ELECTRICITY INDUSTRY PARTICIPATION CODE RECONCILIATION PARTICIPANT AUDIT REPORT

For

HANERGY (HANE)

Prepared by: Allan Borcoski – Borcoski Energy Services Ltd

Date audit commenced: 20 January 2022

Date audit report completed: 13 February 2022

Audit report due date: 12-Jan-22

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EXECUTIVE SUMMARY

This reconciliation participant audit was performed at the request of Hanergy (HANE) to support their application for certification, in accordance with clauses 4 of Schedule 15.1 of The Code 2010. The relevant clauses audited are as required by the Guidelines for Reconciliation Participants Audits V 7.2 issued by the Electricity Authority.

At the time of the audit, Hanergy was responsible for 136 NHH ICPs. The company uses JC Consulting's services to provide reconciliation services and updates in the registry as described in the body in this document. The functions performed by JC Consulting were audited during this audit.

The company also works closely with Momentous Consulting as its consultant.

The audit found 7 non-compliances. There were a relatively low number of individual discrepancies identified. The main driver of non-compliance was late Registry updates.

Hanergy appeared to have actioned the recommendations and suggestions offered by the Auditor in the last audit report. As a result switching non compliances reduced from 4 to 2 occurrences. New connections were a new activity during the audit period and created 2 non compliances. To some extent this would be expected due to starting a new activity and largely manual processes. It is suggested Hanergy strengthen their new connection processes to ensure timeframes for information updates to the Registry are achieved.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. Table 1 of the Guidelines for Reconciliation Participant audit provides some guidance on this matter. The Future Risk Rating score is 14 which results in an indicative audit frequency of 18 months. We agree with the result.

We thank Hanergy's staff fand JC Consulting for their full and complete cooperation in this audit.

The audit period was 01/08/2020 to 31/12/2021.

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	Relatively low number of information inaccuracies identified during the audit	Moderate	Low	2	Identified
Electrical Connection of Point of Connection	2.11	10.33A(1)	1 x ICP reconnected despite the metering certification having expired over 2 months prior	Moderate	Low	2	Identified
Provision of information on electricity plan comparison site	2.20	11.30A	No Powerswitch information currently displayed on the website or outbound customer communications.	Moderate	Low	2	Identified
Changes to registry information	3.3	10 of Schedule 11.1	Late updates for: • Change to Active x 5 • Inactive – new connection in progress x 1, • Inactive – Vacant x 1 • 28 x MEP Nomination	Moderate	Low	2	Identified
Provision of information to the registry manager	3.5	9 of schedule 11.1	Late updates for Change to Active for 31 x New ICP Connections.	Moderate	Low	2	Identified
Gaining trader informs registry of switch request - switch move	4.7		3 x switch request (MI) notifications to Registry were greater than 2 days from effective date.	Moderate	Low	2	Identified
Losing trader must provide final information - switch move	4.10		4 x Complete Switch (MI) notifications to Registry contained incorrect Transfer Date	Moderate	Low	2	Identified

Future Risk Rating	14

Future risk rating	0-1	1-3	4-15	16-40	41-55	56+
Indicative audit frequency	36 months	24 months	18 months	12months	6 months	3 months

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

Hanergy did not apply for any exemptions

Audit commentary

The Electricity Authority website was checked and it was confirmed that there are no exemptions in place.

1.2. Structure of Organisation

The company consists of two directors, Melody Chen, and Brandon Liang.

1.3. Persons involved in this audit

Name	Title	Company
Brandon Liang	Director	Hanergy
John Candy	Director	JC Consulting
Allan Borcoski	Electricity Authority Approved Auditor	Borcoski Energy Services Ltd

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses am 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

Hanergy uses JC Consulting (JCC) to create and submit files to the reconciliation manager.

Audit commentary

As a part of this audit work done by JC Consulting (JCC) as Hanergy's agent was audited. Details are in the relevant parts of this audit. Hanergy are aware of their responsibilities in relation to this clause.

1.5. Hardware and Software

The main systems are as follows:

- Switching is conducted via web interface.
- Access Database (RM TOOL) provided and run by JC Consulting (JCC) for NHH submissions.

1.6. Breaches or Breach Allegations

The Electricity Authority (EA) Website indicates there were no breaches or breach allegations lodged against Hanergy in the period covered by this audit.

1.7. ICP Data

Metering Category	(19/01/2022)	(04/06/2020)	(2019)
1	134	208	69
2	2	1	0
3	0	0	0
4	0	0	0
5	0	0	0
9	2	1	0

Status	Number of ICPs (19/01/2022)	Number of ICPs (04/06/2020)	Number of ICPs (27/06/2019)
Active (2,0)	130	205	67
Inactive – new connection in progress (1,12)	2	0	0
Inactive – electrically disconnected vacant property (1,4)	3	4	0
Inactive – electrically disconnected remotely by AMI meter (1,7)	0	0	0
Inactive – electrically disconnected at pole fuse (1,8)	0	0	0
Inactive – electrically disconnected due to meter disconnected (1,9)	1	1	1
Inactive – electrically disconnected at meter box fuse (1,10)	0	0	0

Inactive – electrically disconnected at meter box switch (1,11)	0	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	1	0	0
Inactive – reconciled elsewhere (1,5)	0	0	0
Decommissioned (3)	2	0	0

1.8. Authorisation Received

Hanenergy provided authorisation to Borcoski Energy Services Ltd permitting the collection of data from other parties for matters directly related to the audit.

1.9. Scope of Audit

This reconciliation participant audit was performed at the request of Hanergy. Clause 2B of Schedule 15.1 puts the obligation on the reconciliation participant to obtain Authority approval before performing a function listed in clause 15.38(1) without certification. The audit was carried out remotely via phone, email and zoom meeting between 12 and 26 January 2022.

The table below shows the tasks under clause 15.38 of part 15 for which Hanergy requires certification.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Relevant to audit	Agents Involved in Performance of Tasks
(a) - Maintaining registry information and performing customer and embedded generator switching	✓	
(b) – Gathering and storing raw meter data	✓	MEPs ● BOPE ● MTRX ● NGCM
(c)(i) - Creation and management of HHR volume information	✗	
(c)(ii) - Creation and management of NHH volume information	✓	JC Consulting
(c)(ii) - Creation and management of HHR and NHH volume information	✗	
(c)(iv) - Creation and management of dispatchable load information	✗	
(d)(i) – Calculation and delivery of ICP days under clause 15.6	✓	JC Consulting
(d)(ii) - delivery of electricity supplied information under clause 15.7	✓	JC Consulting
(d)(iii) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8	✓	JC Consulting
(e) – Provision of submission information for reconciliation	✓	JC Consulting

1.10. Summary of previous audit

Subject	Section	Clause	Non Compliance	Comment
Relevant information	2.1	11.2	Relatively low number of information inaccuracies identified during the audit	Still exists
Changes to registry information	3.3	10 of Schedule 11.1	Late updates in the registry for 34 ICPs	Still exists

ANZSIC codes	3.6	9(1)(k) of Schedule 11.1	Incorrect ANZSIC code for 2 ICPs	Cleared
Management of “active” status	3.8	17 of Schedule 11.1	Late update to “active” for 2 ICPs	Cleared
Losing trader must provide final information - standard switch	4.3	5 of Schedule 11.3	Incorrect switch event meter reading for 2 ICPs	Cleared
Losing traded must provide final information – switch move	4.8	10(1) of Schedule 11.3	No AN file sent for 4 ICPs	Cleared
Losing trader must provide final information - switch move	4.10	11 of Schedule 11.3	Incorrect switch event meter reading for 35 ICPs	Cleared
Gaining trader changes to switch meter reading - switch move	4.11	12 of Schedule 11.3	1 RR file late	Cleared

The previous audit was conducted by Ewa Glowacka of TEG & Associates on 14 July 2020. The above non-compliances were identified.

