

ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT



For

FLICK ENERGY LIMITED
NZBN: 9429030133211

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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; and has approval to temporarily supply some NHH ICPs as HHR using their HHY profile until they can be upgraded.

Readings and reconciliation

The most significant issue for reconciliation is that ICPs without actual or estimated data, including non-communicating meters and ICPs with HHY profile, are excluded from HHR aggregates, volumes, and ICP days submissions. Once actual AMI data is received, or a removal reading or switch out reading is entered, the missing data will be populated and the ICP will be included in revision submissions. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.

Flick has been intending to develop a process to create HHR estimates where there is insufficient history for Telemetry to generate estimates. This project has now been approved for development and has been scoped, and the Tech Team are currently planning and will then develop a solution. A project completion date will be confirmed once planning is complete. Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a “material” change to any certified facilities, processes, or procedures then the changes must be subject to an audit prior to the change taking place. A material change audit is expected to be completed prior to the implementation of changes to the estimation methodology.

Some other more minor issues were identified for reconciliation, including:

- 25 kWh of inactive consumption which was not reported, because status is changed effective from the physical disconnection date and consumption on days with inactive status is excluded from submission, and
- two ICPs were supplied with HHY profile for longer than the period allowed under the approved profile application, resulting in no reports of NHH read attainment being provided to the Market Administrator for the affected ICPs.

The read import and read and volume correction processes are effective and robust. 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.

Flick has resolved some historic reconciliation issues including approval of the HHU profile to allow submission of unmetered load, and correct classification of readings for HHY ICPs.

Registry

During the audit period there was an increase in the number of late status and trader updates. The issues were primarily caused by new staff being trained while a key staff member was away, the number of late updates decreased as the audit period progressed. Monitoring of field services jobs to ensure that paperwork is received, and updates are processed on time, has also improved during the audit period.

Most information was accurate, with two registry data discrepancies remaining at the end of the audit.

Switching

Timeliness and accuracy for switching was also affected by new staff training and staff absences.

Where NT, AN and CS files are automatically produced by the provisioning system using Telemetry information, I found data was highly accurate and on time, with the exception of CS average daily kWh which is calculated from the average consumption over the last month rather than the last read to read period, and zero is applied if no readings have been received. Flick has been waiting for the amendments to the switching process proposed by the Switch Technical Group to be finalised before making changes to their processes.

Where AN and CS files were issued manually, I found there were some incorrect readings, read types, last actual read dates, and average daily kWh values due to manual data entry errors and misunderstandings. The impact of the incorrect data was low; the largest read differences were resolved through the read renegotiation process, and the other differences had a low impact.

RR and AC files are processed manually, and I found a small number of errors and the affected ICPs were corrected or had their switched withdrawn. There were also some manual processing errors for withdrawals, with the wrong ICP sometimes being selected.

Conclusion

Flick has continued to try to improve compliance during the audit period, continuing with their internal audits, expanding their safety net checks, and improving monitoring of field services jobs.

Issues recorded in previous audits relating to missing estimated data and inactive consumption have not been resolved, and some inaccuracies continue to occur where data is manually processed.

The audit risk rating is 43 (an increase from 39 in the previous audit), indicating that the next audit be due in six months. Because of the nature of the non-compliances, some minor issues affecting a very small number of ICPs 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, I recommend that the next audit is completed in 12 months because:

- The audit risk rating is at the low end of the 6 month range, and
- Flick intends to resolve the non-compliances including the missing HHR estimates.

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>HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.</p> <p>Seven ICPs had consumption recorded on a date with inactive status.</p> <p>Two ICPs had HHY profile applied for longer than the maximum period allowed under the approved profile application.</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	Identified
Electrical Connection of Point of Connection	2.11	10.33A	Three ICPs did not have their meters certified on reconnection.	Strong	Low	1	Identified
Changes to registry information	3.3	10 Schedule 11.1	<p>85 late status updates to active status.</p> <p>Ten late status updates to inactive status.</p> <p>177 late trader updates.</p> <p>53 late ANZSIC code updates for new connections or switch ins.</p>	Moderate	Low	2	Identified
Trader responsibility for an ICP	3.4	11.18	The MEP was notified of the decommissioning of ICP 0001381020PC55D six days after the decommissioning date.	Strong	Low	1	Identified
Provision of information to the registry manager	3.5	9 Schedule 11.1	<p>Five late status updates for new connections.</p> <p>ICP 0007198487RN3F4 had its active status date recorded as 02/11/20 instead of 05/11/20 and was corrected during the audit.</p>	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	The ANZSIC code for 0001202483TU4A7 is recorded as D281100 water supply but should be I530900 - Other Warehousing and Storage Services.	Strong	Low	1	Cleared
Management of "active" status	3.8	17 Schedule 11.1	ICPs 0000010228MLB36 and ICP 0007198487RN3F4 had incorrect active status dates which were corrected during the audit.	Moderate	Low	2	Cleared
Management of "inactive" status	3.9	19 Schedule 11.1	ICPs 0387281169LC942 and 0420349359LCF6E had incorrect disconnection records on the registry which were corrected during the audit. Seven ICPs had consumption recorded on a date with inactive status.	Moderate	Low	2	Identified
Losing trader must provide final information - standard switch	4.3	5 Schedule 11	Two CS breaches for transfer switches. At least four transfer CS files contained average daily kWh inconsistent with the requirements of the registry functional specification. Seven CS files had an incorrect last actual read date. Three CS files had an incorrect read type. Three CS files had an incorrect CS event read. 0005263689RN1D2 had an incorrect switch event date applied and was corrected through the withdrawal process.	Moderate	Low	2	Identified
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	Three RR breaches. Switch event readings for 0006880711RN2DA (12/03/2021) and 0007000499RN46A (27/04/2021) were recorded as estimates in Telemetry but should have been actual.	Moderate	Low	2	Identified
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	13 ET breaches for switch moves. Two E2 breaches for switch moves. Five ANs did not have the correct AN response code applied.	Moderate	Low	2	Identified
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	At least six CS files contained average daily kWh inconsistent with the requirements of the registry functional specification. 12 CS files had an incorrect last actual read date. Four CS files had an incorrect read type. Three CS files had an incorrect CS event read.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	Two RR breaches for switch moves. Three RRs had the incorrect read recorded in Telemetry and were corrected by re-issuing an RR which was accepted during the audit.	Moderate	Low	2	Identified
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	Nine NA breaches. Four NWs were issued for the wrong ICPs and rejected by the other trader. The NW for 0000064496TR28F (09/03/21) should have been issued with advisory code WS (wrong switch type) instead of WP (wrong premises).	Moderate	Low	2	Identified
Metering information	4.16	21 Schedule 11.3	For six CS files issued by Flick, the switch event readings did not reflect the actual reading or estimated reading on the last day of supply.	Moderate	Low	2	Identified
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
NHH meter reading application	6.7	6 Schedule 15.2	For six CS files issued by Flick, the switch event readings did not reflect the actual reading or estimated reading on the event date.	Moderate	Low	2	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	Seven CS files had an incorrect read type. The incorrect read types were recorded in Telemetry for two ICPs which had RRs.	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 provide their best estimate for at least eight ICPs which did not have estimates generated because there was insufficient history for Telemetry to create an estimate, and three ICPs where trading period consumption was estimated using a flat profile.	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	Investigating

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. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.	Moderate	Low	2	Investigating
Creation of submission information	12.2	15.4	HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate. Seven ICPs had consumption recorded on a date with inactive status.	Moderate	Low	2	Investigating
Accuracy of submission information	12.7	15.12	HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate. Seven ICPs had consumption recorded on a date with inactive status. Two ICPs had HHY profile applied for longer than the maximum period allowed under the approved profile application. 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.	Moderate	Low	2	Investigating
Future Risk Rating						43	

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
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, or process corrections to capture inactive consumption.
Collection of information by certified reconciliation participant	6.5	Clock synchronisation events	Where a clock synchronisation over 1800 seconds occurs, and data for multiple trading periods is pushed into the period of adjustment, develop a process to spread the total consumption for the adjustment period across the periods it actually occurred within.
NHH meters 90% read rate	6.10	Meter reading frequency reporting	Provide meter reading frequency reports to the Authority for any month where ICPs are supplied with NHH metering (HHY profile) for four months or more according to the Authority’s non half hour meter read frequency guidelines.
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.

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

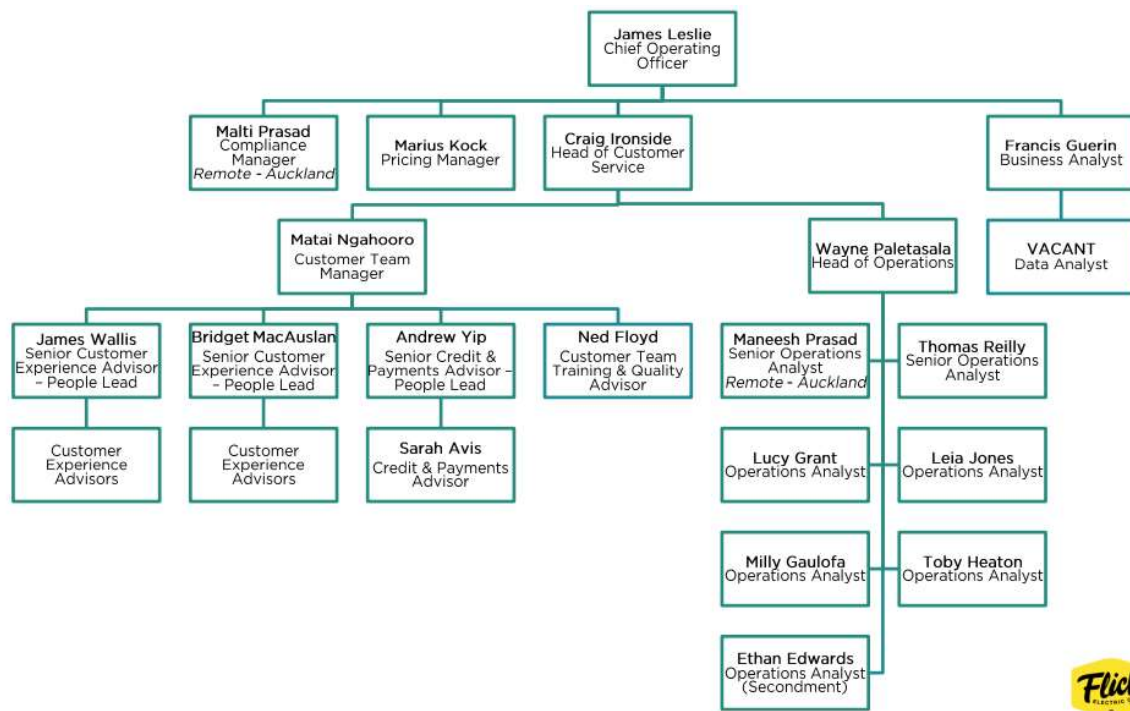
Current code exemptions were reviewed on the Electricity Authority website.

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
Craig Ironside	Head of Customer Services

Other personnel assisting in this audit were:

Name	Title
Andrew Baken	Compliance Manager, Vector Metering

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

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

Audit observation

Use of agents was discussed with Flick.

Audit commentary

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 estimates have not been applied since April 2021.

Audit commentary

Compliant

1.5. Hardware and Software

The table below lists the systems used to meet Flick's reconciliation participant obligations. Access to systems is restricted using logins and passwords, and back up services are via Amazon Web Services and Google Cloud.

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.
Salesforce	Customer relationship management system which interfaces with the Admin App, Telemetry and Flick Billing.

1.6. Breaches or Breach Allegations

There have been no alleged breaches relevant to the scope of this audit during the audit period.

1.7. ICP Data

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

Metering Category	2021	2020	2019	2018	2017	2016	2015
1	26,002	23,005	20,012	24,665	21,973	15,071	5,445
2	34	34	29	33	36	16	1
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
9	-	-	-	-	15	-	-
Blank	-	-	-	-	-	-	-

Status	Number of ICPs (2021)	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)	26,036	23,039	20,041	24,698	21,946	15,015	5,446
Inactive – new connection in progress (1,12)	5	5	-	-	-	-	-
Inactive – electrically disconnected vacant property (1,4)	25	17	27	34	13	4	12
Inactive – electrically disconnected remotely by AMI meter (1,7)	153	66	145	156	26	67	0
Inactive – electrically disconnected at pole fuse (1,8)	1	1	5	2	-	-	-
Inactive – electrically disconnected due to meter disconnected (1,9)	5	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)	4	5	1	2	3	-	-
Inactive – reconciled elsewhere (1,5)	-	-	-	-	-	-	-
Decommissioned (3)	216	140	102	70	37	5	1

1.8. Authorisation Received

A letter of authorisation was provided.

