

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

For

KEA ENERGY

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EXECUTIVE SUMMARY

This reconciliation participant audit was performed at the request of Kea Energy (KEAE) to support their application for certification, in accordance with clauses 4 of Schedule 15.1 of The Code. This is their initial audit.

The company switched the first ICP on 4 September 2017. At the time of this audit Kea Energy was trading seven ICPs (3 HHR and 4 NHH). Five ICPs are category 1 metering installations, one ICP is category 2, and one ICP is category 3. Kea Energy is planning to have no more than 100 HHR ICPs, which will offer a very attractive business proposition.

The company is supervised by JC Consulting, who as the agent, provides reconciliation services as described in the body of this document. Kea Energy uses services of another agent, EDMI, which provide reads for one non-AMI HHR meter. The EDMI audit report dated 15th May 2017 is attached to this document. It was reviewed as a part of this audit. Chrissy Burrows, of Momentous Consulting Ltd, acts as a consultant.

During this audit we identified two non-compliances of minor nature. In our view none of the matters have resulted in material reconciliation issues.

The relevant clauses audited are as required by the Guidelines for Reconciliation Participants Audits, V7.0 issued by the Electricity Authority.

Based on Table 1 of the Guidelines for Reconciliation Participant audit, the next audit should happen within next 24 months. Our recommendation is to conduct the audit within 12 months because Kea Energy is new to the market.

We thank the Kea Energy staff for their full and complete cooperation in this audit.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Changes to registry information	3.3	10 of Schedule 11.1	Registry update for ICP 0006638236RNE5F was late by one day	Moderate	Low	2	Identified
Gaining trader informs the registry of switch request – switch move	4.7	9 of Schedule 11.3	Incorrect switch type for ICP 0007146307RND2D. It should be transfer switch not switch move	Strong	Low	1	Identified
Future Risk Rating						3	

Future risk rating	1-2	3-6	7-9	10-19	20-24	25+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

Based on Table 1 of the Guidelines for Reconciliation Participant audit, the next audit should happen within next 24 months. Our recommendation is to conduct the audit within 12 months because Kea Energy is new to the market.

RECOMMENDATIONS

Subject	Section	Description	Recommendation
		Nil	

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

Kea Energy does not have any exemptions granted to exempt them from compliance with all or any of the clauses.

Audit commentary

Kea Energy did not apply for any exemptions. We checked the Electricity Authority website and confirm that there are no exemptions in place.

1.2. Structure of Organisation

The company consist of two directors, Campbell and Naomi McMath.

1.3. Persons involved in this audit

Name	Title	Company
Campbell McMath	Director	Kea Energy
Naomi McMath	Director	Kea Energy
Chrissy Burrows	Consultant	Momentous Consulting
John Candy	Director	JC Consulting
Ewa Glowacka	Electricity Authority Approved Auditor	TEG & Associates

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

Kea Energy uses JC Consulting and EDMI (reading on non-AMI HHR meter)) as its agent.

Audit commentary

JC Consulting assists Kea Energy for tasks listed in section 1.9.

1.5. Hardware and Software

Switching is conducted via web interface. The company does not use any specific software to perform tasks covered by this audit. The majority of tasks covered by clause 15.38 of Part 15 are contracted out to the agent, JC Consulting.

1.6. Breaches or Breach Allegations

Kea Energy has had no breach allegations recorded during the period covered by this audit.

1.7. ICP Data

Kea Energy provided a list of all ICP's as of the 7th November 2017. The total number of ICPs in the registry was 7.

Metering Category	(7/11/2017)	(date)	(date)
1	5		
2	1		
3	1		
4			
5			
9			

Status	Number of ICPs (7/11/2017)	Number of ICPs (date)	Number of ICPs (date)
Active (2,0)	7		
Inactive – new connection in progress (1,12)	0		
Inactive – electrically disconnected vacant property (1,4)	0		
Inactive – electrically disconnected remotely by AMI meter (1,7)	0		
Inactive – electrically disconnected at pole fuse (1,8)	0		
Inactive – electrically disconnected due to meter disconnected (1,9)	0		
Inactive – electrically disconnected at	0		

meter box fuse (1,10)			
Inactive – electrically disconnected at meter box switch (1,11)	0		
Inactive – electrically disconnected ready for decommissioning (1,6)	0		
Inactive – reconciled elsewhere (1,5)	0		
Decommissioned (3)	0		

1.8. Authorisation Received

Kea Energy provided a letter of authorisation to TEG & Associates permitting the collection of data from other parties for matters directly related to the audit.

1.9. Scope of Audit

This reconciliation participant audit was performed at the request of Kea Energy to encompass the Authority's' request for annual audits as required by clause 4, of Schedule 15.1, of the Code to assure compliance with the Electricity Industry Participation Code 2010. The audit was carried out at 28 Constellation Drive, Auckland on 17 November 2017.

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

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents providing services	MEPs providing services
(1)(a) - Maintaining registry information and performing customer and embedded generator switching		
(1)(b) – Gathering and storing raw meter data	EDMI (one non-AMI HHR meter)	FCLM
(1)(c)(iii) - Creation and management of HHR and NHH volume information	JC Consulting	
(1)(d) – Calculation of ICP days, monthly kWh information of half hour metered ICPs, and electricity supplied	JC Consulting	

(e) – Provision of submission information for reconciliation	JC Consulting	
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1.10. Summary of previous audit

This is the initial audit for Kea Energy as a reconciliation participant. There is no history of a previous audit for this participant.

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

Review of the LIS file showed that all information provided to the registry is correct. We review process of validation of the switch event read to meet compliance with clause 6 of Schedule 11.3. JC consulting

Audit commentary

Kea Energy is committed to having complete and accurate data in the registry. The company has adopted a proactive attitude to monitor information provided to the market. JC Consulting submits revision files to the reconciliation manager.

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 to the reconciliation manager were reviewed and assessed throughout this document. JC Consulting acts as the agent to Kea Energy to provide information in accordance with Part 15.