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

We checked the LIS file, EDA file, PR255 files Registry, submission files, and Audit Compliance Summary Report for the audit period.

Audit commentary

The number of information inaccuracies identified during the audit are noted below

Section	Registry Discrepancy
2.20	No information relating to Powerswitch was currently displayed on the website or any outbound customer communications.
2.11	1 x ICP reconnected despite the metering certification having expired over 2 months prior.
3.3	Late updates for Change to Active (2,0) x 5, Inactive – new connection in progress (1,12) x 1, MEP Nomination x 28.
3.5	Late updates for Change to Active (2,0) for 31 x New ICP Connections.
4.7	3 x switch request move in notifications to the Registry were greater than 2 days from effective switch date.
4.10	4 x Complete Switch move in notifications to Registry contained the incorrect Transfer Date

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 10.6, 11.2, 15.2 From: 01-Aug-20 To: 31-Dec-21	Low number of information inaccuracies identified during the audit Potential impact: Low Actual impact: Low Audit history: Once before Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are recorded as moderate. There are processes in place but could be improved. The impact on settlement outcomes is minor therefore the audit risk rating is recorded as low.

Actions taken to resolve the issue	Completion date	Remedial action status
		Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

This was discussed with Hanergy. Hanergy engage JCC as the agent for the submission of information to the reconciliation and pricing manager and to provide Registry services. Information delivery processes to the reconciliation manager were reviewed along with submission files for the audit period.

Audit commentary

JCC as the Hanergy agent for the transmission of data to the reconciliation and pricing manager carry out these functions electronically using the RM portal.

Hanergy met the code requirement to provide accurate information in the timeframe specified by the Code.

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

This was discussed with Hanergy. Hanergy engage JCC as the agent for the submission of information to the reconciliation and pricing manager and provision of Registry services.

Information delivery to the reconciliation manager were reviewed along with submission files for the audit period.

Audit commentary

JCC downloads data from MEPs servers into the RM TOOL. Hanergy read 4 ICPs and deliver those reads to JCC using dropbox, JCC confirms receipt of the reads to Hanergy by email.

Reconciliation files are submitted via the RM portal by JCC.

The data transfer processes were reviewed and found to be compliant.

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

This was discussed with Hanergy. Hanergy engage JCC as the agent for the submission of information to the reconciliation and pricing manager and provision of Registry services.

Information delivery processes to the reconciliation manager were reviewed along with submission files for the audit period.

The audit trail for data gathering, validation, and processing functions carried out by JCC were reviewed along with communication logs.

Audit commentary

JCC holds audit trails of downloaded metering via FileZilla. It was confirmed that audit trails for data gathering, validation, and processing functions carried out by JCC are recorded in the RM TOOL and appropriately archived.

The RM TOOL supports changes to data if required with logs created showing the date and time of the activity, an activity identifier, and the operator identifier.

The RM portal records the audit trail of reconciliation files submitted by JCC.

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

The Terms and Conditions of Supply to Customers provided by Hanergy were reviewed.

Audit commentary

It was noted the Terms and Conditions of Supply to Customers had been previously reviewed by the Authority.

Checks confirm the Terms and Conditions of Supply to Customers provide the relevant information to meet this code requirement.

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

The Terms and Conditions of Supply to Customers provided by Hanergy were reviewed.

Audit commentary

It was noted the Terms and Conditions of Supply to Customers had been previously reviewed by the Authority.

Checks confirm the Terms and Conditions of Supply to Customers provide the appropriate information for access arrangements to meet code requirements in the “Access” section.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

Audit observation

The LIS file was reviewed. MEP agreements were also reviewed.

Audit commentary

The LIS report shows all the ICPs (metering category 1 and 2 only) Hanergy were responsible for were metered and the MEPs recorded in the Registry. The agreements with the MEPs ensure the ICPs have appropriate and approved metering designs installed.

Hanergy is not responsible for any ICPs using loss compensation factors.

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 subclause (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

The Terms and Conditions of Supply to Customers provided by Hanergy were reviewed.

Audit commentary

It was noted the Terms and Conditions of Supply to Customers had been previously reviewed by the Authority.

The Terms and Conditions of Supply to Customers provide the relevant information to meet code requirements.

Checks confirm the Terms and Conditions of Supply to Customers provide the appropriate arrangements to meet code requirements and permit assignment by the Authority in the “Transferring your Rights and Responsibilities ” section.

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

This was discussed with Hanergy. The new connection process was reviewed. MEP and network agreements were reviewed. The LIS, EDA files and Registry were checked with a random sample of 5 ICPs followed through end to end.

Audit commentary

Hanergy have recently begun to take new connections and have appropriate Distributor and MEP agreements in place.

37 new connections were created during the audit period. The sample demonstrated the new connection process was followed.

Audit outcome

Compliant

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

Code reference

Clause 10.33(1)

Code related audit information

A trader 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 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*
    - *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

This was discussed with Hanergy. The new connection process was reviewed and the LIS, EDA files and Registry were checked.

Audit commentary

37 new connections were created during the audit period. Hanergy stated it does not allow temporary electrical connection of an ICP and has not authorised a temporary electrical connection during the audit period.

Hanergy are aware of their obligations under this clause.

Audit outcome

Compliant

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

Code reference

Clause 10.33A(1)

Code related audit information

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

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
    - *the 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*
    - *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 electrical connection.*

Audit observation

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

37 new connections were created during the audit period.

The sample demonstrated the new connection process was followed and met code requirement.

The Audit Compliance Report identified ICP 0000470293UN4C0 had been reconnected as part of a move in switch on 03/08/2020 despite the metering installation certificate having expired in 23/04/2020. It is suggested the metering installation certification be checked in the Registry prior to reconnection in future, and notify the MEP if the certification has expired.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.11 With: Clause 10.33A(1) From: 01-Aug-20 To: 31-Dec-21	1 x ICP reconnected despite the metering certification having expired over 2 months prior. 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 recorded as moderate. There are processes in place but could be improved. The impact on settlement outcomes is minor therefore the audit risk rating is recorded as low.

Actions taken to resolve the issue	Completion date	Remedial action status
Hanergy moved in the ICP in 3rd Aug 2020 without noticed the meter certification already expired, in the same time, which is on the 11th AUG, I 've sent an email to AMS ask if we can change the meter to smart meter, then on the 27th AUG, The replacement job has been done.		Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Hanergy will make sure to check the meter certification date before MOVE in.		

