

ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT



For

ETRADING LIMITED

Prepared by: Steve Woods

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Date audit report completed: 30 August 2018

Audit report due date: 01 September 2018

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EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **eTrading Limited (eTrading)**, to support their application for certification in accordance with clause 5 of schedule 15.1.

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.2.

eTrading is a new participant and there are many parts of the Code where they have not performed any activities yet. In these cases, I evaluated future compliance by checking system capability or I evaluated the understanding of the Code through interview. eTrading has an excellent understanding of the Code and this audit found compliance is achieved and the risk of future non-compliance is very low.

I have made two recommendations to ensure future compliance. The two recommendations are as follows:

- eTrading's database (ETS) is configured to estimate for complete days if estimates are required for any trading periods. I recommend ETS is changed to enable estimates and identification of estimates to be conducted at an interval level.
- The second recommendation is that eTrading ensures revisions are conducted using the most recent shape file where historic estimates have been calculated.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of zero, which results in an indicative audit frequency of 36 months. As mentioned above, there were many areas where specific examples were not available because the activities had not been performed. For this reason, I recommend the Authority considers a next audit frequency of 18 months.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			Nil				
Future Risk Rating						0	
Next indicative audit frequency						36 months	

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

RECOMMENDATIONS

Subject	Section	Recommendation	Description
HHR estimates	9.4	Regarding Clauses 3(3) and 15 of Schedule 15.2	Develop the capability to perform and identify estimates at an interval level.
Historic estimates	12.11	Regarding Clause 15.12 and 5 of schedule 15.3	Ensure any future NHH revisions include use of the most recent shape file.

ISSUES

Subject	Section	Clause	Description

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

The Electricity Authority website was checked to identify any exemptions currently in place for eTrading.

Audit commentary

There are no exemptions in place.

1.2. Structure of Organisation

eTrading is a small organisation and does not have an organisation chart.

1.3. Persons involved in this audit

Auditors:

Name	Company	Role
Steve Woods	Veritek Limited	Auditor

eTrading personnel assisting with this audit:

Name	Title
Paul Troon	Reconciliation Manager

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

EDMI is an agent for the provision of HHR data. eTrading understands they remain responsible for their obligations.

Audit commentary

EDMI is an agent for the provision of HHR data. eTrading understands they remain responsible for their obligations.

1.5. Hardware and Software

eTrading uses a MS Access based reconciliation system (ETS) to perform reconciliation activities. All registry management activities are conducted manually.

Backup arrangements are in accordance with standard industry protocols.

1.6. Breaches or Breach Allegations

eTrading does not have any breach allegations recorded by the Authority.

1.7. ICP Data

eTrading provided a list as at July 2018. The quantity of ICPs by status is shown below:

Status	Number of ICPs 2018
Active (2,0)	6
Inactive – new connection in progress (1,12)	0
Inactive – electrically disconnected vacant property (1,4)	0
Inactive – electrically disconnected remotely by AMI meter (1,7)	0
Inactive – electrically disconnected at pole fuse (1,8)	0
Inactive – electrically disconnected due to meter disconnected (1,9)	0
Inactive – electrically disconnected at meter box fuse (1,10)	0
Inactive – electrically disconnected at meter box switch (1,11)	0
Inactive – electrically disconnected ready for decommissioning (1,6)	0
Inactive – reconciled elsewhere (1,5)	0
Decommissioned (3)	0

The active ICPs on the list file were summarised by meter category in the table below.

Metering Category	2018
1	5
2	0
3	0
4	1
5	0
9	0
Blank	0

1.8. Authorisation Received

A letter of authorisation was not required or sought.

1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of eTrading, to support their application for initial certification in accordance with clause 5 of schedule 15.1.

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.2.

The audit was carried out on 9th August 2018.

The table below shows the tasks under clause 15.38 of part 15 for which eTrading requires certification. This table also lists any agents who assist with these tasks:

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents providing services	MEPs providing services
(a) - Maintaining registry information and performing customer and embedded generator switching		
(b) – Gathering and storing raw meter data	EDMI – HHR data collection	SMCO
(c)(iii) - Creation and management of HHR and NHH volume information	EDMI – HHR data collection	SMCO
(d) – Calculation of ICP days		
(da) - delivery of electricity supplied information under clause 15.7		

(db) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8		
(e) – Provision of submission information for reconciliation		

eTrading uses EDM I as an agent for HHR data collection. EDM I has been audited in accordance with the Guidelines for Reconciliation Participant Audits that were current at the time of the agent's audits. The EDM I audit report is not greater than seven months old, therefore it is considered current.

The EDM I audit report is expected to be submitted along with this report.

1.10. Summary of previous audit

This is eTrading's first audit.

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

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

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

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

Audit observation

The process to find and correct incorrect information was examined. The list file was examined to confirm that all information was correct and not misleading, and to identify any registry discrepancies. The registry management process was examined in relation to the achievement of this requirement.

Audit commentary

eTrading imports registry information daily and it becomes the “starting point” for all relevant fields.

eTrading has a robust set of validation steps in place to ensure the accuracy of information. These include:

- a warning if the list file is out of date
- a check during the billing process to ensure data is available for all ICPs where billing is expected
- confirmation that the registry status is correct at the time of switch in
- ANZSIC code check at the time of switch in
- data collection still occurs for inactive ICPs
- a “revision analysis” report is run monthly to ensure electricity supplied, volumes, aggregates and raw data totals all match
- check to ensure daylight saving is conducted by MEPs and agents.

The audit did not identify any incorrect or incomplete data.

Audit outcome

Compliant

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

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

Audit observation

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

Audit commentary

This area is discussed in a number of sections in this report and compliance is confirmed with regard to timeliness and format of information in accordance with Part 15.

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

I reviewed the method to receive metering information.

Audit commentary

HHR data and NHH data is provided by SFTP or by zipped and password protected emails, which is considered a compliant method. Manually read ICPs have the readings entered directly into the meter read table.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

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

Audit observation

A complete audit trail was checked for all data gathering, validation and processing functions. I reviewed audit trails for a small sample of events. Large samples were not necessary because audit trail fields are expected to be the same for every transaction of the same type.

Audit commentary

A complete audit trail was viewed for all data gathering, validation and processing functions. The logs of these activities include the activity identifier, date and time and an operator identifier.

Audit outcome

Compliant

2.5. Retailer responsibility for electricity conveyed - participant obligations (Clause 10.4)

Code reference

Clause 10.4

Code related audit information

If a participant must obtain a consumer's consent, approval, or authorisation, the participant must ensure it:

- *extends to the full term of the arrangement*
- *covers any participants who may need to rely on that consent.*

Audit observation

I reviewed eTrading's current terms and conditions.

Audit commentary

The terms and conditions include arrangements for meter access and shutdowns, and these clauses extend to agents. Compliance is confirmed.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The trader must use its best endeavours to provide access:

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

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

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

Audit observation

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

Audit commentary

eTrading's contract with their customers includes consent to access for authorised parties for the duration of the contract.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

Audit observation

A discussion was held regarding knowledge of any ICPs with loss compensation present. The presence of loss compensation factors was also checked by examining the one CT metered ICP.