Audit commentary

Compliance with this area was discussed in a number of relevant sections. Compliance was confirmed with regards to timeliness and format of information in accordance with Part 15. JC Consulting uses a submission check spreadsheet to validate information before sending to the reconciliation manager. The company also runs a weekly registry event report and switch breach reporting tool.

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

Metering data is downloaded by JC Consulting via FileZilla from the FCLM server. Kea Energy also received metering data from EDM I for one meter, which is non-AMI HHR meter. Data is provided via password protected email. The exchange of data between Kea Energy and JC Consulting is via Dropbox. Transfer of reconciliation files is via RM portal.

Audit commentary

During the audit we viewed the download of metering data from the FCLM server. JC Consulting provided copies of emails from EDM I. Photo readings taken by Kea Energy are stored in Dropbox.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

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

Audit observation

JC Consulting retains an audit trail of downloading data via FileZilla. Any photos of meter readings taken by Kea Energy have data and time stamp. They are downloaded by Kea Energy to Dropbox, which records the date and time of activity and the operator identifier. The audit trail of reconciliation files is recorded by the RM portal.

The audit trail of data validation, estimation and creation of reconciliation files is recorded in the RM TOOL.

Audit commentary

During this audit we confirmed that the audit trail for data gathering, validation and processing functions is archived. We reviewed the process of data validation and estimation in relevant sections. At the same time, we confirmed compliance of the audit trail.

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

Kea Energy provided Kea General Terms and Conditions v2 provided to each of their customers. Point 2.1, 4.1, and 10 of the document covers compliance with the above clause.

Audit commentary

We reviewed the Terms and Conditions and confirm compliance. The document was provided to the Authority for review and it was found to meet all requirements.

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

Point 10 of the Kea General Terms and Conditions v2 covers access to premises. A customer must provide Kea Energy, their service providers and the Lines Company, safe and unobstructed (including from dogs or other animals on your property) access to any of their equipment.

Audit commentary

The review of the General Terms and Conditions confirmed compliance with the above clause.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1) & (2)

Code related audit information

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

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

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

Audit observation

To the best knowledge of Kea Energy all installations are close to the connection point. Most of the installations traded by Kea Energy are category 1 and 2. For any of them loss compensation is not required because metering installations are located physically close to the point of connection. Kea Energy trades one metering installation of category 3. We checked the certificate issued by FCLM and no loss compensation factor needs to be applied to metering data.

Audit commentary

Based on the category of metering installations (1 and 2) traded by Kea Energy and a review of the certificate for ICP 0007131160RNBC9 (cat 3), we confirm compliance. Kea Energy is not responsible for any metering installations with loss compensation factors.

Audit outcome

Compliant

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

Code reference

Clause 11.15B

Code related audit information

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

- *the Authority to assign the rights and obligations of the trader under the contract to another trader if the trader commits an event of default under paragraph (a) or (b) or (f) or (h) of clause 14.41 (clause 11.15B(1)(a)); and*
- *the terms of the assigned contract to be amended on such an assignment to—*
- *the standard terms that the recipient trader would normally have offered to the customer immediately before the event of default occurred (clause 11.15B(1)(b)(i)); or*
- *such other terms that are more advantageous to the customer than the standard terms, as the recipient trader and the Authority agree (clause 11.15B(1)(b)(ii)); and*
- *the terms of the assigned contract to be amended on such an assignment to include a minimum term in respect of which the customer must pay an amount for cancelling the contract before the expiry of the minimum term (clause 11.15B(1)(c)); and*
- *the trader to provide information about the customer to the Authority and for the Authority to provide the information to another trader if required under Schedule 11.5 (clause 11.15B(1)(d)); and*
- *the trader to assign the rights and obligations of the trader to another trader (clause 11.15B(1)(e)).*

The terms specified in 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

Point 21.3 of the General Terms and Conditions says, “If we commit an “event of default” (as defined in the Code), the Electricity Authority may assign our rights and obligations under these terms to another electricity supply”.

Audit commentary

Compliance is confirmed based on a review of the relevant clause in the General Terms and Conditions.

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

Kea Energy does not trade new connections. Their customers are already established connections. FCLM is the preferred MEP for all ICPs. When a new ICP switches in, FCLM is nominated as the MEP the same day as a switch is finalised.

Audit

Kea Energy will not be dealing with new connections for some time. When Kea decide to take on new connections they will document the process. The company policy is to trade in existing installations only.

Audit outcome

Compliant

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

Code reference

Clause 10.33(1)

Code related audit information

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

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

Audit observation

As described in the previous section, Kea Energy will not be dealing with new connections for some time.

Audit commentary

Compliance was not assessed because there were no new connections.

Audit outcome

Not applicable

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

Code reference

Clause 10.33A (1)

Code related audit information

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

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

Audit observation

As described earlier, Kea Energy does not trade new connections. All existing installations are metered.

Audit commentary

This clause is not applicable because Kea Energy does not plan to trade new connections.

Audit outcome

Not applicable

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

Point 17 of the General Terms and Conditions says “You may have an agreement for network services directly with the Lines Company, in which case you must comply with that agreement. If you do not have any agreement with the Lines Company, we will charge you for network services provided by the Lines Company.

Audit commentary

Compliance is confirmed based on a review of General Terms and Conditions.

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

FCLM is Kea Energy’s preferred MEP. We sighted the contract between FCLM and Kea Energy.

Audit commentary

An agreement between Kea Energy and FCLM is in place. The company does not have arrangements with any other MEP because their meters are replaced after a switch is finalised.

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

According to the file, Kea Energy has not traded any new connections. The company provided the LIS file dated 7 November 2017. Analysis of the LIS file confirmed, Kea Energy has not accepted responsibility for any new connections.