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

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

Hanergy trades on the Vector, Westfield, Waikato networks. Hanergy stated they have appropriate agreements in place with all of these networks. An agreement has recently signed with Northpower.

The sample demonstrated the new connection process met code requirement.

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

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files and Registry were checked. A random sample of 5 ICPs were followed through end to end.

MEP agreements were reviewed.

Audit commentary

Hanergy has assigned the following MEPs to ICPs in the registry and has appropriate agreements with: NGCM, FCLMS, MTRX and BOPE (Nova Energy).

The sample demonstrated the new connection process met code requirement.

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

This was discussed with Hanergy. The switching process was reviewed and the LIS, EDA files and Registry were checked.

Audit commentary

Hanergy sent 16 switch withdrawal notices during the audit period, of those 6 ICPs were in a disconnected state at the time.

Hanergy advised that no connection of an ICP in the process of switching and the switch did not proceed or was withdrawn took place during the audit period.

Checks of the EDA file and Registry confirm code requirements were met.

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

This was discussed with Hanergy. The LIS, EDA files and Registry were checked.

Audit commentary

12 ICPs were disconnected during the audit period. Hanergy advise any disconnection activity involving HANE ICPs that has taken place during the audit period met this code requirement.

Registry checks confirmed HANE was the trader of record for each ICP at the time of each disconnect event.

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:

- *r*eset a load control switch, bridge or unbridge 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

This was discussed with Hanergy.

Audit commentary

Hanergy has assigned the following MEPs to ICPs in the registry and has appropriate agreements with: NGCM, FCLMS, MTRX and BOPE (Nova Energy).

Hanergy stated during the audit period no seals were broken at its request for ICPs it was responsible for in relation to this code requirement.

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 1 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

This was discussed with Hanergy and JCC.

Audit commentary

Hanergy has assigned the following MEPs to ICPs in the registry and has appropriate agreements with: NGCM, FCLMS, MTRX and BOPE (Nova Energy).

Hanergy stated for the metering installations it is responsible for and during the audit period no "bridging" took place relating to this code requirement.

Checks confirmed no meters failed and subsequent meter reading data estimation was required during the audit 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

This was discussed with Hanergy. A sample Invoice and ICP welcome pack were provided.

Audit commentary

Checks confirm the relevant ICP identifier is printed on every invoice or document.

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

This was discussed with Hanergy. A copy of the Terms and Conditions and Invoice and customer sign up form were provided. The Hanergy Website was reviewed.

Audit commentary

Hanergy customers are contracted on fixed term fixed price agreements with roll over provisions. At agreement resigning appropriate Utilities Disputes information is communicated.

The Terms and Conditions and Invoice both display Utilities Disputes information. The Website will be updated with Utilities Disputes information in the near future (although it is contained in the on line Terms and Conditions.

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

This was discussed with Hanergy. A copy of the Terms and Conditions and Invoice and customer sign up form were provided. The Hanergy Website was reviewed.

Audit commentary

Checks identified no information relating to Powerswitch was currently displayed on the website or any outbound customer communications. Hanergy intend to correct this.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.20 With: Clause 11.30B From: 01-Aug-20 To: 31-Dec-21	No information relating to Powerswitch was currently displayed on the website or any outbound customer communications. 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 recorded as moderate. There was no impact on settlement outcomes therefore the audit risk rating is recorded as low.

Actions taken to resolve the issue	Completion date	Remedial action status
Hanergy noticed this matter and updated our website within 2 working days after auditor noticed the problem	21/02/2022	Cleared
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Hanergy will keep our communication open to our customer, to make sure no further issues.	21/02/2022	

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

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

37 new connections were created during the audit period. Hanergy either applies to a network for an ICP on behalf of the customer (who has accepted a supply agreement) or responds to a nomination as retailer notification it has received, a supply agreement will be put in place and the nomination accepted. In both cases Hanergy will set the status of the ICP to Inactive – new connection in progress (1,12).

The sample demonstrated the new connection process met code requirement.

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

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

37 new connections were created during the audit period.

The sample demonstrated the new connection process that the required trader information was populated in the Registry and meeting code requirement.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

If information provided by a trader to the registry manager about an ICP changes, the trader must provide written notice to the registry manager of the change no later than 5 business days after the change.

Audit observation

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked.

Audit commentary

It is suggested that process documents be enhanced by adding the required Registry update timelines.

Status update	Year	Total number of updates	No of updates within 5BD	No of updates later than 5BD	Average notification days [BD]	Percentage compliant
Change to Active (2,0) Not New Connection	2019	1	0	1	9	0%
	2020	17	15	2	2.53	88%
	2021	61	56	5	6.23	**92%**
Change to "vacant" (1,4)	2019	0				
	2020	16	16	0	1	100%
	2021	10	9	1	2.5	**90%**
Change to "electrically disconnected by AMI meter" (1,7)	2019	1	0	0	46	0%
	2020	0				
	2021	0				
Inactive – electrically disconnected ready for decommissioning (1,6)	2019	0				
	2020	0				
	2021	1	1	0	1	100%
Inactive – electrically disconnected due to meter disconnected (1,9)	2019					
	2020					
	2021	1	1	0	5	100%
Inactive – new connection in progress (1,12)	2019	0				
	2020	0				
	2021	37	36	1	2.2	**97%**
Trader (NT updates and MEP nominations are excluded)	2019	0				
	2020	0				
	2021	0				
MEP nomination	2019	0				
	2020	0				
	2021	190	162	28	3.7	**85%**

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: 10 of schedule 11.1 From: 01-Aug-20 To: 31-Dec-21	Late updates for Change to Active (2,0) x 5, Inactive – new connection in progress (1,12) x 1, Inactive – Vacant x 1, MEP Nomination x 28. Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Moderate Breach risk rating: 2
Audit risk rating	**Rationale for audit risk rating**
Low	Controls are recorded as moderate. There are processes in place but could be improved. New connections process was new in 2021.The impact on settlement outcomes is minor therefore the audit risk rating is recorded as low.

Actions taken to resolve the issue	Completion date	Remedial action status
Hanergy just starting don the new connection beginning of July 2021, still learning the progress and causing delay to nomination time overdue	21/02/2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Hanergy asked John how to nomination and energize the ICP, will do nomination ourselves to avoid the time issue.	21/02/2022	

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

This was discussed with Hanergy. The LIS, EDA files, Audit Compliance report and Registry were checked.

Audit commentary

Hanergy does not trade UML. LIS checks confirm all ICPs have a MEP recorded in the Registry.

Hanergy stated they are aware of their code requirements and obligations under this clause.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.1

Code related audit information

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

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

The trader must provide information specified in (a) to (j) above within 5 business days of trading (clause 9(2)).

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

Audit observation

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

Hanergy does not trade UML and has no intention to do so in the foreseeable future.

Checks confirm all ICPs Hanergy are responsible for have the information required by this clause recorded in the Registry. JCC is engaged to carry out Registry information transactions.

New connections were a new service offered during the audit period. Hanergy established 37 new connections during the audit period.

