

**ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT**

For

HANERGY (HANE)
(NZBN # 9429046493127)

Prepared by: Ewa Glowacka of TEG & Associates

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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 810 NHH ICPs. The company uses JC Consulting's services to provide reconciliation services as described in the body of this document. The functions performed by JC Consulting were audited during this audit.

The main focus of Hanergy's operation is on new connections; the company has traded 1,284 BTS during this audit period. Some BTS stayed with the company; some switched to another trader as soon as BTS became a permanent connection. Hanergy has streamlined its processes to ensure efficient customer service delivery.

Whilst 11 non-compliances ((2 non-compliances were cleared) and 2 recommendations have been found during the audit, in our view they are minor and none of the matters have resulted in significant material reconciliation issues. There were a relatively low number of non-compliances identified in the Audit Compliance report. The primary reason for non-compliance related to late status registry updates was delays in paperwork from MEPs.

During the audit period, the company lost 743 ICPs and gained 81 ICPs. We would like to acknowledge that the Switch Breach report did not record even a single breach. Hanergy checks the Switch Breach report every day and actions it straight away.

The main area which needs attention is manual reads (BTS). BTS used to be read quarterly, but as the number increased to 210 (June 2023), the number of reads decreased over time because of a lack of resources. Due to a shortage of staff and the inability to sign up with a meter reading company, HANE hasn't been able to read BTS meters since January 2023. The company has now hired their staff to perform the manual readings.

The audit period was from 1 January 2022 to 31 May 2023

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 24, resulting in an indicative audit frequency of 12 months. We agree with the result.

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

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 | The low number of information inaccuracies was identified during the audit | Moderate | Low | 2 | Identified |
| Provision of information on dispute resolution scheme | 2.19 | 11.30A | No Utilities Disputes information is displayed on outbound customer communications | Moderate | Low | 2 | Cleared |
| Provision of information on electricity plan comparison site | 2.20 | 11.30B | No Powerswitch information is displayed on outbound customer communications | Moderate | 2 | 2 | Cleared |
| Changes to registry | 3.3 | 10 of Schedule 11.1 | A small number of late status and trader updates | Moderate | Low | 2 | Identified |
| Provision of information to the registry manager | 3.5 | 9 of Schedule 11.1 | Late updates for change to "Active" and ANZSIC codes. Incorrect Active Date for a small number of new connections | Moderate | Low | 2 | Identified |
| Losing trader response to switch request and event dates - standard switch | 4.2 | 3&4 of Schedule 11.1 | Some ANs had the AA (acknowledge and accept) code incorrectly applied. The AD (advanced metering) code was expected for ICP metered by advanced meters | Moderate | Low | 2 | Identified |
| Losing trader must provide final information - | 4.3 | 5 of Schedule 11.3 | Incorrect calculation of average daily consumption (AMI | Moderate | Low | 2 | Identified |

| | | | | | | | |
|--|------|------------------------|--|----------|-----|----|------------|
| standard switch | | | reads) recorded in CS files and incorrect date of last read for some ICPs | | | | |
| Losing trader provides information - switch move | 4.8 | 10(1) of Schedule 11.1 | Some ANs had the AA (acknowledge and accept) code incorrectly applied. The AD (advanced metering) code was expected for ICP metered by advanced meters | Moderate | Low | 2 | Identified |
| Losing trader must provide final information - switch move | 4.10 | 11 of Schedule 11.3 | Incorrect calculation of average daily consumption (AMI reads) recorded in CS files and incorrect date of last read for some ICPs | Moderate | | 2 | Identified |
| NHH meters 90% read rate | 6.10 | 9(1) of Schedule 15.2 | 90% attainment was not achieved for number of NSPs over 4 months | Weak | Low | 3 | Identified |
| Historical estimate reporting to RM | 13.3 | 10 of Schedule 15.3 | Historical estimates target not met for revisions 3 and 7 for small number of NSPs | Weak | Low | 3 | Identified |
| Future Risk Rating | | | | | | 24 | |

| | | | | | | |
|----------------------------|-----------|-----------|-----------|----------|----------|----------|
| 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 |

RECOMMENDATIONS

| Subject | Section | Description | Recommendation |
|----------------|---------|--|---|
| MEP nomination | 3.1 | HANE uses two different processes for MEP nomination for COUP and AMS. COUP MEP is nominated in advance, and AMS is nominated when a | Align COUP and AMS MEP nomination process. Use the status of "1,12" to nominate MEP. It will decrease the number of backdated MEP nominations |

| | | | |
|-------------------------|-----|--|---|
| | | confirmation is received that a meter was installed. | |
| Incorrect "Active" date | 3.5 | Incorrect "Active" date for some new connection | <ul style="list-style-type: none"> • Use Certification Date/ Site Energisation Date as an "Active" date in the registry • Correct information in the registry as per the table above. Use the Certification Date as "Active" date |

ISSUES

| Subject | Section | Description | Issue |
|---------|---------|-------------|-------|
| | | | Nil |

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

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 one director Brandon Liang.

1.3. Persons involved in this audit

| Name | Title | Company |
|---------------|--|--------------------|
| Brandon Liang | Director | Hanergy |
| Stella Wang | Marketing Manager | Hanergy |
| John Candy | Director | JC Consulting |
| Ewa Glowacka | Electricity Authority Approved Auditor | TEG Associates Ltd |

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

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

Audit observation

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

Audit commentary

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

1.5. Hardware and Software

The main systems are as follows:

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

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 | 26/06/23 | (2021) | (2020) | (2019) |
|-------------------|----------|--------|--------|--------|
| 1 | 796 | 134 | 208 | 69 |
| 2 | 1 | 2 | 1 | 0 |
| 3 | 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 |
| 9 | 2 | 2 | 1 | 0 |

| Status | Number of ICPs (26/06/2023) | Number of ICPs (2022) | Number of ICPs (2020) | Number of ICPs (2019) |
|--|-----------------------------|-----------------------|-----------------------|-----------------------|
| Active (2,0) | 778 | 130 | 205 | 67 |
| Inactive – new connection in progress (1,12) | 3 | 2 | 0 | 0 |
| Inactive – electrically disconnected vacant property (1,4) | 29 | 3 | 4 | 0 |
| Inactive – electrically disconnected remotely by AMI meter (1,7) | 0 | 0 | 0 | 0 |
| Inactive – electrically disconnected at pole fuse (1,8) | 0 | 0 | 0 | 0 |
| Inactive – electrically disconnected due to meter disconnected (1,9) | 0 | 1 | 1 | 1 |
| Inactive – electrically disconnected at meter box fuse (1,10) | 0 | 0 | 0 | 0 |

| | | | | |
|--|----|---|---|---|
| Inactive – electrically disconnected at meter box switch (1,11) | 0 | 0 | 0 | 0 |
| Inactive – electrically disconnected ready for decommissioning (1,6) | 0 | 1 | 0 | 0 |
| Inactive – reconciled elsewhere (1,5) | 0 | 0 | 0 | 0 |
| Decommissioned (3) | 14 | 2 | 0 | 0 |

1.8. Authorisation Received

Hanenergy provided authorisation to TEG & Associated 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 Hanenergy. 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 at Hanenergy’s office in Auckland between 28 and 30 June 2023.