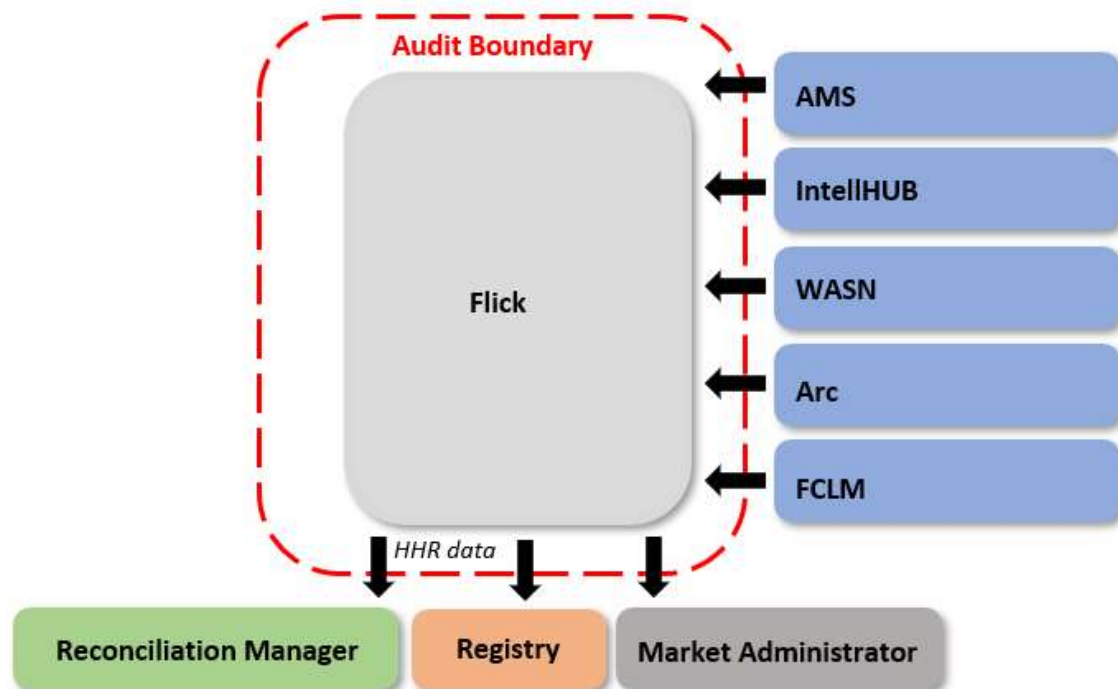
1.9. Scope of Audit

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 remotely on 26-29 October 2021.

As part of the audit, I examined registry list, event detail and audit compliance reports for 1 November 2020 to 31 August 2021, and the meter installation details report for 3 September 2021.

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)

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing AMI data
(c)(i) - Creation and management of volume information		AMS – HHR (AMI) Arc – HHR (AMI) FCLM – HHR (AMI) IntelliHUB – HHR (AMI) WASN – HHR (AMI)
(d) – Calculation of ICP days		
(da) - delivery of electricity supplied information under clause 15.7		
(db) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8		
(e) – Provision of submission information for reconciliation		

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.

1.10. Summary of previous audit

Flick provided a copy of their previous audit conducted in November 2020 by Tara Gannon of Veritek Limited. The summary tables below show the status of the non-compliances and recommendations raised in the previous audit. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-compliance	Status
Relevant information	2.1	10.6, 11.2, 15.2	<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>	Still existing.

Subject	Section	Clause	Non-compliance	Status
			Arc provides interval data to one decimal place, which is not considered to be sufficiently accurate.	
Changes to registry information	3.3	10 Schedule 11.1	38 late status updates to active status. Three late status updates to inactive status. 36 late trader updates. 38 late ANZSIC code updates for new connections or switch ins.	Still existing.
Provision of information to the registry manager	3.5	Clause 9 Schedule 11.1	Two late status updates for new connections.	Still existing.
ANZSIC codes	3.6	9 (1)(k) of Schedule 11.1	Five ICPs had incorrect ANZSIC codes applied and were corrected during the audit.	Still existing.
Management of “inactive” status	3.9	19 Schedule 11.1	ICP 0005203376RN946 had an incorrect disconnection date applied and was corrected during the audit. ICP 0005764238RNA97 has an incorrect disconnection date applied but cannot be easily corrected because the ICP is now decommissioned. ICP 0000017063TCB25 had an incorrect reconnection date applied and was corrected during the audit. ICP 0007135066RN5C2 had an incorrect status reason applied and was corrected during the audit.	Still existing.
Losing trader must provide final information - standard switch	4.3	5 Schedule 11	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.	Still existing.
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	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.	Still existing.
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).	Cleared.

Subject	Section	Clause	Non-compliance	Status
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.	Still existing.
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.	Still existing.
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.	Still existing.
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.	Still existing.
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.	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.	Cleared.
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.	Still existing.
Derivation of meter readings	6.6	3(2) Schedule 15.2	Three customer photo readings were recorded as actual readings in CS files.	Cleared.
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.	Still existing.
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.	Still existing.

Subject	Section	Clause	Non-compliance	Status
Identification of readings	9.1	Clause 3(3) Schedule 15.2	<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>	Still existing.
Half hour estimates	9.4	15 Schedule 15.2	<p>HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate.</p> <p>Flick did not meet the reasonable endeavours requirements for at least nine ICPs.</p>	Still existing.
Calculation of ICP days	11.2	15.6	ICP days are not provided for trading periods which do not have estimated or actual data.	Still existing.
HHR aggregates information provision to the reconciliation manager	11.4	15.8	<p>HHR aggregates file does not contain electricity supplied information.</p> <p>HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate.</p>	Still existing.
Creation of submission information	12.2	15.4	<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>	Still existing.
Accuracy of submission information	12.7	15.12	<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>	Still existing.

Subject	Section	Clause	Non-compliance	Status
			<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>	

Subject	Section	Clause	Recommendation	Status
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>	Cleared, no further instances found.
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.	Adopted.
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.	Adopted.
ANZSIC codes	3.6	ANZSIC code confirmation	Confirm the ANZSIC code for ICP 0000031838EA3AC and update the code if required.	Adopted.
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.	Not adopted.
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>	<p>Adopted.</p> <p>Policy has been updated and no further issues were identified.</p>

Subject	Section	Clause	Recommendation	Status
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.	Not adopted and re-raised.
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.	In progress.

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 processes to find and correct incorrect information was examined. The registry validation processes were examined in detail in relation to the achievement of this requirement.

The registry list and AC020 reports were examined to identify any registry discrepancies, and to confirm that all information was correct and not misleading.

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. Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a “material” change to any certified facilities, processes, or procedures then the changes must be subject to an audit prior to the change taking place.

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” are checked and updated (there is also monthly validation of ANZSIC codes against the network price category, blank ANZSIC codes and ICPs with meter category two and residential ANZSIC codes, 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 metering details, 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. Processes covered by this audit are internally audited at least quarterly.

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

Issue	2021 Qty	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	1	5	-	7		The ANZSIC code for 0001202483TU4A7 is recorded as D281100 water supply but should be I530900 - Other Warehousing and Storage Services. See section 3.6 .
Meter cat 3 or known commercial site with residential ANZSIC code	-	-	-	-	-	Compliant, no ICPs have metering category 3 or above.
ICPs with unmetered load flag Y but load is recorded as zero	-	-	-	-	-	Compliant, no ICPs with unmetered load are supplied.
ICPs with incorrect unmetered load	-	-	-	-	-	Compliant, no ICPs with unmetered load are supplied.
ICPs with Distributor unmetered load populated but retail unmetered load is blank and UML flag = N	-	-	-	-	-	Compliant, no ICPs with unmetered load are supplied.
Active ICPs with blank MEP and no MEP nominated and UML = N	-	-	-	-	-	Compliant, all ICPs are metered and have an MEP recorded.
Incorrect status	4	4	-	3	-	Two ICPs had incorrect active status records and two ICPs had incorrect

Issue	2021 Qty	2020 Qty	2019 Qty	2018 Qty	2017 Qty	Comments
						inactive status records. The affected records were corrected during the audit. See sections 3.8 and 3.9 .
Incorrect profile	7	2	-	46	1	Two ICPs had HHR profile applied for periods where the meters were NHH certified on the registry. One ICP was confirmed to have an error in the MEP information and Flick's profile was correct. ICP 0015807156EL7FD had an HHR profile incorrectly recorded for 14-16/11/20; it should have had HHY profile until the meter was upgraded on 17/11/20. The error occurred due to a backdated switch and was corrected during the audit. Five ICPs had HHY profile applied for incorrect dates. Four were corrected during the audit, and ICP 0005768110RND55 remains incorrect. Exceptions identified during the previous audit have been corrected.
Incorrect submission type	-	1	-	44	-	Compliant.
Active date variance with initial electrical connection date	8	-	-	-	-	Flick's status date was correct for seven ICPs, and the status date for the other ICP was corrected during the audit. See sections 3.5 and 3.8 .

The controls for registry data accuracy are strong. Seven discrepancies identified during the audit were not corrected by the time the audit report was completed.

ICP	Registry field	Error	Section
0007100582RND7B	MEP	NCGM was nominated from 01/03/20, but it should have been 01/03/21.	3.4
0005768110RND55	Profile	HHY profile was applied for 16/07/21-19/07/21 but should be 15/07/21 only. There was confusion because the MEPs event date did not match the certification date.	2.1

Read and volume data accuracy

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

1. Estimated volumes for some unread and HHY profile ICPs are excluded from submissions. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.
2. Flick did not provide their best estimate for three ICPs where trading period consumption was estimated using a flat profile.

3. If the ICP has inactive status on a particular day, any volumes for that day will be excluded from submission. Seven ICPs had consumption recorded on a date with inactive status.
4. Two 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. Flick supplies 2,122 active ICPs with HHR settled Arc meters. 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. 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, Flick may not be charged at the wholesale rate that applied during the trading period when the electricity was consumed.

Previous audit issues that did not occur during this audit were re-checked.

1. No unmetered load was supplied during the audit period, but the use of the new HHU profile will allow unmetered load to be submitted if required in the future.
2. IntelliHUB estimates have not been applied since April 2021.

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	<p>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.</p> <p>I reviewed ten examples of defective meters and found corrections were processed and a reasonable estimate of consumption during the faulty period was reported. For three of the ten corrections the consumption was not profiled at trading period level, and the same volume was recorded for each trading period because the customer was on a fixed price, so the timing of consumption did not affect their billing. Estimates are expected to be the best estimate of consumption for each trading period and creating a flat line profile does not meet the requirement to provide Flick’s best estimate of consumption and is recorded as non-compliance in sections 9.4 and 12.7. For all three ICPs the consumption is low, and the impact is low.</p>
Incorrect multipliers	<p>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 15 ICPs with multipliers confirmed that the stored multipliers and their application were correct.</p>
Bridged meters	<p>Where a meter is bridged, it will not record consumption during the bridged period. Flick arranges for the meter to be unbridged and/or replaced and manually estimates consumption for the bridged period once one month of reliable data is available.</p> <p>Eight meters were bridged, and corrections were processed and a reasonable estimate of consumption during the bridged period was reported.</p>
Consumption while inactive	<p>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</p>

	<p>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.</p> <p>I checked a sample of 22 disconnected ICPs and found seven had some consumption on the disconnection date which resulted in 25.007 kWh being excluded from submissions.</p>
Consumption while vacant	I checked a sample of six vacant ICPs with consumption, which confirmed that consumption for vacant ICPs is captured and reported.
Unmetered load corrections	<p>The 2017, 2018, 2019 and 2020 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. 14-month revisions have passed for the affected periods, and non-compliance was recorded for under submission of 8.65 kWh of unmetered load in the 2020 audit.</p> <p>Flick's engineered profile (HHU), which allows submission of unmetered load to the reconciliation manager was approved by the Authority on 01/12/20. Flick will 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.</p>

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 2.1</p> <p>With: Clause 10.6, 11.2, 15.2</p> <p>From: 16-Nov-20</p> <p>To: 02-Nov-21</p>	<p>Some registry data is incorrect.</p> <p>HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.</p> <p>Seven ICPs had consumption recorded on a date with inactive status.</p> <p>Two ICPs had HHY profile applied for longer than the maximum period allowed under the approved profile application.</p> <p>Flick did not provide their best estimate for three ICPs where trading period consumption was estimated using a flat profile.</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: Twice</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 mostly be provided through the revision process once actual data is received.		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>HHY event dates has been corrected for the 6 impacted ICPs.</p> <p>The smart meter program has been discontinued which will now eliminate the issue of HHY profile being used longer than the maximum period. If this program is reinstated, then we would ensure that the HHY profiles are only used for the allowed maximum period of 16 weeks.</p> <p>25.007 units of inactive consumption has now been added to our system to be reconciled to the market through revision submission.</p>		15/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A process change has been implemented where data will be estimated using a non-flat profile (fluctuating half hour data) for all ICP's requiring manual data estimation.</p> <p>ARC meters are currently in the process of being displaced so the issue of interval data being received to one decimal place will ultimately be eliminated. In the meantime, we will engage with AMS and explore any temporary solution to this.</p> <p>We will also engage with ARCs to find a resolution for replacement data to be provided for event dates which pass the 15 day mark.</p> <p>Our internal process has been changed to reflect inactive status in registry 1 day after the date of disconnection/decommission to enable the inactive consumption to be captured.</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. To confirm the transmission process, I traced a sample of reads and volumes for a diverse sample of eight HHR ICPs from the source files to Telemetry and HHR aggregates submissions. The sample included all data providers.

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 **section 6.6**.

Audit commentary

All read and volume data is transferred to Flick via SFTP. I traced a sample of data for eight HHR ICPs from the raw data files to Telemetry and the HHR aggregates files and confirmed that the readings and volumes recorded were consistent with the raw data.

The IntelliHUB daylight savings issue recorded in the previous audit has not recurred.

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 Telemetry and the provisioning system 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:

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

The registry list was reviewed to determine the metering categories supplied.

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 processes were examined in detail to evaluate the strength of controls, and the registry list, audit compliance, and switch breach history reports were examined to confirm process compliance. Late updates to active status for new connections are discussed in **section 3.5**.

Audit commentary

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

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. All new connections identified on the event detail report had a 1,12 status record.

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. ICPs at "inactive - new connection in progress" status are monitored as part of the twice weekly safety net checks.

The audit compliance report did not record any "active" ICPs where the metering category was 9 or blank, indicating that no meters were present. All active ICPs are metered, and no ICPs with unmetered load are supplied.

I checked a sample of ten new connections. In all cases, Flick had accepted responsibility prior to initial electrical connection.

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.

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:*
 - o *the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within 2 business days of electrical connection*
 - o *if the ICP has metered load, 1 or more certified metering installations are in place*
 - o *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the electrical connection.*

Audit observation

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

The AC020 report was examined 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 were certified on time, and three reconnections were certified late:

- ICP 0005649404RNFF6 had an Arc meter, and AMS obtained an exemption from the Authority which will allow certification through statistical sampling; the ICP has now switched out,
- ICP 0000072191TR761 was certified late as part of an upgrade, and
- ICP 0000937999TUEE3 was certified late because meter board asbestos issues needed to be resolved before the meter could be replaced and re-certified.