Audit commentary

Kea Energy's business model is to trade only in already established connections. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 11.7(2)

Code related audit information

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

Audit observation

We reviewed the LIS file dated 7 November 2017 and confirm that Kea Energy provided information to the registry about each ICP at which it trades electricity.

Audit commentary

Compliance was confirmed based on evaluation of the LIS file.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

According to the Event Detail File (EDA) provided by Kea Energy for the period 4/09/17 to 31/10/17, the registry recorded 9 trader's transactions. One transaction was late; for ICP 0006638236RNE5F a profile was changed to RPS PV1 and type reconciliation to NHH and FCLM nominated as the MEP. The registry was updated on 11/10/17, effective date 4/10/17.

Audit commentary

Non-compliance was identified because one trader's update was done one day later than stipulated by the Code.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: 10 of Schedule 11.1 From: 04-Oct-17 To: 11-Dec-17	Registry update for ICP 0006638236RNE5F was late by one day Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as moderate because there are some improvements that can be made to them. There was no impact on settlement because it was only one ICP and update was delayed by one day only. The audit risk rating is recorded as low.

Actions taken to resolve the issue	Completion date	Remedial action status
Moving forward we will be more proactive with registry validation	22/12/2017	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Will modify processes ensuring registry information is kept up to date with KEA and MEP's	8/01/2018	

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

Kea Energy fully understand that as soon as they are recorded in the registry as accepting responsibility, the responsibility will cease only when an ICP switches out to another trader and its four-letter code is recorded in the registry.

The company has started traded only a few months ago and they have not marked any ICP as “ready for decommissioning”. The process is understood but not documented yet; the first priority was to document the switching processes.

According to the LIS file all ICPs have MEPs recorded.

Audit commentary

Compliance is confirmed based on a review of the LIS file dated 7 November 2017.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

We reviewed the Event Detail file for the period 4/9/17 to 31/10/17 and the LIS file to assess compliance. As described in the previous section, Kea Energy will not be dealing with new connections for some time. It only switches already established connections.

Audit commentary

We reviewed two registry files to assess the accuracy of information in the registry file. We confirm that all information specified in the above clause is correctly recorded in the registry. Every time a new ICP is gained, Kea Energy checks all the information populated by the losing trader and it makes changes if any corrections are required.

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 LIS file was reviewed to assess compliance. Kea Energy traded 7 ICPs at the time of this audit. The ANZSIC assigned to each ICP was correct.

Audit commentary

Compliance with the above clause was assessed by analysing the ANZSIC code assigned to each ICP. Kea Energy traded with two residential customers, four ICPs had A016 (Dairy Cattle Farming) assigned, and one ICP had G400 (fuel retailing) assigned.

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

It is not the intention of Kea to take on unmetered ICPs. If there is UML found at a later date, Kea will discuss with the customer the option to have metering put in place or switch to another retailer. If this is not possible they will have JC Consulting create consumption based on the daily kWh information either from the distributor or the customer. Kea will update the registry with the required (or as much as we have to hand) UML information immediately on finding any UML.

Audit commentary

Analysis of the LIS file proved that no UML load is traded by Kea Energy. The company does not have a process documented yet, it will be drafted up at a later date.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

- *the associated electrical installations are electrically connected (clause 17(1)(a))*

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

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

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

Audit observation

The LIS file dated 7 November 2017 was examined to identify any ICP with the status “inactive”. They were none. All ICPs had the status “Active” and were metered by certified installations.

Audit commentary

Compliance confirmed based on the LIS file analysis.

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 LIS file dated 7 November 2017 was examined to identify any ICP with the status “inactive”. They were none.

At the time Kea Energy had processes for disconnection and reconnection in draft. They are aware of their obligations under the medically dependent and vulnerable consumer guidelines. Kea Energy has a documented policy in place in regard to disconnection and reconnection. At the time of the audit, there were no any vacant ICPs.

Audit commentary

Kea Energy’s intention, in the future, is to read disconnected ICPs and work together with JC Consulting to identify any ICPs where consumption is recorded. If such a situation occurs it will be followed up by a person living at such address or with Kea’s meter reading provider.

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

It is a distributor's code obligation to monitor an ICP which has had the status of "New" or "Ready" for 24 calendar months or more. It is expected that a trader be able to respond to such queries from distributors.

Audit commentary

Kea Energy has been trading since 4 September 2017 therefore this clause is not applicable.

Audit outcome

Not applicable

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

The switch gain process was examined. Kea Energy had 5 standard switches in the period covered by this audit. We reviewed all switches.

Audit commentary

The process is well documented. We confirm that all switches were notified to the registry within two business days after the arrangement with a customer.

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

Within 3 business days after receiving notice of a switch from the registry manager, the losing trader must establish a proposed event date. The event date must be no more than 10 business days after the date of receipt of such notification, and in any 12-month period, at least 50% of the event dates must be no more than 5 business days after the date of notification. The losing trader must then:

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

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

Audit observation

We reviewed the EDA file for the period covered by this audit. Kea Energy has not lost any ICP.

Audit commentary

The process of switching out is documented but it was not applied because Kea Energy has not lost any ICP. Compliance is confirmed based on process evaluation.

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

We reviewed the EDA file for the period covered by this audit. Kea Energy has not lost any ICPs.

Audit commentary

The process of switching out is documented but it was not applied because Kea Energy has not lost any ICPs. Compliance is confirmed based on process evaluation.

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 actual event date, provide to the losing trader a changed switch event meter reading supported by 2 validated meter readings.

- *the losing trader can choose not to accept the reading, however must advise the gaining trader no later than 5 business days after receiving the switch event meter reading from the gaining trader (clause 6A(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 6A(b)).*

Audit observation

We examined five standard switches to assess compliance with the above clause. We asked JC Consulting to provide evidence that the readings provided by a losing trader were used as start reads for Kea Energy. We identified two ICPs 0006638236RNE5F and 0007145122RN5D0 gained from Meridian for which the switch event read was not provided in the respective CS files because meters installed at these ICP are non-AMI HHR meters. They are so-called C&I TOU customers.

