ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

VERITEK

For

Contact

CONTACT ENERGY LIMITED
CTCX MATERIAL CHANGE

Prepared by: Tara Gannon

Date audit commenced: 22 July 2019

Date audit report completed: 26 August 2019

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EXECUTIVE SUMMARY

Contact Energy Limited (Contact) intends to begin trading at NHH and HHR ICPs using its new CTCX code. It is anticipated that five HHR ICPs, one NHH ICP, and two residual load ICPs will initially be supplied.

Simply Energy Limited (Simply Energy) will act as an agent for switching, registry, and electricity supplied processes. **AMS** and **EMS** will provide HHR data collection, and **EMS** will provide NHH and HHR reconciliation submissions. **Wells** will provide readings for any manually read NHH ICPs, and AMS, FCLM, Arc and Smartco will provide AMI data as MEPs.

Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a "material" change to any certified facilities, processes or procedures then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Contact Energy so that it can be supplied to the Electricity Authority to satisfy the requirements of Clause 8(1).

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

The functions conducted by Simply Energy were audited at their premises in Wellington on 22 and 23 July 2019, and the NHH functions performed by EMS were checked at EMS' offices on 22 July 2019. EMS and AMS' HHR agent audit reports and Wells' NHH agent report will be submitted with this report.

There was only one issue identified. The HHR aggregates file will contain submission information in accordance with the functional specification, not electricity supplied information.

The four recommendations raised are detailed in the table below.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates file does not contain electricity supplied information.	Strong	Low	1	Identified
Future Risk Rating						1	

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	Description	Recommendation
ICPs at new or ready status for 24 months	3.10	Monitoring of new and ready ICPs	I recommend Simply Energy run a registry list six monthly with: Status: 000 or 999 Proposed trader: CTCX End date: the day the report is run and compare the results to the ICPs Simply Energy expects to be at "new" or "ready" status. Any ICPs which appear to have been assigned in error can then be checked with the distributor.
Losing trader response to switch request and event dates - standard switch	4.2	AN response code hierarchy	Consider adding the MU (unmetered supply) and OC (occupied premises) codes to the AN code hierarchy to ensure that AA (accept and acknowledge) is only used when no other codes are applicable.
Losing trader must provide final information - standard switch	4.3	CS estimated daily kWh	Consider reviewing the estimated daily consumption calculation to ensure compliance with the registry functional specification.
Derivation of meter readings	6.6	Customer readings	Until the issue with customer readings being sent to MADRAS in error is resolved, either: 1. Do not allow customer readings for CTCX; or 2. Check customer readings are correctly handled in MADRAS if they are used.

ISSUES

Subject	Section	Description	Issue
		Nil	

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

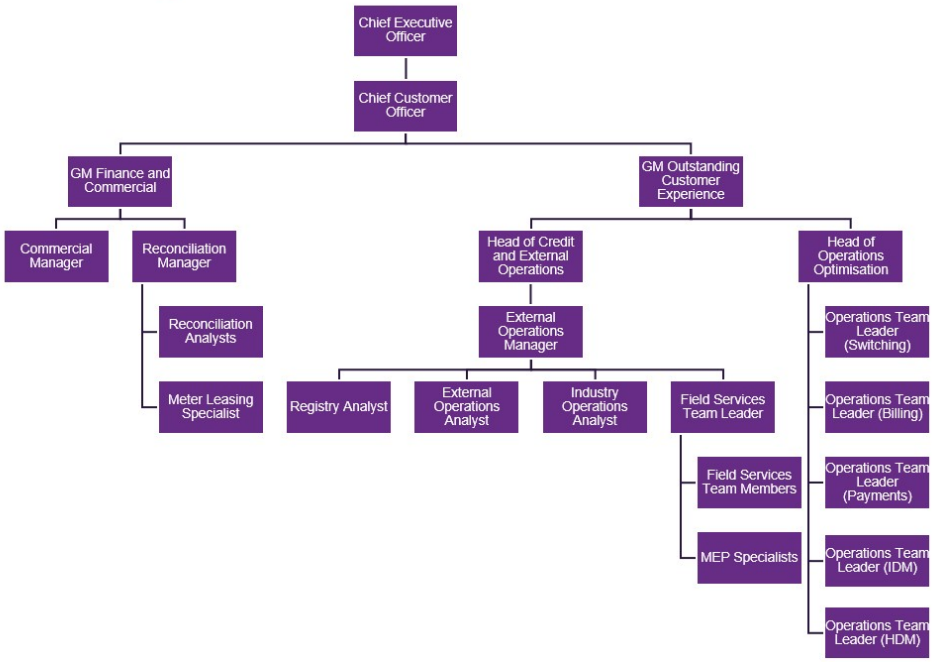
Audit commentary

There are no exemptions in place relevant to the scope of this audit.

1.2. Structure of Organisation

Contact Energy provided a copy of their organisational structure.

Contact Organisational Diagram



1.3. Persons involved in this audit

Auditor:

Name	Company
Tara Gannon	Veritek Limited

Simply Energy personnel assisting with this audit were:

Name	Title
Stephen Kemp	Market Operations Manager

EMS personnel assisting with this audit were:

Name	Title
Sunny Feng	Data Analyst

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

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

Audit observation

Use of agents was discussed.

Audit commentary

Contact Energy will use a number of agents in relation to the functions covered by the scope of this audit as discussed in **section 1.9**.

- Simply Energy will act as an agent for switching and registry processes and as billed submissions.
- AMS will gather HHR metering data.
- EMS will complete HHR and NHH reconciliation.
- Wells will provide readings for any manually read NHH ICPs.

NHH AMI data will be provided by MEPs.

1.5. Hardware and Software

CTCX processes will use the following systems:

- meter reading data is imported into AXOS DataHub;

- validated readings are transferred to the AXOS billing engine for billing and as billed reporting, and to EMS' MADRAS system for reconciliation for NHH ICPs; and
- SalesForce is used for the management of ICP and customer information.

Backup is cloud based, and access to systems is restricted using logins and passwords.

EMS' systems and backup processes are described in EMS' agent audit report.

1.6. Breaches or Breach Allegations

Contact Energy has no breach allegations relevant to the scope of this audit during the audit period.

1.7. ICP Data

No ICPs are currently supplied by Contact's CTCX code. It is anticipated that five HHR ICPs, one NHH ICP, and two residual load ICPs will initially be supplied.

1.8. Authorisation Received

Contact provided a letter of authorisation.

1.9. Scope of Audit

Contact intends to begin trading at NHH and HHR ICPs using its new CTCX code. Simply Energy will act as an agent for switching, registry, and electricity supplied processes. AMS and EMS will provide HHR data collection, and EMS will provide NHH and HHR reconciliation submissions. Wells will provide readings for any manually read NHH ICPs, and AMS, FCLM, Arc and Smartco will provide AMI data as MEPs.

Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a "material" change to any certified facilities, processes or procedures then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Contact Energy so that it can be supplied to the Electricity Authority to satisfy the requirements of Clause 8(1).

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

The table below shows the tasks under clause 15.38 of part 15, for which Contact requires certification for its CTCX code. This table also lists those agents who assist with these tasks:

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs [1]
(a) - Maintaining registry information and performing customer and embedded generator switching	Simply Energy EMS for part of clause 11 of schedule 11.1 only (registry discrepancies)	
(b) - Gathering and storing raw meter data	Wells – NHH AMS – HHR EMS - HHR	AMS Arc Innovations (Arc) Smartco The Lines Company (FCLM)

[1] All ICPs initially supplied will have AMS or AMCI meters, but I have listed all MEPs used by Simply Energy.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs [1]
(c)(iii) - Creation and management of HHR & NHH volume information	EMS	
(d)(i) - Calculation of ICP days	EMS	
(d)(ii) - delivery of electricity supplied information under clause 15.7	EMS – NHH EMS – HHR	
(d)(iii) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8		
(e) - Provision of submission information for reconciliation	EMS – NHH EMS – HHR	

The functions conducted by Simply Energy were audited at their premises in Wellington on 22 and 23 July 2019, and the NHH functions performed by EMS were checked at EMS' offices on 22 July 2019. EMS and AMS' HHR agent audit reports and Wells' NHH agent report will be submitted with this report.

The MEPs provide AMI data as MEPs not agents, and the MEPs are subject to their own audit regime.

1.10. Summary of previous audit

This is the first audit for Contact's CTCX code.

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, and the registry validation process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy will manage information completeness and accuracy as an agent, using the same processes as the existing trader codes that they manage. The processes were reviewed and observed during Simply Energy's audit.

Registry updates are processed directly on the registry using the web interface, and SalesForce is updated at the same time. Registry acknowledgement files are not imported into SalesForce and are reviewed manually to identify any failed updates or errors.

Simply Energy ensures that registry information is complete and accurate using its SalesForce dashboards. SalesForce is also used to manage workflows and ensure that registry updates are processed on time.

The SalesForce Trader Audit Dashboard checks information for each trader code against the registry and is worked through prior to business day four and 13. The checks include:

- **Don't know ANZSIC codes**, which are checked and updated;
- **ICPs with estimated switch in reads with an AMI meter**, which are checked to determine whether a read renegotiation is required;
- **ICPs that need to be set up in MADRAS,** which identifies new connections and switch ins needing to be created in MADRAS, which are then checked and updated;
- **Unmetered load on metered ICPs**, which are checked to ensure that any unmetered load is recorded and reconciled, as part of this process the unmetered load details are checked on the registry;
- **ICPs with "inactive new connection in progress status"**, are checked daily, the dashboard shows whether the MEP has accepted an MEP nomination; and
- **ICPs with "inactive" status**, which are checked periodically to ensure they are genuinely disconnected.

The SalesForce NHH meter registry dashboard detects changes to metering details on the registry, and prompts users to check the data and process updates as necessary.

The SalesForce Operations Registry Update screen alerts users when data maintained by another participant changes on the registry, including distributor and MEP populated data. The user then checks and updates SalesForce and DataHub as necessary and ensures that changes flow through to MADRAS. This process identifies any changes to unmetered load, NSP, or distributed generation details.