Certification on un-bridging

Flick provided a list of eight meters which had been bridged during the audit period, and all were certified on un-bridging.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.11 With: Clause 10.33A From: 13-Jan-21 To: 14-May-21	Three ICPs did not have their meters certified on reconnection. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong, because Flick identifies uncertified meters as part of their safety net checks and follows up uncertified meters with the MEP. The audit risk rating is low as this has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
All three ICPs mentioned above had issues which were out of our control and only the MEPs could have resolved this. We identified that these ICPs required certification through our safety net check and escalated these to the MEP's.		ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As stated above we can only identify and escalate all uncertified ICPs to the MEP's. We are dependent on the MEP's on re-certifying the sites.		ongoing	

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

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

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

Audit observation

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

The registry list 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 and did not begin trading on any new networks during the audit period.

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, they 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 was reviewed to identify the MEPs for Flick ICPs during the audit period.

Audit commentary

The process to ensure that MEP arrangements are in place before switching in ICPs is described in **section 2.12**.

Flick supplied three ICPs with LMGL meters and four ICPs with TRUM meters for part of the audit period. Flick demonstrated that arrangements are in place with the MEPs for their ICPs.

Audit outcome

Compliant

2.14. Connecting ICPs then withdrawing switch (Clause 10.33A(5))

Code reference

Clause 10.33B

Code related audit information

If a trader connects an ICP it is in the process of switching and the switch does not proceed or is withdrawn the trader must:

- *restore the disconnection, including removing any bypass and disconnecting using the same method the losing trader used*
- *reimburse the losing trader for any direct costs incurred*

Audit observation

The process for reconnecting ICPs in the process of switching in was examined.

Traders are only able to update ICP status for event dates where they are responsible for the ICP on the registry.

Audit commentary

Flick ensures that a switch is in progress before arranging reconnection.

If an ICP was reconnected as part of the switching process and the switch was later withdrawn, Flick would restore the disconnection and reimburse the losing trader for any direct costs incurred if requested.

Audit outcome

Compliant

2.15. Electrical disconnection of ICPs (Clause 10.33B)

Code reference

Clause 10.33B

Code related audit information

Unless the trader is recorded in the registry or is meeting its obligation under 10.33A(5) it must not disconnect or electrically disconnect the ICP or authorise the metering equipment provider to disconnect or electrically disconnect the ICP.

Audit observation

The disconnection process was examined. Traders are only able to update ICP status for event dates where they are responsible for the ICP on the registry.

Audit commentary

Flick checks they are listed as the current trader in the registry before initiating a disconnection.

Audit outcome

Compliant

2.16. Removal or breakage of seals (Clause 48(1C), 48 (1D), 48 (1E), 48 (1F) of Schedule 10.7)

Code reference

Clause 48(1C), 48 (1D), 48 (1E), 48 (1F) of Schedule 10.7

Code related audit information

A trader can remove or break a seal without authorisation from the MEP to:

- *reset a load control switch, bridge or un-bridge a load control switch – if the load control switch does not control a tome block meter channel*
- *electrically connect load or generation, of the load or generation has been disconnected at the meter*
- *electrically disconnect load or generation, if the trader has exhausted all other appropriate methods of electrical disconnection*
- *bridge the meter*

A trader that removes or breaks a seal in this way must:

- *ensure personal are qualified to remove the seal and perform the permitted work and they replace the seal in accordance with the Code*
- *replace the seal with its own seal*
- *have a process for tracing the new seal to the personnel*
- *update the registry (if the profile code has changed)*
- *notify the metering equipment provider*

Audit observation

Policies and processes for removal and breakage of seals were reviewed.

A sample of events which required seals to be broken were checked for compliance.

Audit commentary

Field services jobs are normally completed by the MEP, and they replace the seals and re-certify where required.

In the rare event that Flick becomes aware that another party has broken or removed a seal, Flick raises a field services job for the MEP to attend, check the meter, and replace the seals.

Flick has agreements in place with the MEPs, which include service levels. The MEPs are required to ensure that only qualified personnel perform work and manage and trace seals. The MEPs do not usually provide details of seals in their job completion paperwork.

Service orders are monitored using an excel spreadsheet which includes the service order number, date raised, party raised to, description, and target date and time. The spreadsheet is monitored and followed up daily to ensure that work is completed, and paperwork is received.

Flick uses job completion paperwork to confirm the correct ICP attributes including status and profile, and update Telemetry and the registry.

I checked a sample of five ICPs where meter seals had been broken by an electrician, MEP, or network and confirmed that the MEP was notified and completed a reseal. I also checked a sample of ten reconnections and 22 disconnections and found they were all completed remotely or at site by the MEP.

Audit outcome

Compliant

2.17. Meter bridging (Clause 10.33C and 2A of Schedule 15.2)

Code reference

Clause 10.33C and 2A of Schedule 15.2

Code related audit information

A trader, or a distributor or MEP which has been authorised by the trader, may only electrically connect an ICP in a way that bypasses a meter that is in place (“bridging”) if, despite best endeavours:

- the MEP is unable to remotely electrically connect the ICP*
- the MEP cannot repair a fault with the meter due to safety concerns*
- the consumer will likely be without electricity for a period which would cause significant disadvantage to the consumer*

If the trader bridges a meter, the trader must:

- determine the quantity of electricity conveyed through the ICP for the period of time the meter was bridged*
- submit that estimated quantity of electricity to the reconciliation manager*
- within one business day of being advised that the meter is bridged, notify the MEP that they are required to reinstate the meter so that all electricity flows through a certified metering installation.*

The trader must determine meter readings as follows:

- by substituting data from an installed check meter or data storage device*
- if a check meter or data storage device is not installed, by using half hour data from another period where the trader considers the pattern of consumption is materially similar to the period during which the meter was bridged*
- if half hour data is not available, a non-half hour estimated reading that the trader considers is the best estimate during the bridging period must be used.*

Audit observation

The process for bridging meters was discussed and a sample of bridged meters were reviewed.

Audit commentary

Bridged meters are identified through returned work completion paperwork, and the reading validation process.

Flick only allows meters to be bridged where an urgent reconnection is required to prevent customer hardship, and it is not possible to reconnect without bridging the meter.

I reviewed a sample of eight bridged meters and found the meters had been unbridged, and estimated consumption was reported for the bridged period.

Audit outcome

Compliant

2.18. Use of ICP identifiers on invoices (Clause 11.30)

Code reference

Clause 11.30

Code related audit information

Each trader must ensure the relevant ICP identifier is printed on every invoice or document relating to the sale of electricity.

Audit observation

The process to ensure that the ICP identifier is printed on every invoice or document relating to the sale of electricity was discussed, and an invoices and letters were reviewed.

Audit commentary

Invoices and communications regarding the sale of electricity (including price change letters) contain the ICP number.

Audit outcome

Compliant

2.19. Provision of information on dispute resolution scheme (Clause 11.30A)

Code reference

Clause 11.30A

Code related audit information

A retailer must provide clear and prominent information about Utilities Disputes:

- *on their website*
- *when responding to queries from consumers*
- *in directed outbound communications to consumers about electricity services and bills.*

If there are a series of related communications between the retailer and consumer, the retailer needs to provide this information in at least one communication in that series.

Audit observation

The process to ensure that information on Utilities Disputes is provided to customers was discussed. A sample of invoices, letters, emails, and recorded greetings for inbound calls were reviewed to determine whether clear and prominent information on Utilities Disputes is provided.

Audit commentary

Clear and prominent information on Utilities Disputes is provided:

- in Flick's terms and conditions,
- on Flick's website under my account/complaints/concerns,
- on Flick's invoices,
- as part of Flick's email footers for outbound email communications, and
- in a recorded voice message, which is played for inbound customer calls.

Audit outcome

Compliant

2.20. Provision of information on electricity plan comparison site (Clause 11.30B)

Code reference

Clause 11.30B

Code related audit information

A retailer that trades at an ICP recorded on the registry must provide clear and prominent information about Powerswitch:

- *on their website*
- *in outbound communications to residential consumers about price and service changes*
- *to residential consumers on an annual basis*
- *in directed outbound communications about the consumer's bill.*

If there are a series of related communications between the retailer and consumer, the retailer needs to provide this information in at least one communication in that series.

Audit observation

The process to ensure that information on Powerswitch is provided to customers was discussed. A sample of invoices, letters, and emails were reviewed to determine whether clear and prominent information on Powerswitch is provided.

Audit commentary

Clear and prominent information on Powerswitch is provided:

- on Flick's website under contact us,
- on Flick's invoices,
- on letters advising customers of price and service changes, and
- as part of Flick's email footers for outbound email communications.

All customers receive an invoice and will receive notification monthly. An annual notification is also scheduled to be sent to customers before April 2022.

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 processes were examined in detail to evaluate the strength of controls, and the registry list and audit compliance reports were examined to confirm process compliance. Late updates to active for new connections are discussed in **section 3.5**.

Audit commentary

The new connection processes are detailed in **section 2.9** above. The processes in place ensure that the trader required information is populated as required by this clause.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

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

The AC020 report was reviewed and a sample of late status updates, trader updates, and MEP nominations were checked as described in the audit commentary.

Audit commentary

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
2021	85	90.75	3.56

60 of the late updates were within 10 business days of the event date, 77 were within 30 business days, and the latest update was 492 business days after the event date. I checked the ten latest updates, which included all made 25 days or more after the event date. The late updates were found to be caused by delays in processing updates where new staff were being trained and a key staff member was away sick, and delays in receiving and processing work completion paperwork. Reconnections are monitored using a spreadsheet, and monitoring has become more consistent as the audit period has progressed.

There have been a relatively small number of switch ins, so the previous audit issue where reconnection paperwork was received before the switch was completed and processed late was not present.

One late update was processed from an incorrect date and corrected during the audit. This is recorded as non-compliance in **section 3.8**.

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
2021	10	98.64%	1.43

Three of the late updates were within 10 business days of the event date, six were within 30 business days, and the latest update was 99 business days after the event date. All late updates were checked and found to be caused by delays in processing updates where new staff were being trained and a key staff member was away sick. Disconnection service orders are monitored using a spreadsheet, and as part of the safety net checks described in **section 2.1**.

Two late updates were processed from an incorrect date and corrected during the audit. This is recorded as non-compliance in **section 3.9**.

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

Year	ICPs notified greater than 5 days	Percentage on time	Average Business Days between Status Event and Status Input Dates
2019	3,306	7.39%	27.1
2020	36	91.47%	2.43
2021	177	84.22%	4.00

Six of the late updates were within 10 business days of the event date, 172 were within 30 business days, and the latest update was 251 business days after the event date.

167 of the late updates were MEP nominations from ARCS to NGCM, six were changes from HHY to HHR profile, and four were ANZSIC code changes. I checked the five latest profile changes and ANZSIC code changes, and the ten latest MEP nominations.

- The late profile changes were corrections following late information being provided by the MEP or for non-communicating meters.
- The late ANZSIC code changes were corrections identified through internal audits or as part of the switch out process.
- Seven late MEP nominations were changes from ARCS to NGCM processed on 9 June 2021 effective 6 May 2021. Flick was unable to confirm why the early event date was applied but believe it may have been requested by the MEP, and the acceptance of the seven MEP nominations supports this. Two late nominations occurred because of late notification by the MEP, and one was caused by a trader record accidentally being reversed and needing to be replaced.

One trader update had incorrect details applied; ICP 0007100582RND7B had NCGM nominated from 1 March 2020, but it should have been 1 March 2021. This is recorded as non-compliance in **section 2.1**.

The AC020 also identified 53 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** or were caused by backdated switches.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 3.3</p> <p>With: Clause 10</p> <p>Schedule 11.1</p> <p>From: 01-Nov-20</p> <p>To: 31-Aug-21</p>	<p>85 late status updates to active status.</p> <p>Ten late status updates to inactive status.</p> <p>177 late trader updates.</p> <p>53 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		
Low	<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>Most of the late trader updates and status updates were due to the inability to update registry while an ICP is in switch. This issue needs to be resolved through the Switch process review process by the authority.</p> <p>Late ANZSIC codes update cannot be fully resolved as this is dependent on customers advising us 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>		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 18/11/2021.</p> <p>The registry status and trader update process will be monitored and assessed through the monthly compliance report and quarterly Field internal audit.</p>		18/11/2021	

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

The new connection, MEP nomination and decommissioning processes were reviewed, and the registry list and audit compliance reports were examined to confirm process compliance.

A sample of MEP nomination rejections and decommissioned ICPs were examined.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

The audit compliance report did not record any “active” ICPs where the metering category was 9 or blank, indicating that no meters were present. All active ICPs are metered and have an 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 (“inactive - new connection in progress”) status. Late MEP nominations are recorded as non-compliance in **section 3.3**.

A service request is raised for each MEP nomination and added to the service order tracking spreadsheet. ICPs are monitored to ensure the MEP nominations are issued and accepted. The event detail report recorded 1,140 MEP nominations which had a corresponding MN record, all nominations were accepted by the MEP.

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. 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.

179 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. For nine ICPs the MEP was notified prior to decommissioning by raising a service order to remove the metering. The MEP was notified of the decommissioning of ICP 0001381020PC55D six days after the decommissioning date, because the house was relocated without Flick’s knowledge, and the network advised Flick of the decommissioning after it was completed. Flick notified the MEP on the day they received the notification from the network.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.4 With: Clause 11.18 From: 27-Oct-21 To: 02-Nov-21	The MEP was notified of the decommissioning of ICP 0001381020PC55D six days after the decommissioning 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 strong because the MEP is normally advised of decommissioning through a service order issued before decommissioning is completed. Late notification occurred because the network advised Flick of the decommissioning after it had occurred. Flick notified the MEP on the day they received the notification from the network, and the impact is assessed to be low.		
Actions taken to resolve the issue		Completion date	Remedial action status
This was out of Flick's control as the network advised us of the decommission after it had been completed. The house was relocated without Flick's knowledge.		18/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The network in question has been advised to notify Flick of their intention to decommission an ICP prior to decommission so that arrangement can be made with MEP's for meters to be removed from site.		18/11/2021	

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 processes were examined in detail to evaluate the strength of controls, and the registry list and audit compliance reports were examined to confirm process compliance.