ICP 0006638236RNE5F switched on 4/10/17, Kea Energy calculated the switch event read from check meter generation and extrapolated it to the actual read which was taken on 1/11/17.

ICP 0007145122RN5D0 switched on 5/11/17, photo was taken on 2/11/17 and the actual read on 1/11/17. JC Consulting in consultation with Kea Energy extrapolated data and calculated the switch event read.

Audit commentary

We confirmed that Kea Energy used the switch event reads, for all switches but two, provided by losing traders. The exceptions were two ICPs 0006638236RNE5F and 0007145122RN5D0 as described above. We are satisfied with the methodology used by JC Consulting to calculate the switch event read.

Kea Energy sent one RR file (ICP 0005436982RN53A) to Trustpower. The RR file was sent the following day after the switch was finalised. The file was sent via the registry web interface. It was accepted by Trustpower.

Audit outcome

Compliant

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

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

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

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 6(2)(b));*
- *the gaining trader within 5 business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading.*

Audit observation

We examined the process for the management of read requests. We analysed the EDA file and switch breach report.

Audit commentary

Kea Energy did not send any RR files using AMI reads. The company always switches metering installations category 1 and 2 as NHH.

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

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

Audit commentary

Kea Energy confirm that no disputes occurred in the period covered by this audit, which would require a resolution.

KEA Energy stated that they will not decline to accept another traders' validated meter reading or permanent estimate if they are reasonable and appropriate in the applicable circumstances.

Kea Energy also will provide a reasonable explanation to the other participant where it does decline to accept their validated meter reading or permanent estimate.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

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

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

In the event of a switch move, the gaining trader must advise the registry manager of a switch and the proposed event date no later than 2 business days after the arrangement comes into effect.

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

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

Audit observation

We analysed the EDA file and confirmed that Kea Energy gained one ICP 0007146307RND2D using switch move process. The registry was notified within two business days. The move in process was used but it was a transfer switch.

Audit commentary

Non-compliance was identified because the incorrect type of switch was used.

We examined the switching process documentation which is thorough and easy to follow. Non-compliance was caused by a misunderstanding.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.7 With: 9 of Schedule 11.3 From: 28-Aug-17 To: 01-Sep-17	Incorrect switch type for ICP 0007146307RND2D. It should be transfer switch not switch move Potential impact: None Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	We recorded controls as strong because the switching documentation was very good. It was a misunderstanding of a customer request. There was no impact on settlement outcomes.		
Actions taken to resolve the issue		Completion date	Remedial action status
We now understand the process better so the appropriate switch type will be applied		22/12/2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

Will ensure correct switch type is used as per code and will modify process to reflect this	8/01/2018	
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4.8. Losing trader provides information - switch move (Clause 10(1) Schedule 11.3)

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

Kea Energy has not lost any ICPs using the switch move process.

Audit commentary

We reviewed the process documentation, which has not been applied yet. The process documentation gave us a confidence that when followed Kea Energy will be compliant. Compliance was partly assessed based on the process.

Audit outcome

Compliant

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

If the losing trader determines a different date, the losing trader must also complete the switch by providing to the registry manager as described in 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

Kea Energy has not lost any ICPs using the switch move process.

Audit commentary

We reviewed the process documentation, which has not been applied yet. The process documentation gave us a confidence that when followed Kea Energy will be compliant. Compliance was partly assessed based on the process.

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

Kea Energy has not lost any ICPs using switch move process.

Audit commentary

We reviewed the process documentation, which has not been applied yet. The process documentation gave us a confidence that when followed Kea Energy will be compliant. Compliance was partly assessed based on the process.

Audit outcome

Compliant

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within 4 calendar months of the actual event date, must*

provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):

- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 12(3)(b)).*

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

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

Audit observation

Kea Energy has not lost any ICPs using switch move process.

Audit commentary

We reviewed the process documentation, which has not been applied yet. The process documentation gave us a confidence that when followed Kea Energy will be compliant. Compliance was partly assessed based on the process.

Audit outcome

Compliant

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

Code reference

Clause 13 Schedule 11.3

Code related audit information

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

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

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

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

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

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

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

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

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

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

Audit observation

Kea Energy gained ICP 0007131160RNBC9 using gained trader switch process. We reviewed entries in the registry and confirm that the requirements of the Code were followed.

Audit commentary

We examined the process documentation, in our opinion, it is thorough and easy to follow.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

Within 3 business days after the losing trader is informed about the switch by the registry manager, the losing trader must:

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

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

Audit observation

Kea Energy did not lose any ICPs using gained trader switch process.

Audit commentary

We reviewed the process documentation, which has not been applied yet. Compliance was partly assessed based on the process.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

The gaining trader must complete the switch no later than 3 business days, after receiving the valid switch response code, by advising the registry manager of the event date.

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

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

16(b)- carry out an interrogation and, no later than 5 business days after the metering installation is electrically disconnected or removed, advise the losing trader of the results and metering component numbers for each data channel in the metering installation.

Audit observation

Kea Energy gained ICP 0007131160RNBC9 using gained trader switch process. We reviewed entries in the registry and confirm that the requirements of the Code were followed.

Audit commentary

Kea Energy finalised the switch as per the clause requirements.

Audit outcome

Compliant

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

A losing trader or gaining trader may request that a switch request be withdrawn at any time until the expiry of 2 calendar months after the event date of the switch.

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

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
 - o *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*
 - o *the withdrawal advisory code published by the Authority. (clause 18(c)(ii))*
- *within 5 business days after receiving notice from the registry manager of a switch, the trader receiving the withdrawal must advise the registry manager that the switch withdrawal request is accepted or rejected. A switch withdrawal request must not become effective until accepted by the trader who received the withdrawal. (clause 18(d))*
- *on receipt of a rejection notice from the registry manager, in accordance with clause 18(d), a trader may re-submit the switch withdrawal request for an ICP in accordance with clause 18(c). All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request. (clause 18(e))*
- *if the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within 2 business days after receiving notice from the registry manager in accordance with clause 22(b), the losing trader must comply with*

clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16. (clause 18(f))

Audit observation

Kea Energy received NW from Meridian in relation to ICP 0007131160RNBC9. NW was rejected the next day after a notification by Kea Energy and the switch was finalised. Meridian used the “DF” code in the NW file, it looks like human error on the part of Meridian.

