A sample of seven of these CS files were checked to determine whether the average daily consumption was correct.

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

##### Audit commentary

###### CS timeliness

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 85 late CS files for transfer switches, and none were genuinely late.

###### CS content

CS files have been automatically generated since June 2019. Prior to this, CS files were processed manually using the registry interface.

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. If less than two actual readings are available, the average daily kWh in the incoming CS file is expected to be applied. Because Flick receives daily readings, average daily consumption is calculated as the average daily consumption over the past 30 days. While this is not technically consumption for the last read to read period, it provides a reasonable indication of the average daily consumption.

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

Average daily kWh	Count of transfer CS files	Findings
Negative	1	Negative consumption was calculated in error because a meter change occurred within the previous 30 days. The latest reading on the new meter was matched to a reading 30 days prior on the replaced meter. A ticket has been raised for Flick's tech team to resolve this issue to prevent recurrence. The average daily kWh was under stated by 736 kWh.
Zero	25	Five ICPs with zero consumption were checked, four were correct. ICP 0005661900RNF39 did not receive two actual readings, so the incoming CS value of 252 kWh was expected to be applied.
More than 200 kWh	1	The consumption for the read to read period was 4 kWh higher than the value applied in the CS file.

The content of a sample of five transfer CS files were checked, focussing on CS files where there were inconsistencies between the event read type recorded and last actual read date. I found that all the CS files had average daily kWh discrepancies because Flick applies a different methodology to the registry functional specification. Where CS files were processed manually, I found one read classification error and one incorrect last actual read date.

ICP	Correct event read and read type	Correct last actual read date	Correct average daily kWh	File generation process
0000049331UN16D (18/03/20)	No – incorrect type.  The event readings were actual readings on 25/01/20 not the last day of supply, and were incorrectly recorded as actual readings.  The readings are reasonable because the ICP was vacant.	Yes	No	Manual using registry interface
0000015341DEECB (05/03/20)	Yes	No 04/03/20 but should be 03/03/20.	No	Manual using registry interface
0000072921TR5DE (03/03/20)	Yes	Yes	No	Manual using registry interface
0000505132NR4D8 (07/08/20)	Yes	Yes	No	Automated process

ICP	Correct event read and read type	Correct last actual read date	Correct average daily kWh	File generation process
0000229377UN8C7 (30/07/20)	Yes	Yes	No	Automated process

I also checked all ICPs which switched out with HHY profile on their last day of supply identified through review of the registry list with history. ICP 0000411248ENCEF (14/10/20) and 0000230103ENA97 (12/02/20) switched out with readings consistent with a photo reading received for the last day of supply. The readings were recorded in the CS file as actual but should have been estimated.

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: 05-Mar-20 To: 07-Aug-20	At least eight transfer CS files contained average daily kWh inconsistent with the requirements of the registry functional specification.  At least one transfer CS file contained an incorrect last actual read date.  At least three transfer CS files contained an incorrect switch event read type.  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	I saw evidence that accuracy has been improved by the automation of the switching process. Post automation only estimated daily consumption discrepancies were identified, and these were caused by Flick applying the average for the last 30 days instead of the last read to read period.  The audit risk rating is low because the average daily kWh information provided is a usually a reasonable estimate of the ICP's consumption (apart from one ICP with a meter change where negative kWh was provided). The last actual read date field is used to help assess the accuracy of any estimates provided and has no impact on submission. All switch event readings should be treated as actual or permanent estimate, so the incorrect read types are expected to have a low impact.		
Actions taken to resolve the issue		Completion date	Remedial action status

<p>We apply the average for the last 30 days while calculating average consumption in the CS file instead of the last read to read period as we gain actual reads daily. We would not reflect the true estimated value for the average consumption if we followed the rules stated in the registry functional specification v22.21</p> <p>A robust refresher training on the CS file submission data which included event dates, read types, read and average daily consumption has been completed on 17/11/2020.</p>	17/11/2020	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
The submission of the CS file contents will be assessed and monitored through the scheduled monthly Switch QA and quarterly Switch internal audits.	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 registry manager giving the gaining trader written notice of having received information about the switch completion, provide to the losing trader a changed switch event meter reading supported by 2 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 01/11/19 to 12/08/20 was analysed to identify all read change requests and acknowledgements during the audit period. 323 RRs and 46 ACs were issued by Flick for transfer switches. A sample of ten RR files and five AC files were checked.

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

The switch breach report for the audit period 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. Telemetry 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  $\pm 1$  kWh different to the switch event reading provided within five business days, an RR will be issued. If the difference is less than  $\pm 1$  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 estimates 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 12.2**.

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

The RR process has been automated since February 2020. RRs for Arc multi register day/night meters which require consumption to be split to generate switch event readings are created manually. A process is in place calculate the readings based on the trading periods recorded on each register. Flick issued 323 RRs for transfer switches. 64 were rejected and 259 were accepted.

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. In all cases there was a genuine reason for the RR, the file content was accurate, and the reads recorded in Flick’s system reflected the outcome of the RR process.

Where an RR issued by Flick is rejected, the file is passed to the data team who will adjust the reading and interval data to match the CS file. I checked five examples and found the correct reads were applied. For ICPs 0000018280CE85E (29/05/2020) and 0000608649HB27C (08/07/2020) the event readings were recorded in Telemetry as actual, but were expected to be recorded as estimates. This is recorded as non-compliance below and in **section 9.1**.

### 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. Flick issued 46 ACs for transfer switches. 39 were rejected and seven were accepted.

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 five AC files and found that the CS reading matched the AMI data received by Flick, and the correct readings were recorded in Telemetry.

#### Timeliness of RR and AC files

The switch breach history report recorded no late AC files and one late RR file for transfer switches. The file was late because read data confirming that the RR was required was received late.

#### Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 4.4  With: Clause 6(1) and 6A Schedule 11.3    From: 16-Mar-20 To: 08-Jul-20	One late RR file.  Switch event readings for 0000018280CE85E (29/05/2020) and 0000608649HB27C (08/07/2020) were recorded as actual in Telemetry but should have been estimates.  Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
<b>Low</b>	The controls are rated as moderate, because: <ul style="list-style-type: none"> <li>most RR and AC files were issued on time, and the delays were caused by waiting for metering information, and</li> <li>the manual process to update Telemetry where an RR is rejected normally ensures that the correct read type is applied.</li> </ul> The impact is low because the read type differences have no impact on submission, and the late files have a minor impact on other participants.	
Actions taken to resolve the issue		Completion date
The read type for both ICP's mentioned above has been corrected in Telemetry.		18/11/2020
Preventative actions taken to ensure no further issues will occur		Completion date
Training has been provided to the team on the RR process.  RR process will be monitored through monthly Field QA and quarterly Field Internal Audits.		17/11/2020
		Identified

#### 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 01/11/19 to 12/08/20 was reviewed to identify all read change requests and acknowledgements where clause 6(2) and (3) of schedule 11.3 applied.

##### Audit commentary

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

52 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 more than five business days after switch completion, and the CS read was used with the first day being estimated.

I checked five rejected RRs, and found the correct readings were recorded for all ICPs in Telemetry. ICP 0005045312RN131's RR for 29/01/20 contained an incorrect reading (121351) due to a manual calculation error. The correct AMI reading (121499) is applied on the event date in Telemetry, which matches the original CS reading and agreed switch reading.

##### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.5 With: Clause 6(2) and (3) Schedule 11.3  From: 29-Jan-20 To: 29-Jan-20	An incorrect switch event reading was provided in the RR file for 0005045312RN131's (29/01/20).  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 have improved during the audit period with process automation. A calculation error was made when creating this manual RR file before the process was automated.  There is no impact apart from the inconvenience of processing an unnecessary RR file for the other trader. The agreed switch event reading was applied in Telemetry.

Actions taken to resolve the issue	Completion date	Remedial action status
No correction is required in this instance as the incorrect switch event reading in the RR file was rejected by the losing retailer.	26/10/20	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
A robust training on the RR process was held on 17/11/2020. The RR process is going to be monitored through monthly Switch QA and quarterly Switch Internal audit.	Ongoing	

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

##### Code reference

Clause 7 Schedule 11.3

##### Code related audit information

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

##### Audit observation

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

##### Audit commentary

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

##### Audit outcome

Compliant

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

##### Code reference

Clause 9 Schedule 11.3

##### Code related audit information

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

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

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

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

- a proposed event date (clause 9(2)(a)); and

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

#### Audit observation

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

A typical sample of five 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.

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.

NTs have been automatically sent from the provisioning system since June 2019. The five NT files checked were sent within two business days of pre-conditions being cleared, and the correct switch type was selected.

#### Audit outcome

Compliant

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

#### Code reference

*Clause 10(1) Schedule 11.3*

#### Code related audit information

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

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

#### Audit observation

The event detail report for 01/01/20 to 12/08/20 was reviewed to:

- identify AN files issued by Flick during the audit period,
- assess compliance with the requirement to meet the setting of event dates requirement, and

- a sample of two (or all) ANs per response code were reviewed to determine whether the codes had been correctly applied.

The switch breach report was examined for the audit period.

#### Audit commentary

##### AN content

AN files have been generated by the provisioning system since November 2019. The AN process assigns response codes based on a hierarchy, which should ensure that correct codes are provided. Where the system cannot determine the correct code, an exception is sent to the errors app, and a user will assign the correct code. The AN proposed event date is set by the provisioning system as the NT requested date, unless this falls before the last date the ICP was billed. In these cases, the day after the last billing date is proposed.