Audit commentary

eTrading is not responsible for any metering installations with 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 sub-clause (1) must be expressed to be for the benefit of the Authority for the purposes of the Contracts (Privacy) Act 1982, and not be able to be amended without the consent of the Authority (clause 11.15B(2)).

Audit observation

I reviewed eTrading's current terms and conditions.

Audit commentary

eTrading's terms and conditions contain the appropriate clauses to achieve compliance with this requirement. Compliance is confirmed

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

eTrading does not intend to conduct new connections.

Audit commentary

eTrading does not intend to conduct new connections.

Audit outcome

Not applicable

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

Code reference

Clause 10.33(1)

Code related audit information

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

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

Audit observation

eTrading does not intend to conduct new connections.

Audit commentary

eTrading does not intend to conduct new connections.

Audit outcome

Not applicable

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

Code reference

Clause 10.33A(1)

Code related audit information

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

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

Audit observation

eTrading does not intend to conduct new connections. No disconnections or reconnections have been conducted and these would be expected to be rare. All metering will be AMI or HHR and certification is expected to be in place if any ICPs are reconnected.

Audit commentary

eTrading does not intend to conduct new connections. No disconnections or reconnections have been conducted and these would be expected to be rare. All metering will be AMI or HHR and certification is expected to be in place if any ICPs are reconnected.

Audit outcome

Compliant

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

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

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

Audit observation

The process to ensure an arrangement is in place before trading commences on a Network was examined.

Audit commentary

eTrading has arrangements for line function services with all relevant Distributors. These reports were sighted during the audit.

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

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

Audit commentary

eTrading has appropriate arrangements with all relevant MEPs, either by an exchange of emails or a signed contract.

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

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

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

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

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

Audit observation

eTrading does not intend to conduct new connections.

Audit commentary

eTrading does not intend to conduct new connections.

Audit outcome

Not applicable

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

eTrading does not intend to conduct new connections.

Audit commentary

eTrading does not intend to conduct new connections.

Audit outcome

Not applicable

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

The process to manage status changes is discussed in detail in **sections 3.8** and **3.9** below. In this section I have examined the event detail report for the period from 01/05/18 to 21/07/18 to determine the overall performance for that period. I examined all registry interactions.

Audit commentary

The only registry events were “Trader” event updates following switch in. All of these are accurate and were populated within five business days.

Audit outcome

Compliant

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

eTrading has responsibility for six ICPs. All ICPs have the correct MEP recorded. No ICPs have been decommissioned.

Audit commentary

eTrading has responsibility for six ICPs. All ICPs have the correct MEP recorded. No ICPs have been decommissioned.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.1

Code related audit information

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

- a) *the participant identifier of the trader, as approved by the Authority (clause 9(1)(a))*
- b) *the profile code for each profile at that ICP, as approved by the Authority (clause 9(1)(b))*
- c) *the metering equipment provider for each category 1 metering or higher (clause 9(1)(c))*
- d) *the type of submission information the trader will provide to the RM for the ICP (clause 9(1)(ea))*
- e) *if a settlement type of UNM is assigned to that ICP, either:*
 - *the code ENG if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or*

- *in all other cases, the daily average kWh of unmetered load at the ICP (clause 9(1)(f)(ii)).*
- *the type and capacity of any unmetered load at each ICP (clause 9(1)(g))*
- *the status of the ICP, as defined in clauses 12 to 20 (clause 9(1)(j))*
- *except if the ICP exists for the purposes of reconciling an embedded network or the ICP has distributor status, the trader must provide the relevant business classification code applicable to the customer (clause 9(1)(k)).*

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

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

Audit observation

eTrading does not intend to conduct new connections. No status changes have occurred. I checked the accuracy of registry records for all six ICPs.

Audit commentary

All registry information is correct.

Audit outcome

Compliant

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

Code reference

Clause 9 (1)(k) of Schedule 11.1

Code related audit information

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

Audit observation

The process to capture and manage ANZSIC codes was examined. A Registry list file was reviewed to check ANZSIC codes. This was checked for:

- no ANZSIC codes
- "T99" codes
- accuracy of ANZSIC codes applied.

The accuracy was confirmed by checking all ICPs using google streetview.

Audit commentary

ANZSIC codes are checked at the time of switch in. All ANZSIC codes are correct.

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

eTrading's policy is to not accept ICPs with unmetered load. Customers will be required to switch out if unmetered load is connected after they have switched in.

Audit commentary

eTrading's policy is to not accept ICPs with unmetered load. Customers will be required to switch out if unmetered load is connected after they have switched in.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

eTrading does not intend to deal with new connections.

I checked all six ICPs to confirm compliance.

Audit commentary

All ICPs are at the Active status and they all have one customer and the correct MEP recorded.

No examples of incorrect statuses were identified.

Audit outcome

Compliant

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

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

Audit observation

The inactive status has not been used by eTrading.

Audit commentary

The inactive status has not been used by eTrading.

Audit outcome

Not applicable

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

Whilst this is a Distributor’s code obligation, I investigated whether any queries had been received from Distributors in relation to ICPs at the “New” or “Ready” status for more than 24 months and what process is in place to manage and respond to such requests.

Audit commentary

No ICPs were found in the list file in the new or ready status, and they have not received any requests from Distributors.

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

Code reference

Clause 2 Schedule 11.3

Code related audit information

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

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

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

Audit observation

I checked the event detail report for ICPs where the switch event date was more than two business days prior to the date the NT file was sent.

Audit commentary

eTrading does not conduct any direct marketing, therefore the sections of the Fair Trading Act are not relevant.

No NT files were sent later than two business days of the event date.

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

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

Audit observation

An event detail report for the audit period was reviewed, to identify AN files issued by eTrading during the audit period.

The switch breach report was examined for the audit period.

The event detail report was analysed to assess compliance with the requirement to meet the setting of event dates requirement.

Audit commentary

eTrading has not conducted any switches out, therefore no AN files have been sent.

When NT files are received from the registry a “notification” is created in ETS, which requires action to be taken. This ensures all NT files will be identified and actioned. AN files will be processed manually.

Audit outcome

Compliant

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

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

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

Audit observation

An event detail report for the audit period was reviewed, to identify CS files issued by eTrading during the audit period.

The switch breach history report for the audit period was reviewed to identify late CS files.

Audit commentary

eTrading has not sent any CS files. CS files will be processed manually when they are required.

Audit outcome

Compliant

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

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

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

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

If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within four calendar months of the actual event date, provide to the losing trader a changed switch event meter reading supported by two validated meter readings.

- *the losing trader can choose not to accept the reading, however must advise the gaining trader no later than five business days after receiving the switch event meter reading from the gaining trader (clause 6A(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader (clause 6A(b)).*

Audit observation

The process for the management of read requests was examined.