The SalesForce MADRAS dashboard identifies inconsistencies with the data sent to EMS, and prior to submissions, ICP level data is compared to the registry to identify any discrepancies. These pre-submission checks are discussed in **section 12.3**.

A monthly report is run to check ICPs with an installation type of B or G. The ICPs are checked to determine whether generation is present, compliant metering is installed, and profiles are correct.

During Simply Energy's audit, I saw evidence that discrepancies found during these checks for other trader codes are investigated and steps are taken to resolve the issue. The workflow system allows notes to be recorded, so that review of anomalies can be completed efficiently.

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 during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy will manage information completeness and accuracy as an agent. This area is discussed in a number of sections in this report and compliance is confirmed.

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

Transmissions and transfers of data related to metering information between reconciliation participants or their agents, for the purposes of the Code, must be carried out electronically using systems that ensure the security and integrity of the data transmitted and received.

Audit observation

During Simply Energy's audit on 22 and 23 July 2019 I confirmed NHH read and HHR read and volume transmission processes and checked examples for existing trader codes managed by Simply Energy.

NHH

Agents and MEPs provide NHH data to Simply Energy as shown on the table below:

MEP or agent	Transfer method	Transfer frequency
AMS	SFTP	Daily
Arc	SFTP	Monthly
FCLM	SFTP	Weekly on Tuesday
Smartco	SFTP	Daily
Wells	SFTP	Daily

Arc reads are imported directly into DataHub. All other NHH readings are loaded into the Datawarehouse, then exported to DataHub. DataHub's validated (published) reads are exported back to the Datawarehouse, and then to AXOS billing engine and EMS' MADRAS. Changed reads are provided to EMS at least weekly, and switch event, meter change, and NSP change readings are all provided to EMS by Simply Energy.

To confirm the process to receive NHH reads, I reviewed documentation on the file movement process and traced a diverse sample of readings for 16 ICPs from the source files to the validated readings in DataHub for other trader codes. The sample included reads provided by each provider.

The process to transfer reads to EMS was discussed with Simply Energy and EMS. I also traced a sample of readings for historic estimate calculations to DataHub and switch event readings on the registry, to confirm that the validated readings were received and applied by EMS for other trader codes.

HHR

EMS receives HHR readings and volumes as an agent and provides a copy to Simply Energy via SFTP. A SQL job collects the file and uploads it to DataHub and the Datawarehouse.

Audit commentary

Simply Energy will use the same data transmission processes as the existing trader codes that they manage. The processes were reviewed during Simply Energy's audit.

NHH readings

AMI read data from MEPs is transmitted to Simply Energy via SFTP, which ensures the security and integrity of the data. The sample of readings checked for other trader codes managed by Simply Energy were consistent.

HHR readings

Compliance is with this clause is recorded in EMS' agent report.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

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

Audit observation

A complete audit trail was checked for all data gathering, validation and processing functions. I 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

Compliance is recorded in EMS' audit report.

A complete audit trail was viewed for all data gathering, validation and processing functions for Simply Energy. The logs of these activities in DataHub and SalesForce 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 Contact's current terms and conditions.

Audit commentary

Contact's terms and conditions include arrangements for meter access and shutdowns and these clauses extend to Contact's agents and are mirrored in agreements with MEPs.

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 Contact's current terms and conditions and discussed compliance with these clauses.

Audit commentary

Contact'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.

Audit commentary

No error or loss compensation arrangements are expected for ICPs supplied by CTCX.

Audit outcome

Compliant

2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B)

Code reference

Clause 11.15B

Code related audit information

A trader must at all times ensure that the terms of each contract between a customer and a trader permit:

- *the Authority to assign the rights and obligations of the trader under the contract to another trader if the trader commits an event of default under paragraph (a) or (b) or (f) or (h) of clause 14.41 (clause 11.15B(1)(a)); and*
- *the terms of the assigned contract to be amended on such an assignment to—*
- *the standard terms that the recipient trader would normally have offered to the customer immediately before the event of default occurred (clause 11.15B(1)(b)(i)); or*
- *such other terms that are more advantageous to the customer than the standard terms, as the recipient trader and the Authority agree (clause 11.15B(1)(b)(ii); and*
- *the terms of the assigned contract to be amended on such an assignment to include a minimum term in respect of which the customer must pay an amount for cancelling the contract before the expiry of the minimum term (clause 11.15B(1)(c)); and*

- *the trader to provide information about the customer to the Authority and for the Authority to provide the information to another trader if required under Schedule 11.5 (clause 11.15B(1)(d));* ***and***
- *the trader to assign the rights and obligations of the trader to another trader (clause 11.15B(1)(e)).*

The terms specified in subclause (1) must be expressed to be for the benefit of the Authority for the purposes of the Contracts (Privacy) Act 1982, and not be able to be amended without the consent of the Authority (clause 11.15B(2)).

Audit observation

I reviewed Contact's current terms and conditions.

Audit commentary

Contact's terms and conditions contain the appropriate clauses to achieve compliance with this requirement.

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

The new connection process was examined in detail to evaluate the strength of controls during Simply Energy's audit on 22 and 23 July 2019. The new connection job template was viewed.

Audit commentary

Simply Energy will manage new connections as an agent, using the same processes as the existing trader codes that they manage. The processes were reviewed and observed during Simply Energy's audit.

The new connection process is compliant and contains a step for Simply Energy to accept responsibility. I checked 17 new connections for existing trader codes managed by Simply Energy, and in all cases, Simply Energy had accepted responsibility. Responsibility is accepted for each individual ICP, and there are no blanket responsibility acceptances in place.

Simply Energy is notified that a new connection is required by the customer or an embedded network. The notification is normally via email. Simply Energy adds the ICP to a workflow and raises a job for the new connection to be completed. The workflow is monitored to ensure that the job is completed, and Simply Energy's system and the registry are updated.

Simply Energy's new connection process requires an MEP to be selected. If FCLM will be the MEP, Simply Energy completes the nomination when the ICP is moved to "inactive new connection in progress status". For other MEPs, Simply Energy will claim the ICP with "active" status and nominates the MEP as soon as paperwork is received.

The new connection job template states that certification is required and requests a load bank be taken if the site is not connected. Staff monitor this and contact the MEP if certification is not received promptly.

Audit outcome

Compliant

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

Code reference

Clause 10.33(1)

Code related audit information

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

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

Audit observation

The new connection process was examined in detail to evaluate the strength of controls during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

If a temporary electrical connection is required, Simply Energy will ensure that the ICP is claimed so that they are recorded as responsible for the ICP in the registry.

Audit outcome

Compliant

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

Code reference

Clause 10.33A(1)

Code related audit information

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

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

Audit observation

The new connection and reconnection processes were examined in detail to evaluate the strength of controls during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Active ICPs without metering

Simply Energy requires all active ICPs to have metering or unmetered load details recorded. All ICPs initially supplied are expected to be metered, apart from two residual load ICPs.

New connections

Simply Energy's new connection job template states that certification is required and requests a load bank be taken if the site is not connected. Staff monitor this and contact the MEP if certification is not received promptly.

Reconnections

Where an uncertified meter requires reconnection, Simply Energy attempts to arrange a meter replacement or recertification at the time of reconnection.

Bridged meters

Simply Energy does not intend to bridge meters to reconnect.

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 during Simply Energy's audit on 22 and 23 July 2019.

Arrangements with networks were discussed.

Audit commentary

Networks must be recorded in SalesForce before ICPs can be assigned to them.

Contact demonstrated the existence of either a UoSA or other trading arrangement for all relevant networks.

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 during Simply Energy's audit on 22 and 23 July 2019.

Arrangements with MEPs were discussed with Contact.

Audit commentary

MEPs must be recorded in SalesForce before ICPs can be assigned to them.

All ICPs initially supplied will have NGCM or AMCI as the MEP, and compliant arrangements are in place.

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

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

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

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

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

Audit observation

The new connections process was examined in detail during Simply Energy's audit on 22 and 23 July 2019, to confirm compliance with the requirement to obtain ICP identifiers for points of connection to local or embedded networks.

Audit commentary

This requirement is well understood and managed by Simply Energy. The process is detailed in **section 2.9**.

Audit outcome

Compliant

3.2. Providing registry information (Clause 11.7(2))

Code reference

Clause 11.7(2)

Code related audit information

Each trader must provide information to the registry manager about each ICP at which it trades electricity in accordance with Schedule 11.1.

Audit observation

The new connection, MEP nomination, and switching processes were examined in detail during Simply Energy's audit on 22 and 23 July 2019.

This clause links directly to **sections 3.3** and **3.5** below.

Audit commentary

The new connection process is detailed in **sections 2.9**. The process in place ensures that trader information is populated as required by this clause.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

The process to manage status updates, MEP nominations, and trader updates was reviewed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Status updates, MEP nominations, and trader updates will be processed manually on the registry as discussed in **section 2.1**.

Simply Energy is aware of the requirement to ensure that status and trader updates are processed within five business days of the event date and intends to process updates on time.

- Status updates will be processed as soon as possible after the contractor provides confirmation of the reconnection or disconnection.
- Trader updates will be processed as soon as possible after the values for each attribute are confirmed.
- MEP nominations are intended to be processed when a service order is raised for the MEP.

Simply Energy's processes are compliant, and the timeliness and accuracy of registry updates for CTCX will be checked during the first audit after go-live.

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)):*
    - *arrange for a final interrogation to take place prior to or upon meter removal (clause 11.18(3)(a)); and*
    - *advise the MEP responsible for the metering installation of the decommissioning (clause 11.18(3)(b)).*

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

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

Audit observation

Retailers responsibility to nominate and record the MEP in the registry

The new connection process was reviewed during Simply Energy's audit on 22 and 23 July 2019.

ICP decommissioning

The process for the decommissioning of ICPs was examined during Simply Energy's audit on 22 and 23 July 2019. A diverse sample of ten decommissioned ICPs for existing trader codes managed by Simply Energy were checked to prove the process and confirm the controls in place.