A sample of five switch move ANs were checked for accuracy, and confirmed to be correct.

All 2,145 switch move AN files were examined on the event detail report:

- three ANs (0.13%) had proposed event dates later than 10 business days after receipt of the NT, and
- 62 ANs (2.8%) had a proposed transfer date earlier than the gaining trader's proposed date.

The incorrect dates were caused by incorrect AN proposed event date selection criteria being set in the provisioning system. The proposed event dates earlier than the gaining trader's proposed event date were detected in Flick's March 2020 internal audit, corrective action was taken immediately. No exceptions were identified after March 2020. The proposed event dates being more than ten business days after receipt of the NT were identified through the switching team's quality assurance processes, and the switches were completed effective from the gaining trader's proposed event date. No exceptions were identified after June 2020.

##### AN and 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 report was reviewed to determine whether switch move AN and CS files were issued on time. No late AN files and 450 late CS files were recorded for switch moves. One CS file was genuinely one business day late due to reduced staffing over the Christmas/New Year holiday period.

#### Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.8</p> <p>With: Clause 10(1) Schedule 11.3</p> <p>From: 03-Jan-20</p> <p>To: 13-Jan-20</p>	<p>One late switch move CS file.</p> <p>65 AN files has non-compliant proposed event dates.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are strong:</p> <ul style="list-style-type: none"> <li>one late file was identified, and it was processed one day late due to reduced staffing over the Christmas/New Year holiday period, and</li> <li>the non-compliant AN event dates were identified through Flick's internal audit and switching team quality assurance processes; the criteria were corrected the system and the issues have not recurred.</li> </ul> <p>The impact is assessed to be low because the switches were completed as expected, and the late file was one business day late.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Non-compliance related to the 65 AN files issued with incorrect proposed event dates were due to a system error. This was fixed immediately after this error was identified through a Switch Internal audit.		31/3/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>The AN and switch event dates are going to be monitored through monthly Switch QA and quarterly Switch internal audits.</p> <p>Robust refresher training was held on 17/11/20 on the switch processes.</p>		Ongoing	

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

##### Code reference

*Clause 10(2) Schedule 11.3*

##### Code related audit information

*If the losing trader determines a different date, then within 10 business days of receiving notice the losing trader must also complete the switch by providing to the registry manager as described in subclause (1)(a):*

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

##### Audit observation

An event detail report for 01/01/20 to 12/08/20 was reviewed to:

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

##### Audit commentary

As described in **section 4.8**, 65 proposed event dates for switch moves were non-compliant. In all cases the switches were completed effective from the gaining trader's proposed event date, or were withdrawn.

## 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 event detail report for 01/11/19 to 12/08/20 was reviewed to identify CS files issued by Flick during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

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

CS files with average daily kWh that was negative, zero, or over 200 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 files have been automatically generated since June 2019. Prior to this, CS files were processed manually using the registry interface.

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. If less than two actual readings are available, the average daily kWh in the incoming CS file is expected to be applied. Because Flick receives daily readings, average daily consumption is calculated as the average daily consumption over the past 30 days. While this is not technically consumption for the last read to read period, it provides a reasonable indication of the average daily consumption.

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

Average daily kWh	Count of switch move CS files	Findings
Negative	-	Compliant
Zero	596	Five ICPs with zero consumption were checked, four were correct. ICP 0007162864RN25E should have had 20 kWh recorded.



Average daily kWh	Count of switch move CS files	Findings
More than 200 kWh	1	The consumption for the read to read period was 18 kWh lower than the value applied in the CS file.

The content of a sample of five switch move CS files were checked, focussing on CS files where there were inconsistencies between the event read type recorded and last actual read date. I found that four CS files had average daily kWh discrepancies because Flick applies a different methodology to the registry functional specification. Where CS files were processed manually, I found they also had some incorrect read, read type and/or last actual read date information.

ICP	Correct event read and read type	Correct last actual read date	Correct average daily kWh	File generation process
1001110604UNF91 (22/10/19)	No – incorrect read and type. The event reading was an actual reading on 29/10/19 which was after the period of supply, and was applied as an actual reading in the CS file.  An estimated switch reading between the actual readings of 104063 (13/09/19) and 105552 (29/10/19) should have been applied.	No The last actual reading date was recorded as 29/10/19 but should have been 13/09/20.	No	Manual using registry interface
0007420969TUDF7 (06/07/20)	No – incorrect type. The event reading was an actual disconnection reading from February 2020 but was applied as an actual reading in the CS file.  The reading is reasonable because the ICP was disconnected but it should have been provided with an estimated read type.	No 15/02/20 but should be 15/11/19.	No	Manual using registry interface
0000194439TR4BE (07/03/20)	No – incorrect type. The event reading was an estimate from 25/02/20 but was applied as an actual reading in the CS file.  The reading is reasonable because the ICP was vacant but it should have been provided with an estimated read type.	Yes	No	Manual using registry interface
0432075038LC639 (08/01/20)	Yes	No 07/01/20 but should be 19/12/19.	No	Manual using registry interface

ICP	Correct event read and read type	Correct last actual read date	Correct average daily kWh	File generation process
1001111304LC120 (06/08/20)	Yes	Yes	Yes	Automated process

I also checked all ICPs which switched out with HHY profile on their last day of supply identified through review of the registry list with history. ICP 0000216331UN3A1 (13/06/20) switched out on a reading consistent with a photo reading received for the last day of supply. The reading was recorded in the CS file as actual, but should have been estimated.

#### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.10</p> <p>With: Clause 11 Schedule 11.3</p> <p>From: 22-Oct-19</p> <p>To: 24-Jul-20</p>	<p>At least two CS files contained average daily kWh inconsistent with the requirements of the registry functional specification.</p> <p>At least three switch move CS files contained an incorrect last actual read dates.</p> <p>At least four switch move CS files contained an incorrect switch event read type.</p> <p>At least one switch move CS file contained an incorrect switch event reading.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>I saw evidence that accuracy has been improved by the automation of the switching process. Post automation only estimated daily consumption discrepancies were identified (within the transfer switch sample), and these were caused by Flick applying the average for the last 30 days instead of the last read to read period.</p> <p>The audit risk rating is low because the average daily kWh information provided is a reasonable estimate of the ICP’s consumption. The last actual read date field is used to help assess the accuracy of any estimates provide and has no impact on submission. All switch event readings should be treated as actual or permanent estimate, so the incorrect read types are expected to have a low impact.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Robust training was held on 17/11/2020 for the Switching which included switching timeframes, event dates and accuracy of CS file contents.		17/11/2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
The accuracy of CS file contents, switching timeframes and event dates is going to be monitored through monthly Switch QA and quarterly Switch Internal Audit.	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 4 calendar months of the date the registry manager gives the gaining trader written notice of having received information about the switch completion, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*
- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 12(3)(b)).*

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

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

##### Audit observation

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

The event detail report for 01/11/19 to 12/08/20 was analysed to identify all read change requests and acknowledgements during the audit period. A sample of ten RR files and five AC files were checked.

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

The switch breach report for the audit period was reviewed.

##### 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**

The RR process has been automated since February 2020. RRs for Arc multi register day/night meters which require consumption to be split to generate switch event readings are created manually. A process is in place calculate the readings based on the trading periods recorded on each register.

Flick issued 1,261 RRs for switch moves. 138 were rejected and 1,123 were accepted.

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 switch move RRs which were accepted and found that the reads recorded and used for submission by Flick reflected the outcome of the RR process. In all cases there was a genuine reason for the RR, the file content was accurate, and the reads recorded in Flick's system reflected the outcome of the RR process.

Where an RR issued by Flick is rejected, the file is passed to the data team who will adjust the reading and interval data to match the CS file. I checked five examples and the following exceptions:

- 0000509929CE98C (01/07/20) and 0001412478UN109 (07/03/20) had actual event readings recorded in Telemetry but the readings were estimates. This is recorded as non-compliance below and in **section 9.1**.
- 0005735882RN26A (31/07/20) had an actual event reading of 56301 recorded in Telemetry instead of the agreed switch reading of 56300. It is Flick's policy not to replace actual AMI data where the difference is 1 kWh or less, because some trader's truncate event readings and others round, which can result in an 1 kWh difference.

#### **AC**

Flick issued 49 ACs for transfer switches. 30 were rejected and 19 were accepted.

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 five AC files. For four ICPs the correct readings were recorded in Telemetry. For ICP 0188631518LCB34 (02/02/20) the reading agreed with the other trader via email was applied, but updated RR and AC files had not been issued. I recommend that the RR process is used to confirm the agreed switch event read. Compliance is recorded in this section because the agreed switch reading was applied, and the reading was not more than  $\pm 200$  kWh than the CS event reading.

### Timeliness of RR and AC files

The switch breach history report recorded no late AC files and seven late RR files for switch moves. Four RR files were genuinely late because read data confirming that the RR was required was received late.