The table below shows the tasks under clause 15.38 of part 15 for which Hanenergy 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 <ul style="list-style-type: none"> • MTRX • NGCM • BOPE • COUP |
| (c)(ii) - Creation and management of NHH volume information | ✓ | JC Consulting |
| (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

The previous audit was conducted by Allan Borcoski in January 2022. The following non-compliances were identified.

| Subject | Section | Clause | Non Compliance | Comments |
|---|---------|---------------------|--|--------------|
| Relevant information | 2.1 | 10.6, 11.2, 15.2 | Relatively low number of information inaccuracies identified during the audit | Still exists |
| 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 | Cleared |
| Provision of information on electricity plan comparison site | 2.20 | 11.30A | No Powerswitch information currently displayed on the website or outbound customer communications. | Cleared |
| Changes to registry information | 3.3 | 10 of Schedule 11.1 | Late updates for: <ul style="list-style-type: none"> • Change to Active x 5 • Inactive – new connection in progress x 1, • Inactive – Vacant x 1 • 28xMEP Nomination | Still exists |
| 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. | Still exists |
| 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. | Cleared |
| Losing trader must provide final information - switch move | 4.10 | | 4 x Complete Switch (MI) notifications to Registry contained incorrect Transfer Date | Still exists |

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 |
|---------|--|
| 2.19 | No Utilities Disputes information is displayed on outbound customer communications |
| 2.20 | No Powerswitch information is displayed on outbound customer communications |
| 3.3 | A small number of late status and trader updates |
| 3.5 | Late updates for change to Active (2,0) and ANZSIC codes. Incorrect Active Date for small number of new connections |
| 4.2/4.8 | Some ANs had the AA (acknowledge and accept) code incorrectly applied. The AD (advanced metering) code was expected for ICP metered by advanced meters |
| 4.10 | Incorrect calculation of average daily consumption (AMI reads) recorded in CS files and incorrect date of last read for some ICPs |

Audit outcome

Non-compliant

| Non-compliance | Description |
|--|--|
| Audit Ref: 2.1 With: Clause 10.6,11.2, 15.2 From: 01-Jan-22 To: 31-May-23 | The low number of information inaccuracies was identified during the audit Potential impact: Low Actual impact: Low Audit history: twice 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 that 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 added the Utilities disputes and Power Switch to our outbound communication; they were just recently included when we began the audit | | 05/07/2023 | Cleared |
| Preventative actions taken to ensure no further issues will occur | | Completion date | |
| Will check all of our outbound communications make sure do not happened again | | 11/07/2023 | |

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 engages JC Consulting as the agent for the submission of information to the reconciliation. Information delivery processes to the reconciliation manager were reviewed along with submission files for the audit period.

Audit commentary

JC Consulting, acting as the Hanergy agent, submits data to the reconciliation manager through the RM portal in compliance with Part 15. Hanergy has fulfilled the Code's requirements by providing information within the designated time frame.

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 engaged JC Consulting as the agent for the submission of information to the reconciliation manager.

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

Audit commentary

JC Consulting downloads data from MEPs servers into the RM TOOL. During the audit period, Hanergy manually read a small number of ICPs and delivered those reads to JC Consulting using Dropbox; JC Consulting confirmed receipt of the reads to Hanergy by email.

Since January 2023, no manual reads were not done by Hanergy. A small number of manual reads (located close to his office) are done by JC Consulting.

Reconciliation files are submitted via the RM portal by JC Consulting.

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 JC Consulting as the agent for the submission of information to the reconciliation manager.

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 JC Consulting was reviewed along with communication logs.

Audit commentary

JC Consulting tracks all downloaded metering through FileZilla and archives audit trails for data gathering, validation, and processing functions in the RM TOOL. Changes made to data are logged with activity and operator identifiers.

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

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.

The Terms and Conditions of Supply to Customers have been checked and confirmed to contain the relevant information required by the Code.

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.

We confirm that the Terms and Conditions of Supply to Customers contain the necessary information for access arrangements that meet Code requirements, which can be found 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:

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

Audit observation

The LIS file and MEP agreements were 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 were 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.

We confirm that the Terms and Conditions of Supply to Customers provide the appropriate arrangements to meet the Authority's Code requirements and permit assignment 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

During the audit, we reviewed the new connection process and went through the MEP and network agreements. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

During the last audit, Hanergy has begun to take new connections; now, it is the prime focus of their operation. They have appropriate distributors and MEP agreements in place. The connections traded by HANE are located on the Vector and Counties Power network.

1,284 new connections were created during the audit period. The sample demonstrated that 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:*
 - o *the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within 2 business days of electrical connection*
 - o *if the ICP has metered load, 1 or more certified metering installations are in place*
 - o *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the 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

1,284 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:*
 - o *the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within 2 business days of electrical connection*
 - o *if the ICP has metered load, 1 or more certified metering installations are in place*
 - o *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the electrical connection.*

Audit observation

This was discussed with Hanergy. During the audit, we reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

1,284 new connections were created during the audit period.

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

The Audit Compliance Report identified ICP 0000101377UN0BE was gained on 17/01/2022 despite the metering installation certificate expiring on 01/05/2015.

It was discussed with HANE, who explained that as they were aware of not certified installation before the switching, NGCM was asked to certify the installation as soon as the switch was finalised.

Audit outcome

Compliant

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

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

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

Audit observation

This was discussed with Hanergy. We reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

Hanergy trades on the Vector, and Counties Power networks. Hanergy stated they have appropriate agreements in place with all of these networks.

The sample demonstrated the new connection process met the 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. We reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

Hanergy has appropriate agreements with NGCM, FCLM, MTRX and BOPE (Nova Energy) to provide MEP services.

The sample demonstrated the new connection process met the 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 3 switch withdrawal notices during the audit period.

According to Hanergy, during the audit period, there was no reconnection of an ICP that was in the process of being switched then the switch did not proceed or was withdrawn.

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

103 ICPs were disconnected during the audit period. Hanergy advised that any disconnection activity involving HANE ICPs met this Code requirement.

Our registry check confirmed that HANE was recorded as a trader 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:

- *reset a load control switch, bridge or unbridge a load control switch – if the load control switch does not control a time 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 personnel 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 appropriate agreements with NGCM, FCLM, MTRX and BOPE (Nova Energy) to provide MEP services.

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 JC Consulting.

Audit commentary

Hanergy has appropriate agreements with NGCM, FCLM, MTRX and BOPE (Nova Energy) to provide MEP services.

Hanergy stated that for the metering installations it is responsible for, and during the audit period, no “bridging” took place relating to this Code requirement.

Hanergy stated that no meters failed, and subsequent meter reading data estimation was not 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

We 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 during the audit. We reviewed the HANE website and correspondence with customers.

Audit commentary

We can confirm that information about Utilities Disputes can be found on the company's website, but it was not mentioned during communication with the customer. However, before finalizing this report, Hanergy updated the footer of their emails to include information about Utilities Disputes.

Audit outcome

Compliant

| Non-compliance | Description | | |
|---|--|-----------------|------------------------|
| Audit Ref: 2.19 With: Clause 10.30A From: 01-Jan-22 To: 31-May-23 | No Utilities Dispute information is displayed on 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. Hanergy changed the footer of their emails to accommodate information about Utilities Disputes. 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 added the Utilities disputes and Power Switch to our outbound communication; they were just recently included when we began the audit | | 05/07/2023 | Cleared |
| Preventative actions taken to ensure no further issues will occur | | Completion date | |
| Will check all of our outbound communications make sure do not happened again | | 11/07/2023 | |

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 during the audit. We reviewed the HANE website and correspondence with customers.

Audit commentary

We can confirm that information about Powerswitch can be found on the company's website, but it was not mentioned during communication with the customer. However, before finalizing this report, Hanergy updated the footer of their emails to include information about Powerswitch.