The event detail report and switch breach report were analysed to identify all read change requests and acknowledgements during the audit period.

Audit commentary

eTrading has not processed any RR or AC files. eTrading understands the requirements of the Code with regard to these processes.

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 five business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading.*

Audit observation

The process for the management of read requests was examined.

The event detail report and switch breach report were analysed to identify all read change requests and acknowledgements during the audit period.

Audit commentary

eTrading has not processed any RR or AC files. eTrading understands the requirements of the Code with regard to these processes.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 11.3

Code related audit information

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

Audit observation

Confirm with eTrading whether any disputes have needed to be resolved in accordance with this clause.

Audit commentary

There were no examples of disputes that needed to be resolved under this clause.

Audit outcome

Not applicable

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

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

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

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

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

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

Audit observation

I checked the event detail report to confirm whether any MI NT files had been sent.

Audit commentary

No MI NT files have been sent. eTrading understands the Code requirements.

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

An event detail report for the audit period was reviewed, to identify AN files issued by eTrading during the audit period.

The switch breach report was examined for the audit period.

The event detail report was analysed to assess compliance with the requirement to meet the setting of event dates requirement.

Audit commentary

eTrading has not conducted any switches out, therefore no AN files have been sent.

When NT files are received from the registry a "notification" is created in ETS, which requires action to be taken. This ensures all NT files will be identified and actioned. AN files will be processed manually.

Audit outcome

Compliant

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

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

Audit observation

eTrading has not sent any AN or CS files but they understand the requirements of the Code.

Audit commentary

eTrading has not sent any AN or CS files but they understand the requirements of the Code.

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

eTrading has not sent any AN or CS files but they understand the requirements of the Code.

Audit commentary

eTrading has not sent any AN or CS files but they understand the requirements of the Code.

Audit outcome

Compliant

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 actual event date, 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 five business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading (clause 12(2B)).*

Audit observation

The process for the management of read requests was examined.

The event detail report and switch breach report were analysed to identify all read change requests and acknowledgements during the audit period.

Audit commentary

eTrading has not processed any RR or AC files. eTrading understands the requirements of the Code with regard to these processes.

Audit outcome

Compliant

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

Code reference

Clause 13 Schedule 11.3

Code related audit information

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

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

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

A gaining trader must advise the registry manager of the switch and expected event date no later than 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

eTrading has conducted one HHR switch, which was examined during the audit.

Audit commentary

The NT file was sent within one day, compliance is confirmed.

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

15(a) - provide to the registry manager a valid switch response code as approved by the Authority; or

15(b) - provide a request for withdrawal of the switch in accordance with clause 17.

Audit observation

eTrading has not sent any HHR AN files, but the requirements of the Code are understood.

Audit commentary

eTrading has not sent any HHR AN files, but the requirements of the Code are understood.

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 three business days, after receiving the valid switch response code, by advising the registry manager of the event date.

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

16(a)- give the losing trader or MEP for the ICP an opportunity to interrogate the metering installation immediately before the ICP is electrically disconnected or the metering equipment is removed; or

16(b)- carry out an interrogation and, no later than five business days after the metering installation is electrically disconnected or removed, advise the losing trader of the results and metering component numbers for each data channel in the metering installation.

Audit observation

eTrading provided the CS file on the same day as the AN file was received for the one HHR switch mentioned in **section 4.13**.

Audit commentary

eTrading provided the CS file on the same day as the AN file was received for the one HHR switch mentioned in **section 4.13**.

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 two calendar months after the event date of the switch.

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

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
 - o *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*
 - o *the withdrawal advisory code published by the Authority. (clause 18(c)(ii))*
- *within 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 switch withdrawal process was examined. One NW file was sent.

Audit commentary

The NW file contained the correct NW code and was sent within the allowable timeframe.

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

CS files have not been sent but eTrading understands the requirements of the Code. It is expected that all readings will be from AMI.

Audit commentary

CS files have not been sent but eTrading understands the requirements of the Code. It is expected that all readings will be from AMI.

Audit outcome

Compliant

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

Code reference

Clause 11.15AA to 11.15AB

Code related audit information

A trader that buys electricity from the clearing manager may elect to have a switch saving protection by giving notice to the Authority in writing.

If a protected trader enters into an arrangement with a customer of another trader (the losing trader), or a trader enters into an arrangement with a customer of a protected trader, to commence trading electricity with the customer, the losing trader must not, by any means, initiate contact with the customer to attempt to persuade the customer to terminate the arrangement during the period from the receipt of the NT to the event date of the switch including by:

11.15AB(4)(a)- making a counter offer to the customer; or

11.15AB(4)(b)- offering an enticement to the customer.

Audit observation

The Electricity Registry switch save protected retailer list was examined to confirm that eTrading is not a save protected retailer.

Winback processes were examined to determine whether they are compliant.

I checked the event detail report for all withdrawn switches from the audit period, to identify any withdrawn switches with a CX code applied prior to the switch completion date in relation to any switch save protected retailers.

Audit commentary

The check of the event detail report confirmed that no NW files were sent for CX. eTrading does not have a "winback" outbound process.

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

eTrading does not have any shared unmetered load and they will not switch in any ICPs with unmetered load. If unmetered load is identified after switch in the customer will be required to switch out or have the load metered.

Audit commentary

eTrading does not have any shared unmetered load and they will not switch in any ICPs with unmetered load. If unmetered load is identified after switch in the customer will be required to switch out or have the load metered.

Audit outcome

Not applicable

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

eTrading does not have any unmetered load.

Audit commentary

eTrading does not have any unmetered load.

Audit outcome

Not applicable

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

eTrading does not have any unmetered load.

Audit commentary

eTrading does not have any unmetered load.

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

There are no distributed unmetered load ICPs.

Audit commentary

There are no distributed unmetered load ICPs.

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 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 energised ICP that is not also an NSP, and for which it is recorded in the registry as being responsible, ensure that:

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

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

Audit observation

The registry list was examined to determine compliance. Processes for distributed generation were reviewed.

Audit commentary

All active ICPs have at least one metering installation.

There are two ICPs with generation installed and this is quantified and submitted in accordance with the Code.

eTrading does not intend to initiate meter bypass instructions to any MEP or contractor. If they request a remote reconnection in the future, the MEP is expected to either conduct this, or make necessary arrangements for reconnection without bypassing. No examples were identified during the audit.

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 three months for the grid owner to review and comment on the design*

- *respond within three business days of receipt to any request from the grid owner for additional details or changes to the design*
- *ensure any reasonable changes from the grid owner are carried out.*

The participant responsible for the metering installation must:

- *advise the reconciliation manager of the certification expiry date not later than 10 business days after certification of the metering installation*
- *become the MEP or contract with a person to be the MEP*
- *advise the reconciliation manager of the MEP identifier no later than 20 days after entering into a contract or assuming responsibility to be the MEP.*

Audit observation

eTrading is not responsible for any grid metering.

Audit commentary

eTrading is not responsible for any grid metering.