### Audit outcome

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 4.11</p> <p>With: Clause 12 of Schedule 11.3</p> <p>From: 04-Mar-20</p> <p>To: 31-Jul-20</p>	<p>Four late RR files for switch moves.</p> <p>Switch event readings for 0000509929CE98C (01/07/20) and 0001412478UN109 (07/03/20) were recorded as actual in Telemetry but should have been estimates.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Twice</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
<b>Low</b>	<p>The controls are rated as moderate, because:</p> <ul style="list-style-type: none"> <li>most RR and AC files were issued on time, and the delays were caused by waiting for metering information, and</li> <li>the manual process to update Telemetry where an RR is rejected normally ensures that the correct read type is applied.</li> </ul> <p>The impact is low because the read type differences have no impact on submission, and the late files have a minor impact on other participants.</p>	
Actions taken to resolve the issue		Completion date
<p>The read type for Switch event readings for 0000509929CE98C (01/07/20) and 0001412478UN109 has been corrected in Telemetry.</p> <p>Robust training was held on the RR processes on 17/11/20.</p>		17/11/2020
Preventative actions taken to ensure no further issues will occur		Completion date
<p>The RR process is going to be monitored through monthly Switch QA and quarterly Switch internal audits.</p>		Ongoing

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

### Code reference

Clause 14 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 at an ICP at which the losing trader trades electricity with the customer or embedded generator, and one of the following applies at the ICP:*

- *the gaining trader will trade electricity through a half hour metering installation that is a category 3 or higher metering installation; or*
- *the gaining trader will trade electricity through a non-AMI half hour metering installation and the losing trader trades electricity through a non-AMI non half hour metering installation; or*
- *the gaining trader will trade electricity through a non-AMI non half hour metering installation and the losing trader trades electricity through a non-AMI half hour metering installation*

*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 3 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

The event detail report for 01/11/19 to 12/08/20 was reviewed to identify any HH NTs, and confirm whether any ICPs with meter categories above 3 were requested as TR or MI switches.

### Audit commentary

No HH switches occurred during the audit period, and all Flick ICPs have metering category 1 or 2.

### 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**

The event detail report for 01/11/19 to 12/08/20 was reviewed to identify any HH ANs. The switch breach history report was reviewed.

#### **Audit commentary**

No HH switches occurred during the audit period, and all Flick ICPs have metering category 1 or 2. The switch breach history report did not record any late HH AN files.

#### **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**

The event detail report for 01/11/19 to 12/08/20 was reviewed to identify any HH switches during the audit period. The switch breach history report was reviewed.

#### **Audit commentary**

No HH switches occurred during the audit period, and all Flick ICPs have metering category 1 or 2. The switch breach history report did not record any late HH CS files.

#### **Audit outcome**

Not applicable

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

#### **Code reference**

*Clauses 17 and 18 Schedule 11.3*

### Code related audit information

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

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

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

### Audit observation

An event detail report for 01/11/19 to 12/08/20 was reviewed to:

- identify all switch withdrawal requests issued by Flick, and check the content of a sample of at least two ICPs from the event detail report for each withdrawal code,
- identify all switch withdrawal acknowledgements issued by Flick, and check the content of a sample of ten rejections, and
- confirm timeliness of switch withdrawal requests, as this is not currently being identified in the switch breach report.

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

### Audit commentary

NW and AW files are manually processed on the registry.

#### NW

659 NWs were issued by Flick; 63 (9.5%) were rejected by the other trader. The content of a sample of 15 files were checked. Two NW files contained some incorrect information:

- the NW for 0087754808PCB11 (16/07/20) was issued with CE (Customer error) but CX (Customer cancellation) was a better fit, because the customer changed their mind, and
- the NW for 0002553800CNB81 (23/06/20) was issued with WS (Wrong switch type) but WP (wrong premises) was a better fit, because the wrong premises was requested.

The switch breach report recorded six NA breaches, none of which were genuine.

Analysis of the event detail report found six NWs were issued more than two months after the switch date. They were delayed while investigation was carried out to determine whether a withdrawal was required.



## AW

670 NWs were issued to Flick, and 91 (13.5%) of these were rejected. I reviewed a sample of ten rejected NWs and 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: 06-Jan-20 To: 16-Jul-20	Six switch withdrawal requests were issued more than two months from the event date.  Two NW files contained incorrect withdrawal codes.  Potential impact: Low  Actual impact: Low  Audit history: Multiple times  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are moderate because the files are processed manually. The incorrect withdrawal codes were manually selected, and the late files were delayed while Flick confirmed that the NWs were required.  The audit risk rating is low because a small number of files were affected.		
Actions taken to resolve the issue		Completion date	Remedial action status
The 2-month timeframe allowed for the switch withdrawals is not reasonable and does not meet customer requirements in some instances.  We action withdrawal requests as soon as we are made aware of an incorrect sign up or a need for a switch withdrawal.		17/11/20	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Refresher training was provided on 17/11/20 to the Switch team on the use of correct withdrawal codes.  The use of correct withdrawal codes will be monitored and assessed through the monthly switch QA and quarterly Switch internal audits.		Ongoing	

## 4.16. Metering information (Clause 21 Schedule 11.3)

### Code reference

Clause 21 Schedule 11.3

### Code related audit information

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

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

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

### Audit observation

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

### Audit commentary

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

For 1001110604UNF91 (22/10/19) the transfer CS reading was not a reasonable estimate of consumption up to the end of Flick's last day of supply. The event reading was an actual reading on 29/10/19 which was after the period of supply. An estimated switch reading between the actual readings of 104063 (13/09/19) and 105552 (29/10/19) should have been applied.

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

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.16 With: Clause 21 Schedule 11.3  From: 29-Oct-20 To: 29-Oct-20	For one transfer CS file issued by Flick, the switch event readings did not reflect the actual reading or estimated reading on the event date.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong. CS processes have been automated during the audit period, and no issues were identified for CS files generated by the system. The audit risk rating is low, based on the kWh difference.		
Actions taken to resolve the issue		Completion date	Remedial action status
Training was provided to the switch team on calculation of estimated reads for the submission of read in the CS file.		17/11/2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
CS file read accuracy will be monitored through monthly Switch QA and quarterly Switch internal audits.	Ongoing	

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

##### Code reference

*Clause 11.15AA to 11.15AB*

##### Code related audit information

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

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

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

##### Audit observation

Win-back activity was discussed. The event detail report for 01/11/19 to 12/08/20 was analysed to identify all withdrawn switches with a CX code applied prior to the switch event date for any switch save protected retailer up to 31/03/20, or within 180 days of switch completion after 31/03/20.

##### Audit commentary

Flick was a switch save protected retailer from 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.

Staff training has been provided on the code change effective from 31/03/20. Switch save protection processes have been subject to a monthly internal audit of calls for CX withdrawals, and Flick's quality assurance processes. No issues have been identified through Flick's reviews.

I checked a sample of ten CX withdrawals made after 31/03/20 and found that win-backs had not been attempted.

##### 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 file for 01/11/19 to 12/08/20 and AC020 trader compliance report for 01/11/19 to 12/08/20 were examined to identify any ICPs with shared unmetered load.

#### Audit commentary

Flick has not supplied any ICPs with unmetered load during the audit period.

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**.

The 2017, 2018 and 2019 audits found Flick had historically supplied some ICPs with unmetered load for short periods, but unmetered volumes were not submitted to the reconciliation manager because Flick is a HHR trader and does not have a process for unmetered submissions. 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	1/07/2019	14/07/2019	0.11	1.43 kWh
Total				8.65 kWh

Flick has submitted an application for an engineered profile (HHU), which will allow submission of unmetered load to the reconciliation manager. Flick intends to use a manual process to apply a flat load profile, consistent with the Authority's NHH UML profile, to spread the daily unmetered kWh between the trading periods so that the unmetered load can be included in the HHR aggregates and volumes files. The application is currently being considered by the Authority.

#### Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 5.1</p> <p>With: Clause 11.14</p> <p>From: 13-Mar-17</p> <p>To: 23-Oct-20</p>	<p>No unmetered volumes were reported for four ICPs with unmetered load for a short period.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	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 low and resulted in under reporting by 8.65 kWh.

Actions taken to resolve the issue	Completion date	Remedial action status
Approval has now been gained from the Authority for an Engineered profile (HHU) to submit unmetered load. This will allow future submission of unmetered load to the reconciliation manager using a manual process through applying a flat load. The 8.6 units of historical unmetered load has been exempted from reconciliation by the authority as this does not meet the 14 months revision period.	13/11/2020	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
We will ensure that any future unmetered load identified through the Safety net is submitted to the reconciliation manager through the approved HHU profile.	Ongoing	

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

### Code reference

*Clause 10.14 (2)(b)*

### Code related audit information

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

### Audit observation

The process to manage unmetered load was examined. The registry list file for 01/11/19 to 12/08/20 and AC020 trader compliance report for 01/11/19 to 12/08/20 were examined to identify any ICPs with unmetered load.

### Audit commentary

Flick has not supplied any ICPs with unmetered load during the audit period.

None of the ICPs with unmetered load temporarily recorded found in the 2017, 2018 and 2019 audits 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 retailer proposes to take or is taking to reduce the unmetered load.*

#### **Audit observation**

The process to manage unmetered load was examined. The registry list file for 01/11/19 to 12/08/20 and AC020 trader compliance report for 01/11/19 to 12/08/20 were examined to identify any ICPs with unmetered load.

#### **Audit commentary**

Flick has not supplied any ICPs with unmetered load during the audit period.

None of the ICPs with unmetered load temporarily recorded found in the 2017, 2018 and 2019 audits 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 01/11/19 to 12/08/20 was reviewed to identify all ICPs with unmetered load during the period.

#### **Audit commentary**

Flick has not supplied any ICPs with unmetered load during the audit period.

#### **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 metering, submission, and distributed generation were reviewed. The registry list file and PR255 reports as at 12/08/20, and AC020 report for 01/11/19 to 12/08/20 were reviewed to determine compliance.