Audit outcome

Compliant

| Non-compliance | Description | | |
|---|---|-----------------|------------------------|
| Audit Ref: 2.20 With: Clause 10.30B From: 01-Jan-22 To: 31-May-23 | No Powerswitch information is displayed on outbound customer communications Potential impact: Low Actual impact: Low Audit history: Once previously Controls: Moderate Breach risk rating: 2 | | |
| Audit risk rating | Rationale for audit risk rating | | |
| Low | Controls are recorded as moderate. Hanergy changed the footer of their emails to accommodate information about Powerswitch. 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 added the Utilities disputes and Power Switch to our outbound communication; they were just recently included when we began the audit | | 05/07/2023 | Cleared |
| Preventative actions taken to ensure no further issues will occur | | Completion date | |
| Will check all of our outbound communications make sure do not happened again | | 11/07/2023 | |

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. During the audit, we reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

1,284 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 will be accepted. Hanergy trades on the Vector and Counties Power network.

Hanergy set the status of the ICP to "Inactive – new connection in progress" (1,12) only for ICPs traded on the Counties Power network. It is a prerequisite set by a COUP, which requires COUP MEP to be nominated in the registry before a connection can proceed.

HANE does not nominate AMS as an MEP in the registry before a meter is installed and installation is certified. To initiate the process, Hanergy sends a Service Request to install a meter. Once the paperwork confirming the certification of installation and electrical connection is received, AMS is then nominated as an MEP in the registry.

The new connection sample demonstrated the new connection process met the Code requirements.

Our recommendation is to use the same nomination process for both MEPs. It will allow to streamline the new connection process and avoid confusion. It will also decrease number of backdated MEP

nominations.

| Description | Recommendation | Audited party comment | Remedial action |
|---|---|-----------------------|-----------------|
| HANE uses two different processes for MEP nomination for COUP MEP and AMS. COUP is nominated in advance, and AMS is nominated when a confirmation is received that a meter was installed. | Align COUP and AMS MEP nomination process. Use the status of "1,12" to nominate MEP. It will decrease the number of backdated MEP nominations | | |

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. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

1,284 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 met the 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. We checked the most backdated registry updates.

Audit commentary

Status updates to “Active” (no new connections)

The Audit Compliance report found 3 instances where updates to the "Active" status were made more than 5 business days after physical connection. The compliance rate was 94%. On average, the time between the Status Event and Status Input dates was 16.33 business days.

Each case had a different reason for the late update. We did not find a systemic problem with the process.

Status updates to “Inactive”

The Audit Compliance report found 7 instances where updates to the "Inactive" status were made more than 5 business days after physical reconnection. The compliance rate was 92.75%. On average, the time between the Status Event and Status Input dates was 21 business days.

This issue was brought up with Hanergy and was found to be caused by changes in the status, such as "Inactive-ready for decommissioning", "Inactive-vacant", or “Inactive-new connection in progress”. Each case had a different reason for the late update. We did not find a systemic problem with the process.

Trader updates

The Audit Compliance report identified 7 late updates, more than 5 business days, to the Trader fields. The percentage of compliance was 93.33%. The average number of business days between Trader Event and Trader Input Date was 11.00.

Audit outcome

Non-compliant

| Non-compliance | Description | | |
|---|---|-----------------|------------------------|
| Audit Ref: 3.3 With: Clause 10 of Schedule 11.1 From: 01-Jan-22 To: 31-May-23 | A small number of late status and trader updates Potential impact: Low Actual impact: Low Audit history: Many times 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 that 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 just starting do the new connection beginning of early 2022, still learning the progress and causing delay to nomination time overdue | | 11/07/2023 | Identified |

| Preventative actions taken to ensure no further issues will occur | Completion date | |
|--|-----------------|--|
| Hanergy asked John how to nomination and energize the ICP from early 2022, will do nomination ourselves to avoid the time issue. | 11/07/2023 | |

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

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

Audit commentary

Hanergy does not trade UML. LIS file checks confirm that all ICPs have an MEP recorded in the registry. Hanergy stated that they are aware of the 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. During the audit, we reviewed the new connection process. We checked the LIS, EDA files, Audit Compliance reports, and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

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

We confirm that all ICPs traded by Hanergy have the information required by this clause recorded in the registry.

New connections were a new service first offered during the last audit period. New connections have become the main focus of Hanergy's operation during this audit period; the company established 1,294 new connections.

Status updates to “Active” (new connections)

The Audit Compliance report found 125 instances where updates to the "Active" status were made more than 5 business days after physical connection.

The compliance rate was 87.52 %. On average, the time between the Status Event and Status Input dates was 3.90 business days. The delay in receiving paperwork from MEPs caused a significant number of late updates for new connections.

The population of ANZSIC code

The Audit Compliance report found 32 instances where ANZSIC codes are populated later than 20 business days after the Trader commences trading.

Accuracy of “Active” Date

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

During the audit, discrepancies were found between the "Active" date and the Initial Electrical Connection date (IECD) or the Certification Date for several ICPs, as indicated in the Audit Compliance report. To identify the reasons behind these discrepancies, a review was conducted, and the ICPs with differing Metering Certification Dates and "Active" status dates are listed in the table below. Each discrepancy was discussed with Hanergy, and their response can be found in the Comment column.

| ICP Identifier | Metering Installation Certification Date | Status Event Date | Difference between Metering Installation Certification Date and Status Event Date | Comment |
|-----------------|--|-------------------|---|---|
| 1002169194UN2A6 | 14/12/22 | 13/12/2022 | 1 | The date of first read was recorded as the "Active" date |
| 1002167713UN4E0 | 20/11/22 | 29/09/2022 | 52 | incorrect date going live; manual registry update, event of previous update was not changed |
| 1002160032LC486 | 29/07/22 | 28/07/2022 | 1 | MEP recorded the incorrect date in the registry |
| 1002163555LC159 | 26/07/22 | 25/07/2022 | 1 | MEP recorded the incorrect date in the registry |
| 1002163851LC55B | 19/07/22 | 13/07/2022 | 6 | Incorrect date, typo |
| 1002161326UN796 | 01/07/22 | 04/07/2022 | -3 | Incorrect date, typo |
| 1002157789UN8BA | 2/11/22 | 05/05/2022 | 181 | Incorrect date, typo |
| 1002156490UNEE5 | 02/05/2022 | 04/05/2022 | -2 | The date when the email was received has been recorded as the "Active" date. |
| 1002156088UNA5D | 16/03/2022 | 17/03/2022 | -1 | date of email received |
| 1002154831UN5F3 | 21/02/22 | 15/02/2022 | 6 | transposed entry |
| 1002155080UNAA9 | 25/02/22 | 21/02/2022 | 4 | transposed entry |
| 1002154776LCF87 | 23/02/2022 | 24/02/2022 | -1 | The date when the email was received has been recorded as the "Active" date. |
| 1002154680LC71B | 23/02/2022 | 24/02/2022 | -1 | The date when the email was received has been recorded as the "Active" date. |
| 1002152367LC0AE | 23/02/2022 | 24/02/2022 | -1 | The date when the email was received has been recorded as the "Active" date. |
| 1002154427LC8C9 | 18/02/2022 | 22/02/2022 | -4 | The date when the email was received has been recorded as the "Active" date. |
| 1002154713UN72C | 17/02/2022 | 22/02/2022 | -5 | The date when the email was received has been recorded as the "Active" date. |
| 1002154528LCE13 | 17/02/2022 | 22/02/2022 | -5 | The date when the email was received has been recorded as the "Active" date. |
| 1002154527UNBD9 | 18/02/2022 | 22/02/2022 | -4 | The date when the email was received has been recorded as the "Active" date. |
| 1002168548LCB4F | 27/03/23 | 23/03/2023 | 4 | Incorrect entry |

| | | | | |
|-----------------|----------|------------|---|--|
| 1002173796UN284 | 10/02/23 | 08/02/2023 | 2 | Date of first read was recorded as the Active date |
| 1002173851LCDBA | 9/02/23 | 08/02/2023 | 1 | typo |

There are two types of inaccuracies that occur. The first type is when the "Active" date recorded in the registry is before the Certification Date. This is usually due to a typo or confusion about which date to use. However, these discrepancies do not affect the market, as JC Consulting always submits data from the Certification Date recorded in the registry.