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
2021	5	83.87%	6.65

Two of the late updates were within 10 business days of the event date, three were within 30 business days, and the latest update was 95 business days after the event date. The late updates were found to be caused by delays in processing updates where new staff were being trained and a key staff member was away sick, and delays in receiving and processing work completion paperwork. All five ICPs were claimed at 1,12 (“inactive - new connection in progress”) and the MEP was nominated prior to initial electrical connection. The correct status and event dates were applied.

New connection information accuracy

The AC020 did not record any ICPs which had an initial electrical connection date populated which had not been made active.

Eight ICPs had inconsistencies between the active status date, meter certification date, and/or initial electrical connection date on the AC020 report:

- six were timing differences, and the initial electrical connection date was updated to match the active status date after the report was run,
- ICP 0007198487RN3F4 had its active status date recorded as 2 November 2020 instead of 5 November 2020 and was corrected during the audit, and
- Flick’s status date was confirmed to be correct for the other ICP.

I checked the accuracy of status event dates for a further eight new connections and confirmed that they were correct.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 9 Schedule 11.1 From: 05-Nov-20 To: 08-Jul-21	Five late status updates for new connections. ICP 0007198487RN3F4 had its active status date recorded as 02/11/20 instead of 05/11/20 and was corrected during the audit. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong, because the late updates decreased as the audit period progressed and one data discrepancy was identified. The impact is assessed to be low, based on the ICPs affected and number of days late.		
Actions taken to resolve the issue		Completion date	Remedial action status
A robust training has been completed on new connection updates on 18/11/2021.		18/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The registry new connection status updates is going to be monitored through the weekly Safety Net report and monthly compliance report.		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 and AC020 reports were reviewed. ANZSIC codes were checked against google street view and registry property name information for a sample of 50 ICPs to determine compliance. Where codes could not be confirmed from registry and google street view information, I checked Flick's customer details to determine the correct code.

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. Blank ANZSIC codes and meter category two ICPs with residential ANZSIC codes are also checked. Any exceptions are validated by checking the address on Google maps and/or contacting the customer.

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

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

I checked a sample of 50 ICPs with the six most frequently applied ANZSIC codes. 49 ANZSIC codes were confirmed to be correct. The ANZSIC code for 0001202483TU4A7 is recorded as D281100 water supply but should be I530900 - Other Warehousing and Storage Services. The code was corrected during the audit.

The previous audit recommended that the ANZSIC code for ICP 0000031838EA3AC should be confirmed and updated, and this has been completed.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.6</p> <p>With: Clause 9 (1(k) of Schedule 11.1</p> <p>From: 15-Mar-19</p> <p>To: 02-Nov-21</p>	<p>The ANZSIC code for 0001202483TU4A7 was recorded as D281100 water supply but should be I530900 - Other Warehousing and Storage Services. The code was corrected during the audit.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Once</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are strong because good validation is in place and only one exception was identified.</p> <p>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.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Registry has been updated with the correct ANZSIC code.		12/11/2021	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>We cannot fully avoid re-occurrence of this issue as we are dependent on our customers in correctly identifying their end use during sign up.</p> <p>ANZSIC validation report is 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 and audit compliance report were examined to identify any ICPs with unmetered load.

Audit commentary

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.

Flick has not supplied any ICPs with unmetered load during the audit period, and the AC020 report did not identify any unmetered load discrepancies. All active ICPs are metered.

The 2017, 2018, 2019, and 2020 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. 14-month revisions have passed for the affected periods, and non-compliance was recorded for under submission of 8.65 kWh of unmetered load in the 2020 audit.

Flick's engineered profile (HHU) was approved by the Authority on 1 December 2020 and allows submission of unmetered load to the reconciliation manager. If unmetered load is supplied in the future, Flick will 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 for inclusion in the HHR aggregates and volumes files.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

The new connection process was examined in detail in **sections 2.9**, and the timeliness and accuracy of registry updates is discussed in **section 3.5**.

The timeliness of registry updates for reconnections is assessed in **section 3.3**, and a sample of ten updates were checked for accuracy.

Audit commentary

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

ICPs are updated to active status manually on the registry once the connection or reconnection has been confirmed by the MEP.

New connection information accuracy

The AC020 did not record any ICPs which had an initial electrical connection date populated which had not been made “active”.

Eight ICPs had inconsistencies between the active status date, meter certification date, and/or initial electrical connection date on the AC020 report.

- six were timing differences, and the initial electrical connection date was updated to match the active status date after the report was run,
- ICP 0007198487RN3F4 had its active status date recorded as 2 November 2020 instead of 5 November 2020 and was corrected during the audit, and
- Flick’s status date was confirmed to be correct for the other ICP.

I checked the accuracy of status event dates for a further eight new connections and confirmed that they were 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 apart from 0000010228MLB36 which had its status date corrected during the audit.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.8 With: Clause 11.18 From: 14-Dec-18 To: 05-Nov-21	ICPs 0000010228MLB36 and ICP 0007198487RN3F4 had incorrect active status dates which were corrected during the audit. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate, 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. The impact is low because there was a small difference between the correct and applied dates, and the errors were corrected during the audit.		
Actions taken to resolve the issue		Completion date	Remedial action status
A robust training has been completed on 18/11/2021 on status update through reconnection .		18/11/2021	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
The registry status update through re-connection is going to be monitored through the weekly Safety Net report and monthly compliance report.		Ongoing	

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

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

Audit observation

The disconnection process was examined using the AC020 and event detail reports. The timeliness of data for disconnections is assessed in **section 3.3**, and a sample of updates were checked for accuracy.

The registry list file was examined to identify any ICPs that had been at the “inactive - new connection in progress” for more than 24 months.

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 22 updates to inactive status, including at least five (or all) 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:

- 0387281169LC942 which was disconnected on the registry in error, and the event was reversed during the audit, and
- 0420349359LCF6E which had 9 April 2021 applied instead of 27 April 2021 and was corrected during the audit.

24 ICPs with the AMI metering flag set to no had the 1,7 (“electrically disconnected remotely by AMI meter”) status applied. All had HHR metering and were able to be disconnected remotely.

Five ICPs were at 1,12 “inactive - new connection in progress” status. None have been at the status for more than four months.

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

Inactive ICPs with consumption

Consumption for all trading periods is recorded in Telemetry. If the ICP has inactive status on a particular day, any volumes for that day will be excluded from submission.

In reality, disconnections and reconnections occur part way through the day, so the ICP is both active and inactive on the disconnection and reconnection date. The registry only allows one status to be recorded per day, which applies effective from 12.00am.

When processing disconnections, Flick enters the date that the disconnection was completed as the disconnection date; making the ICP inactive for the whole day and excluding any consumption recorded on the disconnection date from submission. 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. I checked a sample of 22 disconnected ICPs, and found seven had some consumption on the disconnection date which was excluded from submission:

ICP Identifier	Status Event Date	Status reason description	Inactive kWh
0006036163RN1BC	10/03/2021	Electrically disconnected ready for Decommissioning	0.034
0420349359LCF6E	9/04/2021	Electrically disconnected due to meter disconnected	0.07
0005512204RN9D0	17/11/2020	Electrically disconnected remotely by AMI meter	0.4
0006470351RNB2C	07/05/2021	Electrically disconnected ready for Decommissioning	0.6
0000059120TRFBB	15/07/2021	Electrically disconnected remotely by AMI meter	1.217
0000196482UN140	19/05/2021	Electrically disconnected due to meter disconnected	7.377
0000146524TR75D	03/03/2021	Electrically disconnected due to meter disconnected	15.309
Total			25.007

As recorded in the previous audit, I recommend Flick reviews their disconnection process to ensure that all consumption is captured either by processing corrections to capture inactive consumption or changing the status to inactive from the first full day that the ICP is disconnected.

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, or process corrections to capture inactive consumption.	We will adopt the recommendation and change our internal process to reflect inactive status in registry 1 day after the date of disconnection/decommission. This will ensure that the inactive consumption is captured and reconciled to the market.	Identified

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.9 With: Clause 19 Schedule 11.1 From: 16-Nov-20 To: 02-Nov-21	ICPs 0387281169LC942 and 0420349359LCF6E had incorrect disconnection records on the registry which were corrected during the audit. Seven ICPs had consumption recorded on a date with inactive status. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate, 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. There is a small impact because consumption during inactive periods is excluded from submissions.		
Actions taken to resolve the issue		Completion date	Remedial action status
The incorrect disconnection records mentioned above has been corrected in registry. 25.007 units of inactive consumption has now been added to our system to be reconciled to the market through revision submission.		17/11/2021	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Our internal process has been changed to reflect inactive status in registry 1 day after the date of disconnection/decommission. This will enable the inactive consumption to be captured and reconciled to the market.	18/11/2021	

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

Whilst this is a distributor's code obligation, I investigated whether any queries had been received from distributors in relation to ICPs at the "new" or "ready" status for more than 24 months and the process in place to manage and respond to such requests.

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

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 then 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. NTs have been automatically sent from the provisioning system since June 2019.

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

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

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 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 diverse sample ANs were checked to determine whether the codes had been correctly applied.

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

Audit commentary

AN content

AN files are generated by the provisioning system. The AN process assigns response codes based on a hierarchy, and the AN event date is set as the receipt date + five business days for transfer switches. Where the system cannot determine the correct code or date, an exception is sent to the errors app, and a user will assign the correct values and manually process the AN on the registry.

I checked the 2,568 AN files on the event detail report where metering details were available on the registry list with history. All had AMI metering at the time the AN was issued and the AD (advanced metering) response code was correctly applied.

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 2,683 transfer ANs to assess compliance with the setting of event dates requirements.

- 2,682 ANs (99.96%) had proposed event dates within five business days of the NT receipt date.
- All 2,683 had proposed event dates within ten business days of the NT receipt date.

AN timeliness

The switch breach history report is monitored daily to identify ICPs which require AN files.

The switch breach history 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 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 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 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

The switch breach history report is used to monitor the timeliness of CS files. Flick manually adds extra fields to the report for cross checking, including comments.

The switch breach history report recorded two CS breaches for transfer switches, where the CS arrival date was more than five business days after the actual transfer date. The files were primarily late because the gaining trader had requested a backdated event date, and Flick complied with the request. Both CS files were sent within five business days of NT receipt and processed manually on the registry by Flick.

CS content

CS files are automatically generated from the provisioning system, unless they fail to be generated because they have an Arc meter, do not have an actual reading on the last day of supply, or a switch move is requested for an occupied ICP. In these cases (up to 25% of switches) a work item that needs action is created in the provisioning system, and the user manually creates the CS file on the registry using information from the provisioning system and Telemetry.

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. If no readings are received over the past 30 days, zero is reported.

Flick had been waiting for amendments to the switching process proposed by the Switch Technical Group to be finalised before making changes to their processes. In the meantime, they believe their method provides an accurate estimate of average daily kWh except where no readings are received.

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 for a manually created CS file for an Arc meter.
Zero	20	Five ICPs with zero consumption were checked and found to have actual zero consumption in the last read to read period.
More than 200 kWh	1	The consumption was based on the previous 30 days rather than the last actual read but was within 1 kWh of the correct value.

I checked a sample of a further three transfer switch CS files and found the average daily consumption did not reflect the average daily consumption between the last two actual reads, because Telemetry calculates consumption over the last 30 days, but all other content was correct.

I checked for discrepancies between the last actual read date and switch event reading type for transfer switch CS files and found:

- two transfer switches had a last actual read date more than one day before the event date and an actual switch event read type,
- 56 transfer switches had a last actual read date the day before the event date and an estimated switch event read type, and
- the transfer switch for 0005263689RN1D2 had an event date of 17 May 2020, but the NT proposed date and AN proposed date were 17 May 2021 and last actual read date and switch event reading were for 16 May 2021; the incorrect event date was caused by a typo and corrected through the withdrawal process.

I checked a sample of eight or all CS files for each exception type. The following read, read type, and last actual read date errors were identified:

Exception type	Qty	Detail
Incorrect last actual read date	7	0000016346WEFAF 6/01/2021 - 05/01/20 should be 05/01/21 0001221367PCBB5 13/01/2021 - 12/01/20 should be 12/01/21 1001303682LC399 25/01/2021 - 24/01/21 should be 18/01/21 1001303571LCC4D 2/02/2021 - 01/02/21 should be 11/02/21 0005502102ML5D 13/03/2021 - 02/03/21 should be 18/02/21 0000015466TR981 01/04/21 - 31/03/21 should be 30/03/21 006033725RN3B0 15/06/21 - 14/06/21 should be 01/06/21

Exception type	Qty	Detail
		The incorrect last actual read dates were either typos entering dates, or the user manually selected last day of supply instead of last actual read date.
Incorrect read type	3	0007036922RN9E8 25/05/21 - E should be A 0006483933RN92F 10/06/21 - E should be A 0007103580RNF1E 02/08/21 - E should be A
Incorrect read	3	0000015466TR981 01/04/21 - 237 should be 239 (-2 kWh) 0006033725RN3B0 15/06/21 - 79086 should be 79362 (+276 kWh). The read for 01/06/21 was applied in error. 0007036922RN9E8 25/05/21 - Reg 2 87609 should be 51060 (-36549 kWh). Reg 1 reading was entered for both registers. An RR was later issued and accepted.

No transfer switch ICPs switched out with HHY profile.