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

eTrading does not use any profiles where control device certification is required.

Audit commentary

eTrading does not use any profiles where control device certification is required.

Audit outcome

Not applicable

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

Processes relating to defective metering were discussed.

Audit commentary

No faulty or bridged meters were identified by eTrading during the audit period. eTrading understands the requirements of the Code with regard to the management of defective metering.

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 on 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

EDMI collects data for one ICP as an agent to eTrading. Their audit report confirms compliance with this clause.

Audit commentary

EDMI collects data for one ICP as an agent to eTrading. Their audit report confirms compliance with this clause.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

The data collection process was examined. One ICP was manually read during the audit period.

Audit commentary

NHH meter reading is conducted by eTrading personnel. The relevant points above are all checked to ensure there is no tampering, damage or unsafe situations.

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

The process of the application of meter readings was examined.

Audit commentary

All AMI systems have a clock synchronisation function, which ensures correct timestamping. eTrading imports the midnight AMI midnight readings, which are applied as at 2400hrs.

Manual readings taken by eTrading are applied correctly.

I discussed the process for NHH to HHR changes. eTrading confirmed that these changes will be made at midnight, which will ensure the correct application of meter readings.

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

etrading intends to deal mainly with AMI or HHR metering installations expect to have a reliable source of readings. I checked the meter reading history for the one NHH ICP.

Audit commentary

A meter reading has been obtained for the one NHH ICP, therefore compliance will be achieved with this clause if that ICP switches out.

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 meter reading process was examined.

Audit commentary

Most data will be from AMI or HHR metering installations. Manual meter reading will only ever be a short-term step until the appropriate metering is installed.

eTrading has not had any ICPs for 12 months but they understand the requirements of the Code.

Audit outcome

Compliant

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

In relation to each NSP, each reconciliation participant must ensure that for each NHH ICP at which the reconciliation participant trades continuously for each four months, for which consumption information is required to be reported into the reconciliation process. A validated meter reading is obtained at least once every 4 months for 90% of the non-half hour meters.

A report is to be sent to the market administrator 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 meter reading process was examined.

Audit commentary

Most data will be from AMI or HHR metering installations. Manual meter reading will only ever be a short-term step until the appropriate metering is installed.

eTrading has not had any NHH ICPs for four months but they understand the requirements of the Code.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

Most data will be from AMI or HHR metering installations. Manual meter reading will only ever be a short-term step until the appropriate metering is installed. The NHH meter read table was examined to confirm compliance.

Audit commentary

The meter read table contains all of the points listed above.

Audit outcome

Compliant

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

HHR data is collected by EDM I as an agent. HHR interrogation data requirements were reviewed as part of their agent audit. Data is also obtained from the FCLM and SMCO services access interfaces.

Audit commentary

Compliance with this clause has been demonstrated by EDM I as part of their agent audit. Compliance is confirmed with regard to obtaining data from the FCLM and SMCO services access interfaces.

Audit outcome

Compliant

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

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

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

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

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

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

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

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

Audit observation

HHR data is collected by EDM I as an agent. HHR interrogation data requirements were reviewed as part of their agent audit.

Audit commentary

The EDM I audit report confirms compliance with this clause.

Audit outcome

Compliant

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

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

HHR data is collected by EDM I as an agent. HHR interrogation log requirements were reviewed as part of their agent audit.

Audit commentary

The EDM I audit report confirms compliance with this clause.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

HHR data is collected by EDM I as an agent. Trading period duration was reviewed as part of their agent audit.

Audit commentary

Compliance with this clause has been demonstrated by EDM I as part of their agent audit.

Audit outcome

Compliant

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

Code reference

Clause 18 Schedule 15.2

Code related audit information

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

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

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

Audit observation

eTrading's agent (EDM I) and MEPs retain a copy of the raw meter data, and their compliance with the archiving and storage requirements was reviewed as part of their audits.

eTrading's own audit trails were reviewed in **section 2.4**.

Raw meter data from the commencement of trading was reviewed to ensure that it is retained.

Audit commentary

When data reaches eTrading's systems, the level of security is robust, and data cannot be accessed by unauthorised personnel.

eTrading has retained reading data since they began trading and intends to retain reading data for at least 48 months.

Compliance with clause 18.3 of schedule 15.2 was examined, which requires that ".....meter readings cannot be modified without an audit trail being created." Readings cannot be modified without an audit trail being created. Readings are entered into a data table and any adjustments or corrections have an appropriate audit trail.

Audit outcome

Compliant

7.3. Non-metering information collected / archived (Clause 21(5) Schedule 15.2)

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

All relevant non-metering information, such as external control equipment operation logs, used in the determination of profile data must be collected, and archived in accordance with clause 18.

Audit observation

Processes to record and archive non-metering information were discussed, and non-metering information was discussed to determine whether the archiving requirements were met.

Audit commentary

eTrading does not deal with any non-metering information.

Audit outcome

Not applicable

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

If errors are detected during validation of non-half hour meter readings, one of the following must be undertaken:

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

19(1)(b) - replacement of the original meter reading by another meter reading (even if the replacement meter reading may be at a different date)

19(1)(c) - if the original meter reading cannot be confirmed or replaced by a meter reading from another interrogation, then an estimated reading is substituted and the estimated reading is marked as an estimate and it is subsequently replaced in accordance with clause 4(2).

Audit observation

Processes for the correction of NHH meter readings were reviewed by checking the process and system capability. There were no correction examples during the audit period.

Audit commentary

There were no examples of corrections to actual NHH metering data available during the audit period.

NHH readings are contained in the meter read table and they cannot be modified or deleted once they have been entered. An additional row can be added if a replacement meter reading is obtained.

This table cannot be accessed by unauthorised personnel.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

19(2)(a) - if a check meter or data storage device is installed at the metering installation, data from this source may be substituted

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

Audit observation

Processes for correction of HHR data were discussed.

Audit commentary

No data has been corrected during the audit period, but the requirements of the Code are understood and the system has the necessary capability and audit trail for corrections.

Audit outcome

Compliant

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

Audit observation

Error and loss compensation arrangements were discussed.

Audit commentary

eTrading confirmed there are currently no error or loss compensation arrangements in place.

Audit outcome

Compliant

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

Code reference

Clause 22(1) and (2) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

Corrections are discussed in **sections 8.1** and **8.2**. Audit trails are discussed in **section 2.4**.

Raw meter data retention for MEPs was reviewed as part of their MEP audits.

Audit commentary

The raw meter data files are not edited. The data that is edited is considered metering data and the audit trail is appropriate.

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

NHH meter readings are not expected to be estimated because ICPs will only be NHH until appropriate metering is installed. eTrading expects to have validated meter readings on the last day of the month in all cases.

ETS has an automated estimation capability to deal with missing intervals. A manual process can be used if necessary.

The system and process were checked along with one example.

Audit commentary

The system is configured to estimate HHR intervals based on historic actual data, or if there's no history, similar consumption based on retailer price category.