#### Audit commentary

##### **Metering installations installed**

The new connection process ensures that metering is installed prior to initial 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 as described in **sections 6.6 and 12.2**.

##### **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 392 ICPs with generation recorded by the distributor, and 390 of those had import/export metering installed. The other two ICPs were checked:

- ICP 0007182739RN77F was a timing difference, import/export metering has been added on the registry and I flow volumes were recorded in the September 2020 HHR aggregates file.
- ICP 0443650578LC51B was part of Vector's EV battery distributed generation trial and switched out effective 20/9/19. Flick attempted to arrange installation of generation metering during their period of supply, but the customer refused, stating that no generation electricity was exported.

I reviewed a sample of submission data to confirm that generation kWh were submitted.



## Bridged meters

Flick provided a list of eight ICPs where remote disconnection had occurred then the meter had been bridged to reconnect, and later unbridged. Energy was not quantified in accordance with the code during the bridged periods. Corrections were processed and a reasonable estimate of consumption during the bridged period was reported.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.1 With: Clause 10.13 and clause 15.2  From: 20-Nov-19 To: 15-Jul-20	Eight bridged meters were identified during the audit period. Energy was not quantified in accordance with the code during the bridged periods.  Potential impact: Low  Actual impact: Low  Audit history: Three times  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	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. Corrections are processed to estimate consumption during bridged periods.		
Actions taken to resolve the issue		Completion date	Remedial action status
Corrections were processed for all eight bridged meters and energy was quantified in accordance with the code during the bridged periods.		Nov 2019 – Nov 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Bridging of meters cannot be prevented as this is usually done to provide customers urgent electricity after hours to avoid health and safety risk to them. We ensure that correction is done to quantify energy during the bridged period in accordance with the code.		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 01/11/19 to 12/08/20 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**

Compliant

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

#### **Code reference**

*Clause 10.43(2) and (3)*

### Code related audit information

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

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

### Audit observation

Processes relating to defective metering were examined.

A list of ten defective meters and eight 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 18 examples of potential defective meters, including bridged meters. In all cases a field services job was raised, and the MEP advised.

### Audit outcome

Compliant

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

### Code reference

*Clause 2 Schedule 15.2*

### Code related audit information

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

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

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

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

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

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

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

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

#### Audit observation

HHR data is provided by 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.

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:*

- obtain the meter register*
- ensure seals are present and intact*
- check for phase failure (if supported by the meter)*
- check for signs of tampering and damage*
- 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.

Using their approved HHY profile, Flick is allowed to temporarily supply NHH non-AMI meters until they are upgraded to HHR or AMI meters. Flick estimates HHR volumes for the NHH period based on the switch event reading and meter removal reading 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. Customer readings without photos are not normally accepted.

#### 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.

Six ICPs switched out while on HHY profile, and their switch event readings were based on photo readings. If the photo reading is not provided for Flick's last day of responsibility, a spreadsheet template is used to calculate the estimated switch event reading which is linked to the ICP information through a ticket number. The readings are recorded as actual on the readings screen to ensure that they are used for validation, but the background sequence information confirms that the readings are estimates.

I checked all ICPs which switched out with HHY profile on their last day of supply identified through review of the registry list with history:

- ICPs 0000216331UN3A1 (13/06/20), 0000411248ENCEF (14/10/20), 0000230103ENA97 (12/02/20) switched out on a reading consistent with a photo reading received for the last day of supply. The readings were recorded in the CS files as actual readings, but should have been recorded as estimated readings.
- The other ICPs switched out on a correctly classified estimated reading, which was calculated based on the switch in reading and customer photo reading.

Description	Recommendation	Audited party comment	Remedial action
Read type for photo readings	Where ICPs with HHY profile switch out on a customer photo reading, the read type should be recorded as estimated in Telemetry and all switching files.  Customer photo reads may only be treated as validated actual readings if they have been validated against a set of actual readings from another source.	We agree to this recommendation and will ensure that all meter photo readings are treated as an estimate read.	Identified

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.6 With: Clause 3(2) Schedule 15.2  From: 03-Dec-19 To: 12-Sep-20	Three customer photo readings were recorded as actual readings in CS files. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as strong. Customer photo readings taken on Flick's last day of supply have consistently been recorded as actual readings due to a misunderstanding. Customer readings taken on other days are used to estimate the switch event reading. The impact on settlement and participants is minor, because all switch event readings are treated as actual or permanent estimate by the reconciliation process.		
Actions taken to resolve the issue		Completion date	Remedial action status
Refresher training on the classification of read type for photo reads was held on 17/11/2020.		17/11/2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Classification of read type for photo reads will be monitored through monthly switch QA and quarterly internal audits.		Ongoing	

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

### Audit commentary

The content of CS and RR files was examined in **sections 4.3, 4.4, 4.10 and 4.11**. Four CS file contained switch event readings which did not relate to the end of Flick's last day of supply. The readings in three of these CS files were considered to be a reasonable estimate of consumption up to the end of Flick's period of supply because the ICPs were disconnected or vacant. One CS file contained a switch event reading which was not a reasonable estimate of consumption on the last day of supply.

ICP	Finding
1001110604UNF91 (22/10/19)	The event reading was an actual reading on 29/10/19 which was after the period of supply, and was applied as an actual reading in the CS file. An estimated switch reading between the actual readings of 104063 (13/09/19) and 105552 (29/10/19) should have been applied.

### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 6.7</p> <p>With: Clause 6</p> <p>Schedule 15.2</p> <p>From: 22-Oct-19</p> <p>To: 22-Oct-19</p>	<p>One CS file contained a switch event reading which did not relate to the end of Flick's last day of supply, and was not a reasonable estimate of consumption on the last day of supply.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Twice</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	I saw evidence that accuracy has been improved by the automation of the switching process. 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
Training was provided to switch team on estimation of reads for the CS file.		17/11/20	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Accuracy of the CS file read will be monitored through monthly Switch QA and quarterly Switch internal audits.		Ongoing	

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

### Code reference

Clause 7(1) and (2) Schedule 15.2

### Code related audit information

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

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

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

### Audit observation

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

The registry list for 01/11/19 to 12/08/20 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,
- 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 all seven ICPs which switched out with HHY profile during the audit period. One ICP switched in on an actual read, and therefore had an actual reading during the period of supply. The other six ICPs did not have any actual reads during the period of supply, but the best endeavours requirements were met because Flick was working with the customer and MEP to arrange a meter upgrade.

### Audit outcome

Compliant

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

### Code reference

*Clause 8(1) and (2) Schedule 15.2*

### Code related audit information

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

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

### Audit observation

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 found two ICPs with HHY profile were supplied for 12 months or more. Both ICPs were incorrectly assigned the HHY profile, and are recorded as non-compliance in **section 2.1**.

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 01/11/19 to 12/08/20 was reviewed to identify all ICPs with NHH non-AMI metering.

#### Audit commentary

Review of the registry list found nine ICPs with HHY profile were supplied for four months or more. Two of the ICPs were incorrectly assigned HHY profile, and are recorded as non-compliance in **section 2.1**. The other seven ICPs were genuinely supplied for more than four months and did not receive an actual reading. The requirement to read 90% of NHH ICPs at the NSP every four months was not met for any of the affected NSPs, but the best endeavours requirements were met because Flick was working with the customer and MEP to arrange a meter upgrade.

ICP	HHY profile start date	HHY profile end date	Active days with HHY profile	NSP	NHH ICP count at the NSP <sup>1</sup>	Estimated percentage read or updated to HHR within four months
0000051237CP894	9/01/2020	20/10/2020	285	BPE0331	2	50%
0000140271TR8D8	17/06/2019	7/11/2019	143	CPK0331	7	85%

<sup>1</sup> Based on the HHY profile ICPs on the registry list for 01/11/19 to 12/08/20.

ICP	HHY profile start date	HHY profile end date	Active days with HHY profile	NSP	NHH ICP count at the NSP <sup>1</sup>	Estimated percentage read or updated to HHR within four months
1001148991CK83F	19/03/2020	17/08/2020	151	TRT0011	1	0%
0000230103ENA97	8/10/2019	11/02/2020	126	TUI1101	21	85.7%
0000111052EN307	16/09/2019	14/02/2020	151	TUI1101		
0001520724EN75D	15/03/2020	11/08/2020	149	TUI1101		
0000216331UN3A1	29/10/2019	12/06/2020	227	WRD0331	1	0%

Where NHH ICPs are continuously supplied for more than four months, meter reading frequency reports are expected to be provided to the market administrator. Flick has not provided any reports to date.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.10 With: Clause 8(1) and (2) of Schedule 15.2  From: 01-Jan-20 To: 23-Oct-20	Meter reading frequency reports have not been provided to the market administrator for NHH ICPs continuously supplied for four months or more.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Weak  Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are weak because no reports have been provided. The impact is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
An attempt will be made to provide meter reading frequency report for the impacted ICPs to the market administrator.		31/1/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The timeframes for the HHY profile will be monitored through the Field QA and Switch internal audit. If in an exceptional case an HHY profile exceeds the 4-month period a meter reading frequency report will be provided to the market administrator.		Ongoing	

#### 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

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

##### 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  $\pm 0.1\%$  ( $\pm 2$  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 data 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 2013 was viewed during the audit.

I traced a sample of data for seven HHR ICPs from the source files to Telemetry, and found the volumes recorded in Telemetry were consistent with the raw data provided by the MEP for all ICPs.