The second type of inaccuracy occurs (highlighted in orange) when the HANE "Active" date is after the Certification Date. This means that small volumes are not reconciled, as all new connections are BTS.

During discussions with Hanergy, it was revealed that the information on the Metering Certificates provided by AMS is not clear. There are three dates listed:

- the date of certification,
- the date of the first read, and
- the date of a site being energised

Usually, these three dates are the same. However, on rare occasions, the date of the first read may be later than the date of a site being energised/certification date. This could be due to a communication issue or a mistake by MEP's technician, which is likely because BTS meters are not read remotely.

After a discussion with another auditor, our recommendation is to use Certification Date/ Site Energisation Date as an "Active" date.

Audit outcome

Non-compliant

| Non-compliance | Description | | |
|---|---|-----------------|------------------------|
| Audit Ref: 3.5 With: Clause 9 of Schedule 11.1 From: 01-Jan-22 To: 31-May-23 | Late updates for change to "Active" and ANZSIC codes. Incorrect "Active" Date for a small number of new connections Potential impact: Low Actual impact: Low Audit history: Many times 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 that could be improved. The company must establish consistency in which date from the Metering Certificate is used as an "Active" date. 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 we just starting the new connections ourselves, few mistake has happened during entry the information, will try our best to avoided the typo and have a good communication with MEP | 11/07/2023 | Identified |
| Preventative actions taken to ensure no further issues will occur | Completion date | |
| We'll try minimise the typo and good communication channel with MEP | 11/07/2023 | |

| Description | Recommendation | Audited party comment | Remedial action |
|---|---|-----------------------|-----------------|
| Incorrect "Active" date for some new connection | <ul style="list-style-type: none"> Use Certification Date/ Site Energisation Date as an "Active" date in the registry Correct information in the registry as per the table above. Use the Certification Date as "Active" date | | |

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. During the audit, we reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

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. During the audit, we reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

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. During the audit, we reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

We confirm that a metering installation quantifies the electricity consumed by each ICP traded by Hanergy, and the status of “Active” is assigned in the registry.

Each ICP 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. During the audit, we reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

We reviewed the EDA file and confirm there were 132 changes to the status “Inactive” in the registry.

| Status | Number of ICPs |
|--|----------------|
| Inactive – electrically disconnected vacant property (1,4) | 100 |
| Inactive – electrically disconnected ready for decommissioning (1,6) | 12 |
| Inactive – electrically disconnected remotely by AMI meter (1,7) | 2 |
| Inactive – electrically disconnected at meter box fuse (1,10) | 1 |
| Inactive – new connection in progress (1,12) | 17 |

The networks Hanergy trades on do not allow customer mains cables to be connected to the network until the metering is installed and certified. By default, electricity cannot flow at an ICP until after metering is installed. The new connection ICPs with the 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 the same date. It was discussed in more detail in **section 3.5**. On several occasions, HANE assigned the status “Active” before or after the installation was electrically connected.

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. During the audit, we reviewed the new connection process. We checked the LIS, EDA files and registry. To ensure that the process is followed, we randomly selected a sample of 10 ICPs for review.

Audit commentary

Hanergy had not received such a query from any distributor during the audit period. The company closely monitors all new connections.

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Standard Switch process was examined and discussed with HANE.

Audit commentary

HANE processes are compliant with the requirements of the Fair Trading Act 1986.

The NT file is using the registry web interface within 2 business days of the date that the arrangement with the customer comes into effect.

HANE sent 27 NTTR during the audit period.

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Standard Switch process was examined and discussed with HANE.

Audit commentary

HANE recently lost 176 ICPs using the Standard Switch Process. HANE responded to the notification from the registry manager within three business days. Upon reviewing the AN files, we identified that an incorrect response code, "AA," was used instead of the correct code, "AD," when smart meters are installed. This information was clearly outlined in a memo dated August 5, 2016.

Hanergy mainly trades new connections (BTS) for which some MEPs install "vanilla" meters; therefore, the response code "AA" was correct.

| Code | Description | Explanation of use |
|------|--|---|
| AA | Acknowledge and accept | Switch is accepted; there are no relevant issues. |
| CO | Contracted customer | Alerts that this customer has a fixed-term contract at the ICP. The current Trader may be contacting this customer, relative to a switch. |
| MP | Metering is pre-paid | Alerts that meter is pre-paid. |
| MU | Unmetered supply | Alerts supply is unmetered. |
| OC | Occupied premises | Advises that the existing customer has not yet advised they are moving out. The premises are occupied. |
| PD | Premises de-energised (disconnected) | Alerts that this site is de-energised (disconnected). |
| AD | Advanced Metering Infrastructure metering infrastructure | Alerts that meter is an advanced meter. |

Audit outcome

Non-compliant

| Non-compliance | Description |
|--|---|
| <p>Audit Ref: 4.2</p> <p>With: Clause 3&4 of Schedule 11.1</p> <p>From: 01-Jan-22</p> <p>To: 31-May-23</p> | <p>Some ANs had the AA (acknowledge and accept) code incorrectly applied. The AD (advanced metering) code was expected for ICP metered by advanced meters</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> |

| | | | |
|--------------------------|---|------------------------|-------------------------------|
| | Breach risk rating: 2 | | |
| Audit risk rating | Rationale for audit risk rating | | |
| Low | <p>The controls are rated as moderate. The participant was not aware that a code used by them was not correct. There is no potential/actual impact because the presence of AMI metering is recorded separately and the AN file is not typically used to confirm the presence of a smart meter by traders.</p> <p>Audit Risk Rating is recorded as low as the impact on settlement and participants is none.</p> | | |
| | Actions taken to resolve the issue | Completion date | Remedial action status |
| | We'll train our switch team to using correct response code | 11/07/2023 | Identified |
| | Preventative actions taken to ensure no further issues will occur | Completion date | |
| | We'll train our switch team to using correct response code | 11/07/2023 | |

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Standard Switch process was examined and discussed with HANE. We sampled 10 CS files.

Audit commentary

Hanergy lost 174 ICPs using the Standard Switch process. The Switch Breach report did not record any non-compliances.

The accuracy of the content of the CS files was confirmed by checking 7 CS files. The content checked included:

- correct identification of meter readings and correct date of last meter reading

- accuracy of meter readings
- accuracy of average daily consumption
- read type flag

We identified that Hanergy, for some switches, used the correct switch event meter reading, but the date of the last read is the same as the date of transfer. It was a result of their misunderstanding of the naming convention of files used by MEPS.

The methodology used to calculate an average daily consumption was incorrect for AMI reads because Hanergy calculates an average daily consumption over a week. The Code expects the average daily consumption to be calculated between two actual reads, which for AMI meters usually is two days.

Audit outcome

Non-compliant

| Non-compliance | Description | | |
|---|---|-----------------|------------------------|
| Audit Ref: 4.3 With: Clause 5 of Schedule 11.3 From: 01-Jan-22 To: 31-May-23 | Incorrect calculation of average daily consumption (AMI reads) recorded in CS files and incorrect date of last read for some ICPs Potential impact: None Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2 | | |
| Audit risk rating | Rationale for audit risk rating | | |
| Low | The controls are rated as moderate. Hanergy mainly trades BTS, for which consumption is very low, and it really is not different between two daily AMI reads and an average over a month. Audit Risk Rating is recorded as low as the impact on settlement and participants is none. | | |
| Actions taken to resolve the issue | | Completion date | Remedial action status |
| We did average daily consumption data based on weekly, will change the method | | 11/07/2023 | Identified |
| Preventative actions taken to ensure no further issues will occur | | Completion date | |
| We'll change our daily consumption method after action date | | 11/07/2023 | |

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Standard Switch process was examined and discussed with HANE. The management of RR files was examined and discussed with HANE.