Estimated HHR data will be identified at a daily level not at an interval level. If data is missing for one or more trading periods, estimation will occur for the entire day (48 trading periods) rather than just to populate the missing trading periods. The functionality of ETS does not enable estimation and identification of estimates at a trading period level. In **section 9.4** I have elaborated on this issue and recommended that estimates are identified at an interval level. No examples were available therefore compliance is confirmed.

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

A sample of submission data was reviewed to confirm that volume was based on readings as required.

Audit commentary

Volume information is directly derived from validated meter readings, estimated readings, or permanent 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 for derive volume information must not be rounded or truncated from the stored data from the metering installation.

Audit observation

A sample of submission data was reviewed to confirm that volumes were based on readings as required.

Audit commentary

Data provided by the MEPs and agents is not rounded or truncated. Compliance is confirmed.

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

ETS has an automated estimation capability to deal with missing data. A manual process can be used if necessary.

The system and process were checked along with one example.

Audit commentary

The system is configured to estimate HHR intervals based on historic actual data, or if there's no history, similar consumption based on retailer price category.

Estimated HHR data will be identified at a daily level not at an interval level. If data is missing for one or more trading periods, estimation will occur for the entire day (48 trading periods) rather than just to populate the missing trading periods. The functionality of ETS does not enable estimation and identification of estimates at a trading period level. I have considered whether this will achieve compliance when this functionality is inevitably used.

This clause states that if the participant is unable to interrogate the metering installation, the best estimate must be provided. Where only some intervals are missing within the day, this clause is clear

that those intervals that have already been interrogated should be used for submission and should not be estimated.

The following clauses are also relevant:

Clause 4(1) of Schedule 15.2 states that “only volume information created using validated meter readings, or if such values are unavailable, permanent estimates has permanence within the reconciliation process (unless subsequently found to be in error).” Because validated meter readings are available for the trading periods in question; they should be used to create the volume information.

Clause 19(2) of Schedule 15.2 states that:

(2) If errors are detected during the validation of half-hour meter readings, the meter readings must be corrected as follows:

(a) if a check meter or data storage device is installed at the metering installation, data from the check meter or data storage device may be substituted:

(b) in the absence of any check meter or data storage device, data may be substituted from another period if the total of all substituted intervals matches the total consumption recorded on a meter, if available, and the pattern of consumption is considered to be materially similar to the period in error.

This requires that the meter readings that fail validation must be corrected. It does not allow meter readings that do not fail validation to be corrected.

Clause 3(3) of Schedule 15.2 states that “An estimated reading and a permanent estimate must be clearly identified as an estimate at source and in an exchange of metering data or volume information between participants ...” This requires the identification of estimates to be at a trading period level not at the daily level.

Whilst no estimates or corrections have occurred for part days, I recommend eTrading develops the capability to perform and identify estimates at an interval level.

Recommendation	Description	Audited party comment	Remedial action
Regarding Clauses 3(3) and 15 of Schedule 15.2	Develop the capability to perform and identify estimates at an interval level.	The audited party does not agree with the auditors analysis and recommendation, this is further discussed in the participant response section of the audit report.	The auditors opinion is disputed and a formal determination of compliance of the process used is requested.

A draft audit report was provided to eTrading in accordance with clause 16A.12(1)(b). eTrading provided a response to this recommendation which I have considered in accordance with clause 16A.12(1)(c). eTrading’s response includes some valid points regarding the definitions of meter readings and half-hour metering information. The response also highlights that the Code is not always clear whether a clause relates to half-hour or non half-hour information. Clause 19(2) of Schedule 15.2 is a good example, where this clause is clearly only relates to half-hour information but refers to it as “meter readings”. Whilst I agree with the points made about the Code, I still maintain that there is enough clarity in the Code to support the recommendation that half-hour estimates should be conducted and identified at a trading period level and not at a daily level. In addition to the clauses mentioned above, Clause 15.2 also supports this recommendation. Clause 15.2 requires that information is “complete and accurate” and estimated data is likely to be less accurate than actual data derived from the services access interface.

Estimation was conducted for a full month for one HHR ICP. The basis for the estimate was SCADA 15-minute demand information. The process and the calculation were robust and the difference between estimated and actual data was minimal.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 15.2

Code related audit information

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

16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register

16(2)(b) - checks for invalid dates and times

16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend

16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected zero values.

Audit observation

I conducted a walkthrough of the NHH data validation process.

Audit commentary

eTrading has the following checks in place:

1. consumption is within expected bands
2. zero consumption
3. negative consumption
4. missing meter readings.

Any exceptions will be addressed, and action is taken depending on the type of exception.

NHH meter readings are manually entered and part of the process is to ensure the correct ICP is selected.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

I checked the validation steps by conducting a walk-through of the process. I observed the AMI event logs.

Audit commentary

The NHH validation checks are also in place for electronically interrogated meters, as follows:

1. consumption is within expected bands
2. zero consumption
3. negative consumption
4. missing meter readings.

AMI event information is provided by SMCO.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

eTrading does not have responsibilities for the provision of information to the grid owner.

Audit Commentary

eTrading does not have responsibilities for the provision of information to the grid owner.

Audit outcome

Not applicable

10.2. Unoffered & intermittent generation provision of metering information (Clause 13.137)

Code reference

Clause 13.137

Code related audit information

Each generator must provide the pricing manager and the relevant grid owner half-hour metering information for:

- *any unoffered generation from a generating station with a point of connection to the grid 13.137(1)(a)*
- *any electricity supplied from an intermittent generating station with a point of connection to the grid. 13.137(1)(b)*

The generator must provide the pricing manager and the relevant grid owner with the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of that generator's volume information (clause 13.137(2)).

If such half-hour metering information is not available, the generator must provide the pricing manager and the relevant grid owner a reasonable estimate of such data (clause 13.137(3)).

Audit observation

eTrading does not have responsibilities for the provision of information to the grid owner.

Audit Commentary

eTrading does not have responsibilities for the provision of information to the grid owner.

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

eTrading does not have responsibilities for the provision of information to the grid owner.

Audit Commentary

eTrading does not have responsibilities for the provision of information to the grid owner.

Audit outcome

Not applicable

10.4. Notification of the provision of HHR metering information (Clause 13.140)

Code reference

Clause 13.140

Code related audit information

If the generator provides half-hourly metering information to the pricing manager or a grid owner under clauses 13.136 to 13.138, or 13.138A, it must also, by 0500 hours of that day, advise the relevant grid owner.

Audit observation

eTrading does not have responsibilities for the provision of information to the grid owner.

Audit commentary

eTrading does not have responsibilities for the provision of information to the grid owner.

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 notify 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

A registry list was reviewed for the audit period to confirm which profiles were used.

Audit commentary

As eTrading is only using the RPS, PV1 and HHR profiles, trading notifications were not required; however, they are in place.

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 a walkthrough of the process and by manually checking the accuracy of ICP days.

Audit commentary

Breach information provided by the Electricity Authority did not identify any late ICP days submissions.