#### 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.

#### Audit outcome

Compliant

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

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

#### Code reference

Clause 19(1) Schedule 15.2

#### Code related audit information

*If a reconciliation participant detects errors while validating non-half hour meter readings, the reconciliation participant must:*

*19(1)(a) - confirm the original meter reading by carrying out another meter reading*

*19(1)(b) – replace the original meter reading the second meter reading (even if the second meter reading is at a different date)*

*19(1A) if a reconciliation participant detects errors while validating non half hour meter readings, but the reconciliation participant cannot confirm the original meter reading or replace it with a meter reading from another interrogation, the reconciliation participant must:*

- *substitute the original meter reading with an estimated reading that is marked as an estimate; and*
- *subsequently replace the estimated reading 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 were upgraded to HHR or AMI meters, or switched out.

#### 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 a reconciliation participant detects errors while validating half hour meter readings, the reconciliation participant must correct the meter readings as follows:*

*19(2)(a) - if the relevant metering installation has a check meter or data storage device, substitute the original meter reading with data from the check meter or data storage device; or*

*19(2)(b) - if the relevant metering installation does not have a check meter or data storage device, substitute the original meter reading with data from another period provided:*

- i) The total of all substituted intervals matches the total consumption recorded on a meter, if available; and*
- ii) The reconciliation participant considers the pattern of consumption to be materially similar to the period in error*



### Audit observation

Processes for the correction of HHR meter readings were reviewed and are discussed below and in **section 2.1**.

### 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**.

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,
- (b) the time of the correction or alteration,
- (c) the operator identifier for the person within the reconciliation participant who made the correction or alteration,
- (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,
- (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. For simple corrections, the notes within Telemetry are used to record this information. For more complex corrections supporting workbooks are created and linked to the audit trail through service order numbers. All data in Telemetry also has a sequence number recorded against it, which links back to the source and audit trail details.

IntelliHUB creates some estimations and corrections for Flick and compliance is recorded in their HHR agent report.

### 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 12/08/20 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 19(4) and (5) 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:*

*19(5)(a)- the date of the correction or alteration*

*19(5)(b)- the time of the correction or alteration*

*19(5)(c)- the operator identifier for the person within the reconciliation participant who made the correction or alteration*

*19(5)(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*

*19(5)(e)- the technique used to arrive at the corrected data*

*19(5)(f)- the reason for the correction or alteration.*

#### Audit observation

Corrections are discussed in **sections 2.1** and **8.2**, which confirmed that raw meter data is not overwritten as part of the correction process. Audit trails are discussed in **section 2.4**.

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

#### Audit commentary

Raw meter data is held by 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 audit trails. The user details are entered into a free text field in Telemetry when corrections are processed.

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

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

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

Correct identification of estimated reads, and review of the estimation process was completed in **sections 2.1, 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.

IntelliHUB provides some HHR estimates. I checked a sample of five estimates and found they were corrected denoted in Telemetry as estimates.

Incorrect read types were applied in at least four manually created CS files. The CS generation process was automated during the audit period and no switch event read issues were identified for the system generated files.

ICP	Finding
0000049331UN16D (18/03/20)	The event readings were actual readings on 25/01/20 not the last day of supply and were incorrectly recorded as actual. The readings are reasonable because the ICP was vacant.
1001110604UNF91 (22/10/19)	The event reading was an actual reading on 29/10/19 which was after the period of supply, and was applied as an actual reading in the CS file. An estimated switch reading between the actual readings of 104063 (13/09/19) and 105552 (29/10/19) should have been applied.
0007420969TUDF7 (06/07/20)	The event reading was an actual disconnection reading from February 2020 but was applied as an actual reading in the CS file. The reading is reasonable because the ICP was disconnected but it should have been provided with an estimated read type.
0000194439TR4BE (07/03/20)	The event reading was an estimate from 25/02/20 but was applied as an actual reading in the CS file. The reading is reasonable because the ICP was vacant but it should have been provided with an estimated read type.

If an ICP awaiting an AMI meter upgrade (with HHY profile) switches out before the upgrade is complete, the CS reading is estimated from a customer supplied photo read. I checked all ICPs with HHY profile which switched out during the audit period, and found three ICPs had unvalidated customer photo event readings which were recorded as actual readings in the CS files:

ICP	Finding
0000216331UN3A1 (13/06/20)	Actual was applied instead of estimate.
0000230103ENA97 (12/02/20)	Actual was applied instead of estimate.
0000411248ENCEF (14/10/20)	Actual was applied instead of estimate.

Review of RR files in **sections 4.4** and **4.11** found incorrect read types were applied in Telemetry for:

ICP	Finding
0000018280CE85E (29/05/2020)	Actual was applied instead of estimate.
0000608649HB27C (08/07/2020)	Actual was applied instead of estimate.
0000509929CE98C (01/07/20)	Actual was applied instead of estimate.
0001412478UN109 (07/03/20)	Actual was applied instead of estimate.

#### Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 9.1</p> <p>With: Clause 3(3) Schedule 15.2</p> <p>From: 01-Dec-19 To: 23-Oct-20</p>	<p>Unvalidated actual HHR data is classified as estimated.</p> <p>Seven CS files contained switch event readings which were incorrectly classified as actual readings.</p> <p>Telemetry classified estimated switch event readings for four ICPs as actual instead of estimate.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	<p>The controls are recorded as moderate overall because they mitigate risk most of the time but there is room for improvement.</p> <p>Controls over CS files have improved during the audit period, and I saw evidence that accuracy was improved by the automation of the switching process.</p> <p>The impact on settlement and participants is minor; therefore the audit risk rating is low.</p>

Actions taken to resolve the issue	Completion date	Remedial action status
Training was provided to switch team on the estimation and accuracy of the read and read type in the CS and RR file.	17/11/20	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
Accuracy of read and read type in the CS and RR file will be monitored through monthly Switch QA and quarterly Switch internal audits.	Ongoing	

## 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 and meter reading data is not rounded or truncated on import into Telemetry.

ARC Innovations meters record data to one decimal place. Compliance is recorded in this section because data is not rounded or truncated on receipt by Flick. Non-compliance is recorded in **sections 2.1 and 12.7** in relation to submission accuracy.

#### 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 by Telemetry. Estimated data is only created if there is sufficient history for Telemetry to generate an estimate. ICPs without actual or estimated data are excluded from submissions. Once actual AMI data or a removal reading is received, the missing data will be populated and the ICP will be included in revision submissions.

Telemetry's estimation process requires a minimum of one weekday, Saturday, and Sunday of actual data and/or boundary readings for the estimated period to be able to produce an estimate.

Estimation is based on the best information available. Estimates consider actual midnight readings and trading period data available for the day with missing data if available. Consumption is apportioned between the missing trading periods based on the average for the same trading period and day for the previous four weeks (or as much actual data as is available). If midnight readings are not available, and the minimum actual data requirements are met, they will be estimated.

I reviewed ten examples of missing data which was expected to be estimated, and found that:

- Flick used reasonable endeavours to ensure that submitted information was within the percentage specified by the Authority for eight ICPs, and
- Flick did not create estimates for 0000217841MP4F8 (20/06/2020-03/08/2020) and 0006529224RN182 (20/07/2020-12/08/2020) because insufficient history was available to allow Telemetry to generate estimates; the actual data for the missing periods was 2,673.206 kWh for 0000217841MP4F8 and 320.74 kWh for 0006529224RN182.

In **section 11.4**, I found seven ICPs were missing from HHR submissions because actual HHR data was not received because of meter communication issues, or a delayed meter upgrade. In **section 11.2**, I found ICP days discrepancies relating to this issue. The reasonable endeavours requirements were also not met for these ICPs.

Estimates are created and supplied by IntelliHUB. The process for calculating the estimates was checked during their HHR agent audit and the methodology is sound. IntelliHUB produces estimates for inactive periods, and Flick's submission process excludes any volumes during inactive periods from submission. IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date, which is recorded as non-compliance in **section 2.1**.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 9.4 With: Clause 15 Schedule 15.2  From: 01-Mar-20 To: 12-Aug-20	HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate. Flick did not meet the reasonable endeavours requirements for at least nine ICPs. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are moderate, estimates are created except where there is insufficient history for Telemetry to produce estimates. 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
Due to a system constraint read estimates cannot be generated without a read history in Telemetry. A system enhancement has been recommended to overcome this issue.		2021	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
System enhancement to overcome the Telemetry constraint which does not allow estimation of data if no historical data is present has been added to our Tech prioritization list.		2021	

## 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 were upgraded to HHR or AMI meters, or switched out.

### 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.

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  $\pm 1$  kWh, the ICP is queried with the MEP.

Each Friday, reports are generated and reviewed to identify ICPs with consecutive estimates or zero consumption on active customer accounts for more than ten business days. Flick typically contacts the customer to determine the reason for the zero or missing consumption, and raises a service order with the MEP to resolve the issue if necessary.

Billing data is compared with expected or previous consumption at total billing run level. Highs and lows are not usually checked at ICP level unless the total for the billing run does not appear reasonable. The pre submission checks described in **section 12.3** check submission information against billed information, previous revisions, and other months. These checks are completed at an aggregated level and discrepancies for individual ICPs are unlikely to be identified unless they caused obvious outliers in the aggregated data. Compliance is recorded in this section because I did not identify any exceptions which should have failed validation during the audit, but I recommend that ICP level validation is completed.