Audit commentary

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

HANE received one RR file under this criteria during the audit period, and it was accepted using an appropriate AC registry notification within five business days of receiving the RR notification. JC Consulting processed the received RR file for reconciliation purposes.

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Standard Switch process was examined and discussed with HANE.

Audit commentary

HANE trades NHH ICPs only. This clause is not applicable.

Audit outcome

Not applicable

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

There were no disputes with a losing trader. If such a situation arises in the future it would be resolved in accordance with this clause.

Audit commentary

HANE has stated that they will accept validated meter readings or permanent estimates from other traders as long as they are reasonable and appropriate in the relevant circumstances. However, if they do decline to accept such readings or estimates, the company will provide a plausible explanation to the other participant involved.

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Switch Move process was examined and discussed with HANE.

Audit commentary

HANE processes are compliant with the requirements of the Fair Trading Act 1986.

The NT file is using the registry web interface within 2 business days of the date that the arrangement with the customer comes into effect.

HANE sent 61 NTMI during the audit period. 9 NTMI files were backdated; it was discussed with Hanergy. 8 NTMI were backdated because of late customer notification. In one instance, HANE sent a notification to the registry one day late.

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

10(1) Within 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:

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

 - o *is not earlier than the gaining trader's proposed event date, and*
 - o *is no later than 10 business days after the date the losing trader receives notice; or**
- *10(1)(c) request that the switch be withdrawn in accordance with clause 17.*

Audit observation

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Switch Move process was examined and discussed with HANE.

Audit commentary

HANE received 580 NTMI from gaining traders. The company responded by sending AN file at the prescribed time, usually the same or the next day.

Upon analysing the EDA file, it was observed that Hanergy always agreed to the event date suggested by the traders. Upon reviewing the AN content file, it was found that some switches had an incorrect response code of "AA". However, since Hanergy mainly deals with new connections that are metered by "vanilla" meters, the "AA" response code was appropriate for those installations. For ICP metered by an advanced meter, the expected response code is "AD", as clarified in **section 4.2**.

Audit outcome

Non-compliant

| Non-compliance | Description | | |
|---|---|-----------------|------------------------|
| Audit Ref: 4.8 With: Clause 10(1) of Schedule 11.1 From: 01-Jan-22 To: 31-May-23 | Some ANs had the AA (acknowledge and accept) code incorrectly applied. The AD (advanced metering) code was expected for ICP metered by advanced meters Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2 | | |
| Audit risk rating | Rationale for audit risk rating | | |
| Low | The controls are rated as moderate. The participant was not aware that a code used by them was not correct. There is no potential/actual impact because the presence of advanced metering is recorded separately and the AN file is not typically used to confirm the presence of a smart meter by traders. Audit Risk Rating is recorded as low as the impact on settlement and participants is none. | | |
| Actions taken to resolve the issue | | Completion date | Remedial action status |
| We'll train our switch team to using correct response code | | 11/07/2023 | Identified |
| Preventative actions taken to ensure no further issues will occur | | Completion date | |
| We'll train our switch team to using correct response code | | 11/07/2023 | |

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Switch Move process was examined and discussed with HANE.

Audit commentary

HANE lost 580 ICPs using the Switch Move process. Upon analysing the EDA file, it was observed that Hanergy always agreed to the event date suggested by the gaining traders.

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Switch Move process was examined and discussed with HANE. We sampled 10 CS files.

Audit commentary

HANE 580 ICPs using the Switch Move process.

The Switch Breach report did not identify any non-compliances.

The accuracy of the content of the CS files was confirmed by checking The content checked included:

- correct identification of meter readings and correct date of last meter reading
- accuracy of meter readings
- accuracy of average daily consumption
- read type flag

We identified that Hanergy, for some switches, used the correct switch event meter reading, but the date of the last read is the same as the date of transfer. It was a result of their misunderstanding of the naming convention of files used by MEPs

We identified 4 ICPs for which the last Read Date was one year ago; it was a typo.

The methodology used to calculate an average daily consumption was incorrect for AMI reads because Hanergy calculates an average daily consumption over a week. The Code expects the average daily consumption to be calculated between two actual reads, which for AMI meters usually is two days.

Audit outcome

Non-compliant

| Non-compliance | Description | | |
|---|---|-----------------|------------------------|
| Audit Ref: 4.10 With: Clause 11 of Schedule 11.3 From: 01-Jan-22 To: 31-May-23 | Incorrect calculation of average daily consumption (AMI reads) recorded in CS files and incorrect date of last read for some ICPs Potential impact: None Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2 | | |
| Audit risk rating | Rationale for audit risk rating | | |
| Low | The controls are rated as moderate. Hanergy mainly trades BTS, for which consumption is very low, and it really is not different between two daily AMI reads and an average over a month. Audit Risk Rating is recorded as low as the impact on settlement and participants is none. | | |
| Actions taken to resolve the issue | | Completion date | Remedial action status |
| We did average daily consumption data based on weekly, will change the method | | 11/07/2023 | Identified |
| Preventative actions taken to ensure no further issues will occur | | Completion date | |
| We'll change our daily consumption method after action date | | 11/07/2023 | |

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

To assess compliance, we analysed the EDA file for the period covered by this audit and Switch Breach Report for the same period. The Switch Move process was examined and discussed with HANE. The management of RR files was examined and discussed with HANE. We samples 8 RR files.

Audit commentary

One RR files for Move In switch was sent by HANE during the audit period.

HANE received 8 RR file under this criteria during the audit period, and it 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.

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 a non-AMI half hour metering installation*

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

A gaining trader must advise the registry manager of the switch and expected event date no later than 3 business days after the arrangement comes into effect.

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

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

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

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

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

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

Audit observation

To assess compliance, we analysed the EDA file and Switch Breach Report for the period covered by this audit.

Audit commentary

No HH switches occurred in the period covered by this audit. Hanergy trades cat 1 and 2 metering installations only.

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

To assess compliance, we analysed the EDA file and Switch Breach Report for the period covered by this audit.

Audit commentary

No HH switches occurred in the period covered by this audit. No HH switches occurred in the period covered by this audit. Hanergy trades cat 1 and 2 metering installations only.

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

To assess compliance, we analysed the EDA file and Switch Breach Report for the period covered by this audit.

Audit commentary

No HH switches occurred in the period covered by this audit. Hanergy trades cat 1 and 2 metering installations only.

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)):*
 - o *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*
 - o *the withdrawal advisory code published by the Authority. (clause 18(c)(ii))*
- *within 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

The EDA file and Switch Breach Report for the period covered by this audit were analysed to assess compliance. The switch withdrawal process was analysed and discussed with HANE staff.

Audit commentary

HANE sent 3 NW files which were accepted. The reason code used by HANE was "MI", "WS", and "WS", which was correct.

HANE received 32 Files which were accepted within the timeframe specified by the 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

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

Audit commentary

All meter readings used in the switching process are validated meter readings or permanent estimates. The cost of additional interrogation is covered in a commercial agreement between HANE and MEPs.

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 contact with the losing retailer and invited the losing retailer to make a counteroffer.

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

Audit observation

This was discussed during the audit.

Audit commentary

HANE have noted in their document that no win back processes are applied. The company is aware that no win backs or certain communications are to be made for 180 days.

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 and EDA files were checked.

Audit commentary

Hanergy did not trade any SUML during this audit period.

JC Consulting conducts weekly checks to ensure that networks have not entered any historical SUML or UML. If any such ICPs are identified, their volumes will be reconciled upon discovery.

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 and EDA files were checked.

Audit commentary

Hanergy did not trade any unmetered load during this audit period.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

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

Audit commentary

Hanergy did not trade any unmetered load during this audit period. 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 and EDA files were checked.