31 Registry information changes to Active status were late (range 6 to 39 days) and also 2 ANZSIC code updates.

The Audit Compliance report for the audit period identified IECD not populated in the Registry for 51 new connections from October to December 2021. Further investigation revealed that Vector had problems with the data collection tool used to collect new connection information from the field including IECD. For this reason this has not been included as a non-compliance in this audit

Hanergy advise they were also often late advising JCC of Registry update information for new connections. It is suggested Hanergy update process documentation to include Registry update timeframes.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.5 With: Clause 9 of schedule 11.1 From: 01-Aug-20 To: 31-Dec-21	Late updates for Change to Active (2,0) for 31 x New ICP Connections and 2 x ANZSIC codes. 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 recorded as moderate. There are processes in place but could be improved. New connections process new in 2021. The impact on settlement outcomes is minor therefore the audit risk rating is recorded as low.

Actions taken to resolve the issue	Completion date	Remedial action status

As Hanergy just starting the new connection process in July 2021, we make few mistakes during the progress, normally we send JCC Email to change the status of the ICPs	21/02/2022	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
We'll start doing the ICP status from 17th Feb 2022 ourselves.	21/02/2022	

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

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

This section was non-compliant at last audit the two incorrect ANZSIC codes were corrected post audit.

Checks confirm all ICPs Hanergy are responsible for have relevant ANZSIC codes recorded in the Registry.

Audit outcome

Compliant

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

Code reference

Clause 9(1)(f) of Schedule 11.1

Code related audit information

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

the code ENG - if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or

the daily average kWh of unmetered load at the ICP - in all other cases (clause 9(1)(f)(ii)).

Audit observation

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

Hanergy does not trade UML and has no intention to do so in the foreseeable future.

Checks confirm that all information recorded in the registry is correct.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

- *the ICP has only 1 customer, embedded generator, or direct purchaser (clause 17(2)(a))*
- *the electricity consumed is quantified by a metering installation or a method of calculation approved by the Authority (clause 17(2)(b)).*

Audit observation

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

Checks confirmed each ICP Hanergy are responsible for have the status "active" is quantified by a metering installation and each has only one customer.

Audit outcome

Compliant

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

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

Audit observation

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

Checks confirm there were 49 changes to status Inactive in the Registry, 37 of those were New Connection in Progress (1,12) and one Electrically Disconnected Ready for Decommissioning (1,6).

The Networks Hanergy trade on do not allow customer mains cables to be connected to the network until the metering is installed. By default electricity cannot flow at an ICP until after metering is installed. The new connection ICPs with status New Connection in Progress (1,12) will not be connected to the network. The ICPs will be connected to the network at the meter installation date with the ICP Active date usually also being the same date.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

This was discussed with Hanergy. The new connection process was reviewed. The LIS, EDA files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were followed through end to end.

Audit commentary

Hanergy had not received such a query from any distributor during the audit period, as they only started accepting new Connection ICPs from 1 October 2021.

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

Code reference

Clause 2 Schedule 11.3

Code related audit information

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

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

A gaining trader must advise the registry manager of a switch no later than 2 business days after the arrangement comes into effect and include in its advice to the registry manager that the switch type is TR and 1 or more profile codes associated with that ICP.

Audit observation

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were checked.

Audit commentary

During the audit period Hanergy sent 27 NTTR. During the audit period all ICPs gained were category 1 metering installations. The correct type of switch was used. No switches were backdated.

Hanergy is aware of the requirements of the Fair Trading Act 1986

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 3 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 5 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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were checked.

Audit commentary

172 AN files were sent by HANE in response to NTTR files received during the audit period. The sample demonstrated the content of the AN responses met code requirements.

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 5 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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs were checked.

Audit commentary

This was non-compliant at last audit.

The issue of the timing of last meter read was resolved. All last meter reads for switching are provided as at the end of the last trading day for HANE.

172 CS file responses were sent by HANE in response to NTTR during the audit period. The sample demonstrated the content of the AN responses met code requirements.

Audit outcome

Compliant

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

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

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

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

If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within 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 5 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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked. A random sample of 5 ICPs (RR files received) were checked.

Audit commentary

No RR files were sent by HANE during the audit period.

3 RR notifications were received by HANE under this criteria during the audit period, and each was accepted using an appropriate AC registry notification within five business days of receiving the RR notification. JC Consulting processed the received RR files for Reconciliation purposes.

The sample confirmed the meter reading changes were uploaded to the Registry meeting code requirements.

Audit outcome

Compliant

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

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

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

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 6(2)(b);*
- *the gaining trader within 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.*

Audit observation

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked.

Audit commentary

Hanergy trades only NHH ICPs. No RR files were sent by HANE under this clause.

2 RR notifications were received by HANE under this clause during the audit period, and each was accepted using an appropriate AC registry notification within five business days of receiving the RR notification. JC Consulting processed the received RR files for Reconciliation purposes.

Checks confirmed the meter reading changes were uploaded to the Registry meeting code requirements.

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

This was discussed with Hanergy. The Energy Authority website was checked.

Audit commentary

Hanergy confirmed that no disputes occurred during the audit period covered that required a resolution. Checks show all switching meter reading change requests (RR notifications) were accepted and actioned by Hanergy.

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 2 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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files and Registry were checked. A random sample of 5 ICPs were checked.

Audit commentary

During the audit period Hanergy sent 96 NTMI.

There were 3 backdated switch's

ICP	Switch Effective Date	Registry Notification (NT) Date	Days Backdated
0377284890LC8CB	23/07/2020	18/08/2020	17
1001131541LC101	10/08/2020	18/08/2020	5
0001427949UN9B0	12/04/2021	21/04/2021	6

The sample confirmed the correct type of switch were used.

Hanergy is aware of the requirements of the Fair Trading Act 1986

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.7 With: 9 of schedule 11.3 From: 01-Aug-20 To: 31-Dec-21	3 x switch request move in notifications to the Registry were greater than 2 days from effective switch date. 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 recorded as moderate. There are processes in place but could be improved. The impact on settlement outcomes is minor therefore the audit risk rating is recorded as low.

Actions taken to resolve the issue	Completion date	Remedial action status
0377284890LC8CB, 1001131541LC101, this two ICPs has been managed by a property management company, we follows what been told, this 2 ICP has been disconnected by previous retailer because didn't make the payment on time, and then they ask us to do the reconnection and back dated move in. 0001427949UN9B0 asked applied move in on 21/04/2021, we did the switched in same day.		Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Hanergy will keep eyes on the MI or TR to communicate with customer if anything happens		

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

- *10(1)(a) If the losing trader accepts the event date proposed by the gaining trader, the losing trader must complete the switch by providing to the registry manager:*
  - *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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files and Registry were checked. A random sample of 5 ICPs were checked.

Audit commentary

111 CS notifications were sent to the Registry in response to move in switch's (NTMI) received by HANE.

The AN and CS notifications to Registry met the 5 business day response code requirement.

The sample confirmed the correct switch type and response code were used.

Audit outcome

Compliant

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

If the losing trader determines a different date, 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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files and Registry were checked. A random sample of 5 ICPs were checked.

Audit commentary

Checks showed HANE accepted switch event dates proposed by gaining traders. and

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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files and Registry were checked. A random sample of 5 ICPs were checked.