Audit commentary

We reviewed the process documentation, which has not been applied yet. The process documentation gave us a confidence that when followed Kea Energy will be compliant. Compliance was partly assessed based on the process.

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

We examined the meter reading process in relation to the switching process. Kea Energy has not lost any ICPs in the period covered by this audit. In the event that an actual read won't be available JC Consulting will calculate an estimate.

Audit commentary

Only one read was changed by sending RR file as a part of the switching process. We examined the estimation methodology used by JC Consulting and we found it to be robust.

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

Kea Energy is not a member of the switch protection program.

Audit commentary

To assess compliance with this clause we are limited to analysing the NW files for the CX code and information provided by a losing trader. It is not possible to fully investigate. Kea Energy did not send any NW file to a gaining trader.

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

Kea Energy does not have the intention to trade unmetered ICPs. If there is UML found at a later date, Kea will discuss with the customer the option to have metering put in place or switch to another retailer. The LIS file was examined and no UML ICPs were identified.

Audit commentary

If it is not possible to switch out an UML ICP, Kea Energy will ask JC Consulting to create consumption based on the daily kWh information either from the distributor or the customer. The registry will be updated with the required UML information immediately on finding any UML attached to an ICP for which the company is responsible.

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 LIS file was examined and no UML ICPs were identified.

Audit commentary

This clause is not applicable.

Audit outcome

Not applicable

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The LIS file was examined and no UML ICPs were identified.

Audit commentary

This clause is not applicable.

Audit outcome

Not applicable

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

Kea Energy does not trade distributed unmetered load.

Audit commentary

This clause is not applicable.

Audit outcome

Not applicable

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

- *there are 1 or more metering installations*
- *all electricity conveyed is quantified in accordance with the Code*
- *it does not use subtraction to determine submission information for the purposes of Part 15.*

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

Audit observation

All installations traded by Kea Energy are metered. No subtraction method is used to determine submission information provided to the reconciliation manager. Five ICPs traded by Kea Energy have embedded generation installed. The generation capacity varies from 5 kW to 365 kW.

Audit commentary

All volumes for embedded generation are reconciled. It was examined in detail in the relevant section of this report. Reconciliation files are created by JC Consulting.

Kea Energy's policy is that if an ICP switched in with bridged metering is found, the company will instruct the MEP to arrange reconnection and provide notification of how long the bypass had been in place to be able to arrange for estimated readings for the period affected.

JC Consulting is instructed to identify bridged metering. He will monitor "active" ICPs to note zero readings where there should be a reading.

The company stated that it will not instruct the bridging of meters.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

- provide to the grid owner a copy of the metering installation design (before ordering the equipment)
- provide at least 3 months for the grid owner to review and comment on the design
- respond within 3 business days of receipt to any request from the grid owner for additional details or changes to the design
- ensure any reasonable changes from the grid owner are carried out.

The participant responsible for the metering installation must:

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

Audit observation

This clause is not applicable to Kea Energy.

Audit commentary

This clause is not applicable to Kea Energy.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

Audit observation

The LIS file analysis showed that Kea Energy submits volumes to the reconciliation manager using RPS, PV1, and HHR profiles. No control devices are needed therefore they have never approached a MEP asking for a control device to be certified.

Audit commentary

Compliance confirmed based on a review of the LIS file dated 7 November 2017 and reconciliation files.

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

Kea Energy has not identified any metering installations which could be not fit for purpose since the first switch.

Audit commentary

According to Kea Energy's business practice, event logs and data provided by MEPs or customer reads is monitored to identify missing readings or issues. If a site visit is needed or a fault is recorded on the log, then Kea Energy will let the MEP know of the fault.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.2

Code related audit information

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

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

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

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

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

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

2(6) – The interrogation systems must record:

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

Audit observation

The data collection process was examined. The data is collected by FCLM and EDMI and passed to JC Consulting, who validates it. Before meters are installed by FCLM, if necessary, Kea Energy reads meters manually or asks customers to provide a photo read.

Audit commentary

Kea Energy maintains a copy of the database of readings supplied by JC Consulting.

We sampled two readings from FCLM and traced them to the RM TOOL used by JC Consulting. Compliance was confirmed.

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. We sampled two readings from FCLM and two readings conducted by Kea Energy.

Audit commentary

Kea Energy has a written procedure describing what must be checked when NHH meters are interrogated manually. The procedure is compliant with this clause.

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

According to the process the switch read from the CS file is used as a start read. Consecutive NHH readings will be applied from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation. Meter readings are processed by JC Consulting.

Audit commentary

JC Consulting uploads meter readings to the RM TOOL. We reviewed the software compliance with this clause when historic and forward estimates scenarios were tested. More details are in section 12.11. Compliance was confirmed.

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 first ICP was switched on 4 September 2017. Kea Energy has not lost any ICPs in the period covered by this audit therefore compliance with this clause could only be partly assessed.

Audit commentary

JC Consulting will be monitoring meter reads on behalf of Kea Energy. A copy of the missing reads report will be forwarded to Kea Energy. A list of unread meters will be maintained recording the date of enquiries, attempts to make contact and any exceptional reasons, the log will be checked periodically. Compliance is confirmed based on the process.

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

Kea Energy has been trading since 4 September 2017. Compliance with this clause must be assessed next year. The process of monitoring reads is done by JC Consulting.