Audit commentary

Hanergy did not trade any Shared DUML during this audit period.

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 is responsible for two installations with embedded generation. JC Consulting is Hanergy's agent for the calculation of submission data and the transmission of data to the reconciliation manager. Volumes from ICPs with distributed generation are reconciled using the RPS and PV1 profiles.

JC Consulting 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

Hanergy does not have installations connected directly to the grid.

Audit commentary

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

JC Consulting as an agent for Hanergy submits volumes to the reconciliation manager using the RPS and PV1 Profiles. Control devices are not required for reconciliation purposes.

Audit outcome

Compliant

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

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

Audit commentary

Hanergy has agreements with NGCM, FCLM, MTRX and BOPE (Nova Energy) to provide metering installations and meter readings; raw meter data is collected by the MEPs or by Hanergy as reconciliation participant reads. JC Consulting is Hanergy's agent for the calculation of submission data and the transmission of data to the reconciliation and pricing manager.

JC Consulting collects metering information from the MEP's servers and verifies it using the RM TOOL. Reports are generated to detect any faulty metering, such as excessive or insufficient consumption, as well as zero readings or non-advancing registers. By analysing these reports, JC Consulting can identify bridged meters and provide recommendations to both Hanergy and the MEPs.

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 it does not exceed the maximum interrogation cycle in the registry .

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

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

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

2(6) – The interrogation systems must record:

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

Audit observation

Meter readings are collected by MEPS. Interrogation requirements and clock synchronisations were reviewed as part of MEP audits.

Audit commentary

The interrogation systems requirements were examined as part of the MEP audits and found to be compliant.

The MEPS provide clock synchronisation and event reports, which are reviewed.

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 JC Consulting. The LIS file and Audit Compliance report were checked. The manual meter reading process was reviewed.

Audit commentary

Hanergy manually collects data from installations with no communications. The meters were read by Hanergy, meeting the requirements of this clause, including taking a photo of the meter and a switchboard. The readings and photos are provided to JC Consulting using Dropbox. JC Consulting uses the photos as part of the validation process for those reads.

Hanergy was not consistent in reading these meters regularly. During the audit period, the number of BTS traded by Hanergy increased significantly. The meters used to be read quarterly, but the number of reads decreased over time because of a lack of resources. Due to a shortage of staff and the inability to sign up with a meter reading company, HANE hasn't been able to read BTS meters since January 2023. The company has now hired their staff to perform the manual readings.

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 15.2

Code related audit information

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

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

Audit observation

This was discussed with Hanergy and JC Consulting. The switch process and related meter readings were reviewed.

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.

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. The switch process and related meter readings were reviewed. The process for monitoring missing reads, conducted by JC Consulting, was examined.

Audit commentary

Hanergy lost 731 ICPs, and a validated meter reading was obtained for both of them. We reviewed 10 readings.

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

The process for obtaining meter readings was examined. The Meter Reading Frequency report is created by JC Consulting and provided to the Authority monthly. The company provided the report for Jan'22 to May'23.

Audit commentary

The examination of reports confirmed that Hanergy obtain a validated meter reading for every meter register for NHH ICPs.

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

The process for obtaining meter readings was examined. The Meter Reading Frequency report is created by JC Consulting and provided to the Authority monthly. The company provided the report for Jan'22 to May'23.

Audit commentary

Compliance was not achieved in the audit period. The table below shows reads that were not met by NSPs and the number of ICPs which did not have 90% attainment of reads.

The summary is shown below:

| Month | Total number of NSPs | Number of NSPs with less than 90% | ICP unread for 4 months |
|---------|----------------------|-----------------------------------|-------------------------|
| Mar-22 | 18 | 2 | 3 |
| May-22 | 19 | 6 | 12 |
| June-22 | 18 | 3 | 8 |
| July-22 | 19 | 1 | 2 |
| Aug-22 | 19 | 1 | 3 |
| Oct-22 | 21 | 14 | 19 |
| Nov-22 | 21 | 15 | 19 |
| Dec-22 | 21 | 4 | 15 |
| Jan-23 | 22 | 4 | 13 |
| Feb-23 | 23 | 2 | 12 |
| Mar-23 | 23 | 3 | 21 |
| Apr-23 | 23 | 9 | 97 |
| May-23 | 23 | 12 | 112 |

It was discussed with HANE during the audit. The company trades mainly new connections (BTS), which meters are read manually. During the audit period, the number of BTS traded by Hanergy increased significantly. The meters used to be read quarterly, but the number of reads decreased over time because of a lack of resources. Due to a shortage of staff and the inability to sign up with a meter reading company, HANE hasn't been able to read BTS meters since January 2023. The company has now hired their staff to perform the manual readings.

Audit outcome

Non-compliant

| Non-compliance | Description |
|---|---|
| Audit Ref: 6.10 With: Clause 9(1) of Schedule 15.2 From: 01-Jan-22 To: 31-May-23 | 90% attainment was not achieved for number of NSPs over 4 months Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3 |
| Audit risk rating | Rationale for audit risk rating |

| Low | <p>Controls are recorded as weak. The number of ICPs traded by HANE increased quicker than the company was able to organize regular reading for them. The company has now hired their staff to perform the manual readings.</p> <p>The impact on settlement outcomes is minor as most not read meters are BTs with low consumption therefore the audit risk rating is recorded as low.</p> | |
|--|--|------------------------|
| Actions taken to resolve the issue | Completion date | Remedial action status |
| Hanergy will hire staff to perform the meter readings ourselves due to inability to sign contracts with meter read companies | 11/07/2023 | Identified |
| Preventative actions taken to ensure no further issues will occur | Completion date | |
| We'll arrange with our new meter reading staff to read on time | 11/07/2023 | |

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

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

Audit commentary

Assessment with this clause is part of the MEPs audit.

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPS.

Audit commentary

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPS.

Audit commentary

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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 $\pm 0.1\%$ (± 2 seconds).

Audit observation

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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 JC Consulting. The LIS file, Audit Compliance report and were checked. The manual meter reading process was reviewed.

Audit commentary

Hanergy has agreements with NGCM, FCLM, MTRX and BOPE (Nova Energy) to provide MEP services metering. Raw meter data is collected by the MEPs.

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

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

Hanergy manually collects data from installations with no communications. The meters were read by Hanergy, meeting the requirements of this clause, including taking a photo of the meter and switchboard. The readings and photos are provided to JC Consulting using Dropbox. JC Consulting uses the photos as part of the validation process for those reads.

The photos, Dropbox, RM TOOL and file management at Hanergy and JC Consulting provide the necessary functionality to meet Code requirements for the manual reads obtained by Hanergy.

Raw metering data is never overwritten.

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 JC Consulting. The LIS file, Audit Compliance report and registry were checked.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Compliant

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

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

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

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

- *substitute the original meter reading with an estimated reading that is marked as an estimate; and*
- *subsequently replace the estimated reading in accordance with clause 4(2)*

Audit observation

This was discussed with Hanergy and JC Consulting. The JC Consulting Submission Summary Reports and registry were checked.

Audit commentary

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

Hanergy and JC Consulting confirmed that no NHH meter reading data corrections were 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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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 JC Consulting. Hanergy trade NHH category 1 and 2 ICPs only. The JC Consulting Submission Summary Reports and registry were checked.

Audit commentary

Hanergy stated it does not trade any ICPs requiring error or loss compensation. We checked the LIS file to confirm it.

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 JC Consulting. Hanergy trade NHH category 1 and 2 ICPs only. The JC Consulting Submission Summary Reports and Registry were checked.

Audit commentary

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

JC Consulting will only correct working data if needed and will maintain an audit trail. It is important to note that MEP data is never overwritten.