Audit commentary

111 CS notifications were sent to the Registry in response to move in switch's (NTMI) received by HANE.

The sample confirmed the correct type of switch were used. The CS notifications to Registry met the 5 business day response and information to meet code requirement.

However 4 x CS notifications sent to the Registry used the incorrect transfer date.

Incorrect ICP Transfer Date

ICP	Switch Acceptance Date (AN)	Complete Switch date (CS)
0000511429WE930	9/3/2021	8/3/2021
1002035880UNC90	2/3/2021	1/3/2021
0000188245UND42	1/3/2021	28/2/2021
1002069312LC21C	1/4/2021	31/3/2021

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.10 With: Clause 11 Schedule 11.3 From: 01-Aug-20 To: 31-Dec-21	4 x Complete Switch move in notifications to Registry contained the incorrect Transfer Date 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 recorded as moderate. There are processes in place but could be improved. The impact on settlement outcomes is minor therefore the audit risk rating is recorded as low.

Actions taken to resolve the issue	Completion date	Remedial action status
Hanegy new stuff made mistake on the switching.		Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	
Hanergy will keep training our staff to make sure no more the same mistake happens again.		

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within 4 calendar months of the date the registry manager gives the gaining trader written notice of having received information about the switch completion, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*
- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 12(3)(b)).*

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

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

Audit observation

This was discussed with Hanergy. The Switch process was reviewed. The EDA and Switch Breach History files were checked.

Audit commentary

Hanergy did not send any RR files during this audit period.

Audit outcome

Compliant

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 anon-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

This was discussed with Hanergy. The Switch process was reviewed. The EDA file Audit Compliance Report were checked.

Audit commentary

Hanergy did not use this switch type during this audit period.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

Within 3 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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked.

Audit commentary

Hanergy did not accept any switch's using this switch type during this audit period.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

The gaining trader must complete the switch no later than 3 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 5 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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked.

Audit commentary

Hanergy did not accept any switch's using this switch type during this audit period.

Audit outcome

Compliant

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

A losing trader or gaining trader may request that a switch request be withdrawn at any time until the expiry of 2 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 5 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 2 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

This was discussed with Hanergy. The Switch process was reviewed. The EDA, Switch Breach History files and Registry were checked. A random sample of 5 x NW notifications sent and 5 x AW notifications sent were checked.

Audit commentary

15 x NW notifications were sent during the audit period, a summary of the reasons follows:

CE - Customer Error	**CX** - Customer Cancellation	**UA** – Unauthorised switch	**WS** – Wrong Switch type	**WP** – Wrong Premises	**DF** – Date Failed
2	7	2	2	1	1

Sampe checks confirmed NW notifications met code requirements.

11 x NW notifications were received during the audit period all were provided an acceptance - AW response.

Sample checks confirmed AW notifications met code requirements.

Audit outcome

Compliant

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

This was discussed with Hanergy. The Switch process and related meter reading was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked. A random sample of 5 CS meter readings was checked.

Audit commentary

Meter reads are received from MEPs or . Meter readings used in the switching process are validated meter readings or estimates. The sample confirmed code requirements were met.

Hanergy are aware of the code requirements and understands the obligations with respect to costs.

Audit outcome

Compliant

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

Code reference

Clause 11.15AA to 11.15AC

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 contacted 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

This was discussed with Hanergy.

Audit commentary

Hanergy is not part of the Switch saving protection program.

Hanergy states it does not undertake win back activities.

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

This was discussed with Hanergy. The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated they did not trade any Shared UML or UML during this this audit period, checks confirm this.

JCC carries out a weekly check to confirm Networks haven't entered any historic Shared UML or UML. This would be reconciled if it was found.

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

This was discussed with Hanergy. The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated they did not trade any Shared UML or UML during this this audit period, checks confirm this.

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

This was discussed with Hanergy. The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated they did not trade any Shared UML or UML during this this audit period, checks confirm this.

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

This was discussed with Hanergy. The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated they did not trade any Shared UML or UML during this this audit period, checks confirm this.

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

- *there is 1 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

This was discussed with Hanergy. The LIS file, Audit Compliance report and Registry were checked.

Audit commentary

Hanergy stated it does not trade installations with embedded generation. JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager. JCC does not use subtraction to determine volume information.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

- *provide to the grid owner a copy of the metering installation design (before ordering the equipment)*
- *provide at least 3 months for the grid owner to review and comment on the design*
- *respond within 3 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

This was discussed with Hanergy. The LIS file, Audit Compliance report and Registry were checked.

Audit commentary

Hanergy stated it does not have any connections to the grid.

Checks confirm this.

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

Audit observation

This was discussed with Hanergy. The LIS file, Audit Compliance report and Registry were checked.

Audit commentary

Checks confirm JCC as agent for Hanaergy submits volumes to the Reconciliation Manager using the RPS and PV1 Profiles. Control Devices are not required for Reconciliation purposes.

Audit outcome

Not applicable

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

If a participant becomes aware of an event or circumstance that led 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

This was discussed with Hanergy and JCC. The LIS file, Audit Compliance report and Registry were checked.

Audit commentary

Hanergy have agreements with NGCM, FCLMS, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings Raw meter data is collected by the MEPs. JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers and validates the information using RM TOOL. Reports are run which will identify defective metering if present; such as high/low consumption, or zero readings/non advancing registers. JCC can identify bridged meters using these reports and advise Hanergy and the MEP.

Hanergy has not identified any defective metering installations which could be not fit for purpose during this audit period.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.2

Code related audit information

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

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

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

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

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

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

2(6) – The interrogation systems must record:

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

Audit observation

This was discussed with Hanergy and JCC. The LIS file and MEP Audit Reports were checked.

Audit commentary

Hanergy have agreements with NGCM, FCLMS, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings. Raw meter data is collected by the MEPs. JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers and validates the information using RM TOOL.

JCC did not identify any discrepancies from the validation process during the audit period that required action by the MEP under this clause.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

This was discussed with Hanergy and JCC. The LIS file, Audit Compliance report and MEP Audit Reports were checked. The manual meter reading process was reviewed.

Audit commentary

Hanergy have agreements with NGCM, FCLMS, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings. Raw meter data is collected by the MEPs. JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers and validates the information using RM TOOL.

In addition Hanergy manually collects data from 4 x meter installations with no communications. The meters were read regularly by Hanergy meeting the requirements of this clause including taking a photo of the meter and switchboard. The readings and photos are provided to JCC using dropbox. JCC uses the photos as part of the validation process for those reads.

The process used by Hanergy and JCC provide the necessary functionality to meet code requirement.

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

This was discussed with Hanergy and JCC. The Switch process and related meter reading was reviewed. The EDA, Switch Breach History files, Audit Compliance report and Registry were checked. A random sample of 5 x CS meter readings were checked end to end.

Audit commentary

The switch event read from the CS file is used as a start read for gained ICPs. Successive readings from MEPs were used from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation.

The sample checks confirmed code compliance

Audit outcome

Compliant

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

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

This was discussed with Hanergy and JCC. The Switch process and related meter reading was reviewed. The EDA, Switch Breach History files, Audit Compliance report, JCC Submission Summary Reports and Registry were checked. A random sample of 5 switched ICPs meter readings were checked.