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
<p>Audit Ref: 4.3</p> <p>With: Clause 5 Schedule 11.3</p> <p>From: 23-Dec-20</p> <p>To: 10-Aug-21</p>	<p>Two CS breaches for transfer switches.</p> <p>At least four transfer CS files contained average daily kWh inconsistent with the requirements of the registry functional specification.</p> <p>Seven CS files had an incorrect last actual read date.</p> <p>Three CS files had an incorrect read type.</p> <p>Three CS files had an incorrect CS event read.</p> <p>0005263689RN1D2 had an incorrect switch event date applied and was corrected through the withdrawal process.</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		
<p>Low</p>	<p>The controls are rated as moderate overall. At least 75% of switches are created automatically by the provisioning system. No discrepancies between read types and last actual read dates were identified for automatically generated files, and the sample of files checked were accurate apart from average daily kWh, which was calculated based on the previous month, rather than previous actual read to read period. Where files were manually created there were some errors in:</p> <ul style="list-style-type: none"> last actual read dates, where they contained typos or the last day of supply was selected instead of the last actual reading, some read types were incorreced keyed, and some readings were incorrect because the wrong read was entered for the meter, the reading for the wrong date was selected or a typo was made when entering the reading. <p>The audit risk rating is low overall:</p> <ul style="list-style-type: none"> most Flick ICPs have communicating AMI meters and the gaining retailer is likely to receive actual readings soon after the ICP switches in, reducing the likelihood of forward estimate being calculated from the average daily kWh value (in most cases the average daily kWh provided was a reasonable estimate of the ICP's consumption), 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, the only large difference between the correct and applied event reading was resolved through the RR process; the impact of the other discrepancies is minor, and the incorrect switch event date was corrected through the withdrawal process and the impact is low. 		
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. We are waiting for this to be resolved by the authority through the Switch process review.</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 18/11/2021.</p>	<p>18/11/2021</p>	<p>Identified</p>	

Preventative actions taken to ensure no further issues will occur	Completion date	
<p>The submission of the CS file contents will be assessed and monitored through the scheduled monthly compliance reporting and quarterly Switch internal audits.</p> <p>We intend to automate the remaining 25% of switch outs. This will eliminate the manual errors identified above.</p>	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 was analysed to identify all read change requests and acknowledgements during the audit period. A sample of RR and AC files issued for transfer switches were checked to confirm that the content was correct, and that Telemetry reflected the outcome of the RR process.

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

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

Audit commentary

Application of CS readings

Switch ins are monitored in the provisioning system, which checks switch in readings against Telemetry reading data and creates a case that "needs action" where a read difference occurs, and a case

“awaiting telemetry” where a switch has been completed but readings have not been received. Staff work through the cases which need action in the provisioning system and either:

1. accept the CS reading which will estimate data from the CS reading until the next actual reading,
2. ignore the difference where it is within ± 1 kWh of the actual reading, or
3. manually issue an RR.

Where an ICP switches in and no subsequent readings were entered, Telemetry does not create an estimate because insufficient history is available for an estimate to be generated. This is discussed further and recorded as non-compliance in **sections 11.4 and 12.2**.

Awaiting telemetry cases are monitored and followed up with the MEP as necessary to obtain actual data.

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:

- for three ICPs, the CS estimate was correctly applied in Telemetry,
- for ICP 0005294509RN667 (17 May 2021) no readings have been received after switch in, and no submission has occurred because there is insufficient history to create estimates; this is recorded as non-compliance in **sections 2.1, 9.4, 11.4, 12.2 and 12.7**, and
- the other switch was later withdrawn.

RR

Flick issued 204 RRs for transfer switches. 42 were rejected and 162 were accepted.

R Rs are created manually using information from the provisioning system. 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.

I checked previous audit non-compliances and found they had been resolved.

AC

ACs due to be issued are identified by working through RR files received from the registry and the switch breach history report. 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.

Flick issued 39 ACs for transfer switches. 25 were rejected and 14 were accepted. I checked five rejected and five accepted AC files and found that the CS reading matched the AMI data received by Flick, and the correct readings were recorded in Telemetry. For ICPs 0006880711RN2DA (12 March

2021) and 0007000499RN46A (27 April 2021) the agreed switch reading was recorded in Telemetry as estimated but should have been actual.

Timeliness of RR and AC files

The switch breach history report recorded no late AC files and three late RR files for transfer switches. The files were 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: 23-Apr-21 To: 30-Jul-21	Three RR breaches. Switch event readings for 0006880711RN2DA (12/03/2021) and 0007000499RN46A (27/04/2021) were recorded as estimates in Telemetry but should have been actual. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate, because: <ul style="list-style-type: none"> most RR and AC files were issued on time, and the delays were caused by waiting for metering information, and the manual process to update Telemetry where an RR is rejected normally ensures that the correct read type is applied. 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	Remedial action status
The read type for both ICP's mentioned above has been corrected in Telemetry.		18/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Robust training has been provided to the team on the RR process on 18/11/2021. RR process will be monitored through monthly compliance reporting and quarterly switch internal audits.		Ongoing	

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

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

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

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

Audit observation

The process for the management of read requests was examined. The event detail report was analysed to identify read change requests issued and received under Clause 6(2) and (3) Schedule 11.3 and determine compliance.

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.

21 RR files sent within five business days were rejected. I checked five rejected RRs, and found the correct readings were recorded for all ICPs in Telemetry.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 11.3

Code related audit information

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

The switch move process applies where a gaining trader has an arrangement with a customer or embedded generator to trade electricity at an ICP using non-half-hour metering or an unmetered ICP, or

to assume responsibility for such an ICP, and no other trader has an agreement to trade electricity at that ICP, this is referred to as a switch move and the following provisions apply:

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

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

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

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

Audit observation

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

A typical sample of 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.

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. NTs have been automatically sent from the provisioning system since June 2019.

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

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

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

- *10(1)(a) If the losing trader accepts the event date proposed by the gaining trader, the losing trader must complete the switch by providing to the registry manager:*
 - *confirmation of the switch event date; and*
 - *a valid switch response code; and*
 - *final information as required under clause 11; or*
- *10(1)(b) If the losing trader does not accept the event date proposed by the gaining trader, the losing trader must acknowledge the switch request to the registry manager and determine a different event date that—*
 - *is not earlier than the gaining trader’s proposed event date, and*

- is no later than 10 business days after the date the losing trader receives notice, or
- 10(1)(c) request that the switch be withdrawn in accordance with clause 17.

Audit observation

The event detail report 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 diverse sample ANs were checked to determine whether the codes had been correctly applied.

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

Audit commentary

AN content

AN files are generated by the provisioning system. The AN process assigns response codes based on a hierarchy, and the AN event date is set as the NT requested date for switch moves unless this falls before the last date the ICP was billed. In these cases, the day after the last billing date is proposed.

Where the system cannot determine the correct code or date, or a switch move is requested where Flick has a current customer, an exception is sent to the errors app, and a user will assign the correct values and manually process the AN on the registry.

I checked the 3,604 AN files on the event detail report where metering details were available on the registry list with history. All had the correct AN codes selected apart from:

ICP	Event date	Applied code	Correct code
0143707612LC240	1/05/2021	AA (Acknowledge and accept)	AD (Advanced metering)
0399793558LC048	10/05/2021	AA (Acknowledge and accept)	AD (Advanced metering)
0006980740RN2FB	31/03/2021	AA (Acknowledge and accept)	AD (Advanced metering)
0005299985RN61F	22/03/2021	OC (Occupied premises)	AD (Advanced metering)
0000872290WPD48	9/08/2021	OC (Occupied premises)	AD (Advanced metering)

All 4,962 switch move AN files were examined on the event detail report:

- 13 ANs (0.26%) had proposed event dates later than 10 business days after receipt of the NT, which were also recorded as ET breaches on the switch breach history report, and
- no ANs had a proposed transfer date earlier than the gaining trader's proposed date.

The ANs with non-compliant dates were all created manually.

AN and CS timeliness

The switch breach history report is used to monitor the timeliness of AN and CS files. Flick manually adds extra fields to the report for cross checking, including comments.

The switch breach history report was reviewed to determine whether switch move AN and CS files were issued on time, and found:

- there were no late AN files, and
- three E2 breaches where the NT proposed transfer date and CS actual transfer date do not match, and the CS transfer date is earlier than NT proposed transfer date or more than ten business days after receipt of the NT, one breach was not valid because the NT proposed event

date and CS transfer date matched, but the other two were issued effective from the day before the proposed event date (one file was generated manually and one file was generated by the provisioning system).

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.8 With: Clause 10(1) Schedule 11.3 From: 04-Dec-20 To: 12-Aug-21	13 ET breaches for switch moves. Two E2 breaches for switch moves. Five ANs did not have the correct AN response code applied. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate. A small number of errors occurred, mainly for manually generated files. The impact is assessed to be low because the switches were completed as expected, and the E2 breaches were close to the expected dates.		
Actions taken to resolve the issue		Completion date	Remedial action status
Re-training has been provided to the switch team on 18/11/2021 on the AN process.		18/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The AN process will be monitored through monthly compliance reporting and quarterly switch internal audits.		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

The event detail report was reviewed to identify AN files issued by Flick during the audit period, and assess compliance with the requirement to meet the setting of event dates requirement.

Audit commentary

Review of the event detail report found 591 AN files had a proposed event date which differed from the gaining trader's requested date.

As described in **section 4.8**, 13 proposed event dates for switch moves were non-compliant. Switches were completed as required by this clause:

- four switches were later withdrawn and re-requested from a different date,
- seven switches were completed from the gaining trader's NT proposed event date, and
- two switches were completed from a compliant event date within ten business days of receiving the NT.

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 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 records per trader code. 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 these CS files were checked to determine whether the average daily consumption was correct.

Audit commentary

CS files are automatically generated from the provisioning system, unless they fail to be generated because they have an Arc meter, do not have an actual reading on the last day of supply, or a switch move is requested for an occupied ICP. In these cases (up to 25% of switches) a work item that needs action is created in the provisioning system, and the user manually creates the CS file on the registry using information from the provisioning system and Telemetry.

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. If no readings are received over the past 30 days, zero is reported.

Flick had been waiting for amendments to the switching process proposed by the Switch Technical Group to be finalised before making changes to their processes. In the meantime, they believe their method provides an accurate estimate of average daily kWh except where no readings are received.

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	182	Five ICPs with zero consumption were checked. Three CS files for ICPs with communications issues and no actual reads were automatically created by the provisioning system. The average daily kWh should have been based on the incoming CS file and been between 13 and 54 kWh per day. Two CS files were manually created by users. One had no readings and should have had average daily kWh of 3 based on the incoming CS file. The other file had actual reads and should have had average daily kWh of 11.
More than 200 kWh	1	High consumption was calculated in error for a manually created CS file for an Arc meter.

One switch move ICP switched out with HHY profile on its last day of supply. ICP 0001802659EN870 (23 March 2021) switched out on an estimated reading which was calculated based on an actual reading dated after the end of Flick's period of supply. The readings and read types were correct.

I checked for discrepancies between the last actual read date and switch event reading type for switch move CS files. All the files with exceptions were created manually because Telemetry was unable to automatically process the CS file.

- 11 switch moves had a last actual read date more than one day before the event date and an actual switch event read type. A sample of six were checked.
- 104 switch moves had a last actual read date the day before the event date and an estimated switch event read type. A sample of nine were checked.

The following read, read type, and last actual read date exceptions were identified:

Exception type	Qty	Detail
Incorrect last actual read date	12	0000740762TU2E4 12/11/20 - 07/01/20 should be 08/11/21 0007019424RNDC2 17/04/21 - 18/03/21 should be 16/04/21 0007120250RN673 04/08/21 - 02/08/21 should be 03/08/21 0005569702RN803 8/01/2021 - 08/11/20 should be 07/01/21 0007133360RN28E 2/04/2021 - 31/03/21 should be 01/04/21 0417163045LC436 15/12/2020 - 14/12/20 should be 13/12/20

Exception type	Qty	Detail
		0396628737LC312 23/12/2020 - 22/12/20 should be 21/12/20 1002038520UNBA7 27/01/2021 - 26/01/21 should be 11/01/21 0000057359TR670 5/03/2021 - 04/03/21 should be 16/02/21 0102539227LC957 31/03/2021 - 30/03/21 should be 29/03/21 0000902465TUEEE 19/06/2021 - 18/06/21 should be 17/06/21 0000045907CP203 05/02/21 - 19/03/19 should be 20/01/21 The incorrect last actual read dates were either typos entering dates, or the user manually selected last day of supply instead of last actual read date.
Incorrect read type	4	0000045907CP203 05/02/21 - A should be E 0006726135RN5D1 13/05/21 - E should be A 1000551879PC4C9 28/05/21 - E should be A 0007102731RNA4E 10/08/21 - E should be A
Incorrect read	3	0000740762TU2E4 12/11/20 - 30870 should be 30893 (+23 kWh). 0007019424RNDC2 17/04/21 - R1 10052 should be 10139 and R2 15262 should be 15414 (+239 kWh). The reads applied were for the wrong date. 0007120250RN673 04/08/21 - R1 71707 should be 71716 and R2 67817 should be 67820 (+12 kWh). The reads applied were for the wrong date.