Description	Recommendation	Audited party comment	Remedial action
Comparison with previous or expected consumption patterns	I recommend that consumption is validated to confirm whether it is consistent with historic or expected usage patterns at ICP level.	Flick agrees to this recommendation and will attempt to create an automated process to identify consumption patterns.	Identified

Meter event reports are provided by MEPs and are manually reviewed weekly to identify events that require investigation or action, and I walked through this process. MEPs provide meter event information where action is required by Flick, and these events are reviewed and acted upon.

**Audit outcome**

Compliant

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

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

#### Code reference

Clause 13.136

#### Code related audit information

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

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

#### Audit observation

The NSP table on the registry was reviewed.

#### Audit commentary

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 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 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 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

The registry list for 12/08/20 was reviewed. I checked whether any breach allegations had been made in relation to buying and selling notifications.

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

I reviewed GR100 reports from February 2019 to July 2020 and investigated all NHH and a diverse sample of ten HHR NSP level ICP days differences, to determine why the differences had occurred.

### 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 20 NSPs a small number of ICPs on the July 2020 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 following table shows the ICP days difference between Flick's database and the RM return file (GR100) for 18 months, and found the differences were small.

Month	R1	R3	R7	R14
Feb 2019	-	-	0.00%	0.00%
Mar 2019	-	-	0.00%	0.00%
Apr 2019	-	-	0.00%	0.00%
May 2019	-	-	0.00%	-
Jun 2019	-	0.02%	0.00%	-
Jul 2019	-	0.02%	0.00%	-
Aug 2019	0.05%	0.00%	0.00%	-
Sep 2019	0.05%	0.01%	0.00%	-
Oct 2019	0.07%	0.01%	0.01%	-
Nov 2019	0.09%	0.03%	0.01%	-
Dec 2019	0.09%	0.03%	0.01%	-
Jan 2020	0.06%	0.02%	0.01%	-
Feb 2020	0.07%	0.02%	-	-
Mar 2020	0.05%	0.04%	-	-
Apr 2020	0.05%	0.02%	-	-
May 2020	0.05%	0.03%	-	-

Month	R1	R3	R7	R14
Jun 2020	0.08%	-	-	-
Jul 2020	0.08%	-	-	-

I reviewed a sample of ten HHR ICP days discrepancies and found they were caused by missing HHR estimates where there was insufficient history for Telemetry to produce estimates according to the methodology described in **section 9.4**. Once actual AMI data or a removal reading is received, the missing data will be populated and the ICP will be included in revision submissions. ICP days differences decreased with later revisions.

I reviewed all NHH GR100 ICP days discrepancies, and found they occurred because ICP 0193087073LC92D had an incorrect submission type recorded on the registry from 20/03/20 until it switched out effective from 17/06/20, and was corrected during the audit. This is recorded as non-compliance in **section 2.1**. Compliance is recorded in this section because the ICP was treated as a HHR ICP in Telemetry.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.2 With: Clause 15.6  From: 01-Dec-18 To: 23-Oct-20	ICP days are not provided for trading periods which do not have estimated or actual data.  Potential impact: Low  Actual impact: Low  Audit history: Multiple times  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as strong as they are sufficient to ensure that most data is correctly reported unless actual or estimated data is unavailable. Estimates are created except where there is insufficient history for Telemetry to produce estimates.  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
This relates to the issue raised on page 106 and will be resolved once Telemetry Enhancement is completed which would allow estimates to be created without a read history. This will ensure timely reporting of ICP days.		2021	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
System enhancement to overcome the Telemetry constraint which does not allow estimation of data if no historical data is present has been added to our Tech prioritization list. This will ensure timely reporting of ICP days.	2021	

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

#### Code reference

##### Clause 15.7

#### Code related audit information

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

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

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

#### Audit observation

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

GR130 reports for June 2018 to July 2020 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. This investigation resulted in some enhancements to Telemetry’s process to generate the AV120 report from AXOS billing data. Flick migrated from AXOS to their new billing system, Flick Billing, from February 2020.

The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs against Flick’s invoice information for July 2020 and was confirmed to be accurate.

Prior to submission, the AV090 HHR volumes and AV120 billed submissions are compared for reasonableness, and any large discrepancies are investigated. Flick also completes a monthly comparison between the total billed in Flick Billing and the total reported in the AV120, and any anomalies are checked to confirm that they are based on consistent data.

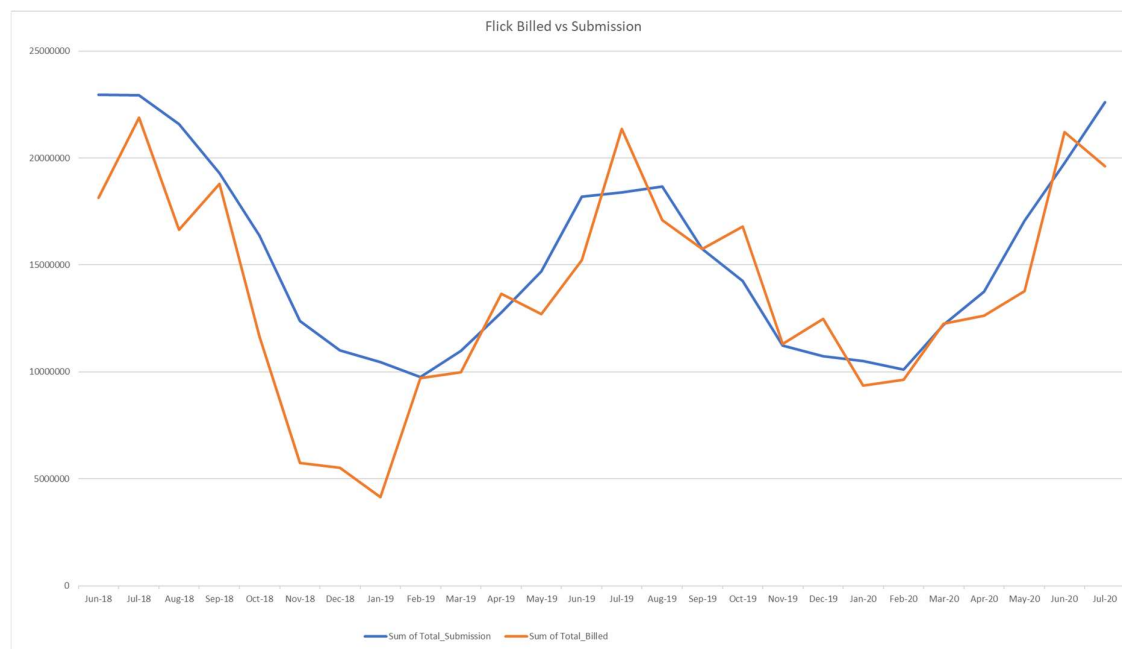
There is a 2.67% difference (submitted higher than billed) for the year ended July 2020. Compliance is recorded because:

1. review of the comparisons between Flick Billing and the AV120 for March 2020 to September 2020, confirmed that the AV120 was consistent with what was billed within that calendar month,
2. review of the sample of NSPs confirmed that the AV120 data was consistent with what was billed for ICPs connected to those NSPs within that calendar month, and



3. monitoring is in place to compare the billed and submitted data and it appears that some of the differences related to billing cycle timing (billing runs are completed each week, and customers may be on a weekly, fortnightly, or monthly billing cycle), vacant consumption which is not billed to a customer, and switch timing.

### Comparison between Submitted Volumes and Electricity Supplied



### Audit outcome

Compliant

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

### Code reference

Clause 15.8

### Code related audit information

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

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

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

### Audit observation

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

The GR090 ICP missing files received during the audit period for April 2019 to July 2020 were examined. A sample of 15 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 eight 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 less than  $\pm 3$  kWh at each NSP and related to rounding, and
- matching HHR aggregates volumes to the source files received from the MEP for seven ICPs.

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, and a sample of 15 differences were reviewed.

- Seven ICPs were missing because actual HHR data was not received because of meter communication issues, or a delayed meter upgrade. Estimated data is only created if there is sufficient history for Telemetry to generate an estimate, and ICPs without actual or estimated data are excluded from submissions. Once actual AMI data or a removal reading is received for an upgrade, the missing data will be populated and the ICP will be included in revision submissions. The estimation process is discussed further in **section 9.4**, and the missing submission data is recorded as non-compliance in **sections 2.1, 12.2 and 12.7**.
- Seven ICPs were missing because of backdated switches and withdrawals. Late switching files are discussed in **section 4**, and late registry updates are discussed in **section 3**.
- One was missing because of a GR090 reporting issue, and the ICP should have been marked as present on the registry.

### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.4 With: Clause 15.8  From: 01-Nov-19 To: 23-Oct-20	HHR aggregates file does not contain electricity supplied information.  HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate.  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 moderate, estimates are created except where there is insufficient history for Telemetry to produce estimates. The impact is assessed to be low, as updated data will be provided through the revision process.  The issue relating to content of the aggregates file is an error in the code, Flick is providing submission information as expected.

Actions taken to resolve the issue	Completion date	Remedial action status
This relates to the issue already raised through page 106 and 114 and will be resolved once Telemetry is enhanced to allow estimates to be created without a read history.	2021	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
System enhancement to overcome the Telemetry constraint which does not allow estimation of data if no historical data is present has been added to our Tech prioritization list.	2021	

## 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. Data is provided in NZDT format by all MEPs apart from WASN and ARCS.

I viewed the adjustment process in Telemetry for data provided in NZST format, and confirmed the trading period data was correctly aligned in Telemetry for daylight savings changes using the trading period run on technique.