Audit commentary

As described in the previous section, a copy of the missing reads report will be forwarded to Kea Energy. A list of unread meters will be maintained recording the date of enquiries, attempts to make contact and any exceptional reasons, the log will be checked periodically. Kea Energy will contact the MEP to enquire as to why the read has not occurred and if necessary will contact the customer to make enquiries. Compliance is confirmed based on the process.

Audit outcome

Compliant

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

Kea Energy provided copies of the Meter Read Frequency report for September and October 2017. We confirmed that Kea Energy met the target set by this clause. All meters were read.

Audit commentary

The report is run and sent to the Authority by JC Consulting.

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

All ICPs gained by Kea Energy are switched as NHH. As soon as the switch is finalised FCLM is nominated as the MEP. Usually meters are replaced within a month. Until FCLM's meters are installed Kea Energy interrogate meters themselves by taking a photo of a meter or asking a customer to provide a photo showing the meter serial number, register read and an ICP number if available. The photos are archived in Dropbox.

Audit commentary

Compliance with this clause is met. A photo of meter register reads contains meter serial number, date and time of interrogation. It is not always possible to have an ICP identifier recorded because on some switchboards they are not present. Kea Energy cross checks a meter serial number against the ICP identifier recorded in the registry.

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 corrected by FCLM on behalf of Kea Energy. We traced volumes from the source files (FCLM) for two ICPs to reconciliation submissions. The FCLM data collection process was reviewed as part of their MEP audit.

Audit commentary

Compliance is confirmed based on the process used by JC Consulting and a walkthrough of the volumes for two ICPs from a source file provided by FCLM to reconciliation submission file.

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 delivered by FCLM and EDMI (one ICP). Data interrogation requirements were reviewed as part of the MEP and agent audit, which is attached to this document.

Audit commentary

Data interrogation requirements are covered in the MEP and agent 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

FCLM and EDMI are responsible for meeting the metering interrogation log requirements specified in this clause. It is reviewed during their audits.

Audit commentary

We confirm that EDMI meets compliance with this clause.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

Kea Energy received HHR data from FCLM and EDMI.

Audit commentary

FCLM and EDMI are responsible for meeting compliance with this clause. It is reviewed during their audits. We reviewed data provided by FCLM and confirm that the trading period duration is 30 minutes.

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

HHR data is received from FCLM, who archives raw meter data. Kea Energy keeps a copy of all HHR data.

FCLM is responsible for archiving raw meter data. It is reviewed during their audits.

NHH reads taken by Kea Energy or provided by a customer are uploaded and archived in Dropbox.

Audit commentary

Photos of NHH register reads cannot be accessed by unauthorised personnel. The access to Dropbox is strictly controlled. We observed the uploading data to the RM TOOL and confirm that the software does not allow the modification of meter readings without an audit trail.

Audit outcome

Compliant

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

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

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

Audit observation

Kea Energy uses only RPS, PV1 and HHR profile for reconciliation submissions. No external control equipment is used.

Audit commentary

Compliance was not assessed because this clause is not applicable to the Kea Energy's operation.

Audit outcome

Not applicable

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

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

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

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

Audit observation

We reviewed the process of correction of NHH readings performed by JC Consulting. Kea Energy makes sure to have frequent reads for all NHH sites, at or near month end, so no corrections, or changes occurred. If such a situation occurs, an additional meter read will be conducted and original readings will be overwritten. An audit trail will be recorded.

Audit commentary

We confirm compliance of correction of NHH meter readings.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

Correction of HHR metering information is conducted by JC Consulting. Every time a correction is made, Kea Energy will be notified. There were no instances when HHR metering data had to be corrected.

Audit commentary

JC Consulting conducts very thorough HHR data validation to detect possible data inaccuracies. We examined the correction of half-hour meter readings conducted by John Candy Consulting using the RM TOOL. When errors are identified, and check meter is not available, data is estimated. Compliance is confirmed.

Audit outcome

Compliant

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

Audit observation

Error and loss compensation was discussed during the audit.

Audit commentary

Compliance was not assessed because Kea Energy does not have any ICPs for which error or compensation needs to be applied.

Audit outcome

Not applicable

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

Code reference

Clause 22(1) and (2) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

HHR raw data is never overwritten because raw data is always stored by the MEP (FCLM). JC Consulting receives only a copy of HHR raw meter data. The only raw data stored by JC Consulting are NHH photo reads. Photo reads cannot be altered.

Audit commentary

The RM TOOL provides a functionality to correct or alter NHH read, which could be incorrectly entered from a photo. If such a situation occurs, a journal will be created by the software.

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

Meter readings are clearly identified as actual or estimated in the RM TOOL.

Audit commentary

Compliance confirmed based on a review the RM TOOL. All meter readings reviewed during this audit were correctly identified as actual or estimates.

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

JC Consulting provided examples for four NHH ICPs to assist in the assessment of compliance with this clause. Volume information provided to the registry is calculated based on validated meter readings or estimates. All data stored in the RM TOOL and used for reconciliation purposes is validated at the time of uploading to the system. A set of report allows the identification of any inaccuracies.

Audit commentary

Volume information used to create reconciliation files is based on actual readings (validated), or estimated readings where data can't be recovered.

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

The RM TOOL does not round or truncate data. HHR data received from FCLM had two decimal places, it is not truncated. Data for NHH ICPs (photo reads) do not have decimal places.

Audit commentary

We walked through three ICPs and confirmed that meter data is neither truncated or rounded in the RM TOOL. Compliance confirmed.

Audit outcome

Compliant

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

If a reconciliation participant is unable to interrogate an electronically interrogated metering installation before the deadline for providing submission information, the submission to the reconciliation manager must be the reconciliation participant's best estimate of the quantity of electricity that was purchased or sold in each trading period during any applicable consumption period for that metering installation.

The reconciliation participant must use reasonable endeavours to ensure that estimated submission information is within the percentage specified by the Authority.

Audit observation

HHR estimation is conducted by JC Consulting if necessary. We were given two examples of HHR estimation.