Audit commentary

Retailers responsibility to nominate and record the MEP in the registry

MEP nominations will be processed as required and rejected MEP nominations will be monitored and acted upon. All ICPs will be required to have metering or unmetered load details recorded.

ICP decommissioning

ICPs that are vacant and active, or inactive will be maintained in Simply Energy's systems.

When an ICP is decommissioned, an attempt will be made to read the meter at the time of removal. If this is not possible then the last actual meter reading will be used. Simply Energy will also advise the MEP responsible that a site is to be decommissioned, and usually request the meter is removed.

A diverse sample of ten decommissioned ICPs for existing trader codes managed by Simply Energy were checked. If the ICP was metered, the MEP was notified, and a final reading was attempted.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

The new connection process was examined in detail during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

The new connection process is described in detail in **section 2.9**.

Status updates, MEP nominations, and trader updates will be processed manually on the registry as discussed in **section 2.1**. Simply Energy is aware of the requirement to ensure that status and trader updates are processed within five business days of the event date and intends to process updates on time.

- Status updates will be processed as soon as possible after the contractor provides confirmation of the reconnection/disconnection details and date.
- Trader updates will be processed as soon as possible after the values for each attribute are confirmed.
- MEP nominations are intended to be processed when a service order is raised for the MEP.

Simply Energy's processes are compliant, and timeliness and accuracy of registry updates for CTCX will be checked during the first audit after go-live.

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 ANZISC codes was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

ANZSIC codes will be checked on switch in, and T99 series ANZSIC codes are identified and corrected as discussed in **section 2.1**.

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

The process to manage unmetered load was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

It is anticipated two unmetered residual load ICPs will initially be supplied, and the other ICPs will be metered.

Any new unmetered load or changes to existing unmetered load will be identified through the validation checks described in **section 2.1**.

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

The process to manage ICPs at "active" status was examined during Simply Energy's audit on 22 and 23 July 2019. The new connection process was examined in detail and is discussed in **section 2.9**, and the timeliness of status updates to "active" is discussed in **sections 3.3** and **3.5**.

Audit commentary

Simply Energy will manage "active" statuses as an agent, using the same processes as the existing trader codes that they manage. The processes were reviewed and observed during Simply Energy's audit.

Simply Energy will change the status of an ICP to "active" once confirmation has been received from a contractor. The status will be updated on the registry using the web interface.

Before being given an "active" status the trader is required to ensure that the ICP has only one customer, embedded generator, or direct purchaser; and that the electricity consumed is quantified by a metering installation(s) or other Authority approved method of calculation. SalesForce will not allow more than one party per ICP nor will it allow an ICP to become "active" without either a meter or a dummy meter (for unmetered load).

Simply Energy's processes are compliant, and the accuracy of registry updates for CTCX will be checked during the first audit after go-live.

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 process to manage ICPs at "inactive" status was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy will manage "inactive" statuses as an agent, using the same processes as the existing trader codes that they manage. The processes were reviewed and observed during Simply Energy's audit.

Simply Energy will change the status of an ICP to "inactive" once confirmation has been received from a contractor. The status will be updated on the registry using the web interface.

An end date is entered in DataHub and MADRAS when ICPs are disconnected, and an import error will be created for any reads received after disconnection. Simply Energy reviews any reads received after the end date and takes corrective action if consumption while disconnected is identified. This includes confirming whether the consumption is genuine and updating the ICP status and data stream dates if necessary.

Simply Energy request that Wells stop manually reading meters once they become disconnected, but do not routinely ask the MEPs to stop reading ICPs. I note that reads are often unable to be obtained by the MEPs where the meter is disconnected.

Simply Energy's processes are compliant, and the accuracy of registry updates for CTCX will be checked during the first audit after go-live.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

Whilst this is a Distributor's code obligation, I checked the processes to manage any queries received from Distributors in relation to ICPs at the "new" or "ready" status for more than 24 months, and monitor all ICPs at "new" or "ready" status during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

New connections are monitored on the SalesForce dashboard for each trader code, as described in **section 2.1**. Workflows are used to manage the new connections process. Open jobs are monitored, and the registry is updated as soon as paperwork is received. Late paperwork is followed up.

Simply Energy had not received any recent emails from distributors requesting information on ICPs which have been at "new" or "ready" status for more than two years for the trader codes they currently manage. These will be handled on a case by case basis as they are received.

I recommend that Simply Energy periodically runs a registry list to identify ICPs that have been assigned to their codes in error and advises the distributor.

Description	Recommendation	Audited party comment	Remedial action
Monitoring of new and ready ICPs	I recommend Simply Energy run a registry list six monthly with: Status: 000 or 999 Proposed trader: CTCX End date: the day the report is run and compare the results to the ICPs Simply Energy expects to be at "new" or "ready" status. Any ICPs which appear to have been assigned in error can then be checked with the distributor.	Simply Energy will implement a monthly process to review ICPs in this status of 000 or 999 from September 2019.	Identified

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

Code reference

Clause 2 Schedule 11.3

Code related audit information

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

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

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

Audit observation

Switching will be completed by Simply Energy as an agent. The switch gain process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy's processes are compliant with the requirements of the Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

Transfer switch type will be applied where a customer is transferring between retailers at an address. This information is collected as part of the customer application process.

The timeliness and accuracy of transfer NTs for CTCX will be checked during the first audit after go-live.

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

- *providing a request for withdrawal of the switch in accordance with clause 17 (clause 3(c) of Schedule 11.3).*

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

Audit observation

Switching will be completed by Simply Energy as an agent. The AN process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

AN timeliness

The timeliness of AN files will be monitored using the switch breach report.

AN content

The process to determine AN codes is automated. AD (advanced metering) is applied if an AMI meter is present, and AA (accept and acknowledge) is applied if AMI metering is not present. The CO (contracted customer) and MP (metering is pre-paid) codes do not apply for Simply Energy's existing codes. I recommend Simply Energy review the hierarchy and add the MU (unmetered supply) and OC (occupied premises) codes, so that they are applied in preference to AA to ensure future compliance.

Description	Recommendation	Audited party comment	Remedial action
AN response code hierarchy	Consider adding the MU (unmetered supply) and OC (occupied premises) codes to the AN code hierarchy to ensure that AA (accept and acknowledge) is only used when no other codes are applicable.	SE will implement the MU unmetered supply code to our automated process by 30 November 2019. The OC code solution is more complex to automate and would need further investigation.	Identified Investigating

Simply Energy intends to apply the gaining trader's requested date and ensure that all event dates are no more than 10 business days after notification, and at least 50% of event dates are no more than five business days after notification.

The timeliness and accuracy of transfer ANs for CTCX will be checked during the first audit after go-live.

Audit outcome

Compliant

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

If the losing trader provides information to the registry manager in accordance with clause 3(a) of Schedule 11.3 with the required information, no later than 5 business days after the event date, the losing trader must complete the switch by:

- *providing event date to the registry manager (clause 5(a)); and*

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

Audit observation

Switching will be completed by Simply Energy as an agent. CS processes were examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

CS timeliness

The timeliness of CS files will be monitored using the SalesForce dashboard and the switch breach report.

CS content

CS files will be created using an ETL (extract, transform, load process) from information contained in SalesForce and DataHub.

Average daily consumption is calculated in DataHub as the consumption between the most recent validated read and the previous validated read, where the previous validated read is at least 21 days before the most recent validated read. If there is insufficient history to calculate the average daily consumption using readings, it will be estimated at 55 kWh per day. These values are noted as Forward Estimate Daily kWh in Sales Force. In the switch loss process this estimated value is manually copied to the Average Daily kWh field for inclusion in the CS file. If left blank, the CS file is populated with average daily consumption of zero.

The registry functional specification requires estimated daily kWh to be based on the average daily consumption for the last read to read period. Where the last read to read period is less than 21 days, the average daily consumption recorded will not be calculated according to the registry functional specification. The Authority's audit update memo on 18/06/19 explained that the average daily consumption calculation may change as part of the switch process review, which is due to be completed in 2020 or 2021. In the meantime, the calculation method could lead to non-compliance and I recommend it is reviewed:

Description	Recommendation	Audited party comment	Remedial action
CS estimated daily kWh	Consider reviewing the estimated daily consumption calculation to ensure compliance with the registry functional specification.	Enhancements to support the reporting of the average daily consumption to be based on the last two actual reads will be investigated and likely added by 30 November 2019.	Investigating

The timeliness and accuracy of transfer CS files for CTCX will be checked during the first audit after go-live.

Audit outcome

Compliant

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

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

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

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

If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within 4 calendar months of the registry manager giving the gaining trader written notice of having received information about the switch completion, provide to the losing trader a changed switch event meter reading supported by 2 validated meter readings.

- *the losing trader can choose not to accept the reading however must advise the gaining trader no later than 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

Switching will be completed by Simply Energy as an agent. The process for the management of read requests was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Timeliness of RR and AC files

Read changes will be tracked using the SalesForce dashboard.

Content of RR and AC files

In cases where CTCX is the gaining trader and they dispute the switch meter reading because the validated meter reading or permanent estimate provided by the losing trader differs by 200 kWh or more, Simply Energy will attempt to negotiate a changed switch meter reading which is supported by validated meter readings.

Advanced meters which have switched in on an estimate reading will be checked against AMI data to determine whether a read change is required, as discussed in **section 2.1**. Other read changes will be identified through the read validation processes discussed in **section 9.5**.

Read changes will be processed manually, and DataHub will be manually updated to ensure that it reflects the outcome of the read renegotiation process.

Simply Energy's processes are compliant, and compliance for transfer RR and AC files for CTCX will be assessed during the first audit after go-live.

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

Switching will be completed by Simply Energy as an agent. The process for the management of read change requests and acknowledgements where Clause 6(2) and (3) of Schedule 11.3 applies was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy is aware of the requirements of Clause 6(2) and (3) of Schedule 11.3 and has processes in place to ensure compliance.

Simply Energy's processes are compliant, and compliance for CTCX will be assessed during the first audit after go-live.