I checked a sample of data provided in NZDT format and confirmed the trading period data was correctly aligned in Telemetry. I found that IntelliHUB had an issue with their daylight savings process in September 2020 which affected their midnight reading accuracy, caused by data being processed in Australia which has different daylight savings dates to New Zealand. Flick has derived the correct midnight reads so that the data can be validated, and the check-sum process does not create unnecessary estimates. IntelliHUB is working to resolve the issue.

#### 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 **sections 2.1** and **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 were upgraded to HHR or AMI meters or switched out.

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**. Some missing and inaccurate submission information was identified, and is described below.

#### Historic unmetered load is excluded from submissions

The 2017, 2018 and 2019 audits found Flick had historically supplied some ICPs with unmetered load for short periods, but unmetered volumes were not submitted to the reconciliation manager because Flick is a HHR trader and does not have a process for unmetered submissions. 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	1/07/2019	14/07/2019	0.11	1.43 kWh
Total				8.65 kWh

Flick has submitted an application for an engineered profile (HHU), which will allow submission of unmetered load to the reconciliation manager. Flick intends to use a manual process to apply a flat load profile, consistent with the Authority's NHH UML profile, to spread the daily unmetered kWh between the trading periods so that the unmetered load can be included in the HHR aggregates and volumes files. The application is currently being considered by the Authority.

#### Inactive consumption is excluded from submissions where the status remains incorrect

Consumption during inactive periods is recorded in Telemetry, but excluded from submission. If an ICP is connected for part of any day, it should have active status recorded in order to be included in submission information. The disconnection and reconnection dates should have active status.

Inactive consumption is identified as part of the safety net check described in **section 2.1**, and the ICP status is usually returned to active for any inactive periods with consumption. The following exceptions were identified:

- ICP 0005764238RNA97 had a disconnection date of 26/04/20 recorded instead of 28/04/20 because of a typing error but the event date has not been corrected because the ICP has now been decommissioned, and

- ICP 0000017063TCB25 was inactive from 07/09/20 until 22/09/20 and the meter recorded 27.88 kWh on 22/09/20 after the time it was reconnected, which was excluded from submission because the day was inactive; during the audit, the status was corrected to be active from 22/09/20 and I confirmed that all consumption will be provided in the revision submissions.

Non-compliance is recorded in **sections 2.1** and **3.9** for the incorrect event dates.

#### **Estimated volumes for some unread and HHY profile ICPs are excluded from submissions**

Using their approved HHY profile, Flick is allowed to temporarily supply NHH non-AMI meters until they are upgraded to HHR or AMI meters. Readings are not received for these meters until 1) they are upgraded and a removal reading is provided or 2) they switch out prior to upgrade and customer photo reading is used to create an estimated switch reading.

HHR volumes for the NHH period are estimated based on the switch in reading and removal or switch out reading once available. Until these readings are received, no estimated submission data is provided to the reconciliation manager. Telemetry's estimation process requires a minimum of one weekday, Saturday, and Sunday of actual data and/or boundary readings for the estimated period to be able to produce an estimate as described in **section 9.4**. Non-communicating AMI meters also do not have estimated data provided where they do not meet the minimum criteria for an estimate to be generated.

Any ICP which does not have actual or estimated data for a period will be excluded from the HHR volumes, HHR aggregates and ICP days submissions. Once actual AMI data, or a removal reading or a switch event reading is received, actual or estimated trading period data will be recorded and the ICP will be included in revision submissions.

I reviewed ten examples of missing data which was expected to be estimated, and found that:

- Flick used reasonable endeavours to ensure that submitted information was within the percentage specified by the Authority for eight ICPs, and
- Flick did not create estimates for 0000217841MP4F8 (20/06/2020-03/08/2020) and 0006529224RN182 (20/07/2020-12/08/2020) because insufficient history was available to allow Telemetry to generate estimates; the actual data for the missing periods was 2,673.206 kWh for 0000217841MP4F8 and 320.74 kWh for 0006529224RN182.

The original HHY profile application only allowed ICPs to be supplied for a short period, with upgrades intended to be completed within a month. Flick submitted a revised profile application which allows NHH to AMI transition timelines to be extended to 16 weeks up to 1 July 2021, and 12 weeks after 1 July 2021. Review of the registry list with history found that nine ICPs were supplied with HHY profile for more than 112 days (16 weeks). Two of the ICPs were incorrectly assigned HHY profile, and are recorded as non-compliance in **section 2.1**. In both cases the genuine period with HHY profile (if any) was under 112 days).

The other seven ICPs which had HHY profile assigned for more than 112 days were checked, and I found submission of estimated volumes for these ICPs was delayed.

ICP	HHY profile start date	HHY profile end date	Active days with HHY profile	Comment
0000051237CP894	9/01/2020	20/10/2020	285	There was a delay in completing the HHR upgrade. At the time of the audit, Flick was awaiting meter exchange paperwork to process the change.

ICP	HHY profile start date	HHY profile end date	Active days with HHY profile	Comment
				A meter photo was obtained to allow volumes to be estimated for submission from April 2020 onwards.
0000216331UN3A1	29/10/2019	12/06/2020	227	Switched out before meter upgrade was completed. First submission of volume occurred in revisions produced from August 2020 onwards.
0000230103ENA97	8/10/2019	11/02/2020	126	Switched out before meter upgrade was completed. First submission of volume occurred in revisions produced from February 2020 onwards.
0000111052EN307	16/09/2019	14/02/2020	151	There was a delay in completing the HHR upgrade. First submission of volume occurred in revisions produced from December 2019 onwards.
1001148991CK83F	19/03/2020	17/08/2020	151	There was a delay in completing the HHR upgrade. First submission of volume occurred in revisions produced from September 2020 onwards.
0001520724EN75D	15/03/2020	11/08/2020	149	There was a delay in completing the HHR upgrade. First submission of volume occurred in revisions produced from September 2020 onwards.
0000140271TR8D8	17/06/2019	7/11/2019	143	There was a delay in completing the HHR upgrade. First submission of volume occurred in revisions produced from November onwards.

I checked all ICPs which had HHY profile assigned for between 50 and 111 days and found they all switched out before an upgrade was completed, or were accurately transitioned to HHR apart from 0000070419CP831, which was in the process of being upgraded at the time of the audit.

I checked all ICPs which switched out with HHY profile, and found three ICPs switched on unvalidated customer photo readings which were incorrectly classified as validated actual readings. This is recorded as non-compliance in **sections 4.3, 4.10, 6.6 and 9.1.**

The impact of not producing estimates where insufficient history is available is increasing over time, as some ICPs have had NHH metering for up to 285 days. Flick is attempting to complete all upgrades required, and in the meantime has stopped accepting new NHH ICPs requiring HHR upgrades unless the ICP belongs to an existing Flick customer. I recommend that Flick investigates creating a methodology to produce “default” estimates where Telemetry is unable to calculate estimates using its current process. This will help to prevent under submission of volumes and ICP days for ICPs where HHR data is not received.

Description	Recommendation	Audited party comment	Remedial action
Estimation where there is insufficient history for Telemetry to create estimates.	Consider creating estimates using an alternative methodology where Telemetry does not have sufficient history or readings to calculate estimates.	We agree to this recommendation and will investigate ways to achieve this.	Investigating

### Audit outcome

#### Non-compliant

Non-compliance	Description		
<p>Audit Ref: 12.2</p> <p>With: Clause 15.4</p> <p>From: 01-Nov-19</p> <p>To: 23-Oct-20</p>	<p>Historic unmetered load is excluded from submissions.</p> <p>Inactive consumption is excluded from submissions where the status remains incorrect.</p> <p>Estimated volumes for some unread and HHY profile ICPs are excluded from submissions, until AMI readings, meter removal readings, or customer readings are received.</p> <p>IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Twice</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated as moderate because they are sufficient to ensure that most information is recorded correctly. 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
<p>Application to the Authority for an Engineered profile (HHU) to submit unmetered load has now been approved. This will allow future submission of unmetered load to the reconciliation manager using a manual process through applying a flat load. The 8.6 units of historical unmetered load has been exempted from reconciliation by the authority as this does not meet the 14 months revision period.</p> <p>Estimated volumes for the HHY profiles has been submitted through the revision files.</p>		13/11/2020	Identified



Preventative actions taken to ensure no further issues will occur	Completion date	
<p>All unmetered volumes are now going to be submitted through the HHU profile.</p> <p>System enhancement to overcome a Telemetry constraint which does not allow estimation of data if no historical data is present has been added to our Tech prioritization list.</p> <p>We have put on hold on switching in NHH ICPs unless it relates to a current customer. This will significantly reduce the issue of not meeting the approved timeframe of 16 weeks for the HHY profile use. The delays were mainly caused due to COVID-19 restrictions which meant contractors could not be sent to site to replace meters.</p> <p>IntelliHUB is looking into extending the timeframe for issuing their backdated data from 15 days to 30 days. They currently have a system constraint which does not allow this.</p>	Ongoing	

### 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 HHR volumes and aggregates files at total and NSP level,
- comparison between the HHR volumes and AV120 billed submission, including comparison with previous revisions and months, 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.

#### 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 2.1 and 8.2**.

### Audit commentary

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

As described in **section 12.2**, some submission accuracy issues are present.