ICP days are calculated from the NHH and HHR monthly data sets and the checks conducted confirm compliance.

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

All GR130 reports were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Alleged breaches during the audit period were reviewed to determine whether any reconciliation submissions were late.

Audit commentary

No breaches had been recorded for late provision of submission information.

This clause requires that electricity supplied information is aggregated by “invoice month” and in the guideline provided by the Authority this is described as the month the invoice is produced, which is normally the month after the “consumption month”. eTrading’s electricity supplied file includes information for the “consumption month”. “Invoice month” is not a defined term and guidelines are not part of the Code, therefore I have recorded compliance. If a billing revision is conducted the electricity supplied totals will be included in the relevant “consumption month”, which means the electricity supplied and submission totals will always align. Electricity supplied files are used as a comparison against submission files to ensure there are no discrepancies. Despite these files being prepared in a manner different to that used by many other retailers, the required outcome is met in a compliant manner.

I checked the source of electricity supplied information. The NHH and HHR data sets are used to create a “billing table” which is used as the source data for customer invoicing and for Distributor billing. I have concluded that this meets the requirement to source data from “financial records”.

Audit outcome

Compliant

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

Code reference

Clause 15.8

Code related audit information

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

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

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

Audit observation

I checked variances between revisions for the aggregates file and I checked the ICPMISS report to identify any potential errors. I checked HHR data in source files against totals in the aggregates file to confirm the process for file creation.

Audit commentary

No breaches had been recorded for late provision of submission information.

The HHR aggregates file is generated out of the “billing table”, so compliance is achieved with the requirement to provide “electricity supplied” information. Normally electricity supplied information would be of little use to the RM but eTrading’s electricity supplied and submission totals align so the information will be useful. eTrading may need to change the source of this file when the Code is changed to require submission information to be used as the source, but the totals are expected to be the same.

These files were compared to HHR vols files and to source data which confirmed compliance.

Audit outcome

Compliant

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using one of the techniques set out in clause 15.36(3) specified by the Authority.

Audit observation

The daylight savings process was observed and HHR vols files for the change to and from NZDT were examined.

Audit commentary

Daylight saving adjustment is conducted by agents and MEPs. eTrading's system is configured to accept adjusted files.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

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

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

Audit observation

This clause relates to the timeliness of files and whether they include all ICPs. I checked the ICPMISS reports for the audit period to confirm the completeness of HHR files. I checked the validation processes for NHH submissions and I checked that all ICPs were included.

A list of breaches was requested from the Electricity Authority. There were no breaches for late provision of submission information.

Audit commentary

No errors were detected. The estimated data for one ICP for one month was replaced with actual data in the "Day-13" file.

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 by the registry for the relevant consumption period at the time the reconciliation participant assembles the submission information. Volume information must be derived in accordance with Schedule 15.2.

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

Audit observation

Processes to ensure that information used to aggregate the reconciliation reports are consistent with the registry were reviewed and registry validation includes all relevant fields.

Audit commentary

The registry list file is loaded each day and is used as the “starting point” for submission purposes. This ensures accuracy of aggregation factors. ETS has a flag to warn if the list file data is older than one day.

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

eTrading has not supplied any GIPs.

Audit commentary

eTrading is not required to report any grid owner volume information.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

eTrading is not a local or embedded network owner.

Audit commentary

eTrading is not a local or embedded network owner and is not required to provide NSP submission information.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

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

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

Audit observation

eTrading does not have any grid connected generation.

Audit commentary

eTrading does not have any grid connected generation.

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

I checked the NHH and HHR revision processes to confirm compliance.

Audit commentary

eTrading has an HHR revision process so that when estimated data is replaced by actual data, the most accurate data is submitted.

NHH revisions have not been required yet. eTrading intends to obtain NHH meter readings on the last day of any given month.

It's possible in future that there could be NHH ICPs not read on the last day. eTrading will manually conduct historic estimate calculations in these cases. Further discussion was held regarding the need to send revision files using updated shape files. I believe the Code requires this to occur, supported by the following clauses:

1. Clause 15.2, which requires information to be complete and accurate
2. Clause 15.12, which requires the participant to provide the most accurate data
3. Clause 4 of schedule 15.3, which requires the "relevant seasonal adjustment shape" to be used if it is available.

I recommend eTrading ensures their NHH revision process includes the use of the most recent shape files. This recommendation is recorded in **section 12.11**.

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).

Volume information created using estimated readings must be subsequently replaced at the earliest opportunity by the reconciliation participant by volume information that has been created using validated meter readings or permanent estimates by, at the latest, the month 14 revision cycle.

A permanent estimate may be used in place of a validated meter reading, but only if, despite having used reasonable endeavours; the reconciliation participant has been unable to obtain a validated meter reading.

Audit observation

NHH vols files were reviewed to identify any forward estimates.

Audit commentary

The proportion of HE is 100% for every submission. The use of estimates is not planned and would be a rare event.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

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

Audit observation

The registry list was reviewed for the audit period to confirm that eTrading should supply:

- NHH information
- HHR information
- Generation information.

The accuracy of submission information was checked in numerous sections.

Audit commentary

There were no issues found with the accuracy of submission information:

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

eTrading intends to conduct meter readings on the last day of the month for NHH manually read ICPs. Forward and historic estimate calculations will therefore be a rare event.

I have recommended in **section 12.11** that eTrading's historic estimate calculation methodology includes the most recent shape file through the revision process.

No forward or historic estimates were present during the audit period.

Audit commentary

eTrading intends to conduct meter readings on the last day of the month for NHH manually read ICPs. Forward and historic estimate calculations will therefore be a rare event.

I have recommended in **section 12.11** that eTrading's historic estimate calculation methodology includes the most recent shape file through the revision process.

No forward or historic estimates were present 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 kWhPx 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

eTrading intends to conduct meter readings on the last day of the month for NHH manually read ICPs. Historic estimate calculations will therefore be a rare event and will be conducted manually.

I have discussed a recommendation in **sections 12.7** and **12.10** that eTrading's historic estimate calculation methodology includes the most recent shape file through the revision process.

No historic estimates were present during the audit period.

Audit commentary

eTrading intends to conduct meter readings on the last day of the month for NHH manually read ICPs. Historic estimate calculations will therefore be a rare event and will be conducted manually.

I have discussed a recommended in **Section 12.7** that eTrading's historic estimate calculation methodology includes the most recent shape file through the revision process.

No historic estimates were present during the audit period.

Recommendation	Description	Audited party comment	Remedial action
Regarding Clause 15.12 and 5 of schedule 15.3	Ensure any future NHH HE revisions include use of the most recent shape file.	The audited party does not agree with the auditors analysis and recommendation, this is further discussed in the participant response section of the audit report.	The auditors opinion is disputed and a formal determination of compliance of the process used is requested.