I checked a sample of a further three switch move CS files and found that average daily kWh did not reflect the average daily consumption between the last two actual reads. HHY ICP 0001802659EN870's average daily consumption also did not reflect the consumption between the last two actual reads.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.10 With: Clause 11 Schedule 11.3 From: 23-Dec-20 To: 10-Aug-21	At least six CS files contained average daily kWh inconsistent with the requirements of the registry functional specification. 12 CS files had an incorrect last actual read date. Four CS files had an incorrect read type. Three CS files had an incorrect CS event read. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	The controls are rated as moderate overall. At least 75% of switches are created automatically by the provisioning system. No discrepancies between read types and

	<p>last actual read dates were identified for automatically generated files, and the sample of files checked were accurate apart from average daily kWh, which was calculated based on the previous month, rather than previous actual read to read period. Where files were manually created there were some errors in:</p> <ul style="list-style-type: none">• last actual read dates, where they contained typos or the last day of supply was selected instead of the last actual reading,• some read types were incorreced keyed, and• some readings were incorrect because the reading for the wrong date was selected, or a typo was made when entering the reading. <p>The audit risk rating is low overall:</p> <ul style="list-style-type: none">• most Flick ICPs have communicating AMI meters and the gaining retailer is likely to receive actual readings soon after the ICP switches in, reducing the likelihood of forward estimate being calculated from the average daily kWh value (in most cases the average daily kWh provided was a reasonable estimate of the ICP’s consumption),• 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, and• the impact of the discrepancies between the correct and applied event readings is minor.		
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. We are waiting for this to be resolved by the authority through the Switch process review.</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 18/11/2021.</p>		18/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>The submission of the CS file contents will be assessed and monitored through the scheduled monthly compliance reporting and quarterly Switch internal audits.</p> <p>We intend to automate the remaining 25% of switch outs. This will eliminate the manual errors identified</p>		Ongoing	

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within 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 dispute 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 was analysed to identify all read change requests and acknowledgements during the audit period. A sample of RR and AC files issued for transfer switches were checked to confirm that the content was correct, and that Telemetry reflected the outcome of the RR process.

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

The switch breach history 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 four cases, the CS estimate reading

was correctly applied in Telemetry and in the other case an RR for the correct reading was later issued and accepted.

RR

Flick issued 1,478 RRs for switch moves. 322 were rejected and 1,156 were accepted.

Rrs are created manually using information from the provisioning system. 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 found three had the incorrect read recorded in Telemetry and were corrected by re-issuing an RR which was accepted during the audit.

I checked previous audit non-compliances and found they had been resolved, apart from 0005735882RN26A (31 July 2020) where the difference between the agreed and applied reading was within 1 kWh.

AC

ACs due to be issued are identified by working through RR files received from the registry and the switch breach history report. 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.

Flick issued 71 ACs for switch moves. 39 were rejected and 32 were accepted. I checked five rejected and five accepted AC files, and in all cases the agreed switch reading was applied, and rejections occurred for valid reasons.

Timeliness of RR and AC files

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

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.11 With: Clause 12 of Schedule 11.3 From: 19-Apr-21 To: 12-May-21	Two RR breaches for switch moves. Three RRs had the incorrect read recorded in Telemetry and were corrected by re-issuing an RR which was accepted during the audit. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate, because:</p> <ul style="list-style-type: none">most RR files were issued on time, and the delays were caused by waiting for metering information, andthe manual process to update Telemetry where an RR is rejected normally ensures that the correct read type is applied. <p>The impact is low because the agreed switch readings were confirmed and applied through the RR process and there is no impact on submission, and the late files have a minor impact on other participants.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Read recorded in Telemetry for 3 ICP’s mentioned above were corrected after RR’s reissued were accepted.		12/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Robust training has been provided to the team on the RR process on 18/11/2021. RR process will be monitored through monthly compliance reporting and quarterly switch internal audits.		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 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 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 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)):*

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

Audit observation

The event detail reports were reviewed to:

- identify all switch withdrawal requests issued by Flick, and check a sample for accuracy,
- identify all switch withdrawal acknowledgements issued by Flick, and check a sample of rejections, and
- confirm timeliness of switch withdrawal requests.

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

Audit commentary

NW and AW files are manually processed on the registry.

NW

748 NWs were issued by Flick; 87 (11.6%) were rejected by the other trader. The content of a sample of 21 files were checked and the following error were identified:

- three NWs were issued for the wrong ICPs and rejected by the other trader, and
- the NW for 0000064496TR28F (9 March 2021) should have been issued with advisory code WS (wrong switch type) instead of WP (wrong premises).

The switch breach history report recorded nine NA breaches for NWs issued more than two calendar months after the CS actual transfer date. Seven were delayed by investigation to confirm the withdrawal was required, one was a double withdrawal, and one file was sent in error because an incorrect ICP was selected.

AW

AWs due to be issued are identified by working through NW files received from the registry and the switch breach history report.

945 NWs were issued to Flick, and 105 (11.1%) of these were rejected. I reviewed a sample of 15 rejected NWs including two or all rejected for each reason code, and the rejections were based on the information available at the time the response was issued.

The switch breach history 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: 12-Jan-21 To: 21-May-21	Nine NA breaches. Four NWs were issued for the wrong ICPs and rejected by the other trader. The NW for 0000064496TR28F (09/03/21) should have been issued with advisory code WS (wrong switch type) instead of WP (wrong premises). 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 withdrawals were manually created, 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.		18/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Re-training has been provided to the switch team on 18/11/2021 on the withdrawal process. The withdrawal process will be monitored through monthly compliance reporting 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.

Six CS files contained switch event readings which did not reflect the reading at the end of Flick's last day of supply:

ICP and event date	Applied read	Correct read	Difference	Comment
0000015466TR981 01/04/21	237	239	-2 kWh	The read for 01/06/21 was applied in error.
0006033725RN3B0 15/06/21	79086	79362	+276 kWh	
0007036922RN9E8 25/05/21	R2 87609	R2 51060	-36,549 kWh	The R1 reading was entered for both registers. An RR was later issued and accepted.
0000740762TU2E4 12/11/20	30870	30893	+23 kWh	
0007019424RNDC2 17/04/21	R1 10052 R2 10139	R1 10139 R2 15414	+239 kWh	The reads applied were for the wrong date.
0007120250RN673 04/08/21	R1 71707 R2 67817	R1 71716 R2 67820	+12 kWh	

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: 12-Dec-20 To: 04-Aug-21	For six CS files issued by Flick, the switch event readings did not reflect the actual reading or estimated reading on the last day of supply. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are moderate, all the incorrect readings were in manually created CS files and most CS files are generated automatically by the provisioning system. The audit risk rating is low, based on the kWh difference and that the largest difference was resolved through the RR process.		
Actions taken to resolve the issue		Completion date	Remedial action status
Retraining has been provided to the switch team on the submission of read through the CS file and updating telemetry with the CS accepted read where applicable.		18/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The submission of read through the CS file and telemetry updates will be monitored through the monthly compliance reporting 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 processes were discussed. The event detail report was analysed to identify all withdrawn switches with a CX code applied within 180 days of switch completion post 31 March 2020. A sample were checked to determine compliance.

Audit commentary

No win-back activity is completed. 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 within 180 days of switch completion where Flick was the losing trader 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 manage unmetered load was examined. The registry list and audit compliance report 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, and the AC020 report did not identify any unmetered load discrepancies. All active ICPs are metered.

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, 2019 and 2020 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. 14-month revisions have

passed for the affected periods, and non-compliance was recorded for under submission of 8.65 kWh of unmetered load in the 2020 audit.

Flick's engineered profile (HHU), which allows submission of unmetered load to the reconciliation manager was approved by the Authority on 1 December 2020. Flick will 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.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (2)(b)

Code related audit information

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

Audit observation

The registry list and audit compliance report were examined to determine compliance.

Audit commentary

Flick has not supplied any ICPs with unmetered load during the audit period, and the AC020 report did not identify any unmetered load discrepancies. All active ICPs are metered.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The registry list and audit compliance report were examined to determine compliance.

Audit commentary

Flick has not supplied any ICPs with unmetered load during the audit period, and the AC020 report did not identify any unmetered load discrepancies. All active ICPs are metered.

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 and audit compliance report were examined to determine compliance.

Audit commentary

Flick has not supplied any ICPs with unmetered load during the audit period, and the AC020 report did not identify any unmetered load discrepancies. All active ICPs are metered.

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 and AC020 were examined 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 **section 6.6**.

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 618 ICPs with generation recorded by the distributor, and 617 of those had import/export metering installed and the other had its generation details removed by the network after the report was run.

I checked submission data for the 615 ICPs with generation metering for February 2021, and found all of the ICPs which were active, generating, and had generation metering installed in February 2021 had generation volumes submitted.

The AC020 report did not identify any ICPs with generation indicated where the profile appeared incorrect.

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: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong as they are sufficient to mitigate risk most of the time. 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
A process change has been implemented where data will be estimated using a non-flat profile (fluctuating half hour data) for all ICP's requiring data estimation for the bridged period.		12/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The bridged period data estimation will be monitored through quarterly data and reconciliation internal audits.		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 AC020 reports and registry lists were reviewed to confirm the profiles used.

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. No exceptions were recorded on the AC020 report.

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 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 to replace or un-bridge the meter, and the MEP was 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, and I checked a sample of notifications from each MEP.

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 SFTP, and I viewed examples of these.

Clock synchronisation events are reviewed on receipt, to determine whether the issue has been resolved or a field services job is required. Flick does not have a process to estimate data where a clock synchronisation event affects more than one trading period and I recommend a process is developed.

Description	Recommendation	Audited party comment	Remedial action
Clock synchronisation events	Where a clock synchronisation over 1800 seconds occurs, and data for multiple trading periods is pushed into the period of adjustment, develop a process to spread the total consumption for the adjustment period across the periods it actually occurred within.	We will adopt the recommendation and will develop a process to spread the total consumption for the adjustment period across the periods it actually occurred within.	Identified

Most clock adjustments reviewed were small, but found 83 ICPs with Arc meters where adjustments between +3595 and +3605 seconds occurred on 4 April 2021 when daylight savings ended, and 70 ICPs where amendments between -3595 and -3606 seconds occurred on 26 September 2021 when daylight savings began. Flick supplies 2,122 active ICPs with HHR settled Arc meters in total.

AMS (who provide data for Arc meters) confirmed that one hour adjustments to the displayed time occur on daylight savings changes for meters with GPRS controllers, and data is still recorded against the correct interval and provided to Flick in NZST. I checked the raw Arc meter data for a sample of five affected ICPs and found the Arc raw data contained 48 trading periods for both days. Flick's daylight savings adjustment process is compliant, and is discussed further in **section 12.1**.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

The data collection process was examined.

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.

Flick endeavours to ensure that the customer wants to remain with Flick, and that the meter upgrade will be able to be completed within 112 days. In the event that an ICP switches out before the upgrade is complete, Flick uses the customer's photo read and switch in read to calculate an estimated switch out read. Flick's policy is to treat these readings as estimated reads.

Flick also considers photo readings when preparing estimates for other ICPs where actual AMI data cannot be obtained prior to the ICP switching out. 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 readings from another source. If photo readings are used to calculate consumption, the interval data is labelled as estimated. Examples were checked to confirm this.

ICP 0001802659EN870 switched out on the HHY profile during the audit period. An upgrade to HHR metering was completed on 27 March 2021 and Flick received actual meter exchange readings. A backdated switch move CS effective from 20 March 2021 was provided on 31 March 2021. The CS file contained estimated readings which were calculated using the meter exchange readings and switch in readings.

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 15.2

Code related audit information

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

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

Audit observation

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.

Audit commentary

The content of CS and RR files was examined in **sections 4.3, 4.4, 4.10 and 4.11**.

Six CS file contained switch event readings which did not relate to the end of Flick's last day of supply:

ICP and event date	Applied read	Correct read	Difference	Comment
0000015466TR981 01/04/21	237	239	-2 kWh	The read for 01/06/21 was applied in error.
0006033725RN3B0 15/06/21	79086	79362	+276 kWh	
0007036922RN9E8 25/05/21	R2 87609	R2 51060	-36,549 kWh	The R1 reading was entered for both registers. An RR was later issued and accepted.
0000740762TU2E4 12/11/20	30870	30893	+23 kWh	
0007019424RNDC2 17/04/21	R1 10052 R2 10139	R1 10139 R2 15414	+239 kWh	The reads applied were for the wrong date.
0007120250RN673 04/08/21	R1 71707 R2 67817	R1 71716 R2 67820	+12 kWh	

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 6.7</p> <p>With: Clause 6 Schedule 15.2</p> <p>From: 12-Dec-20</p> <p>To: 04-Aug-21</p>	<p>For six CS files issued by Flick, the switch event readings did not reflect the actual reading or estimated reading on the event date.</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	<p>The controls are moderate, all the incorrect readings were in manually created CS files and most CS files are generated automatically by the provisioning system.</p> <p>The audit risk rating is low, based on the kWh difference and that the largest difference was resolved through the RR process.</p>	
Actions taken to resolve the issue		Completion date
Retraining has been provided to the switch team on the submission of read through the CS file		18/11/2021
Preventative actions taken to ensure no further issues will occur		Completion date
The submission of read through the CS file will be monitored through the monthly compliance reporting and quarterly switch internal audits.		18/11/2021
		Identified

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 was reviewed to identify all ICPs with HHY profile and/or NHH certified 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 is successfully completed, Flick obtains an actual meter removal read within their period of supply,
- where a switch is withdrawn before an upgrade is completed, Flick's period of supply is removed, and they are relieved of their obligation to obtain a reading during the period of supply, and

- where an ICP switched out before the upgrade, Flick uses the switch in read and photo reads received from the customer to estimate a CS reading; an actual reading is not obtained during the period of supply unless the switch in read is actual.

I checked the one ICP which switched out with HHY profile during the audit period (ICP 0001802659EN870). An upgrade to HHR metering was completed on 27 March 2021 and Flick received actual meter exchange readings. A backdated switch move CS effective from 20 March 2021 was provided on 31 March 2021. The CS file contained estimated readings which were calculated using the meter exchange readings and switch in readings. Compliance is recorded in this section because a read was obtained while Flick was still supplying the ICP, although a backdated switch out was later completed.

No other ICPs had their period of supply end with NHH certified metering.

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 was reviewed to identify all ICPs with HHY profile (and/or NHH certified metering), and determine how long they were supplied.

Audit commentary

The registry list recorded that three ICPs were supplied with HHY profile for 12 months or more. All had the incorrect profile applied because a backdated profile update was entered in error and were not genuinely supplied with HHY profile for more than 12 months. The incorrect profiles dates are recorded as non-compliance in **section 2.1**.