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

Switching will be completed by Simply Energy as an agent. Processes to manage disputes were discussed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy intends to resolve any disputed reads through the RR process where possible.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

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

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

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

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

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

Audit observation

Switching will be completed by Simply Energy as an agent. The switch gain process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy's processes are compliant with the requirements of the Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

Switch move will be applied where a new customer is moving into an address. This information is collected as part of the customer application process.

Simply Energy's processes are compliant, and the timeliness and accuracy of switch move NTs for CTCX will be checked during the first audit after go-live.

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

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

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

Audit observation

Switching will be completed by Simply Energy as an agent. The AN process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

AN timeliness

The timeliness of AN files will be monitored using the switch breach report.

AN content

As discussed in **section 4.2**, the process to determine AN codes has been automated during the audit period, and I recommend Simply Energy review the hierarchy and add the MU (unmetered supply) and OC (occupied premises) codes.

Simply Energy intends to apply the gaining trader's requested date and ensure that all event dates are no more than 10 business days after notification and are not before the gaining trader's requested date.

Simply Energy's processes are compliant, and the timeliness and accuracy of switch move ANs for CTCX will be checked during the first audit after go-live.

Audit outcome

Compliant

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

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

Audit observation

Switching will be completed by Simply Energy as an agent. The switch completion process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy intends to complete switches as required by this clause.

Simply Energy's processes are compliant, and the timeliness and accuracy of switch completion for CTCX will be checked during the first audit after go-live.

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

Switching will be completed by Simply Energy as an agent. CS processes were examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

CS timeliness

The timeliness of CS files will be monitored using the SalesForce dashboard and the switch breach report.

CS content

CS files will be created using an ETL (extract, transform, load process) from information contained in SalesForce and DataHub.

As discussed in **section 4.3**, average daily consumption is calculated in DataHub as the consumption between the most recent validated read and the previous validated read, where the previous validated read is at least 21 days before the most recent validated read. If there is insufficient history to calculate the average daily consumption using readings, it will be estimated at 55 kWh per day.

The timeliness and accuracy of switch move CS files for CTCX will be checked during the first audit after go-live.

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 four calendar months of the date the registry manager gives the gaining trader written notice of having received information about the switch completion, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*
- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader (clause 12(3)(b)).*

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

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 12(2A)(b));*
- *the gaining trader no later than 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

Switching will be completed by Simply Energy as an agent. The process for the management of read requests was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Timeliness of RR and AC files

Read changes will be tracked using the SalesForce dashboard.

Content of RR and AC files

In cases where CTCX is the gaining trader and they dispute the switch meter reading because the validated meter reading or permanent estimate provided by the losing trader differs by 200 kWh or more, Simply Energy will attempt to negotiate a changed switch meter reading which is supported by validated meter readings.

Advanced meters which have switched in on an estimate reading will be checked against AMI data to determine whether a read change is required, as discussed in **section 2.1**. Other read changes will be identified through the read validation processes discussed in **section 9.5**.

Read changes will be processed manually, and DataHub will be manually updated to ensure that it reflects the outcome of the read renegotiation process.

Simply Energy's processes are compliant, and compliance for switch move RR and AC files for CTCX will be assessed during the first audit after go-live.

Audit outcome

Compliant

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

Code reference

Clause 14 Schedule 11.3

Code related audit information

The gaining trader switch process applies when a trader has an arrangement with a customer or embedded generator to trade electricity at an ICP at which the losing trader trades electricity with the customer or embedded generator, and one of the following applies at the ICP:

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

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

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

Switching will be completed by Simply Energy as an agent. The switch gain process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy's processes are compliant with the requirements of the Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

HH switch type will be applied for ICPs with metering category 3 or above.

Simply Energy's processes are compliant, and the timeliness and accuracy of HH NTs for CTCX will be checked during the first audit after go-live.

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

Switching will be completed by Simply Energy as an agent. The AN process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

AN timeliness

The timeliness of AN files will be monitored using the switch breach report.

AN content

The process to determine AN codes is automated, as described in **section 4.2**.

Simply Energy's processes are compliant, and the timeliness and accuracy of HH ANs for CTCX will be checked during the first audit after go-live.

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

Switching will be completed by Simply Energy as an agent. CS processes were examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

CS timeliness

The timeliness of CS files will be monitored using the SalesForce dashboard and the switch breach report.

CS content

CS files will be created using an ETL (extract, transform, load process) from information contained in Sales Force. The content of 14 HH CS files for existing trader codes managed by Simply Energy was checked and confirmed to be correct.

The timeliness and accuracy of HH CS files for CTCX will be checked during the first audit after go-live.

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)):*
  - *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*
  - *the withdrawal advisory code published by the Authority (clause 18(c)(ii))*
- *within five business days after receiving notice from the registry manager of a switch, the trader receiving the withdrawal must advise the registry manager that the switch withdrawal request is accepted or rejected. A switch withdrawal request must not become effective until accepted by the trader who received the withdrawal (clause 18(d))*
- *on receipt of a rejection notice from the registry manager, in accordance with clause 18(d), a trader may re-submit the switch withdrawal request for an ICP in accordance with clause 18(c). All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request (clause 18(e))*

- *if the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within two business days after receiving notice from the registry manager in accordance with clause 22(b), the losing trader must comply with clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16 (clause 18(f))*

Audit observation

Switching will be completed by Simply Energy as an agent. The switch withdrawal process was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

NW and AW timeliness

NWs are issued as soon as possible after Simply Energy has confirmed that a withdrawal is required.

AWs will be tracked using the SalesForce dashboard.

NW and AW content

NWs and AWs will be created manually, and withdrawal and response codes will be applied based on the best information available. The content of 30 NW files for existing trader codes managed by Simply Energy were checked and confirmed to be correct. A sample of 11 AW rejections for existing trader codes managed by Simply Energy were checked and confirmed to be validly rejected.

The timeliness and accuracy of NWs and AWs for CTCX will be checked during the first audit after go-live.

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

The meter reading process in relation to meter reads for switching purposes was examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

The meter readings used in the switching process will be validated meter readings or permanent estimates.

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

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

CTCX is not expected to be switch save protected.

Win-back processes were examined to determine whether they are compliant.

Audit commentary

Contact will complete any win-backs and will exclude all switch save protected traders from win-back processes until after the switch is completed.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

The trader must adhere to the process for maintaining shared unmetered load as outlined in clause 11.14:

> *11.14(2) - The distributor must give written notice to the traders responsible for the ICPs across which the unmetered load is shared, of the ICP identifiers of the ICPs.*
>
> *11.14(3) - A trader who receives such a notification from a distributor must give written notice to the distributor if it wishes to add or omit any ICP from the ICPs across which unmetered load is to be shared.*
>
> *11.14(4) - A distributor who receives such a notification of changes from the trader under (3) must give written notice to the registry manager and each trader responsible for any of the ICPs across which the unmetered load is shared.*
>
> *11.14(5) - If a distributor becomes aware of any change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must give written notice to all traders affected by that change as soon as practicable after that change or decommissioning.*
>
> *11.14(6) - Each trader who receives such a notification must, as soon as practicable after receiving the notification, adjust the unmetered load information for each ICP in the list for which it is responsible to ensure that the entire shared unmetered load is shared equally across each ICP.*
>
> *11.14(7) - A trader must take responsibility for shared unmetered load assigned to an ICP for which the trader becomes responsible as a result of a switch in accordance with Part 11.*
>
> *11.14(8) - A trader must not relinquish responsibility for shared unmetered load assigned to an ICP if there would then be no ICPs left across which that load could be shared.*
>
> *11.14(9) - A trader can change the status of an ICP across which the unmetered load is shared to inactive status, as referred to in clause 19 of Schedule 11.1. In that case, the trader is not required to give written notice to the distributor of the change. The amount of electricity attributable to that ICP becomes UFE.*

Audit observation

The process to identify and monitor unmetered load was discussed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Any new unmetered load will be identified through the validation checks described in **section 2.1**.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (2)(b)

Code related audit information

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

Audit observation

The process to identify all active ICPs with unmetered load over 3,000 kWh per annum was discussed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy is aware of the unmetered load threshold and will install metering where an ICP breaches or is likely to breach the threshold.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The process to identify all active ICPs with unmetered load over 3,000 kWh per annum was discussed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy is aware of the unmetered load threshold and will install metering where an ICP breaches or is likely to breach the threshold.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

Processes for distributed unmetered load were discussed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy is aware of the requirements for DUML, including tracking of load changes as discussed in the Authority's memo dated 18/06/19. If any DUML load switches in, they intend to settle the load as NHH.

Audit outcome

Compliant

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

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

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

Audit observation

Processes to ensure metering is installed and unmetered load is quantified, management of distributed generation, and processes for bridged meters were examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Metering installations installed

Simply Energy's new connection process includes a check that metering is installed before energisation occurs, and that any unmetered load is quantified. Subtraction is not used to determine submission information.

Generation

As discussed in **section 2.1**, a monthly report will be run to check ICPs with an installation type of B or G. The ICPs will be checked to determine whether generation is present, compliant metering is installed, and profiles are correct.

Bridged meters

Bridging of meters is against Simply Energy's policies.

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

The NSP table was reviewed to confirm whether CTCX is responsible for any GIPs.

Audit commentary

Examination of the NSP table found CTCX is not responsible for any GIPs.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

Audit observation

Processes to ensure that ICPs with profiles requiring certified control devices have appropriate certification were reviewed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy will manage application of profiles requiring certification of control devices as an agent, using the same processes as the existing trader codes that they manage. The processes were reviewed and observed during Simply Energy's audit.

Processes are in place to ensure ICPs meet the certification requirements for their profile. I checked all ICPs with profiles requiring control device certification for existing trader codes managed by Simply Energy and found compliance.

CTCX is initially expected to use the HHR, RPS and DFP profiles, which do not require certification of control devices.