Audit commentary

283 ICPs were lost through switching during the audit period.

Checks confirmed a validated meter reading was obtained at least once during the period of supply.

Audit outcome

Compliant

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

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

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

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

Audit observation

This was discussed with Hanergy and JCC. The EDA, The JCC Submission Summary Reports and Registry were checked. A sample of Meter Frequency Reports December 2020 to December 2021 were checked.

Audit commentary

Meter Frequency Reports were sent to The Electricity Authority each month.

Checks confirm the code requirement was met.

Audit outcome

Compliant

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

In relation to each NSP, each reconciliation participant must ensure that for each NHH ICP at which the reconciliation participant trades continuously for each 4 months, for which consumption information is required to be reported into the reconciliation process. A validated

meter reading is obtained at least once every 4 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

This was discussed with Hanergy and JCC. The EDA, The JCC Submission Summary Reports and Registry were checked. A sample of Meter Frequency Reports December 2020 to December 2021 were checked.

Audit commentary

Meter Frequency Reports were sent to The Electricity Authority each month.

Checks confirm the code requirement was met.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

This was discussed with Hanergy and JCC. The LIS file, Audit Compliance report and MEP Audit Reports were checked. The manual meter reading process was reviewed.

Audit commentary

Hanergy have agreements with NGCM, FCLMS, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings. Raw meter data is collected by the MEPs. JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers and validates the information using RM TOOL.

In addition Hanergy manually collects data from 4 x meter installations with no communications. The meters were read regularly by Hanergy meeting the requirements of this clause including taking a photo of the meter and switchboard. The readings and photos are provided to JCC using dropbox. JCC uses the photos as part of the validation process for those reads.

The photos, dropbox, RM TOOL and file management at Hanergy and JCC provide the necessary functionality to meet code requirement.

No non-compliance with this code requirement was identified during the audit period.

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

This was discussed with Hanergy and JCC. The JCC Submission Summary Reports and Registry were checked The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated it does not trade HHR ICPs.

Checks confirm this.

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

This was discussed with Hanergy and JCC. The JCC Submission Summary Reports and Registry were checked. The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated it does not trade HHR ICPs.

Checks confirm this.

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

This was discussed with Hanergy and JCC. The JCC Submission Summary Reports and Registry were checked The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated it does not trade HHR ICPs.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

Audit outcome

Not applicable

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

This was discussed with Hanergy and JCC. The JCC Submission Summary Reports and Registry were checked The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated it does not trade HHR ICPs.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

Audit outcome

Not applicable

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

This was discussed with Hanergy and JCC. The LIS file, Audit Compliance report and MEP Audit Reports were checked. The manual meter reading process was reviewed.

Audit commentary

Hanergy have agreements with NGCM, FCLMS, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings. Raw meter data is collected by the MEPs.

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers and validates the information using RM TOOL.

In addition Hanergy manually collects data from 4 x meter installations with no communications. The meters were read regularly by Hanergy meeting the requirements of this clause including taking a photo of the meter and switchboard. The readings and photos are provided to JCC using dropbox. JCC uses the photos as part of the validation process for those reads.

The photos, dropbox, RM TOOL and file management at Hanergy and JCC provide the necessary functionality to meet code requirement for the manual reads obtained by Hanergy.

No non-compliance with this code requirement was identified during the audit period.

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

This was discussed with Hanergy and JCC. The LIS file, Audit Compliance report and Registry were checked.

Audit commentary

Hanergy stated it trades using RPS and PV1 profiles only.

Checks confirm JCC as agent for Hanaergy submits volumes to the Reconciliation Manager using the RPS and PV1 Profiles. Control Devices, operation logs or other profile determination are not used.

This clause is not applicable. Compliance was not assessed

Audit outcome

Not applicable

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

If 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

This was discussed with Hanergy and JCC. The JCC Submission Summary Reports and Registry were checked.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers and validates the information using RM TOOL.

Correction of NHH readings, if necessary, would be completed by JCC in consultation with Hanergy. Corrections would be carried out in RM TOOL with changes audit trailed.

Hanergy and JCC confirmed there were no corrections of NHH meter reading data required during this audit period.

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

This was discussed with Hanergy and JCC. The JCC Submission Summary Reports and Registry were checked.

Audit commentary

Hanergy stated it does not trade HHR ICPs.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

Audit outcome

Not applicable

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

A reconciliation participant may use error compensation and loss compensation as part of the process of determining accurate data. Whichever methodology is used, the reconciliation participant must document the compensation process and comply with audit trail requirements set out in the Code.

Audit observation

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only. The JCC Submission Summary Reports, MEP Audit Reports and Registry were checked.

Audit commentary

Hanergy stated it does not trade any ICPs requiring error or loss compensation.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

Audit outcome

Not applicable

8.4. Correction of HHR and NHH raw meter data (Clause 19(4) and (5) Schedule 15.2)

Code reference

Clause 19(4) and (5) 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

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only The JCC Submission Summary Reports, MEP Audit Reports and Registry were checked.

Audit commentary

Hanergy have agreements with NGCM, FCLMS, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings. Raw meter data is collected by the MEPs. Raw meter data is held by the MEPs and is not overwritten.

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager. JCC collects metering information from the MEP's servers and validates the information using RM TOOL. Metering information collected from MEPs is not overwritten in RM TOOL

Correction of NHH readings, if necessary, would be completed by JCC in consultation with Hanergy. Corrections would be carried out in RM TOOL with changes audit trailed.

Hanergy and JCC confirmed there were no corrections of meter reading information required during this audit period.

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

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only The JCC Submission Summary Reports, MEP Audit Reports and Registry were checked. A random sample of 5 x ICPs were checked.

Audit commentary

Meter reading information collected from MEPs is actual and is labelled as such in RM TOOL. If Estimated Readings are required they are labelled appropriately as estimated in RM TOOL.

Checks confirmed code requirement was met.

Audit outcome

Compliant

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

Code reference

Clause 3(4) Schedule 15.2

Code related audit information

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

3(4)(a) - validated meter readings

3(4)(b) - estimated readings

3(4)(c) - permanent estimates.

Audit observation

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only The JCC Submission Summary Reports, Reconciliation submission files, MEP Audit Reports and Registry were checked.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager. JCC collects metering information from the MEP's servers and validates the information using RM TOOL.

Volume information provided to the reconciliation manager was calculated by JCC. Checks of reconciliation submission files for the audit period demonstrated volume information was derived from validated meter 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

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only The JCC Submission Summary Reports, Reconciliation submission files, MEP Audit Reports and Registry were checked.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager. JCC collects metering information from the MEP's servers and validates the information using RM TOOL. Raw meter reading data is not truncated or rounded.

Volume information provided to the reconciliation manager was calculated by JCC. Checks of reconciliation submission files for the audit period demonstrated volume information was rounded to two decimal places.

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

This was discussed with Hanergy and JCC. The JCC Submission Summary Reports and Registry were checked The LIS file and Audit Compliance report were checked.