ICP	HHY profile dates recorded on the registry	Correct HHY profile date
0006779255RN336	24/08/16-02/05/21	03/05/21 only due to Arc meter displacement
0006564194RN186	14/02/17-22/04/21	23/04/21 only due to Arc meter displacement
0006506380RN13E	29/11/19-29/07/21	30/04/21 only due to Arc meter displacement

Meter reading frequency reporting to the Electricity Authority were not required during the audit period for ICPs supplied for 12 months or more with NHH metering.

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 was reviewed to identify all ICPs with HHY profile (and/or NHH certified metering), and determine how long they were supplied.

Audit commentary

The registry list recorded that six ICPs were supplied with HHY profile for four months or more (including the three discussed in **section 6.9**).

Four had the incorrect profile applied because a backdated profile update was entered in error, and were not genuinely supplied with HHR profile for more than 12 months. The incorrect profiles dates are recorded as non-compliance in **section 2.1**.

ICP	HHY profile dates recorded on the registry	Correct HHY profile date
0006779255RN336	24/08/16-02/05/21	03/05/21 only due to Arc meter displacement
0006564194RN186	14/02/17-22/04/21	23/04/21 only due to Arc meter displacement
0006506380RN13E	29/11/19-29/07/21	30/04/21 only due to Arc meter displacement
0006980740RN2FB	31/05/20-29/03/21	30/03/21 only due to Arc meter displacement

The other two ICPs were genuinely supplied with HHY profile for more than four months:

ICP and NSP	HHY profile dates	Comment
0000270188ENA9C EAST TUI1101	17/11/20-18/07/21	<p>A backdated switch move was completed on 30/04/21 with an event date of 17/11/20, which means that the ICP had effectively been supplied for more than four months on the date the CS was received making it impossible for the upgrade to be completed on time.</p> <p>The upgrade was arranged once the switch was complete. The meter was not loaded in Telemetry until after the upgrade, so the ICP was omitted from all submissions for November 2020 onwards generated before 22/07/21. This is recorded as non-compliance in sections 12.2 and 12.7.</p>
0000050768NT1FC TASM STK0661	20/08/20-17/03/21	<p>The upgrade was delayed by the customer declining the meter upgrade job, and communication issues between the customer and MEP. The ICP was not included in submission information until after the upgrade was complete. This is recorded as non-compliance in sections 12.2 and 12.7.</p>

The requirement to read 90% of NHH ICPs at the NSP every four months was not met for EAST TUI1101 or TASM STK0661, but the best endeavours requirements were met because Flick was working with the customer and MEP to arrange a meter upgrade.

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.

There was a process to advise the Compliance Manager – Customer and Market Operations when ICPs with HHY profile are supplied for four months or more, but it was not followed for these two ICPs. Flick has added a check for ICPs supplied with HHR profile which are supplied for more than four months to its twice weekly safety net checks.

Flick provided a copy of their procedure to produce the meter reading frequency reports, but it specifies that data should be provided at ICP level rather than aggregated by NSP. I have provided a copy of the Authority's non half hour meter read frequency guidelines and recommend that this is followed.

Description	Recommendation	Audited party comment	Remedial action
Meter reading frequency reporting	Provide meter reading frequency reports to the Authority for any month where ICPs are supplied with NHH metering (HHY profile) for four months or more according to the Authority's non half hour meter read frequency guidelines.	We will adopt the recommendation and provide meter reading frequency reports to the Authority for any month where ICPs are supplied with NHH metering (HHY profile) for four months or more according to the Authority's non half hour meter read frequency guidelines. This process has already been documented.	Identified

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.10 With: Clause 8(1) and (2) of Schedule 15.2 From: 01-Dec-20 To: 31-Jul-21	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: Once Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	The controls were weak because no reports have been provided, but have been improved during the audit. The impact is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Meter reading reports will be provided to the market administrator for the two NHH ICPs listed above.		31/01/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The NHH profile will be monitored through the monthly compliance reports and quarterly field internal audits. Meter reading frequency reports will be provided for NHH meters for four months or more.		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 $\pm 0.1\%$ (± 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 2014 was viewed during the audit.

I traced a sample of data for eight 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

Non metering information is not collected by Flick.

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.

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 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 supporting excel spreadsheets as discussed in **section 8.2**. 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.

Switch event readings

Incorrect read types were applied in at least seven manually created CS files, and incorrect read types were recorded in Telemetry for two ICPs which had RRs:

- 0007036922RN9E8 CS 25/05/21 - E should be A
- 0006483933RN92F CS 10/06/21 - E should be A
- 0007103580RNF1E CS 02/08/21 - E should be A
- 0000045907CP203 CS 05/02/21 - A should be E
- 0006726135RN5D1 CS 13/05/21 - E should be A
- 1000551879PC4C9 CS 28/05/21 - E should be A
- 0007102731RNA4E CS 10/08/21 - E should be A
- 0006880711RN2DA RR 12/03/21 - E should be A, and
- 0007000499RN46A RR 27/04/21 - E should be A

HHY profile readings

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. In the event that an ICP switches out before the upgrade is complete Flick uses the customer's photo read and switch in read to calculate an estimated switch out read.

ICP 0001802659EN870 switched out on the HHY profile. An upgrade to HHR metering was completed on 27 March 2021 and Flick received actual meter exchange readings. A backdated switch move CS effective from 20 March 2021 was provided on 31 March 2021. The CS file contained estimated readings which were calculated using the meter exchange readings and switch in readings.

MEP estimates

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.

IntelliHUB estimates have not been applied since April 2021.

Previous audit non-compliances

I checked previous audit read type non-compliances and found they had been resolved, apart from 0005735882RN26A (31 July 2020) where the difference between the agreed and applied reading was within 1 kWh.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 9.1 With: Clause 3(3) Schedule 15.2 From: 05-Feb-21 To: 10-Aug-21	Seven CS files had an incorrect read type. The incorrect read types were recorded in Telemetry for two ICPs which had RRs. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate overall. <ul style="list-style-type: none"> At least 75% of switches are created automatically by the provisioning system. Where files were manually created there were some errors in read types. Rejected RRs are processed manually in Telemetry and two read type errors were detected. The audit risk rating is low overall. 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
The incorrected read types for the two ICPs mentioned above has been corrected in Telemetry.		18/11/2021	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Retraining has been provided to the switch team on the submission of read through the CS file and updating telemetry with the CS accepted read where applicable. The submission of read through the CS file and telemetry updates will be monitored through the monthly compliance reporting and quarterly switch internal audits.		18/11/2021	

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. Rounding occurs at the point of submission.

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

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. ICPs without actual or estimated data are excluded from submissions. Once actual AMI data is received, or a removal reading or switch out reading is entered, the missing data will be populated and the ICP will be included in revision submissions.

Where estimates are generated they are 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 nine ICPs, and
- Flick did not create an estimate for 0001264556UN8DD (10 June 2021 to 25 June 2021) because insufficient history was available to allow Telemetry to generate estimates because the meter did not communicate after switch in; the actual data for the missing periods was 410.436 kWh.

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. The reasonable endeavours requirements were also not met for these ICPs.

I reviewed ten estimates for consumption on defective meters and found corrections were processed, and a reasonable estimate of consumption during the faulty period was reported. For three of the ten corrections the consumption was not profiled at trading period level, and the same volume was recorded for each trading period. Because the customer was on a fixed price the timing of consumption did not affect their billing. Estimates are expected to be the best estimate of consumption for each trading period, and creating a flat line profile does not meet the requirement to provide Flick's best estimate of consumption. For all three ICPs the consumption is low, and the impact of the flat profile is expected to be low.

Estimates are replaced with actual data as soon as it becomes available. 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		
<p>Audit Ref: 9.4</p> <p>With: Clause 15 Schedule 15.2</p> <p>From: 01-Nov-20</p> <p>To: 30-Jun-21</p>	<p>HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate.</p> <p>Flick did not provide their best estimate for at least eight ICPs which did not have estimates generated because there was insufficient history for Telemetry to create an estimate, and three ICPs where trading period consumption was estimated using a flat profile.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Once</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
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.		
Actions taken to resolve the issue		Completion date	Remedial action status
We intend to develop a process to create HHR estimates where there is insufficient history for Telemetry to generate estimates. This project has now been approved for development and has been scoped, and the Tech Team are currently planning and will then develop a solution. A project completion date will be confirmed once planning is complete.		To be confirmed	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A process change has been implemented where data will be estimated using a non-flat profile (fluctuating half hour data) for all ICP's requiring manual data estimation.</p> <p>The manual estimation process will be monitored through the quarterly data and reconciliation internal audits.</p>		18/11/2021	

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 the meter and data storage device event log for any event that could have affected the integrity of metering data

17(4)(g) – a review of the relevant metering data where there is an event that could have affected the integrity of the metering data

If there is an event that could affect the integrity of the metering data (including events reported by MEPs, but excluding where the MEP is responsible for investigating and remediating the event) the reconciliation must investigate and remediate any events.

If the event may affect the integrity or operation of the metering installation the reconciliation participant must notify the metering equipment provider.

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 also completes a sum-check process for all meters, including three phase meters which now have midnight readings supplied. Where data is available for all trading periods and the sum-check is not within ± 1 kWh, a validation exception is generated and trading period data between the midnight reads will be estimated. If the issue is persistent, it will be identified through the consecutive estimate checks described below.

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 also 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.	We will attempt to adopt this recommendation after investigating options for validating data.	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 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 50 NSPs with a small number of ICPs to confirm the AV110 ICP days calculation was correct.

I reviewed GR100 reports from February 2020 to July 2021 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 50 NSPs a small number of ICPs on the July 2021 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 17 months, and found the differences were small.

Month	R1	R3	R7	R14
Feb 2020	0.07%	0.02%	0.01%	0.00%
Mar 2020	0.05%	0.04%	0.00%	0.00%
Apr 2020	0.05%	0.02%	0.00%	0.00%
May 2020	0.05%	0.03%	0.00%	0.00%
Jun 2020	0.08%	0.02%	0.00%	0.00%
Jul 2020	0.08%	0.00%	0.00%	-
Aug 2020	0.08%	0.01%	0.01%	-
Sep 2020	0.02%	0.02%	0.01%	-
Oct 2020	0.04%	0.01%	0.01%	-
Nov 2020	0.04%	0.02%	0.01%	-
Dec 2020	0.07%	0.03%	0.01%	-
Jan 2021	0.09%	0.03%	0.00%	-
Feb 2021	0.07%	0.04%	-	-
Mar 2021	0.06%	0.03%	-	-
Apr 2021	0.06%	0.03%	-	-
May 2021	0.06%	0.02%	-	-

Month	R1	R3	R7	R14
Jun 2021	0.05%	-	-	-

I reviewed a sample of ten HHR ICP days discrepancies remaining at revision 7 or later, 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 is received, or a removal reading or switch out reading is entered, 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 March 2020 until it switched out effective from 17 June 2020. This was recorded as non-compliance in the previous audit, and I saw evidence that the issue has been resolved for later revisions.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.2 With: Clause 15.6 From: 01-Dec-18 To: 02-Nov-21	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		
Low	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
We intend to develop a process to create HHR estimates where there is insufficient history for Telemetry to generate estimates. This will enable the ICP days to be included in the submission files.		To be confirmed	Investigating

Preventative actions taken to ensure no further issues will occur	Completion date	
Once the above process is implemented the issue of ICPs not being included in the submission due to no read history will be resolved.	Ongoing	

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 July 2019 to June 2021 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Audit commentary

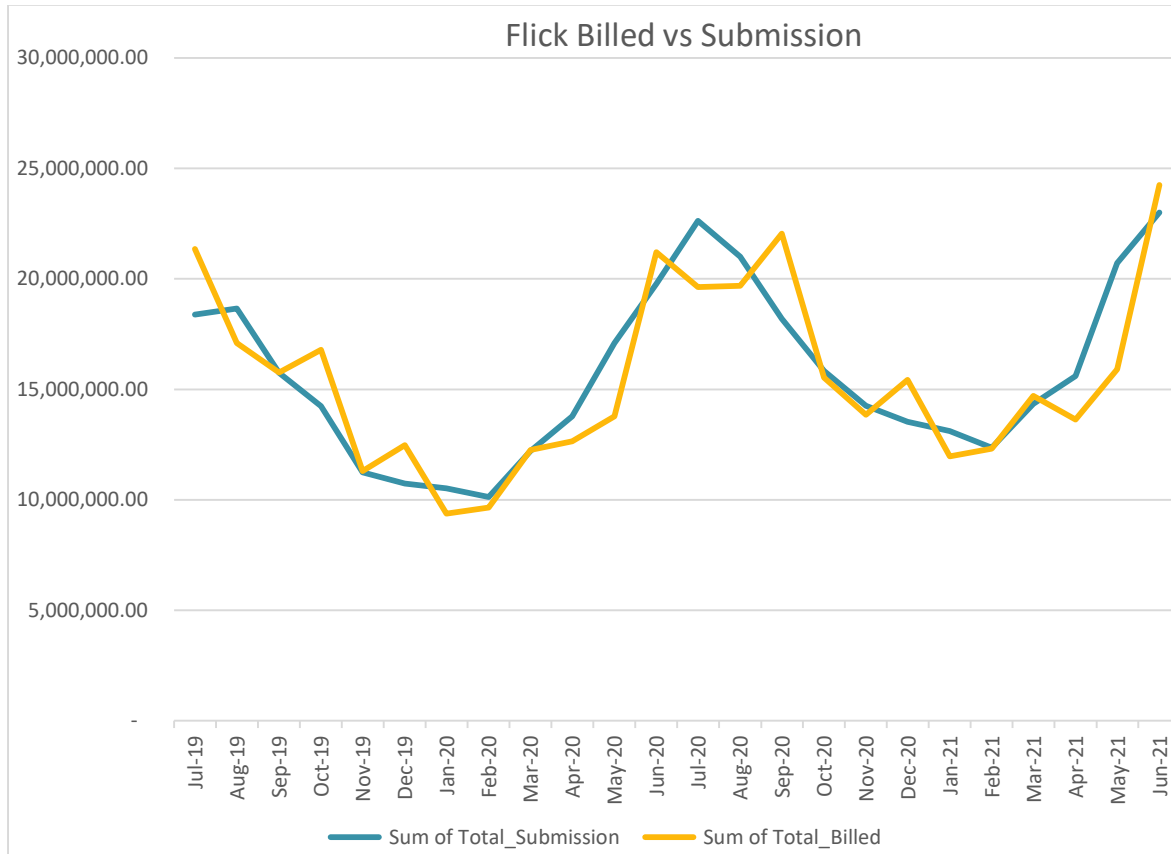
Prior to submission, the AV090 HHR volumes and AV120 billed submissions are compared for reasonableness, and any large discrepancies are investigated. Flick also completes a monthly comparison between the total billed in Flick Billing and the total reported in the AV120, and any anomalies are checked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

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 2021 and was confirmed to be accurate.