Audit outcome

Compliant

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

Processes relating to defective metering were examined during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Defective meters will be identified through the meter reading validation process, or from information provided by the meter reader, agent, the MEP, or the customer. Upon identifying a possible defective meter, a field services job will be raised to investigate and resolve the defect and a consumption correction is processed if necessary.

I reviewed Simply Energy's validation processes in **sections 9.5** and **9.6**, and found they are sufficient to detect potential defective meters.

Corrections are discussed in **sections 8.1** and **8.2**.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.2

Code related audit information

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

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

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

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

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

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

2(6) – The interrogation systems must record:

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

Audit observation

The data collection process was examined in **section 2.3.**

Data collection and clock synchronisation processes were reviewed as part of the agent and MEP audits. Agents and MEPs are to advise Simply Energy of clock synchronisation discrepancies and adjustments.

Audit commentary

Information used to determine volume information is provided to Simply Energy by MEPs and agents, and compliance has been demonstrated as part of their MEP and agent audits.

Arc, AMS, Smartco, Metrix, WEL Networks and FCLM all provide clock synchronisation events either as part of their meter event logs, or as a separate email when events occur. These notifications are reviewed by Simply Energy.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

The data collection process was examined.

Processes to provide meter condition information were reviewed as part of Wells' agent audit. Simply Energy's processes to manage meter condition information were reviewed during Simply Energy's audit on 22 and 23 July 2019.

Processes for customer and photo reads were reviewed during Simply Energy's audit on 22 and 23 July 2019, and a sample of customer and photo readings were checked in DataHub and MADRAS.

Audit commentary

Simply Energy will manage readings as an agent, using the same processes as the existing trader codes that they manage. The processes were reviewed and observed during Simply Energy's audit.

Derivation of volume and labelling of readings

Review of a diverse sample of meter readings for ten ICPs read by Wells for existing trader codes managed by Simply Energy confirmed they are appropriately labelled, and validated readings are derived from meter readings.

Checks conducted when reads are taken

Wells' data collection processes were reviewed as part of their agent audit and found to be compliant.

Wells provides information on meter condition along with the daily reads, and a monthly summary of ICPs with missing and broken seals. Meter condition information is loaded into SalesForce and analysed along with no read events, and any phone calls or emails from Wells are actioned as they are received.

Customer and photo readings

Simply Energy accepts customer readings and photo readings.

If Wells obtains a customer reading, a no read is recorded, and the customer reading is provided as a note in the reading file.

Customers may also provide customer and photo readings directly to Simply Energy. Customer supplied readings are entered into DataHub as customer actual if they have been validated against a set of readings from another source, and customer estimate if they have not been validated against a set of actual readings from another source. I checked a sample of six customer supplied readings for existing trader codes managed by Simply Energy and found that they had been entered with the correct read type.

Customer actual reads are "published" and sent to EMS for use in the historic estimate calculations, and customer estimate reads are not published and are not expected to be sent to EMS. During Simply Energy's audit on 22 and 23 July 2019, I found two examples where a customer estimate reading in DataHub had been sent to EMS and was used in the historic estimate process. Simply Energy is investigating to determine why the customer estimate readings were sent, and I recommend that customer reads should either not be allowed for CTCX or checked in MADRAS until this issue is resolved.

Description	Recommendation	Audited party comment	Remedial action
Customer readings	Until the issue with customer readings being sent to MADRAS in error is resolved, either: 1. Do not allow customer readings for CTCX; or 2. Check customer readings are correctly handled in MADRAS if they are used.	The issue was specific to two ICPs where the reads are provided by customers in a remote area of New Zealand. The issue was related to accepting the reads and not a systemic issue.	Identified

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 during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

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 except in the case of a switch event meter reading which applies to the end of the day prior to the event date for the losing trader and the start of the event date for the gaining trader as required by this clause.

All AMI systems have a clock synchronisation function, which ensures correct time-stamping. Manual readings taken by Wells are applied correctly.

Application of reads was reviewed as part of the historic estimate checks in **section 12.11** and found to be compliant. Processes for switch event readings were reviewed in **sections 4.3**, **4.4**, **4.10** and **4.11** and found to be compliant.

I checked the process for NHH to HHR meter changes in relation to this clause. If an upgrade to HHR submission coincides with a meter change, Simply Energy's process is to "remove" the NHH meter from the registry and from relevant databases on the day before the meter change, and then the ICP becomes HHR all day on the day of the meter change, with the trading periods up until the meter change being populated with zeros. Whilst this process achieves accuracy, non-compliance exists because the NHH meter reading is not applied at 2400 on the day of the reading.

Similarly, if an ICP is downgraded, it is treated as HHR until the end of the day the HHR meter is removed with zeros populated for any trading periods after the meter removal. The NHH period begins with the opening read on the NHH meter the following day.

If an upgrade does not coincide with a meter change, the swap between NHH and HHR aligns with the actual volume data.

Compliance is recorded because upgrades and downgrades are not anticipated for the ICPs which will initially be supplied.

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

The process to manage missed reads was examined during Simply Energy's audit on 22 and 23 July 2019, including review of reports used in the process.

Audit commentary

Simply Energy will manage read attainment as an agent, using the same processes as the existing trader codes that they manage. The processes were reviewed and observed during Simply Energy's audit.

When a customer is switching out, staff check whether the ICP has an actual read and if possible, try to obtain one.

Simply Energy monitors read attainment monthly, using the following reports:

- **NRE (no read event) report**
  This report shows ICPs that have received no read event information from Simply Energy's agents. The events are reviewed, and appropriate action is taken. For instance, if the no read event indicates the property is demolished this is queried with the property manager or customer, and if the event indicates a key is required for access Simply Energy contacts the customer to arrange a key.
- **Read KPI report**
  The read KPI report shows AMI meters which have not been read for more than 35 days, and meters which have not been read for more than 80 and 120 days. The report is reviewed, and appropriate action is taken to resolve the issues preventing read attainment with the MEP or customer. The report is prioritised by last actual read date.

If AMI readings cannot be obtained, and the MEP has advised that the communication issues will be difficult to resolve, Simply Energy will move the ICP to a manual Wells reading route.

One NHH ICP will initially be supplied. The ICP is currently supplied by another trader code managed by Simply Energy and is receiving regular AMI readings. Read attainment compliance is likely to be achieved for this ICP.

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 Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

As discussed in **section 6.8**, Simply Energy will manage read attainment as an agent, using the same processes as the existing trader codes that they manage. There are processes in place to monitor read attainment and attempt to resolve issues preventing read attainment.

Copies of the reports to the market administrator for November 2018 to March 2019 for existing trader codes managed by Simply Energy were reviewed and found to be compliant. I viewed emails to confirm that the reports were sent within 20 business days after the end of the month.

One NHH ICP will initially be supplied. The ICP is currently supplied by another trader code managed by Simply Energy and is receiving regular AMI readings. Read attainment compliance is likely to be achieved for this ICP.

Audit outcome

Compliant

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

A report is to be sent to the Authority providing the percentage, in relation to each NSP, for which consumption information has been collected no later than 20 business days after the end of each month.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 9(1).

Audit observation

The meter reading process was examined Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

As discussed in **section 6.8**, Simply Energy will manage read attainment as an agent, using the same processes as the existing trader codes that they manage. There are processes in place to monitor read attainment and attempt to resolve issues preventing read attainment.

One NHH ICP will initially be supplied. The ICP is currently supplied by another trader code managed by Simply Energy and is receiving regular AMI readings. Read attainment compliance is likely to be achieved for this ICP.

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

NHH readings are provided by MEPs and agents. The data interrogation log requirements were reviewed as part of their agent and MEP audits.

Audit commentary

Compliance with this clause has been demonstrated by Wells and the MEPs as part of their own audits.

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 EMS.

Audit commentary

Compliance with this clause has been demonstrated by EMS as part of their own audit.

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 EMS.

Audit commentary

Compliance with this clause has been demonstrated by EMS as part of their own audit.

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 EMS.

Audit commentary

Compliance with this clause has been demonstrated by EMS as part of their own audit.

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 ±0.1% (±2 seconds).

Audit observation

Trading period duration was reviewed as part of the MEP audits, and EMS' agent audit.

Audit commentary

Compliance with this clause has been demonstrated by the MEPs and EMS and is discussed in their audit reports.

Audit outcome

Compliant

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

Code reference

Clause 18 Schedule 15.2

Code related audit information

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

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

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

Audit observation

Processes to archive and store raw meter data were reviewed during the agent and MEP audits. I checked that meter readings cannot be modified without an audit trail and viewed archived meter reading data.

Processes for archiving and storage were reviewed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

The agents and MEPs are compliant with these clauses.

When this data reaches Simply Energy's systems, the level of security is also robust and unauthorised personnel cannot access raw meter data. I checked that data is retained by Simply Energy for at least 48 months, by viewing raw meter data for 2013 and 2014 for existing trader codes.

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.

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

CTCX will not deal with any non-metering information.

Audit commentary

CTCX will not deal with any non-metering information.

If non-metering information is required in the future, it will be collected and archived in accordance with this clause.

Audit outcome

Not applicable

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

> *19(1)(a) - confirm the original meter reading by carrying out another meter reading*
>
> *19(1)(b) - replace the original meter reading the second meter reading (even if the second meter reading is at a different date)*
>
> *19(1A) if a reconciliation participant detects errors while validating non half hour meter readings, but the reconciliation participant cannot confirm the original meter reading or replace it with a meter reading from another interrogation, the reconciliation participant must:*

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

Audit observation

Processes for correction of NHH meter readings were reviewed during Simply Energy's audit on 22 and 23 July 2019. Examples of corrections for existing trader codes managed by Simply Energy were reviewed, including checking that updated consumption data flowed through to revision reconciliation submissions.

Audit commentary

Simply Energy will manage NHH corrections as an agent, using the same processes as the existing trader codes that Simply Energy manages. The processes were reviewed and observed during Simply Energy's audit.

Where errors are detected during validation of non-half hour meter readings, a check reading is performed, or AMI data is checked. If an original meter reading cannot be confirmed it is invalidated and an estimated reading is applied for billing. Estimated readings are ignored by the historic estimate calculation process; if no validated actual readings are available, forward estimate will be created.