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

The estimation processes and interval identification were examined during this audit. This was discussed with Hanergy and JC Consulting. Hanergy trade NHH category 1 and 2 ICPs only reconciled as NHH.

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 the RM TOOL.

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 JC Consulting. Hanergy trade NHH category 1 and 2 ICPs only. The JC Consulting Submission Summary Reports, Reconciliation submission files and registry were checked.

Audit commentary

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

JC Consulting calculated volume information provided to the reconciliation manager. Checks of reconciliation submission files for the audit period demonstrated that 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 JC Consulting. Hanergy trade NHH category 1 and 2 ICPs only. The JC Consulting Submission Summary Reports, Reconciliation submission files and registry were checked.

Audit commentary

HANE provided 4 examples of metering files provided by MEPS. The files are stored in RM TOOL. Metering data is neither rounded nor truncated upon uploading to RM TOOL.

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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

We examined the data validation process used by HANE and JC Consulting. It was discussed with HANE staff.

Audit commentary

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

On upload, the following validation is conducted by the RM TOOL:

- Checks for invalid dates and times
- Ensure that a read received is assigned to a meter on the correct ICP.
- Ensure that a read received is assigned to a meter with the correct serial number.
- Ensure that a read received is assigned to a channel with the correct channel number
- Check the read date prior to the last read date
- Ensure that our retailer is responsible for the ICP for the day of the read

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. JC Consulting can identify bridged meters using these reports and event logs are reviewed. If there were an issue identified JC Consulting would advise Hanergy and the MEP.

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 JC Consulting. We reviewed the data validation process for remotely read meters, including meter event logs, and validation exceptions.

Audit commentary

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. Using these reports, JC Consulting can identify bridged meters, and event logs are reviewed. If an issue was identified, JC Consulting would advise Hanergy and the MEP.

Hanergy advised, and JC Consulting confirmed no metering data integrity issues were identified during the audit period.

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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 JC Consulting. Hanergy trade NHH category 1 and 2 ICPs only. The LIS, EDA files and registry were checked.

Audit commentary

HANE uses the RPS and PV1 profile, which does not require a trading notification. We confirmed by checking the LIS file and submission files for November 2022 to March 2023.

Audit outcome

Compliant

11.2. Calculation of ICP days (Clause 15.6)

Code reference

Clause 15.6

Code related audit information

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

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

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

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

Audit observation

The process for the calculation of ICP days was examined by checking 4 NSPs to confirm the AV110 (ICPDAYS) calculation was correct.

We also reviewed the GR-100 report provided by the reconciliation manager.

Audit commentary

The analysis of GR100 showed the differences between ICPDAYS calculated by JC Consulting and the registry.

The table below shows a comparison between ICPDAYS calculated by the registry and JC Consulting.

The percentages may vary, but the difference in days is small. Typically, there are no discrepancies by the third revision. JC Consulting imports the LIS file to RM TOOL before each reconciliation run to compare the two datasets. Any inconsistencies are analysed and resolved.

| Month | R0 | R1 | R3 | R7 | R14 |
|---------|--------|--------|-------|-------|-------|
| Jan-22 | 0.73% | 0.19% | 0.00% | 0.00% | 0.00% |
| Feb-22 | 0.86% | 0.42% | 0.00% | 0.00% | 0.00% |
| Mar-22 | 0.66% | 0.00% | 0.00% | 0.00% | 0.00% |
| Aprl-22 | 0.33% | 0.00% | 0.00% | 0.00% | |
| May-22 | 0.36% | 0.08% | 0.00% | 0.32% | |
| June-22 | -0.21% | 0.00% | 0.00% | 0.00% | |
| July-22 | 0.49% | 0.00% | 0.00% | 0.00% | |
| Aug-22 | -0.09% | 0.00% | 0.00% | 0.00% | |
| Sept-22 | -0.10% | 0.01% | 0.24% | 0.00% | |
| Oct-22 | 0.07% | 0.08% | 0.00% | 0.00% | |
| Nov-22 | 0.43% | 0.23% | 0.00% | | |
| Dec-22 | -0.23% | 0.00% | 0.00% | | |
| Jan-23 | -0.11% | 0.36% | 0.00% | | |
| Feb-23 | 0.31% | 0.00% | 0.00% | | |
| Mar-23 | -0.01% | 0.00% | 0.00% | | |
| Aprl-23 | 0.06% | -0.01% | | | |
| May-22 | -0.12% | 0.19% | | | |

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.

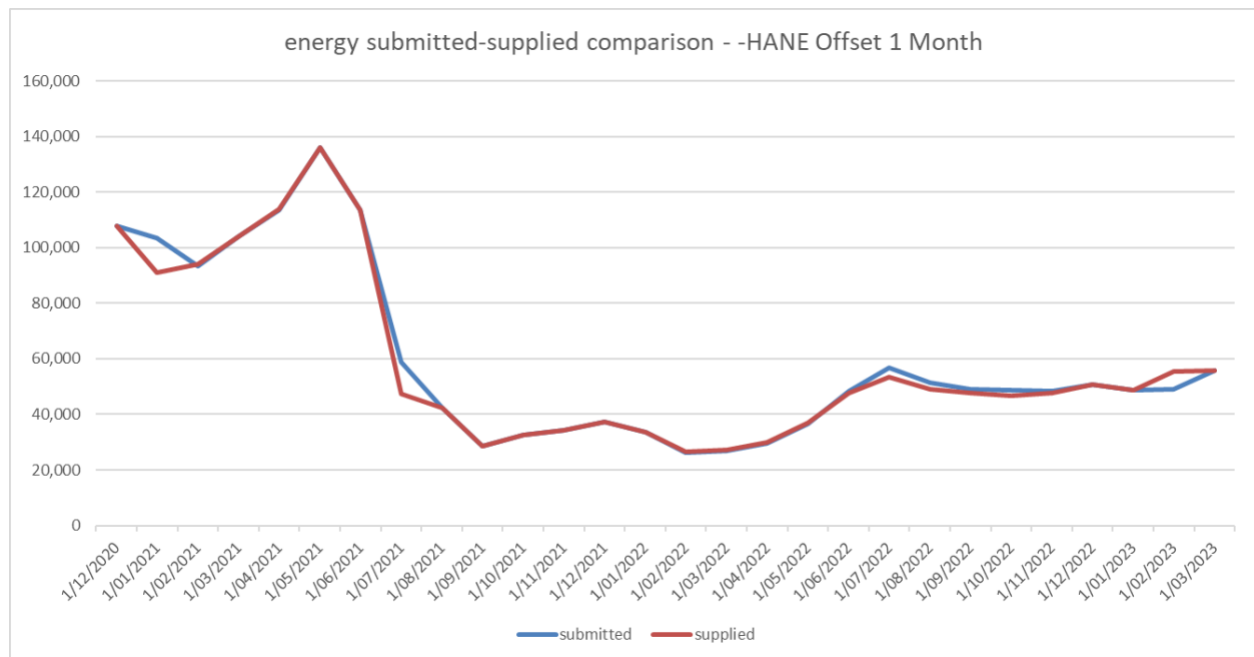
Audit observation

This was discussed with Hanergy and JC Consulting. JC Consulting submits AV-120 monthly on behalf of Hanergy. The process for the calculation of “as billed” volumes was examined.

JC Consulting submits AV-120 for Hanergy monthly, using invoiced volumes from Ultimate provided by Hanergy.

Audit commentary

The table below shows a comparison between volumes submitted and supplied (billed).



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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPS.

Audit commentary

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

We reviewed the LIS and EDA files, and it was confirmed that HANE only trades NHH ICPs.

Audit commentary

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 JC Consulting. BILLED, NHHVOLS, ICPDAYS files, and Submission Summary Reports provided by JC Consulting for the audit period were reviewed.