0007131160RNBC9 needed the first half - day estimated (the FCLM metering was put in on the 4th September), this was based on the subsequent consumption pattern and that the generation was consistent during that period (from the check meters).

The period from the latter mid of September also had to be estimated for the September initial submission as FCLM and EDMI could not provide the data by the time submission was required. This data was subsequently provided, and the estimates were overwritten, and subsequently washed up on the D13 submission.

Audit commentary

For estimation purposes. the RM TOOL has a functionality to estimate a full day or a part of a day. The flag of "E" is assigned to each interval. A customer profile is used if available. Interval data is scaled to match register reads at the beginning and end of the day for the specific ICP. Additionally, to validate accuracy of estimation, interval data is visually checked using MS Excel.

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

NHH reads used for reconciliation purposes are reads taken by Kea Energy as photo reads. Kea Energy receives register reads from FCLM, but they are used only for validation of HHR data. They are not used for reconciliation purposes.

Audit commentary

JC Consulting adopted a validation process for NHH reads which consists of checking for high, low reads, consumption detected >10% of rollover amount, consumption on de energised sites, missing reads, negative consumption. Before the submission of data to the reconciliation manager, additional checks are conducted.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

JC Consulting receives remotely read metering data from FCLM. When data is uploaded into the RM TOOL a validity check of meter readings is conducted and an exception report is created. The RM TOOL checks the file format, consecutive zeros, invalid dates and times. Register reads are used to check HHR data.

Audit commentary

Compliance is confirmed based on observation and provided reports.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

This clause is not applicable to Kea Energy.

Audit commentary

This clause is not applicable to Kea Energy.

Audit outcome

Not applicable

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

Code reference

Clause 13.137

Code related audit information

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

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

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

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

Audit observation

This clause is not applicable to Kea Energy.

Audit commentary

This clause is not applicable to Kea Energy.

Audit outcome

Not applicable

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

Code reference

Clause 13.138

Code related audit information

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

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

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

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

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

Audit observation

This clause is not applicable to Kea Energy.

Audit commentary

This clause is not applicable to Kea Energy.

Audit outcome

Not applicable

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

Code reference

Clause 13.140

Code related audit information

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

Audit observation

This clause is not applicable to Kea Energy.

Audit commentary

This clause is not applicable to Kea Energy.

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

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

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

Audit observation

The LIS file dated 7 November 2017 was used to identify which profiles are used by Kea Energy.

Audit commentary

Kea Energy uses, for submissions, profiles of HHR, RPS, and PV1.

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

JC Consulting calculates ICP days as part of the submission process. AV-110 files are submitted on the 4th business day and on the 13th business day of each reconciliation period.

Audit commentary

We reviewed ICP days file (AV-110) for September and October 2017 and confirm compliance. The number of days calculated by the registry and the RM TOOL was the same.

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

As billed volumes are provided to JC Consulting by Kea Energy at the beginning of each month. These volumes are submitted to the reconciliation manager as AV-120. At present Kea Energy creates customer invoices using MS Excel.

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

Month	Submitted volumes [kWh]	Supplied volumes[kWh]
09/2017	3099.59	0.00
10/2017	41988.91	3099.00

Audit commentary

Compliance confirmed based on analysis of AV-120 and GR-130.

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

HHR aggregated volumes are submitted as AV-14. This file contains all HHR ICPs, for which the registry flag of reconciliation type is HHR. The file shows volumes for each HHR ICP. AV-140 is created by JC Consulting every month and submitted on d4 and d13 of each reconciliation month. In the future it will also be submitted for revision 3, 7, and 14.

Audit commentary

We reviewed files for September and October 2017 and crossed checked with the LIS file and HHRVOLS (AV-090). Compliance is confirmed

Audit outcome

Compliant

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using 1 of the techniques set out in clause 15.36(3) specified by the Authority.

Audit observation

Kea Energy received data from FCLM and EDMI. As part of this audit we reviewed the EDMI agent report. Data provided for September 2017 was reviewed. FCLM compliance with this clause is covered by the MEP audit.

Audit commentary

All data provided to Kea Energy is daylight saving adjusted using the “trading period run on” technique. We checked data for this September and confirm the correct number of trading periods were recorded in all cases.

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

JC consulting calculates and provides reconciliation files on behalf of Kea Energy. Reconciliation data is provided for both HHR and NHH ICPs. We checked the timing of file submissions and confirm that for September and October 2017 data was submitted as per this clause requirement.

Audit commentary

At the time of audit Kea Energy traded 3 HHR ICPs and 4 NHH ICPs. We checked AV-140, AV-080, and AV-090 against registry information. Kea Energy did not trade UML ICPs.

JC Consulting created the Submission Checklist, which lists all steps that must be taken before volumes are submitted. Some examples from the list are: excessive volume, zero volume, late reads, missing seasonal value etc.

We walked through NHH meter replacement to HHR meter for four ICPs. Our analysis confirmed that all volumes on the day of a meter changed is reconciled. The type of reconciliation was changed from NHH to HHR on the next day of a meter change.

The process used is shown as below:

- 1) end date old meter using meter removal read (meter removal report)
- 2) Create new meter and enter start read (meter removal report)
- 3) when meter is changed to HHR, wait for HHR data and daily end read, change profile and submission flags when HHR data and register read are loaded.

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

Kea Energy thoroughly validates and checks volumes data before submission files are sent to the reconciliation manager. Any volumes generated by embedded generator (five ICPs) are reconciled using PV1 or HHR profile.

Audit commentary

Compliance was confirmed based on a review of reconciliation files.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

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

- *submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.9(a))*

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

Audit observation

This clause is not applicable to Kea Energy.

Audit commentary

Compliance was not assessed because this clause is not applicable to Kea Energy.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

This clause is not applicable to Kea Energy.

Audit commentary

Compliance was not assessed because this clause is not applicable to Kea Energy.

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

Compliance was not assessed because this clause is not applicable to Kea Energy.