If a reading is invalidated before being sent to MADRAS, the read will not be sent. If the reading is invalidated after being sent to MADRAS it will be updated using the read replacement process discussed in **section 12.3**.

Defective meters

Where a meter is found to be stopped or faulty it will be replaced. Estimated consumption during the stopped or faulty period will be calculated based on the consumption of the replacement meter, or historic consumption prior to the stopped or faulty period. The consumption is typically added as an estimated meter removal read.

Incorrect multipliers

Multipliers are stored in SalesForce and DataHub based on the metering information held on the registry and are applied to the meter readings. One multiplier correction for an existing trader code managed by Simply Energy was reviewed. The meter with the incorrect multiplier was replaced, and all

meter readings were moved to a new meter with the correct multiplier listed. I confirmed that the correction flowed through to reconciliation submissions.

Inactive consumption

An end date is entered in DataHub and MADRAS when ICPs are disconnected, and an import error will be created for any reads received after disconnection. Simply Energy reviews any reads received after the end date and takes corrective action if consumption while disconnected is identified. This includes confirming whether the consumption is genuine and updating the ICP status and data stream dates if necessary.

Simply Energy request that Wells stop manually reading meters once they become disconnected, but do not routinely ask the MEPs to stop reading ICPs. I note that reads are often unable to be obtained by the MEPs where the meter is disconnected.

Bridged meters

Bridging of meters is against Simply Energy's policies. A correction process is followed in the unlikely event bridging occurs. Estimated consumption during the bridged period will be calculated based on the consumption on the replacement meter, or historic consumption prior to the stopped or faulty period. A pseudo meter will be created to record the estimated consumption, so that it is included in reconciliation submissions.

Transposed meters

If transposed meters are identified, they will be corrected using the read renegotiation process if switch reads are affected, or by moving the readings to the correct registers.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

> *19(2)(a) - if the relevant metering installation has a check meter or data storage device, substitute the original meter reading with data from the check meter or data storage device; or*
>
> *19(2)(b) - if the relevant metering installation does not have a check meter or data storage device, substitute the original meter reading with data from another period provided:*
>
> *(i) The total of all substituted intervals matches the total consumption recorded on a meter, if available; and*
>
> *(ii) The reconciliation participant considers the pattern of consumption to be materially similar to the period in error*

Audit observation

HHR corrections will be completed by EMS. EMS' processes were reviewed during their agent audit.

Audit commentary

Compliance with this clause has been demonstrated by EMS as part of their agent audit. Estimated data will be replaced with actual data if it becomes available at a later date.

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

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

Audit observation

Error and loss compensation arrangements were discussed.

Audit commentary

No error or loss compensation arrangements are expected for ICPs supplied by CTCX.

Audit outcome

Compliant

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

Code reference

Clause 19(4) and (5) Schedule 15.2

Code related audit information

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

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

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

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

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

19(5)(d)- the half-hour metering data or the non half hour metering data corrected or altered, and the total difference in volume of such corrected or altered data

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

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

Audit observation

Corrections are discussed in **sections 8.1** and **8.2**, which confirmed that raw meter data is not overwritten as part of the correction process. Audit trails are discussed in **section 2.4**.

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

Audit commentary

Compliance with this clause has been demonstrated by the MEPs and agents.

Compliant journals for NHH and HHR corrections are created as required by this clause. Corrections to meter reading data are processed in DataHub, and each user has an individual operator identifier which is recorded in the audit trail.

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

Processes to identify readings were reviewed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Readings will be clearly identified as required by this clause.

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

Submission data will be prepared by EMS. HHR submission processes were reviewed in EMS' agent audit, and NHH submission processes were reviewed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Compliance with this clause has been demonstrated by EMS as part of their own audit.

Review of NHH submission data confirmed that it is based on readings as required by this clause.

Audit outcome

Compliant

9.3. Meter data used to derive volume information (Clause 3(5) Schedule 15.2)

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

All meter data that is used to derive volume information must not be rounded or truncated from the stored data from the metering installation.

Audit observation

Submission data was reviewed in **sections 11** and **12**, to confirm that volume was based on readings as required.

NHH data is collected by MEPs and agents, and HHR data is collected by EMS. Compliance was assessed as part of their MEP and agent audits.

Audit commentary

The MEPs and agents retain the raw, unrounded data. Compliance with this clause has been demonstrated by Simply Energy's agents and MEPs as part of their own audits.

Manual meter readings do not record decimal places and are not rounded or truncated on import into DataHub. AMI data is truncated on import into DataHub, readings are recorded to zero decimal places, but the raw meter data is not truncated.

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

HHR estimates will be prepared by EMS, and their compliance was assessed as part of their agent audit.

Audit commentary

Compliance with this clause has been demonstrated by EMS as part of their agent audit. Estimates are based on historic data and meet the reasonable endeavours requirements. Estimated data is replaced with actual data if it becomes available at a later date.

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 0 values.*

Audit observation

I reviewed and observed the NHH data validation process during Simply Energy's audit on 22 and 23 July 2019, including checking a sample of reports used for validations and exceptions identified through the validation process for existing trader codes managed by Simply Energy. I reviewed the DataHub Online help document.

Audit commentary

Simply Energy will manage data validation as an agent, using the same processes as the existing trader codes that they manage. Data validation for NHH metering information occurs at multiple levels and was reviewed and observed during Simply Energy's audit.

Meter reader validation

As discussed in **section 6.6**, Wells validate readings and check meter condition when readings are obtained.

For AMI meters, the MEPs have access to meter event and clock synchronisation information that may identify issues with meter accuracy. The process to receive and review this information is discussed in **sections 6.5** and **9.6**.

Read import and billing validation

Simply Energy's NHH validation process is compliant. The import process checks:

- the reading relates to a valid ICP meter and register; and
- the content of each field is valid and not corrupted, including dates and times.

The meter reading validations check:

- the reading date falls between the data stream's opening and closing date;
- the reading is consistent with the number of dials recorded;
- whether the reading is higher than previous reads, which identifies negative consumption;
- whether the meter has rolled over; and
- consumption between reads against the estimated forward daily kWh to identify high, low, or zero consumption.

Any ICPs which fail the validation are individually reviewed. The user can manually force a read to pass validation so that it is published and available for reconciliation and billing or leave the read as unvalidated.

Following read validation, billing validation takes place. The billing validations compare invoices for each ICP to the previous month's invoice to identify any anomalies. Any significant variations are investigated.

NHH reads sent to EMS for reconciliation are also validated by EMS, and exceptions are sent to Simply Energy for investigation and resolution. Simply Energy also validates EMS' records against their own. These validation checks are discussed in **section 12.3**.

Consumption on inactive ICPs

When an ICP becomes disconnected the data stream is end dated in DataHub. If reads are received after the data stream has ended, they will become read import errors. These read import errors are reviewed to determine whether the consumption is genuine, and the ICP status and data stream dates are updated if necessary.

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

HHR data validation is completed by EMS and the process was assessed as part of their agent audit.

I reviewed and observed the AMI data validation processes during Simply Energy's audit on 22 and 23 July 2019, including checking a sample of data validations and meter event logs for existing trader codes managed by Simply Energy. Process documentation was reviewed.

Audit commentary

HHR

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

AMI

AMI data is validated using the NHH validation process described in **section 9.5**.

Meter event log information is received via SFTP. Arc and FCLM only provide meter event information if events that could affect meter accuracy occur.

The data is currently moved to a folder on Simply Energy's network and manually reviewed. I walked through the review process and viewed procedural documentation to confirm this.

Simply Energy is investigating automation of the review processes and is refining their review procedures. Events that could affect meter accuracy occur rarely, and if found are followed up with the MEP.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

CTCX is not responsible for any NSPs. No information is provided to the pricing manager in accordance with this clause.

Audit outcome

Not applicable

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

Code reference

Clause 13.137

Code related audit information

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

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

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

CTCX is not responsible for any NSPs. No information is provided to the pricing manager in accordance with this clause.

Audit outcome

Not applicable

10.3. Loss adjustment of HHR metering information (Clause 13.138)

Code reference

Clause 13.138

Code related audit information

The generator must provide the information required by clauses 13.136 and 13.137,

13.138(1)(a)- adjusted for losses (if any) relative to the grid injection point or, for embedded generators the grid exit point, at which it offered the electricity

13.138(1)(b)- in the manner and form that the pricing manager stipulates

13.138(1)(c)- by 0500 hours on a trading day for each trading period of the previous trading day.

The generator must provide the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of the generator's volume information.

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

CTCX is not responsible for any NSPs. No information is provided to the pricing manager in accordance with this clause.

Audit outcome

Not applicable

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

Code reference

Clause 13.140

Code related audit information

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

CTCX is not responsible for any NSPs. No information is provided to the pricing manager in accordance with this clause.

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

Unless an embedded generator has given a notification in respect of the point of connection under clause 15.3, a trader must give notice to the reconciliation manager if it is to commence or cease trading electricity at a point of connection using a profile with a profile code other than HHR, RPS, UML, EG1, or PV1 at least five business days before commencing or ceasing trader.

The notification must comply with any procedures or requirements specified by the reconciliation manager.

Audit observation

Processes to create buying and selling notifications and trading notifications were reviewed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy do not routinely create trading notifications. They are normally created where EMS advises they are required because file has failed the reconciliation manager's file checker process.

Notifications are only created where Simply Energy begins or ceases trading for all ICPs on an NSP, not where they begin or cease trading using a profile other than HHR, RPS, UML, EG1, or PV1 at an NSP. This is because there is no facility to enter a profile into a trading notification on the reconciliation manager portal.

CTCX is initially expected to use the HHR and RPS profiles, which do not require trading notifications, and the DFP profile, which does require a trading notification. Trading notifications will be provided when CTCX begins trading at each NSP.

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 during Simply Energy's audit on 22 and 23 July 2019, by checking AV110 and GR100 files for existing trader codes managed by Simply Energy.