1. Historic unmetered load is excluded from submissions.
2. Inactive consumption is excluded from submissions where the status remains incorrect.
3. Estimated volumes for some unread and HHY profile ICPs are excluded from submissions.
4. Some ICPs which are assigned HHY profile have not met the terms of the profile, particularly the requirement to be upgraded within 16 weeks.
5. IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.
6. There is an issue with ARC Innovations meters when used for HHR settlement. The on-site setup is that a meter pulses into a data storage device, which counts the pulses and “stores” them

every 200 pulses which equals 0.1 kWh. There is only one decimal place, so the smallest increment of consumption is 0.1. The issue is made worse for installations with a multiplier, for example if the multiplier is 100, the smallest increment per interval is 10 kWh, which means the accuracy per interval is poor. Unfortunately for Flick, this means the HHR data derived from ARC meters is not considered to be accurate in accordance with Clause 15.2. The total kWh per month will be accurate but if volumes are not recorded and reported against the correct trading period, but Flick may not be charged at the wholesale rate that applied during the trading period when the electricity was consumed.

#### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 12.7</p> <p>With: Clause 15.12</p> <p>From: 01-Nov-19</p> <p>To: 23-Oct-20</p>	<p>Historic unmetered load is excluded from submissions.</p> <p>Inactive consumption is excluded from submissions where the status remains incorrect.</p> <p>Estimated volumes for some unread and HHY profile ICPs are excluded from submissions, until AMI readings, meter removal readings, or customer readings are received.</p> <p>Some ICPs which are assigned HHY profile have not met the terms of the profile, particularly the requirement to be upgraded within 16 weeks.</p> <p>IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.</p> <p>Arc provides interval data to one decimal place, which is not considered to be sufficiently accurate.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate because they are sufficient to ensure that most information is recorded correctly. 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
Application to the Authority for an Engineered profile (HHU) to submit unmetered load has now been approved. This will allow future submission of unmetered load to the reconciliation manager using a manual process through applying a flat load. The 8.6 units of historical unmetered load has been exempted from reconciliation by the authority as this does not meet the 14 months revision period.		Nov 2021	Identified

<p>System enhancement to overcome a Telemetry constraint which does not allow estimation of data if no historical data is present has been added to our Tech prioritization list.</p> <p>We have put on hold on switching in NHH ICPs unless it relates to a current customer. This will significantly reduce the issue of not meeting the approved timeframe of 16 weeks for the HHY profile use. The delays were mainly caused due to COVID-19 restrictions which meant contractors could not be sent to site to replace meters.</p> <p>IntelliHUB is looking into extending the timeframe for issuing their backdated data from 15 days to 30 days. They currently have a system constraint which does not allow this.</p> <p>AMS are in the process of displacing ARC meters, the issue of interval data being received as one decimal place should then be resolved. In the meantime, this issue has been raised with ARC.</p>		
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
<p>All unmetered volumes are now going to be submitted through the HHU profile.</p> <p>A robust training has been completed on registry updates.</p> <p>The assessment of the registry update process will be monitored through the monthly Field QA.</p>	ongoing	

## 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).*

*The relevant reconciliation participant must, at the earliest opportunity, and no later than the month 14 revision cycle, replace volume information created using estimated readings with volume information created using validated meter readings.*

*If, despite having used reasonable endeavours for at least 12 months, a reconciliation participant has been unable to obtain a validated meter reading, the reconciliation participant must replace volume information created using an estimated reading with volume information created using a permanent estimate in place of 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 were upgraded to HHR or AMI meters, or switched out.

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

### Audit commentary

All ICPs were submitted as HHR, 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. 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. This is recorded as non-compliance in **section 9.1**.

The previous audit recommended that Flick create reporting to show the proportion of estimated data at each revision per MEP. This recommendation was investigated during the audit period but was not adopted.

### 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 for each ICP must comprise the following:*

- *half hour volume information for the total metered quantity of electricity 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) *any half hour volume information for the ICP; or*
  - b) *any 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 were supplied during the audit period,
- 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 were upgraded to HHR or AMI meters, or switched out.

#### 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<sub>Px</sub> 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<sub>Px</sub>.*

#### **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 were upgraded to HHR or AMI meters, or switched out.

#### **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 were upgraded to HHR or AMI meters, or switched out.

#### **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 01/11/19 to 12/08/20 and discussion with Flick confirmed that all ICPs had submission type HHR.

Review of the event detail report for 01/11/19 to 12/08/20 confirmed that some ICPs have had a profile change from HHY to HHR.



#### **Audit commentary**

All ICPs were submitted as HHR, but some ICPs have the HHY profile in the registry. I checked a sample of 10 profile 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

*For each category 3 of higher metering installation, a reconciliation participant must provide half hour submission information to the reconciliation manager.*

*For each category 1 or category 2 metering installation, a reconciliation participant must provide to the reconciliation manager:*

- *Half hour submission information; or*
- *Non half hour submission information; or*
- *A combination of half hour submission information and non half hour submission information*

*However, a reconciliation participant may instead use a profile if:*

- *The reconciliation participant is using a profile approved in accordance with clause Schedule 15.5; and*
- *The approved profile allows the reconciliation participant to provide half hour submission information from a non half hour metering installation; and*
- *The reconciliation participant provides submission information that complies with the requirements set out in the approved profile.*

*Half hour submission information provided to the reconciliation manager must be aggregated to the following levels:*

- *NSP code*
- *reconciliation type*
- *profile*
- *loss category code*
- *flow direction*
- *dedicated NSP*
- *trading period*

*The non half hour submission information that a reconciliation participant submits must be aggregated to the following levels:*

- *NSP code*
- *reconciliation type*
- *profile*
- *loss category code*
- *flow direction*
- *dedicated NSP*
- *consumption period or day*

#### 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 were upgraded to HHR or AMI meters, or switched out.

#### **Audit commentary**

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

#### **Audit outcome**

Not applicable

## CONCLUSION

Flick is a HHR only trader, which has approval to temporarily supply some NHH ICPs as HHR using their HHY profile until they can be upgraded.

Flick has continued to strive to improve their compliance.

- Flick's internal audit programme has continued during the audit period, and samples of switching and registry events are checked in a similar manner to this reconciliation participant audit. I saw evidence that issues were identified promptly and corrections, training, and process improvements may be carried out as a result of the audit findings.
- Most switching processes have been automated, and I found a marked improvement in the timeliness and accuracy of switching information once this occurred.
- To resolve historic under submission of 8.65 kWh of unmetered load, Flick has submitted a profile application to the Authority. Flick intends to use a manual process to apply a flat load profile, consistent with the Authority's NHH UML profile, to spread the daily unmetered kWh between the trading periods so that the unmetered load can be included in the HHR aggregates and volumes files. The application is currently being considered by the Authority.
- AV120 billed submission accuracy and monitoring has improved following the implementation of Flick Billing.
- The timeliness and accuracy of registry updates has improved.

To further improve compliance, the following issues should be addressed:

- **Estimate all missing HHR volumes**

Telemetry will only produce estimates for missing data where a minimum of one weekday, Saturday, and Sunday of actual data and/or boundary readings for the estimated period are available. Any ICP which does not have actual or estimated data for a period will be excluded from the HHR volumes, HHR aggregates and ICP days submissions. Once actual AMI data, or a removal reading or a switch event reading is received, actual or estimated trading period data will be recorded and the ICP will be included in revision submissions.

The impact of not producing estimates where insufficient history is available is increasing over time, as some ICPs have had NHH metering for up to 285 days. Flick is attempting to complete all upgrades required, and in the meantime has stopped accepting new NHH ICPs requiring HHR upgrades unless the ICP belongs to an existing Flick customer.

I recommend that Flick investigate creating a methodology to produce "default" estimates where Telemetry is unable to calculate estimates using its current process. This will help to prevent under submission of volumes and ICP days for ICPs where HHR data is not received.

- **Treatment of customer photo readings**

Where ICPs with HHY profile switch out on an unvalidated customer photo reading, the read type should be recorded as estimated in Telemetry and all switching files. I found that customer photo readings were treated as actual readings if obtained on Flick's last day of supply.

- **HHY profile ICPs**

Ensure that the terms of the profile application are consistently met, including the maximum period allowed for upgrade.

Where ICPs are supplied with HHY profile for more than four months, ensure that meter read frequency reporting obligations are met.

- **Consumption validation**

I recommend that consumption is validated to confirm whether it is consistent with historic or expected usage patterns at ICP level. Currently validations are at billing run, total submission and NSP level, unless issues are identified in the aggregated data.

The audit risk rating is 39, indicating that the next audit be due in 12 months. This increased rating does not reflect the significant improvements Flick has made during the audit period. Most of the switching non-compliances occurred early in the audit period and prior to automation of processes. Most of the switching and registry non-compliances were minor, isolated, and affected very few ICPs and events. Because of the nature of the non-compliances, some minor issues affecting a single ICP which were corrected during the audit were recorded as non-compliant in four or five sections of the report, inflating the overall risk rating.

Taking this into consideration along with Flick's comments, which indicate they intend to adopt all recommendations and resolve the non-compliances, I recommend that the next audit is completed in a minimum of 14 months.

## PARTICIPANT RESPONSE

We perceive the participant audit as a great opportunity for us to learn more about regulatory compliance and the Code and improve on our operational processes.

While every effort is made to ensure that we meet our regulatory obligations under the code, non-compliances do occur due to manual data entry errors or system constraints.

We believe there are some non-compliances which are inevitable as mentioned in the above report and there is a need for a code review to align with the current switching processes.

To increase our level of compliance, we will continue to work on improving our processes through system enhancements, monitoring, training, and implementing controls to all our operational processes related to regulatory compliance

We look forward to your next visit.