A draft audit report was provided to eTrading in accordance with clause 16A.12(1)(b). eTrading provided a response to this recommendation which I have considered in accordance with clause 16A.12(1)(c). eTrading's response is that the Code only requires revisions to occur if revised metering information becomes available, not because revised shape files become available. I believe the clauses listed in Section 12.7 support the recommendation that revisions should occur even if the only information changing is the shape file. Clause 15.2 requires information to be complete and accurate. If the latest shape file was not used, information would not be complete and accurate. Clause 15.2 refers to "information" but does not define information, therefore this can include shape files. Clause 4 of schedule 15.3 requires the "relevant seasonal adjustment shape" to be used to calculate historic estimates if it is available.

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

I checked whether forward estimates had been used.

Audit commentary

eTrading has not needed to use forward estimates and this will be a rare event. eTrading understands the requirements of the Code.

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

A registry list with history was reviewed for the audit period to confirm that eTrading has only used the RPS, HHR and PV1 profiles during the audit period. I checked the event detail report to identify profile changes and checked that actual readings had been used.

Audit commentary

There have not been any profile changes conducted. eTrading understands the requirements of the Code.

Audit outcome

Non-compliant

13. SUBMISSION FORMAT AND TIMING

13.1. Market Administrator Meter Reading Reports (Clauses 8 & 9 of Schedule 15.2)

Code reference

Clause 8 Schedule 15.3

Code related audit information

Provision of meter read frequency reports to the Authority, no later than 20 business days after the end of the month.

Audit observation

I checked whether the meter reading reports had been prepared and submitted in accordance with this clause.

Audit commentary

eTrading has not yet been required to send this report. eTrading understands the requirements of the Code.

Audit outcome

Compliant

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

Audit observation

The process to ensure that AV080 submissions are accurate was evaluated by conducting a walk-through of the validation processes and the submission preparation processes. I also checked the ICPMISS reporting to identify any aggregation issues.

Audit commentary

AV080 and AV090 files are aggregated correctly. Compliance with the requirement to use correct aggregation factors is confirmed. The registry is used as the starting point for submissions. Clause 8(g) of Schedule 15.3 allows NHH submission information to be aggregated to a daily level. eTrading has chosen to aggregate to a daily level.

Audit outcome

Compliant

13.3. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

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

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

Audit observation

Aggregation of the AV080 and AV090 was reviewed and as part of these checks I verified that the data provided for submission was correctly rounded.

Audit commentary

Submission information is appropriately rounded to no more than two decimal places. Rounding does not occur until the files are prepared.

Audit outcome

Compliant

13.4. 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

I reviewed GR170 reports for the entire audit period to confirm that historic estimate requirements were met.

Audit commentary

The quantity of historical estimates is contained in the submission file and is not a separate report.

The percentage of HE is 100% for all submissions.

Audit outcome

Compliant

CONCLUSION

eTrading is a new participant and there are many parts of the Code where they have not performed any activities yet. In these cases, I evaluated future compliance by checking system capability or I evaluated the understanding of the Code through interview. eTrading has an excellent understanding of the Code and this audit found compliance is achieved and the risk of future non-compliance is very low.

I have made two recommendations to ensure future compliance. The two recommendations are as follows:

- ETS is configured to estimate for complete days if estimates are required for any trading periods. I recommend ETS is changes to enable estimates and identification of estimates to be conducted at an interval level.
- The second recommendation is that eTrading ensures revisions are conducted using the most recent shape file where historic estimates have been calculated.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table in the Audit Summary provides some guidance on this matter and contains a future risk rating score of zero, which results in an indicative audit frequency of 36 months. As mentioned above, there were many areas where specific examples were not available because the activities had not been performed. For this reason, I recommend the Authority considers a next audit frequency of 18 months.

Introduction

Veritek have completed an audit report for eTrading (ETRN) and have made two recommendations that, if the situation described had arisen, would have resulted in allegations of non compliance in the audit report. ETRN dispute the compliance analysis leading to the recommendations.

ETRN wish to resolve these matters prior to having a subsequent audit performed because the situations described in the recommendations will arise. ETRN do not agree with the auditors conclusions and would face considerable unnecessary expense (both initially and on going) to implement them.

We expect the Authority to invoke their dispute resolution process in order to determine the relevant compliance status, we expect this will occur prior to the next ETRN audit.

Background

We note that the audit process is overseen by staff from the Operations group of the Authority, and at an audit level determinations are made that impose a penalty on audited parties by way of requiring shorter audit return times and therefore increased audit costs. The process of making determinations regarding compliance or otherwise for this purpose is of concern to us as it is based entirely on the wording of the code.

Participants are required to determine for themselves how to comply with the Code by evaluating the Code and then constructing systems and processes that comply with the Code. Many aspects of the Code do not require interpretation, however some do. The need for interpretation has become more prevalent in recent years with the introduction of new technology, small start up retailers seeking innovative ways to be efficient and changes to the Code being made by Authority officials (and lawyers) that make no sense in the real world.

The Interpretation Act is available to guide participants when they must interpret the requirements of the Code - and we have applied this when constructing our systems and processes which we believe are fully compliant with the Code.

Application of the Interpretation Act is not optional - from clause 5(1) we have

"The meaning of an enactment must be ascertained from its text and in the light of its purpose".

The reader should note that use of the Interpretation Act is not optional, it is required by the word *must*.

Half Hour Estimates (Clause 15 Schedule 15.2)

We primarily trade AMI HHR metered sites. Our systems and processes work with AMI HHR data at a daily record level, and validation reporting and estimation is conducted at a daily level. The auditor has recommended that ETRN develop the capability to perform and identify HHR estimates at a trading period level rather than a daily level.

This recommendation appears to be based on the notion that the values returned by half hour metering information for each trading period are **Meter Readings**, and that ETRN must calculate submission information based on meter information that has failed validation testing.

Analysis

If we accept that the trading period volume information returned from HHR metering installations is captured by the Code definition of Meter Reading, then the wording of the relevant clause may support the auditors conclusion.

Apply Interpretation Act

Let us examine the Code thoroughly and take into account all relevant factors.

We first examine the status of TP values in HHR Metering information records and start with the examination of some definitions from part 1 of the Code.

meter reading means a **meter** register value or the equivalent, obtained from **raw meter data** or such other reading as detailed in clause 3(1) of Schedule 15.2, which is not an **estimated reading**

half-hour metering information —

- (a) means information describing the quantity of **electricity** conveyed in each **trading period** that is—
 - (i) recorded directly by a **metering installation**; or
 - (ii) calculated or estimated using information recorded directly by a **metering installation**; and
- (b) in respect of a **generator** that is selling **electricity** to the **clearing manager** and other persons at the same **grid injection point** in the same **trading period**, includes the file recording the quantity of **electricity** sold to the **clearing manager** during each such **trading period** constructed in accordance with **dispatch instructions** issued by the **system operator** under this Code.

Clause 1.1(1) **half-hour metering information**: substituted, on 19 December 2014, by clause 4(2) of the Electricity Industry Participation Code Amendment (Minor Code Amendments) (No 3) 2014.

The Code defines two terms which are relevant - **meter reading** and **half-hour metering information**.