Audit commentary

ICP days calculation

ICP days calculations are conducted by EMS. Validation will occur to ensure MADRAS has correct start and end dates as discussed in **section 12.3**.

Review of ICP days for ten NHH NSPs and ten HHR NSPs for existing trader codes managed by Simply Energy confirmed that AV110 submission data was calculated correctly.

ICP days comparison

During Simply Energy's audit on 22 and 23 July 2019, I compared the AV110 ICP days submissions and the RM return file (GR100) for all available revisions for 18 months for existing trader codes managed by Simply Energy. A small number of differences in ICP days were caused by SB (embedded network residual load) ICPs. Simply Energy does not submit volumes or ICP days for these ICPs as agreed with the Reconciliation Manager; the volumes are calculated by the Reconciliation Manager and included in the GR040 (balanced HHR and NHH data report). The remaining ICP days differences related to timing of switch events, and backdated embedded network start dates.

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

The process for the calculation of electricity supplied was examined during Simply Energy's audit on 22 and 23 July 2019, by checking AV120 and GR130 files for existing trader codes managed by Simply Energy.

Audit commentary

Electricity supplied calculation

Electricity supplied calculations are conducted by Simply Energy. Review of 15 NSPs for existing trader codes managed by Simply Energy confirmed that AV120 submission data was calculated correctly and consistent with invoice information.

Electricity supplied versus submission information

GR130 reports for January 2017 onwards for existing trader codes managed by Simply Energy were reviewed to confirm whether the relationship between billed and submitted data appears reasonable. Simply Energy's own analysis of billed versus submitted data was also reviewed. No issues with the electricity supplied submissions were identified.

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

EMS will prepare the HHR submissions and compliance was assessed as part of their agent audit.

Simply Energy processes for reviewing the GR090 ICP missing reports were discussed and reviewed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

HHR aggregates and volumes submissions will contain submission information, not electricity supplied information as specified under clause 15.8. Although the reports will be consistent with the Reconciliation Manager Functional Specification, this is recorded as non-compliance below.

Simply Energy will review the GR090 ICP missing reports promptly and investigate and correct any data discrepancies.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 11.4 With: Clause 15.8 From: 21-Aug-19 To: 21-Aug-19	HHR aggregates file does not contain electricity supplied information. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating
Low	The issue relating to content of the aggregates file is an error in the code, EMS will provide submission information as expected.

Actions taken to resolve the issue	Completion date	Remedial action status
Simply Energy agrees that there is an error in the code and that submission information will be provided as expected.	26/08/2019	Identified
Preventative actions taken to ensure no further issues will occur	**Completion date**	

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

Daylight saving adjustment is conducted by EMS and was reviewed as part of their agent audit.

Audit commentary

EMS uses the "trading period run on" technique for daylight saving adjustment. Compliance was confirmed in their agent audit.

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

The process to create submissions was reviewed during Simply Energy's audit on 22 and 23 July 2019. A sample of submission data was checked for existing trader codes managed by Simply Energy, and correction processes were checked in **sections 8.1** and **8.2**.

Audit commentary

NHH

EMS prepares AV080 submissions as Simply Energy's agent. NHH data is reviewed prior to submission as discussed in **section 12.3**.

A sample of submission data was checked for existing trader codes managed by Simply Energy:

- inactive consumption is only reported if the ICP is returned to active status for the consumption period, no inactive consumption was identified during the audit period;

- vacant ICPs are recorded against a vacant holding account, and consumption reported in the same way as for any active ICP;
- five ICPs with unmetered load were checked and confirmed to be reported correctly; and
- ten ICPs with distributed generation were checked and confirmed to be reported correctly.

Submission data excludes unmetered volumes for SB (embedded network residual load) ICPs as agreed with the Reconciliation Manager. Volumes for these ICPs are calculated by the Reconciliation Manager and included in the GR040 (balanced HHR and NHH data report).

HHR

HHR submissions were reviewed in **section 11.4**, and data is validated prior to submission as discussed in **section 12.3.**

Audit outcome

Compliant

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

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

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

Audit observation

Processes to ensure that information used to aggregate the reconciliation reports is complete and accurate were reviewed during Simply Energy's audit on 22 and 23 July 2019, including review of reports used for validation, the "MADRAS Reconciliation" procedure, and the "how to extract HHR data for billing" procedure.

The processes to review submissions include:

- validation of Simply Energy data as discussed in **section 2.1**;
- reconciliation of Simply Energy and EMS data; and
- review of the reconciliation reports prior to submission.

The process for aggregating the AV080 was examined by a walk-through of the controls in place, and by checking aggregation for existing trader codes managed by Simply Energy.

Audit commentary

Simply Energy data checks

Checks to confirm that Simply Energy's data is complete and accurate are discussed in **section 2.1**.

Simply Energy to EMS consistency checks

The processes currently in place for existing trader codes managed by Simply Energy were reviewed, and I confirmed that these processes will also apply for CTCX.

Updated reads are sent to EMS at least weekly. Each month, Simply Energy asks EMS to clear the reads recorded and resupplies the "published" (validated) readings.

Data consistency checks between EMS' MADRAS records, and Simply Energy's SalesForce and registry list file records are completed prior to business day 4 and business day 13.

- NHH reads sent to EMS for reconciliation are validated by EMS, and exceptions are sent to Simply Energy for investigation and resolution. Exceptions most commonly occur where EMS has not received the switch reading due to timing, but a subsequent AMI reading has been received, or the read is lower than the previous reading held in MADRAS.
- EMS provides a file with ICP and meter details including start and end dates every second month, which is reconciled to a date ranged registry list file. Any differences are investigated and resolved.
- The GR100 ICP comparison reports received from the reconciliation manager are reviewed, to determine the reasons for any differences and whether data needs to be updated on the registry or in SalesForce, DataHub and MADRAS. The review focusses on the upcoming 14-month revisions and works backwards towards the upcoming 7 and 3-month revisions.
- The MADRAS Dashboard in SalesForce identifies ICPs that require action or need to be checked, including:
    - all accepted RRs which are checked to ensure that EMS and DataHub have the correct reads recorded;
    - ICPs with an unexpected profile for the NSP or configuration;
    - ICPs that are end dated but still have CTCX recorded as the retailer;
    - ICPs where the start read is inconsistent with the start date;
    - ICPs supplied by an alternate reader with no MADRAS end date;
    - missing work flows, where status changes have occurred, and the data has not yet been sent to MADRAS; this includes ICPs that are end dated but do not have a final reading; and
    - profile GXP checks, which detect unexpected use of the GXP profile.

Review of submission data created by EMS

The processes currently in place for existing trader codes managed by Simply Energy were reviewed, and I confirmed that these processes will also apply for CTCX.

EMS provides all submission data to Simply Energy for review prior to submission to the reconciliation manager.

I walked through the process to review submission data using the Power Query Validation tool. The tool compares the total submission volume (HHR volumes + NHH volumes + DFP volumes from the GR040) against the billed data and previous submissions for reasonableness.

ICP and meter register level AV080 submission data is provided and reviewed to identify any ICPs with unusually high or low consumption. These outliers are checked to make sure the data is accurate.

Aggregation of submission data

The aggregation and zeroing of submission data was reviewed for existing trader codes managed by Simply Energy. The GR100 ICP comparison reports are reviewed, to confirm whether any aggregation lines require zero values to be inserted. Requests for zero lines to be inserted are provided to EMS. Only one NHH ICP will be supplied initially and it is not anticipated that zeroing will be required for CTCX in the near future.

Aggregation of the AV090 and AV140 was checked in **section 11.4.** Aggregation of the AV080 reports was checked for 50 aggregation lines for existing trader codes managed by Simply Energy and found to be accurate.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

The participant (if a grid owner) must deliver to the reconciliation manager for each point of connection for all of its GXPs, the following:

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.9(a))*
- *revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period (clause 15.9(b)).*

Audit observation

The NSP table was reviewed.

Audit commentary

CTCX is not a grid owner; compliance was not assessed.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

The NSP table was reviewed.

Audit commentary

CTCX is not a grid connected or embedded network owner; compliance was not assessed.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

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

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

Audit observation

The NSP table was reviewed.

Audit commentary

CTCX is not a grid connected generator; compliance was not assessed.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

If the reconciliation participant has submitted information and then subsequently obtained more accurate information, the participant must provide the most accurate information available to the reconciliation manager or participant, as the case may be, at the next available opportunity for submission (in accordance with clauses 15.20A, 15.27, and 15.28).

Audit observation

The revision process was checked during the audit to confirm compliance.

Audit commentary

All estimates will be replaced with actual data where it is available, and EMS will submit revisions as Contact's agent.

Some historic estimate is incorrectly labelled as forward estimate by MADRAS where seasonal adjusted shape values (SASV) published by the reconciliation manager are not available for part or all of a read to read period. This affects ICPs with the PV1, SBL, SFI and UNM profiles, and is not expected to affect CTCX because the RPS profile will be used for NHH submissions.

As recorded in **section 6.6**, if customer readings are sent to MADRAS, they will be applied as validated readings in the historic estimate calculation regardless of whether they are validated. I have recommended that customer reads should either not be allowed for CTCX or checked in MADRAS until this issue is resolved.

Audit outcome

Compliant

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

Code reference

Clause 4 Schedule 15.2

Code related audit information

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

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

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

Audit observation

Processes for permanence of meter readings were discussed during Simply Energy's audit on 22 and 23 July 2019.

Audit commentary

Simply Energy does not have a process to replace estimates with permanent estimates by revision 14, but very few ICPs are unread by revision 14. When Simply Energy receives a read for a long-term unread site, a permanent estimate read is provided to EMS to ensure that all consumption is captured and reported for reconciliation within the 14-month period.

One NHH ICP will initially be supplied. The ICP is currently supplied by another trader code managed by Simply Energy and is receiving regular AMI readings. The other metered ICPs which will be initially supplied have HHR metering and are expected to receive regular readings.