The Electricity Authority was checked for any breach activity (late submissions) during the audit period.

Audit commentary

JC Consulting is Hanergy's agent for the calculation of submission data and the transmission of data to the reconciliation manager. We confirm JC Consulting submits volume submissions to the reconciliation manager using the RPS and PV1 profiles. Volumes were submitted for all ICPs traded during the audit period.

We confirm no breaches for late submission of information to the reconciliation manager 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 JC Consulting. BILLED, NHHVOLS, ICPDAYS files, and Submission Summary Reports provided by JC Consulting for the audit period were reviewed.

The LIS and registry were checked. Hanergy trade NHH category 1 and 2 ICPs only.

Audit commentary

JC Consulting is Hanergy's agent for calculating submission data and transmitting data to the reconciliation manager. JC Consulting collects metering information from the MEP's servers and validates the information using the RM TOOL.

ICP information from the registry is refreshed in the RM TOOL before each reconciliation submission to ensure that aggregation factors and statuses are consistent with the registry. The volumes are allocated to NSPs based on the registry data.

After checking the monthly Submission Summary Reports, it was confirmed that the ICPs and consumption volume were allocated correctly to the NSPs. The review of NHHVOLS submissions also confirmed that the NSP allocations were correct and 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

HANE is not a grid owner.

Audit commentary

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

HANE is not embedded network owner.

Audit commentary

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

HANE is not a grid connected generator.

Audit commentary

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 JC Consulting. BILLED, NHHVOLS, ICPDAYS files, and Submission Summary Reports provided by JC Consulting for the audit period were reviewed. The EDA file was reviewed.

The Electricity Authority was checked for any breach activity (late submissions) during the audit period.

Audit commentary

JC Consulting has a procedure for comparing data recorded in the registry with data stored in the RM TOOL during the month and before each reconciliation runs. As a result, the RM TOOL will identify any changes to previous submissions, including new estimates based on more recent data or updated reads with actual data.

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 JC Consulting. BILLED, NHHVOLS, ICPDAYS files, and Submission Summary Reports provided by JC Consulting for the audit period were reviewed. We reviewed GR-170NHH to assess compliance.

Audit commentary

Analysis of GR-170NHH confirmed that by the month 14 revision cycle, volume information created using estimated readings was replaced with the volume created using validated meter readings.

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 JC Consulting. BILLED, NHHVOLS, ICPDAYS files, and Submission Summary Reports provided by JC Consulting for the audit period were reviewed. LIS and EDA files were reviewed.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only. We confirm JC Consulting as an agent for Hanergy 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 did not trade any Shared UML or UML during this audit period.

Based on the information provided, we have verified all the ICP consumption volumes that were submitted by Hanergy 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 JC Consulting. NHHVOLS, GR-170NHH, GR-30, and Submission Summary Reports provided by JC Consulting for the audit period were reviewed.

Audit commentary

The process for calculating NHH volumes was examined by checking several NSPs ICPs supplied during the audit period. JC Consulting provided a detailed breakdown of volume for each ICP by NSP. NHH volumes aggregation was confirmed to be correct, and it 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

Audit observation

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

Audit commentary

The process for the calculation of NHH volumes was examined by checking several NSPs ICPs supplied during the audit period. JC Consulting provided a detailed breakdown of volume for each ICP by NSP. NHH volumes aggregation was confirmed to be correct, and it 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, but there are BTS connections which are read mostly quarterly manually. Where newly switched ICPs require estimated volume information JC consulting uses the average daily consumption obtained from the registry to calculate an estimate. Any data estimated by JC Consulting for reconciliation purposes is flagged as an estimate.

We checked the JC Consulting estimate process relating to ICP switches (gained and lost and reads), meter changes or spanning a consumption period that 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 JC Consulting. NHHVOLS, GR-170NHH, and Submission Summary Reports provided by JC Consulting for the audit period were reviewed.

EDA and LIS files 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. JC Consulting provided a detailed breakdown of volume for each ICP by NSP. NHH volumes aggregation was confirmed to be correct, and it 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, but there are BTS connections which are read mostly quarterly manually. Where newly switched ICPs require estimated volume information JC consulting uses the average daily consumption obtained from the registry to calculate an estimate. Any data estimated by JC Consulting for reconciliation purposes is flagged as an estimate.

We checked the JC Consulting estimate process relating to ICP switches (gained and lost and reads), meter changes or spanning a consumption period that 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 JC Consulting. NHHVOLS, the EDA file, and Submission Summary Reports provided by JC Consulting for the audit period were reviewed.

Audit commentary

Hanergy trade NHH category 1 and 2 ICPs only. JC Consulting as agent for Hanergy 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.

We 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

We reviewed the submission file for January 2023 to May 2023.

HANE trades category 1 and 2 metering installations. All ICPs are reconciled as NHH.

Audit commentary

Every month HANE submits NHHVOLS files to the reconciliation manager.

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

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

Hanergy did not trade any Shared UML or UML during this audit period.

We checked the above information and confirmed all ICP consumption volumes 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 JC Consulting. JC Consulting provided Submission Summary Reports and NHHVOLS files for review.

Audit commentary

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

The review of submission files confirmed that the number of decimal places is rounded to not more than 2 decimal places when reporting submission information. The company has clarified that this is done, at the end of calculations, using a specific method outlined in a clause.

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 JC Consulting. JC Consulting provided GR-170NHH, NHHVOLS, and Submission Summary Reports to be reviewed for the audit period.

Audit commentary

JC Consulting is Hanergy’s agent for the calculation of submission data and the transmission of data to the reconciliation manager.

Analyses of GR170-NHH showed that the proportion of submission information per NSP that is comprised of historical estimates did not meet this clause requirements. The requirements were not met for 11 months. The table below shows details.

| Month | Total number of NSPs | R3 (80%) | R7 (90%) | R14 (100%) |
|---------|----------------------|----------|----------|------------|
| Mar-22 | 18 | 6 | 0 | 0 |
| Aprl-22 | 18 | 1 | 0 | |
| May-22 | 19 | 1 | 1 | |
| June-22 | 18 | 1 | 0 | |
| July-22 | 19 | 2 | 0 | |
| Aug-22 | 19 | 2 | 0 | |
| Sept-22 | 21 | 1 | 0 | |
| Oct-22 | 21 | 2 | 0 | |
| Dec-22 | 21 | 1 | | |
| Jan-23 | 22 | 2 | | |
| Feb-23 | 23 | 1 | | |

It was discussed with HANE. Non-compliance with this clause is caused by the fact that in 2022 some ICPs (BTS) were not read quarterly. At the end of June 2023, the company traded 210 BTS, which are not read remotely. Due to a shortage of staff and the inability to sign up with a meter reading company,

HANE was last able to read them in January 2023. The company has started to do their own readings and planning to employ meter readers to address it.

Audit outcome

Non-compliant

| Non-compliance | Description | | |
|--|---|-----------------|------------------------|
| Audit Ref: 13.3 With: Clause 10 of Schedule 15.3 From: 01-Jan-22 To: 31-May-23 | Historical estimates target not met for revisions 3 and 7 for small number of NSPs 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. Due to a shortage of staff and the inability to sign up with a meter reading company, BTS were not read in 2023. The company started to do their own meter reads. The impact on settlement outcomes is minor because BTS volumes are low therefore, the audit risk rating is recorded as low. | | |
| Actions taken to resolve the issue | | Completion date | Remedial action status |
| Hanergy will hire staff to perform the meter readings ourselves due to inability to sign contracts with meter read companies | | 11/07/2023 | Identified |
| Preventative actions taken to ensure no further issues will occur | | Completion date | |
| We'll arrange with our new meter reading staff to read on time | | 11/07/2023 | |

CONCLUSION

PARTICIPANT RESPONSE