Audit commentary

Hanergy stated it does not trade HHR ICPs.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

Audit outcome

Not applicable

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

Code reference

Clause 16 Schedule 15.2

Code related audit information

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

> *16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register*
>
> *16(2)(b) - checks for invalid dates and times*
>
> *16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend*
>
> *16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected 0 values.*

Audit observation

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only The JCC Submission Summary Reports, Reconciliation submission files, MEP Audit Reports and Registry were checked.

Audit commentary

Hanergy have agreements with NGCM, FCLMS, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings Raw meter reading data is collected by the MEPs.

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers and validates the information using RM TOOL. Raw meter reading information is not truncated or rounded.

Validation and exception reports are run which will identify defective metering if present such as; high/low consumption, consumption detected >10% of rollover quantity, zero readings/non advancing registers, consumption on de energised sites, missing reads and negative consumption. JCC can identify bridged meters using these reports and event logs are reviewed. If there were an issue identified JCC would advise Hanergy and the MEP.

Checks confirm code requirement was met.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

17(4)(f) - a review of 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

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only The JCC Submission Summary Reports, Reconciliation submission files, MEP Audit Reports and Registry were checked

Audit commentary

Hanergy have agreements with NGCM, FCLMS, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings, raw meter reading data is collected by the MEPs.

JCC is Hanergy's agent for calculation of volume submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers weekly and validates the information using RM TOOL. Raw meter reading information is not truncated or rounded.

Validation and exception reports are run which will identify defective metering if present such as; high/low consumption, consumption detected >10% of rollover quantity, zero readings/non advancing registers, consumption on de energised sites, missing reads and negative consumption. JCC can identify bridged meters using these reports and event logs are reviewed. If there were an issue identified JCC would advise Hanergy and the MEP.

Hanergy advised and JCC confirmed there were no metering data integrity issues identified during the audit period.

Checks confirm code requirement was met.

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

This was discussed with Hanergy and JCC. The LIS file, JCC Submission Summary Reports, Reconciliation submission files and Registry were checked.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only.

Hanergy stated it does not operate any Generation.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

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

This was discussed with Hanergy and JCC. The LIS file, JCC Submission Summary Reports, Reconciliation submission files and Registry were checked.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only.

Hanergy stated it does not operate any Generation.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

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

This was discussed with Hanergy and JCC. The LIS file, JCC Submission Summary Reports, Reconciliation submission files and Registry were checked.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only.

Hanergy stated it does not operate any Generation.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

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

This was discussed with Hanergy and JCC. The LIS file, JCC Submission Summary Reports, Reconciliation submission files and Registry were checked.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only.

Hanergy stated it does not operate any Generation.

Checks confirm this.

This clause is not applicable. Compliance was not assessed

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

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only. The LIS, EDA files and Registry were checked.

Audit commentary

Checks confirm JCC as agent for Hanaergy submits volume submissions to the Reconciliation Manager using the RPS and PV1 Profiles.

Hanergy did not give Notice to the Reconciliation Manager for this clause as it is not required for these profiles.

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

This was discussed with Hanergy and JCC. AV-100 and GR-100 reports provided by JCC for the audit period were reviewed.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

ICPDAYS were calculated and submitted to the reconciliation manager by JCC. GR-100 files for the audit period were reviewed and only a few minor differences between submissions were identified. These appeared to be due to late or withdrawn switch's.

Audit outcome

Compliant

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

Code reference

Clause 15.7

Code related audit information

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

> *15.7(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*
>
> *15.7(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

Audit observation

This was discussed with Hanergy and JCC. BILLED files from November 2021 to December 2021 were reviewed.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

The BILLED files are created using the RM TOOL based on energy consumption from the Hanergy billing system.

Checks confirmed the billed files met code requirement.

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

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only. The LIS, EDA files and Registry were checked.

Audit commentary

Hanergy does not trade any HHR ICPs.

Checks confirm JCC as agent for Hanaergy submits volume submissions to the Reconciliation Manager using the RPS and PV1 Profiles.

This clause is not applicable. Compliance was not assessed

Audit outcome

Not applicable

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 1 of the techniques set out in clause 15.36(3) specified by the Authority.

Audit observation

This was discussed with Hanergy and JCC. Hanergy trade NHH category 1 and 2 ICPs only. The LIS, EDA files and Registry were checked.

Audit commentary

Hanergy does not trade any HHR ICPs.

Checks confirm JCC as agent for Hanaergy submits volume submissions to the Reconciliation Manager using the RPS and PV1 Profiles.

This clause is not applicable. Compliance was not assessed

Audit outcome

Not applicable

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

This was discussed with Hanergy and JCC. AV-100,GR-100, BILLED files, Submission Summary Reports, NHHVOLS, and ICPDAYS provided by JCC for the audit period were reviewed. The Electricity Authority was checked for any breach activity (late submissions) during the audit period.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager. Checks confirm JCC submits volume submissions to the Reconciliation Manager using the RPS and PV1 Profiles.

Checks confirm no breaches for late submission of information to the Reconciliation Manager during the audit period. Volumes were submitted for all ICPs traded during the audit period.

Audit outcome

Compliant

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

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

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

Audit observation

This was discussed with Hanergy and JCC. GR-170NHH, BILLED files, Submission Summary Reports and NHHVOLS submission files provided by JCC for the audit period were reviewed. The LIS and Registry were checked. Hanergy trade NHH category 1 and 2 ICPs only.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager. JCC collects metering information from the MEP's servers and validates the information using RM TOOL.

Allocation of volume information is completed by JCC. ICP information from the registry is refreshed in the RM TOOL prior to each reconciliation submission to ensure that aggregation factors and statuses are consistent with the registry.

A check of the monthly Submission Summary Reports confirmed ICPs and consumption volume was allocated to the correct NSPs. NHHVOLS submissions compared to GR-170NHH files confirmed NSP allocations were matched and correct, revisions appropriately identified zero volume against NSPs with no ICPs.

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

This was discussed with Hanergy. The LIS file was checked.

Audit commentary

Hanergy is not a grid owner.

This clause is not applicable. 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

This was discussed with Hanergy. The LIS file was checked.

Audit commentary

Hanergy does not operate or own an Embedded Network.

Checks confirm this.

This clause is not applicable. 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

This was discussed with Hanergy and JCC. The EDA file, JCC Submission Summary Reports, Reconciliation submission files and Registry were checked.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only.

Hanergy stated it does not operate any Generation.

Checks confirm this.

This clause is not applicable. 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

This was discussed with Hanergy and JCC. GR-170NHH, BILLED files, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed. The EDA file was checked. The Electricity Authority was checked for any breach activity (late submissions) during the audit period.

Audit commentary

Checks confirm JCC submits consumption volume revision files as required by this clause.

Audit outcome

Compliant

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

Code reference

Clause 4 Schedule 15.2

Code related audit information

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

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

This was discussed with Hanergy and JCC. GR-170NHH, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager. JCC collects metering information from the MEP's servers and validates the information using RM TOOL.

Allocation of volume information is completed by JCC. ICP information from the registry is refreshed in the RM TOOL prior to each reconciliation submission to ensure that aggregation factors and statuses are consistent with the registry.