Comparison between Submitted Volumes and Electricity Supplied

The chart below shows a comparison between submissions and electricity supplied information. There is a 2.8% difference (submitted higher than billed) for the year ended June 2021 and a 1.2% difference (submitted higher than billed) for the two years ended June 2021. Compliance is recorded because:

- review of the comparisons between Flick Billing and the AV120 for January 2020 to September 2021, confirmed that the AV120 was consistent within $\pm 0.04\%$ with what was billed during calendar month,
- 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
- monitoring is in place to compare the billed and submitted data and it appears that some of the differences related to billing cycle timing, vacant consumption which is not billed to a customer, and switch timing.



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 14 submissions.

The GR090 ICP missing files received during the audit period for February 2020 to June 2021 were examined. A sample of 25 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 14 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 ± 3 kWh at each NSP and related to rounding, and
- matching HHR aggregates volumes to the source files received from the MEP for eight ICPs, including data provided by each MEP.

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 25 differences were reviewed.

- Six 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 is received, or a meter removal reading or switch out reading is entered, the missing data will be populated and the ICP will be included in revision submissions. In addition, in **section 4.4** I found ICP 0005294509RN667 (17 May 2021) had no readings received after switch in, and no submission has occurred because there was insufficient history to create estimates.
- One ICP was missing because of a backdated NSP change. I reviewed Flick's submission information and confirmed that the correct NSP was reported and the exception appeared on the GR090 report in error.
- The other 19 ICPs were missing because of backdated switches, backdated withdrawals, and backdated trader updates. Late switching files are discussed in **section 4**, and late trader updates are discussed in **section 3.3**.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 11.4</p> <p>With: Clause 15.8</p> <p>From: 01-Nov-19</p> <p>To: 02-Nov-21</p>	<p>HHR aggregates file does not contain electricity supplied information.</p> <p>HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.</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		
Low	<p>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.</p> <p>The issue relating to content of the aggregates file is an error in the code, Flick is providing submission information as expected.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
We intend to develop a process to create HHR estimates where there is insufficient history for Telemetry to generate estimates. This project has now been approved for development and has been scoped, and the Tech Team are currently planning and will then develop a solution. A project completion date will be confirmed once planning is complete.		To be confirmed	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Once the above process is implemented the issue of ICPs not being included in the submission due to no read history will be resolved		To be confirmed	

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, who provide data in NZST format.

I checked a sample of data provided in NZDT format and confirmed the trading period data was correctly aligned in Telemetry. The IntelliHUB daylight savings issue recorded in the previous audit has not recurred.

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.

As discussed in **section 6.5**, AMS (who provide data for Arc meters) confirmed that one hour adjustments to the displayed time occur on daylight savings changes for meters with GPRS controllers, and data is still recorded against the correct interval and provided to Flick in NZST. Flick supplies 2,122 active ICPs with HHR settled Arc meters in total; 83 were affected on 04/04/21, and 70 were affected on 26/09/21. I checked the raw Arc meter data against Telemetry for a sample of five affected ICPs and found that the data had been correctly adjusted in Telemetry for daylight savings. Data was recorded in Telemetry for 50 trading periods for 4 April 2021 and 46 trading periods for 26 September 2021, the Arc raw data contained 48 trading periods for both days.

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 submission information was identified, and is described below.

Estimated volumes for some unread and HHY profile ICPs are excluded from 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. ICPs without actual or estimated data, including non-communicating meters and ICPs with HHY profile, are excluded from HHR aggregates, volumes, and ICP days submissions. Once actual AMI data is received, a removal reading or switch out reading is entered, the missing data will be populated and the ICP will be included in revision submissions.

Flick has been intending to develop a process to create HHR estimates where there is insufficient history for Telemetry to generate estimates. This project has now been approved for development and has been scoped, and the Tech Team are currently planning and will then develop a solution. A project completion date will be confirmed once planning is complete. Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a "material" change to any certified facilities, processes, or procedures then the changes must be subject to an audit prior to the change taking place. A material change audit is expected to be completed prior to the implementation of changes to the estimation methodology.

At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.

Inactive ICPs with consumption

Consumption for all trading periods is recorded in Telemetry. If the ICP has inactive status on a particular day, any volumes for that day will be excluded from submission.

In reality, disconnections and reconnections occur part way through the day so the ICP is both active and inactive on the disconnection and reconnection date. The registry only allows one status to be recorded per day, which applies effective from 12.00am.

When processing disconnections, Flick enters the date that the disconnection was completed as the disconnection date; making the ICP inactive for the whole day and excluding any consumption recorded on the disconnection date from submission. 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. A recommendation to adjust the disconnection process so that all consumption is reported is made in **section 3.9**.

I checked a sample of 22 disconnected ICPs, and found seven had consumption on the disconnection date which was excluded from submission:

ICP Identifier	Status Event Date	Status reason description	Inactive kWh
0006036163RN1BC	10/03/2021	Electrically disconnected ready for Decommissioning	0.034
0420349359LCF6E	9/04/2021	Electrically disconnected due to meter disconnected	0.07
0005512204RN9D0	17/11/2020	Electrically disconnected remotely by AMI meter	0.4
0006470351RNB2C	07/05/2021	Electrically disconnected ready for Decommissioning	0.6
0000059120TRFBB	15/07/2021	Electrically disconnected remotely by AMI meter	1.217
0000196482UN140	19/05/2021	Electrically disconnected due to meter disconnected	7.377
0000146524TR75D	03/03/2021	Electrically disconnected due to meter disconnected	15.309
Total			25.007

Other previous audit issues

The previous audit issues relating to submission of unmetered load, and incorrect classification of readings for ICPs on the HHY profile have been resolved.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 12.2</p> <p>With: Clause 15.4</p> <p>From: 16-Nov-20</p> <p>To: 02-Nov-21</p>	<p>HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.</p> <p>Seven ICPs had consumption recorded on a date with inactive status.</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
<p>We intend to develop a process to create HHR estimates where there is insufficient history for Telemetry to generate estimates. This project has now been approved for development and has been scoped, and the Tech Team are currently planning and will then develop a solution. A project completion date will be confirmed once planning is complete.</p> <p>25.007 units of inactive consumption has now been added to our system to be reconciled to the market through revision submission</p>	To be confirmed	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>Our internal process has been changed to reflect inactive status in registry 1 day after the date of disconnection/decommission so that the inactive consumption is captured.</p> <p>This process will be monitored through the monthly compliance reporting and quarterly Field internal audit.</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

The registry list and NSP table were reviewed.

Audit commentary

Flick is not a grid owner, and compliance was not assessed.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

Flick is not a local or embedded network owner, and compliance was not assessed.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

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

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

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

Flick is not responsible for any grid connected generation, and 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.

Some submission accuracy issues are present:

1. **Estimated volumes for some unread and HHY profile ICPs are excluded from submissions**
ICPs without actual or estimated data, including non-communicating meters and ICPs with HHY profile, are excluded from HHR aggregates, volumes, and ICP days submissions. Once actual AMI data is received, a removal reading or switch out reading is entered, the missing data will be populated and the ICP will be included in revision submissions. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.
2. **Some estimates were not the best estimate of consumption at trading period level**

For three of the ten corrections the consumption was not profiled at trading period level, and the same volume was recorded for each trading period. Because the customer was on a fixed price the timing of consumption did not affect their billing. Estimates are expected to be the best estimate of consumption for each trading period, and creating a flat line profile does not meet the requirement to provide Flick's best estimate of consumption. For all three ICPs the consumption is low, and the impact of the flat profile is expected to be low.

3. Inactive ICPs with consumption

If the ICP has inactive status on a particular day, any volumes for that day will be excluded from submission. Seven ICPs had consumption recorded on a date with inactive status.

4. HHY profile ICPs which did not meet the approved profile requirements

The original HHY profile application only allowed NHH ICPs to be supplied for a short period, with upgrades intended to be completed within a month. A revised profile application allowed 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 six ICPs were supplied with HHY profile for more than 112 days. Four had the incorrect profile applied because a backdated profile update was entered in error, and are recorded as non-compliance in **section 2.1**. HHY ICPs 0000270188ENA9C (17 November 2020 to 18 July 2021) and 0000050768NT1FC (20 August 2020 to 17 March 2021) had HHY profile applied for more than 112 days.

I checked all ICPs which had HHY profile assigned for less than 112 days. ICP 0001802659EN870 switched out on the HHY profile after 30 days, and the other ten ICPs transitioned to HHR profile within one to 54 days.

5. IntelliHUB replacement data

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. Rounding of Arc data

Flick supplies 2,122 active ICPs with HHR settled Arc meters. 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. 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.

Previous audit issues that did not occur during this audit were re-checked:

1. No unmetered load was supplied during the audit period but use of the new HHU profile will allow unmetered load to be submitted if required in the future.
2. IntelliHUB estimates have not been applied since April 2021.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 12.7 With: Clause 15.12</p> <p>From: 16-Nov-20 To: 02-Nov-21</p>	<p>HHR estimates are not generated where there is insufficient history for Telemetry to generate an estimate. At least eight ICPs did not have estimates generated because there was insufficient history for Telemetry to create an estimate.</p> <p>Flick did not provide their best estimate for three ICPs where trading period consumption was estimated using a flat profile.</p> <p>Seven ICPs had consumption recorded on a date with inactive status.</p> <p>Two ICPs had HHY profile applied for longer than the maximum period allowed under the approved profile application.</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: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>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.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We intend to develop a process to create HHR estimates where there is insufficient history for Telemetry to generate estimates. This project has now been approved for development and has been scoped, and the Tech Team are currently planning and will then develop a solution. A project completion date will be confirmed once planning is complete.</p> <p>A process change has been implemented where data will be estimated using a non-flat profile (fluctuating half hour data) for all ICP's requiring manual data estimation.</p> <p>25.007 units of inactive consumption has now been added to our system to be reconciled to the market through revision submission.</p> <p>The smart meter program has been discontinued which would now eliminate the issue of HHY profile being used longer than the maximum period. If this program is reinstated then we would ensure that the HHY profiles are only used for the allowed maximum period of 16 weeks</p>		<p>Ongoing</p>	<p>Investigating</p>

Preventative actions taken to ensure no further issues will occur	Completion date	
<p>ARC meters are currently in the process of being displaced so the issue of interval data being received to one decimal place will ultimately be eliminated. In the meantime, we will engage with AMS and explore any temporary solution to this.</p> <p>We will also engage with ARCs to find a resolution for replacement data to be provided for event dates which pass the 15 day mark.</p> <p>Our internal process has been changed to reflect inactive status in registry 1 day after the date of disconnection/decommission to enable the inactive consumption to be captured.</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 was 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 as described in **section 9.1**.

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_{Px} must be prorated as determined by the reconciliation participant using its own methodology or on a flat shape basis using the relevant number of days that are within the consumption period and within the period covered by kWh_{Px} .

Audit observation

Flick has not submitted any NHH volumes. Using the HHY profile, Flick has temporarily supplied NHH non-AMI meters as HHR until they 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 confirmed that all ICPs had submission type HHR.

Review of the event detail confirmed that some ICPs have had a profile change from HHY to HHR.

Audit commentary

All ICPs were submitted with HHR profile, but 16 ICPs had changes from HHY to HHR profile on the registry. I checked a sample of 10 profile changes, all had actual readings on the day that the profile should have been changed. ICP 0005768110RND55 had its profile changed from an incorrect date on the registry, which is recorded as non-compliance in **section 2.1**. Compliance is recorded in this section because there was an actual reading on the correct profile change date.

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

14. GLOSSARY OF TERMS

CS breach for transfer switch	Where a CS is received after an AND the CS arrival date is more than 5 business days of the CS actual transfer date AND no NW has been provided.
E2 breach for switch move	NT Proposed Transfer Date and CS Actual Transfer date do not match; AND CS Actual Transfer Date is a) earlier than the NT Proposed Transfer Date; OR b) more than 10 business days after receipt of the NT.
ET breach	AN Expected Transfer Date is earlier than the NT Proposed Transfer Date; OR AN Expected Transfer Date is more than 10 business days after NT arrival date.
NA breach	NW arrival date is more than 2 calendar months after the CS Actual Transfer Date.
RR breach	RR arrival date is more than 4 calendar months from the CS Actual Transfer Date.

CONCLUSION

Flick has continued to try to improve compliance during the audit period, continuing with their internal audits, expanding their safety net checks, and improving monitoring of field services jobs.

Issues recorded in previous audits relating to missing estimated data and inactive consumption have not been resolved, and some inaccuracies continue to occur where data is manually processed.

The audit risk rating is 43 (an increase from 39 in the previous audit), indicating that the next audit be due in six months. Because of the nature of the non-compliances, some minor issues affecting a very small number of ICPs 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, I recommend that the next audit is completed in 12 months because:

- The audit risk rating is at the low end of the 6 month range, and
- Flick intends to resolve the non-compliances including the missing HHR estimates.

PARTICIPANT RESPONSE

We take regulatory compliance very seriously and are pleased with the level of detail and reporting throughout the audit process. Our operation teams perceive the participant audit as a great opportunity 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.

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.