A **meter reading** is the value of a constantly accumulating register - any meter reading is only valid when combined with the date on which it was obtained and volume information is calculated for the period between meter readings by a subtractive process.

half-hour metering information is the volume of electricity conveyed for identified trading periods - it is not constantly accumulating and there is no calculation required to produce volume information. Half-hour metering information is valid irrespective of the date the information is gathered.

From this it is evident that the values of volume information returned as **half-hour metering information** are very different from accumulating register **meter readings**. The definition of **meter readings** requires a register read or equivalent - trading period volume information is not equivalent.

Meter readings and **half-hour metering information** are very different things, and until recently this difference has been well understood and well represented in the Code. With the introduction of AMI metering that produces both **meter readings** and **half-hour metering information** the Code has been subtly changed such that the wording does not adequately reflect these differences, this has lead to some confusion and unnecessary cost that ultimately lands on consumers.

The only place in the Code this is a problem is in Schedule 15.2 clause 19. Sub clause (1) which describes correction (estimation) of non half hour meter readings and sub clause (2) the correction of half hour

meter readings. The latter clause is the old "correction of TOU data" clause that referred to half hour metering information.

HHR meters - both traditional and AMI - have registers and it is possible to take meter (register) reads from these meters. While the wording of this clause could readily be interpreted as referring to register reads for HHR meters, this is unlikely as the clause is really about correction and estimation of **half-hour metering information**.

It is clear from Part 15 that the Authority have rewritten the Code to eliminate the concept of **half-hour metering information** in favour of calling HHR trading period values **meter readings** - hence the term half hour meter readings.

This is then picked up by the auditor in clause 3(3) of schedule 15.2 as defining the requirement to identify the value returned by **half-hour metering information** for each trading period as an estimate. The clause goes on to state this must be done *"at source and in an exchange of metering data or volume information between participants"*.

On the face of the wording of this clause in isolation it is entirely possible to conclude that the Code requires the action proposed by the auditor, however having considered all factors we do not believe this is the case.

Validation

Only validated data may be used for the creation of volume information. Validation is a statistical process applied to consumption data in order to determine the probability of the data being in error. Where data is determined to be in error (fails validation testing) it is replaced by estimates based on data that has previously passed the validation test, and corrected replacement data is subsequently obtained and used to calculate revised submission information.

HERM data is gathered from meters and provided by MEPs as a daily record with 48 trading period fields each containing HHR volume information. These records are validated at source by day, not by trading period¹.

If data is missing it is usually missing on a daily basis and a full day has to be estimated. If at any time, part of the daily trading period data is missing or obviously in error, the probability that other fields within the data record are also inaccurate is very high. In this case our validation process will always fail the entire record which is replaced by estimates until corrected data is obtained.

MEPs only deliver HERM data in daily records. Replacement data always replaces all trading period values in any day.

We therefore will never be in the situation where we would identify and replace HERM data on a trading period basis. There is no valid reason for modifying our system to do so, however there is considerable real cost both initially and on going. All industry costs eventually land with the consumer and where possible we seek to drive out such inefficiency.

Permanent estimates

At this point of the discussion it is worth noting the difference between an estimate that will be replaced when data is delivered and a permanent estimate that will never be replaced because the meter has catastrophically failed. The Code no longer recognises the difference between these and now fails to provide a higher requirement on the production of permanent estimates than temporary estimates. We believe this is a significant short coming of the present version of the Code.

¹ Based on the auditors recommendation this would be non compliant with the Code. I have examined several MEP audit reports and none have identified non compliance in this regard.

Conclusion

AMI HHR meter data is provided at source as daily records with estimate indication at a daily level. AMI HHR data is only provided at a daily level - all replacement data replaces all 48 trading periods previously sent. HHR submission information is provided to the RM at a daily level and there is no reason why any participant would need to identify estimates at a trading period level during the calculation of submission information.

The Code has recently changed such that the important practical distinction between a **meter reading** and **half-hour metering information** has been lost. This leaves the auditor proposing that ETRN spend considerable amounts of real money modifying systems which in our opinion already comply with the Code AND for which where there is no benefit (to any party) for the cost.

After considering all factors we believe the wording of the Code in schedule 15.2 clause 19 is incorrect. Other factors and information support our conclusion that half-hour metering information may be estimated at a daily level, and that indication of estimates at a trading period level is not required or intended under the Code.

Application of Revised Seasonal Adjustment shape files.

The auditor has recommended that ETRN ensure that future NHH HE revisions include use of the most recent shape (SAS) file. In the text of the report the auditor goes further to state that every future revision must be submitted where a revised SAS file has been issued by the RM.

Analysis

At ETRN we seek to minimise the production of revisions by working hard to obtain complete consumption data for initial submission. This is a matter of efficiency that reduces cost and ultimately benefits consumers.

ETRN is primarily a HHR trading retailer, however we have systems and processes in place to trade ICPs NHH during the time it takes to change metering from NHH to HHR.

Initial NHH submissions are calculated using HE without the SAS as provided for in clause 4 of schedule 15.3. We expect not to provide revisions, however we have in place a process to apply the SAS to any NHH revised submission information should we obtain revised metering information.

The requirements for the provision of revised submission information are defined;

15.4 (2) *in respect of which the reconciliation participant has obtained revised **submission information**, in accordance with Schedule 15.3.*

Submission information is defined in the Code Part 1;

submission information means **volume information** aggregated in accordance with clause 8 of Schedule 15.3 (and includes, if relevant, any **profile** shape or control times associated with a **profile**)

The requirement to provide revised submissions is very clear - there must be revised volume information which is derived from changed metering information. The code does not require the

provision of revised submission information simply because a new SAS is created by the reconciliation process.

Apply Interpretation Act

Having examined the wording of the Code we should apply the Interpretation Act to test the validity of our analysis.

The purpose of the SAS may be ascertained by reference to the Reconciliation Project Team, and to the function to which it is applied. Its purpose is to refine the highly inaccurate process of profiling NHH metering register reads into HHR periods in order to reduce the apparent UFE. The SAS does not change the quantity of electricity submitted to reconciliation , it simply alters the allocation in a small way.

There is therefore no inaccuracy introduced by not submitting revisions after the retailer has obtained final metered information. We further note that if the retailer reads the relevant meter registers on the last day of each month, any subsequent application of the revised SAS will always produce a factor of 1 which will not change the allocation at all.

We may conclude that the wording of the Code in this regard is correct and interpretation is not required.

Conclusion

We conclude that the Code does not mandate the provision of all revisions in the absence of revised submission information, and that the Auditors recommendation, and any subsequent allegation of non compliance based on the relevant analysis is incorrect.

The industry has long sought to reduce the number of revisions performed in order to increase efficiency to the ultimate benefit of consumers. It seems to the writer to make little sense that anyone would argue for the submission of revisions when no benefit is gained - only unnecessary cost.

The writer of this participant response is Paul Troon, a highly experienced industry participant and an EA approved auditor.