A check of the monthly Submission Summary Reports confirmed ICPs and consumption volume was allocated to the correct NSPs. NHHVOLS submissions compared to GR-170NHH files confirmed NSP allocations were matched and correct, revisions appropriately identified zero volume against NSPs with no ICPs.

Checks confirm estimates volume were submitted during the Audit period met code requirements.

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)(ac) to 2(1)(ae)):*
  - *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 use volume information (clause 2(3))*
- *to calculate volume information the reconciliation participant must apply raw meter data :*
  a) *for each ICP, the compensation factor that is recorded in the registry (clause 2(4)(a))*
  b) *for each NSP the compensation factor that is recorded in the metering installations most recent certification report. (clause 2(4)(b))*

Audit observation

This was discussed with Hanergy and JCC. GR-170NHH, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed the LIS file and Registry were checked.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only. Checks confirm JCC as agent for Hanaergy submits volumes to the Reconciliation Manager using the RPS and PV1 Profiles. Control Devices, operation logs or other profile determination are not used to create volumes.

Hanergy stated they did not trade any Shared UML or UML during this this audit period, checks confirm this.

Checks using the above information confirmed all ICP consumption volume was submitted that Hanergy was responsible for during the audit period.

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

This was discussed with Hanergy and JCC. GR-170NHH, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed the LIS file and Registry were checked.

Audit commentary

The process for the calculation of NHH volumes was examined by checking several NSPs ICPs supplied during the audit period. JCC provided a detailed breakdown of volume for each ICP by NSP. NHH volumes aggregation was confirmed to be correct and verified that estimates were included and identified correctly in files submitted during the audit period.

Audit outcome

Compliant

12.11. Historical estimate process (Clause 4 and 5 Schedule 15.3)

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

The methodology outlined in clause 4 of Schedule 15.3 must be used when preparing historic estimates of volume information for each ICP when the relevant seasonal adjustment shape is available.

If a seasonal adjustment shape is not available, the methodology for preparing an historical estimate of volume information for each ICP must be the same as in clause 4, except that the relevant quantities kWh_{Px} must be prorated as determined by the reconciliation participant using its own methodology or on a flat shape basis using the relevant number of days that are within the consumption period and within the period covered by kWh_{Px}.

Audit observation

This was discussed with Hanergy and JCC. GR-170NHH, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed the LIS file and Registry were checked.

Audit commentary

The process for the calculation of NHH volumes was examined by checking several NSPs ICPs supplied during the audit period. JCC provided a detailed breakdown of volume for each ICP by NSP. NHH volumes aggregation was confirmed to be correct and verified that the relatively few estimates were included and identified correctly in files submitted during the audit period.

Most meters used by Hanergy are read remotely, there are 4 non AMI read meters that Hanergy reads. Where newly switched ICPs require estimated volume information JCC uses the average daily consumption obtained from the registry to calculate an estimate. Any data estimated by JCC for reconciliation purposes is flagged as an estimate.

Checks of the JCC estimate process relating to ICP switch's (gained and lost and reads), meter changes or spanning a consumption period met code requirements.

Audit outcome

Compliant

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 Schedule 15.3

Code related audit information

Forward estimates may be used only in respect of any period for which an historical estimate cannot be calculated.

The methodology used for calculating a forward estimate may be determined by the reconciliation participant, only if it ensures that the accuracy is within the percentage of error specified by the Authority.

Audit observation

This was discussed with Hanergy and JCC. GR-170NHH, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed the LIS file and Registry were checked.

Audit commentary

The process for the calculation of NHH volumes was examined by checking several NSPs ICPs supplied during the audit period. JCC provided a detailed breakdown of volume for each ICP by NSP. NHH volumes aggregation was confirmed to be correct and verified that historic estimates were included and identified correctly in NHHVOLS files submitted during the audit period.

Most meters used by Hanergy are read remotely, there are 4 non AMI read meters that Hanergy reads. Where newly switched ICPs require estimated volume information JCC uses the average daily consumption obtained from the registry to calculate an estimate. Any data estimated by JCC for reconciliation purposes is flagged as an estimate.

Checks of the JCC historical estimate process relating to ICP switch's (gained and lost) and reads spanning a consumption period met code requirements.

Audit outcome

Compliant

12.13. Compulsory meter reading after profile change (Clause 7 Schedule 15.3)

Code reference

Clause 7 Schedule 15.3

Code related audit information

If the reconciliation participant changes the profile associated with a meter, it must, when determining the volume information for that meter and its respective ICP, use a validated meter reading or permanent estimate on the day on which the profile change is to take effect.

The reconciliation participant must use the volume information from that validated meter reading or permanent estimate in calculating the relevant historical estimates of each profile for that meter.

Audit observation

This was discussed with Hanergy and JCC. The EDA file, JCC Submission Summary Reports, Reconciliation submission files and Registry were checked.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only. Checks confirm JCC as agent for Hanaergy submits volumes to the Reconciliation Manager using the RPS and PV1 Profiles. Control Devices, operation logs or other profile determination are not used to create volumes.

Checks confirm Hanergy did not change any profiles during the audit period.

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

This was discussed with Hanergy and JCC. GR-170NHH, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed the LIS file and Registry were checked.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only. Checks confirm JCC as agent for Hanaergy submits volumes monthly to the Reconciliation Manager using the RPS and PV1 Profiles. Control Devices, operation logs or other profile determination are not used to create volumes.

Several NHHVOLS submission files were checked and it was verified that the format of submission files is compliant.

Submission information was provided to the reconciliation manager in the appropriate format and aggregated correctly by:

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

Hanergy stated they did not trade any Shared UML or UML during this this audit period, checks confirm this.

Checks using the above information confirmed all ICP consumption volume was submitted that Hanergy was responsible for during the audit 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 2 decimal places.

If the unrounded digit to the right of the second decimal place is greater than or equal to 5, the second digit is rounded up, and

If the digit to the right of the second decimal place is less than 5, the second digit is unchanged.

Audit observation

This was discussed with Hanergy and JCC. GR-170NHH, BILLED, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JCC collects metering information from the MEP's servers and validates the information using RM TOOL. Raw meter reading information is not truncated or rounded.

The review of submission files confirmed that when reporting submission information, the number of decimal places is rounded to not more than 2 decimal places at the end of calculations using a prescribed method.

Checks confirm volume submissions data rounding met code requirements.

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

This was discussed with Hanergy and JCC. GR-170NHH, Submission Summary Reports, NHHVOLS submission files and GR-30 files provided by JCC for the audit period were reviewed.

Audit commentary

JCC is Hanergy's agent for calculation of submission data and the transmission of data to the reconciliation and pricing manager.

Hanergy trade NHH category 1 and 2 ICPs only. Checks confirm JCC as agent for Hanaergy submits volumes monthly to the Reconciliation Manager using the RPS and PV1 Profiles. Control Devices, operation logs or other profile determination are not used to create volumes.

Checks confirm revision 3,7 and 14 revision submissions met code requirement.

Audit outcome

Compliant

CONCLUSION

See Executive Summary.

PARTICIPANT RESPONSE