Some historic estimate is incorrectly labelled as forward estimate by MADRAS where seasonal adjusted shape values (SASV) published by the reconciliation manager are not available for part or all of a read to read period. This affects ICPs with the PV1, SBL, SFI and UNM profiles, and is not expected to affect CTCX because the RPS profile will be used for NHH submissions.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

- *half hour volume information for the total metered quantity of electricity for each ICP notified in accordance with clause 11.7(2) for which there is a category 3 or higher metering installation*

(clause 2(1)(a))for each ICP about which information is provided under clause 11.7(2) for which there is a category 1 or category 2 metering installation (clause 2(1)(b)):

a) any half hour volume information for the ICP; or

b) any non half hour volumes information calculated under clauses 4 to 6 (as applicable).

c) unmetered load quantities for each ICP that has unmetered load associated with it derived from the quantity recorded in the registry against the relevant ICP and the number of days in the period, the distributed unmetered load database, or other sources of relevant information. (clause 2(1)(c))

- *to create non half hour submission information a reconciliation participant must only use information that is dependent on a control device if (clause 2(2)):*
  - *a) the certification of the control device is recorded in the registry; or*
  - *b) the metering installation in which the control device is location has interim certification.*
- *to create submission information for a point of connection the reconciliation participant must apply to the raw meter data (clause 2(3):*
  - *a) for each ICP, the compensation factor that is recorded in the registry (clause 2(3)(a))*
  - *b) for each NSP the compensation factor that is recorded in the metering installations most recent certification report. (clause 2(3)(b))*

Audit observation

Processes to ensure that information used to aggregate the reconciliation reports is consistent with the registry were reviewed **in section 2.1**. Aggregation and content of reconciliation submissions was reviewed.

Audit commentary

Compliance with this clause was assessed:

- all active ICPs with meter category 3 or higher have submission type HHR;
- no ICPs with unmetered load are expected to be supplied initially, except two residual load ICPs and processes are in place for the submission of unmetered load;
- no profiles requiring a certified control device will be used;
- no loss or compensation arrangements are required; and
- aggregation of the AV080 reports is discussed in **section 12.3**.

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

A sample of AV080 submissions for existing trader codes managed by Simply Energy were reviewed, to confirm that historic estimates are included and identified.

Permanence of meter readings is reviewed in **section 12.8**. The methodology to create forward estimates is reviewed in **section 12.12**.

Audit commentary

Where SASV profiles published by the reconciliation manager are not available for part or all of a read to read period, historic consumption is labelled as FSE (forward standard estimate) even though it is based on actual readings. For some profiles, shape values are never published, including PV1, SBL, SFI and UNM. This issue is not expected to affect CTCX because the RPS profile will be used for NHH submissions.

Submission information was reviewed for existing trader codes managed by Simply Energy to confirm that forward and historic estimates are included.

Audit outcome

Compliant

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

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

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

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

Audit observation

Simply Energy provided examples of historic estimate calculations for existing trader codes managed by Simply Energy, which were reviewed during their audit on 22 and 23 July 2019. The calculation checks included confirming that readings and Seasonal Adjusted Shape Values (SASV) were applied correctly.

Audit commentary

Historic estimate is prepared by EMS using the MADRAS system, and the process is the same for all the Simply Energy managed codes. The table below shows that all scenarios which had occurred are compliant.

Simply Energy downloads seasonal adjusted shape values (SASV) from the RM portal after each allocation and provides them to EMS via SFTP. EMS collects the files and loads them into MADRAS. I saw evidence of the data transfer and confirmed that the correct SASV were applied as part of the historic estimate calculation review.

Customer and photo reads are used to calculate historic estimate if they are recorded as customer actual readings, and this read status is only applied where a reading has been validated against a set of validated readings from another source. This is discussed further in **section 6.6** and **12.7**. Compliance is recorded in this section because MADRAS' process is correct.

Test	Scenario	Test expectation	Result
a	ICP becomes Active part way through a month	Consumption is only calculated for the Active portion of the month.	Compliant
b	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Compliant
c	ICP become Inactive then Active again within a month.	Consumption is only calculated for the Active portion of the month.	Has not occurred
d	ICP switches in part way through a month on an estimated switch reading	Consumption is calculated to include the 1st day of responsibility.	Compliant
e	ICP switches out part way through a month on an estimated switch reading	Consumption is calculated to include the last day of responsibility.	Compliant
f	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	Has not occurred
g	Continuous ICP with a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
h	Continuous ICP without a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
i	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Has not occurred
j	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Compliant
k	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Compliant
l	Network/GXP/Connection (POC) alters partway through a month.	Consumption is separated and calculated for the separate portions of where it is to be reconciled to.	Compliant
m	ICP with a customer read during the month	Customer reads are not used to calculate historic estimate unless they are validated.	Compliant
n	ICP with a photo read during the month	Photo reads are not used to calculate historic estimate unless they are validated.	Compliant
o	ICP has a meter with a multiplier greater than 1	The multiplier is applied correctly	Compliant

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

The process to create forward estimates was reviewed during Simply Energy's audit on 22 and 23 July 2019, and with EMS on 22 July 2019.

Audit commentary

EMS's forward standard estimate process is based on a "straight line" methodology, and where no historical information is available a "forward default" estimate of 20 kWh per day is used. The process for forward standard estimate calculation was checked and confirmed as accurate.

The 20 kWh per day value is set at system level in MADRAS and cannot be modified for individual ICPs. Simply Energy investigated whether this could be changed following the 2018 audit and decided not to make any changes.

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

Simply Energy's profile change process was reviewed during their audit on 22 and 23 July 2019. A sample of changes for existing trader codes managed by Simply Energy were checked.

Audit commentary

Simply Energy's profile change process requires an actual reading or permanent estimate on the day of the profile change.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

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

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

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

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

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

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

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

Audit observation

Processes to ensure that information used to aggregate the reconciliation reports are consistent with the registry were reviewed in **section 2.1**.

Aggregation of NHH volumes is discussed in **section 12.3**, aggregation of HHR volumes is discussed in **section 11.4**.

Audit commentary

Submission information will be provided to the reconciliation manager in the appropriate format.

I reviewed submission data for existing trader codes managed by Simply Energy and confirmed it is aggregated to the following level:

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

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

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

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

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

Audit observation

I reviewed the rounding of data on the AV080, AV090 and AV140 and reports for existing trader codes managed by Simply Energy as part of the aggregation checks.

Audit commentary

AV080 NHH volumes data is rounded to two decimal places.

Review of nine AV090 HHR volumes and AV140 HHR aggregates reports confirmed that submission data are rounded to zero decimal places.

Audit outcome

Compliant

13.3. Historical estimate reporting to RM (Clause 10 Schedule 15.3)

Code reference

Clause 10 Schedule 15.3

Code related audit information

By 1600 hours on the 13th business day of each reconciliation period the reconciliation participant must report to the reconciliation manager the proportion of historical estimates per NSP contained within its non half hour submission information.

The proportion of submission information per NSP that is comprised of historical estimates must (unless exceptional circumstances exist) be:

- *at least 80% for revised data provided at the month 3 revision (clause 10(3)(a))*
- *at least 90% for revised data provided at the month 7 revision (clause 10(3)(b))*
- *100% for revised data provided at the month 14 revision (clause 10(3)(c)).*

Audit observation

I checked whether compliance with this clause was likely to be achieved.

Audit commentary

Read attainment processes are discussed in **section 6.8**. One NHH ICP will initially be supplied. The ICP is currently supplied by another trader code managed by Simply Energy and is receiving regular AMI readings. Historic estimate proportion compliance is likely to be achieved for this ICP.

The historic estimate attainment requirements may not be met because some historic estimate may be incorrectly labelled as forward estimate as described in **section 12.10**. This issue is not expected to affect CTCX because the RPS profile will be used for NHH submissions.

Audit outcome

Compliant

CONCLUSION

Contact intends to begin trading at NHH and HHR ICPs using its new CTCX code. It is anticipated that five HHR ICPs, one NHH ICP, and two residual load ICPs will initially be supplied.

Simply Energy will act as an agent for switching, registry, and electricity supplied processes. **AMS** and **EMS** will provide HHR data collection, and **EMS** will provide NHH and HHR reconciliation submissions. **Wells** will provide readings for any manually read NHH ICPs, and AMS, FCLM, Arc and Smartco will provide AMI data as MEPs.

Clause 8(1) of Schedule 15.1 requires that if a reconciliation participant intends to make a "material" change to any certified facilities, processes or procedures then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Contact Energy so that it can be supplied to the Electricity Authority to satisfy the requirements of Clause 8(1).

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

The functions conducted by Simply Energy were audited at their premises in Wellington on 22 and 23 July 2019, and the NHH functions performed by EMS were checked at EMS' offices on 22 July 2019. EMS and AMS' HHR agent audit reports and Wells' NHH agent report will be submitted with this report.

There was only one issue identified. The HHR aggregates file will contain submission information in accordance with the functional specification, not electricity supplied information.

The four recommendations raised are detailed in the table below.

Subject	Section	Description	Recommendation
ICPs at new or ready status for 24 months	3.10	Monitoring of new and ready ICPs	I recommend Simply Energy run a registry list six monthly with: Status: 000 or 999 Proposed trader: CTCX End date: the day the report is run and compare the results to the ICPs Simply Energy expects to be at "new" or "ready" status. Any ICPs which appear to have been assigned in error can then be checked with the distributor.
Losing trader response to switch request and event dates - standard switch	4.2	AN response code hierarchy	Consider adding the MU (unmetered supply) and OC (occupied premises) codes to the AN code hierarchy to ensure that AA (accept and acknowledge) is only used when no other codes are applicable.
Losing trader must provide final information - standard switch	4.3	CS estimated daily kWh	Consider reviewing the estimated daily consumption calculation to ensure compliance with the registry functional specification.
Derivation of meter readings	6.6	Customer readings	Until the issue with customer readings being sent to MADRAS in error is resolved, either: 1. Do not allow customer readings for CTCX; or 2. Check customer readings are correctly handled in MADRAS if they are used.

PARTICIPANT RESPONSE

Simply Energy has reviewed this report and their comments are contained within its body.