Audit commentary

Compliance was not assessed because this clause is not applicable to Kea Energy.

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

Revisions were submitted on day 13 by JC Consulting, we checked the RM portal to confirm it.

Audit commentary

On day 4 JC Consulting used Kea Energy's own profile to calculate NHH submissions, they are replaced as soon as GR-030 is available. JC Consulting provided reconciliation files for September and October 2017 for day 4 and day 13. Files were reviewed and we confirm compliance with this clause.

At the time of audit, no revision 3, 7 and 14 had been submitted yet because Kea Energy only switched the first customer on 4 September 2017. We checked JC Consulting's processes and confirm that revisions will be submitted as per the schedule.

Audit outcome

Compliant

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

Code reference

Clause 4 Schedule 15.2

Code related audit information

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

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

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

Audit observation

At the time of this audit, this clause was not applicable because Kea Energy has not been trading for 14 months yet.

Audit commentary

This clause is not applicable.

Audit outcome

Not applicable

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

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

The analysis of the Lis file and submission files confirmed that metering installations of category 3 have HHR Data provided.

Kea Energy has not traded UML therefore data was not submitted. The RM TOOL has the functionality to allow the submission of volumes for UML ICPs, which can be used if such a need arises. Kea Energy only used RPS, PV1, and HHR profile, no certified control devices were used to create volumes.

Volumes were submitted for all NHH and HHR ICPs for which Kea Energy was responsible.

Audit commentary

We checked aggregation of AV-090 and AV-140. We crossed checked the registry file and reconciliation files and confirm that volumes were submitted for all ICPs.

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

We reviewed AV-080 for September and October 2017. We confirm that historic estimates were included and identified correctly.

Audit commentary

We reviewed AV-080 for September and October 2017. In the next section we describe scenarios provided to JC Consulting to test the accuracy of forward and historic estimates.

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

For the assessment of compliance with this clause we provided Kea Energy with a set of scenarios to validate the accuracy of the calculation of historic and forward estimation for NHH ICP days. During testing of these scenarios ICP days calculation is expected to be checked. The company provided results for scenarios which occurred in the last 3 months.

Audit commentary

The results of testing are shown below. Where the actual scenario had not occurred during the period covered by this audit, JC Consulting provided an example from the test system.

Ref	Test	Comments	Result of Audit
1	Switch in during the month with estimated switch read, actual read gained in the next month, full profile data available.	Confirm that HE is calculated for the relevant part of the month, even though the switch in read is an estimate, and calculation begins on correct day	0005436982RN53A
2	Switch in during the month with actual switch read, actual read gained in the next month, full profile data available.	Confirm that HE is calculated for the relevant part of the month, and calculation begins on correct day	0005436982RN53A
3	Status change to active during the month, read gained in the next month, full profile data available	Confirm that HE is calculated for the relevant part of the month	Not available
4	Switch out on estimate during the month	Confirm that HE is calculated even though the reading is an estimate Confirm that HE calculation ends on the correct day.	No switch outs but profile change to HHR 0006654738RN119 29/9
5	Switch out on actual during the month	Confirm that HE is calculated for the relevant part of the month, and calculation ends on correct day	No switch outs but profile change to HHR 0006654738RN119 29/9
6	Complete month without a read in the month	Read in the previous month and the month after, confirm correct HE for the month	
7	Complete month with a read during the month	Confirm the two calculations for the month are correct	0005436982RN53A 201711
8	GXP change during the month	Confirm submission against one GXP for part month then the other GXP for part month, with correct HE/FE balance on each	0005436982RN53A 201710 "created" NSP change within balancing area, changes out of balancing area require boundary read
9	Proportion of HE	Confirm the proportion of HE in the AV080 is correct	see all
10	Switch in 2 months ago, first actual read gained in current	Confirm estimation is shown as forward, not historic	Not available

	month, profile data not available for current month		
11	Meter change during month	Confirm estimation is calculated for both meters, and summed correctly	7 ICPs
12	Half-hour meter installed during month	If NHH read is added to meter, and site class is 'DEEMED', then estimation should be calculated for HH meter according to the same rules as NHH meter	7 ICPs
13	Two reads in the same month	Confirm usage between two reads is 'Historic' even if no profile data is available	See tab "many reads in same month" example from BCPL
14	FE based on default value	Confirm the default multiplied by correct number of days	Not available,
15	FE based on daily kWh from CS file	Confirm CS value multiplied by correct number of days.	see tab "Consumption from AV daily"
16	FE based on historic consumption	Confirm methodology for calculation	as per rules
17	ICP days for all HE scenarios above	Confirm ICP days calculations are correct	Previously demonstrated
18	No longer any ICPs with a combination of GXP, loss cat code etc.	Confirm that this row is "zeroed" in subsequent submissions	Previously demonstrated
19	Consumption submitted for a given revision then changed for a subsequent revision.	Confirm that if a reading is changed, the change flows through to the revision for the relevant month	Previously demonstrated
20	CS read modified by RR	Confirm that consumption is updated to match RR read replacing CS	See tabs RR reads replaced
21	GXP change backdated	Confirm usage is shown against correct GXP for the time of usage	LIS file from registry refreshed before each submission run, GXP changes inherently captured
22	Unmetered load submission	Check that this works the same as a normal meter and is considered HE	Not applicable but calculated from Registry Daily UML/day value

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

We reviewed the process of forward estimates with JC Consulting. Using GR170NHH we check variances between submission day 4 and day 13. The variances were negligible because Kea Energy is very disciplined in having actual reads for NHH ICPs therefore forward estimate is used only for a few days.

Audit commentary

Kea Energy's forward estimates are based on a daily average consumption specified in the CS file or daily average consumption from the previous read to read.

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

The only time that Kea Energy has changed a profile in the registry is when a NHH meter is replaced by a HHR meter. The final read is taken when the NHH meter is removed. Once the HHR meter is installed JC Consulting receives daily register reads.

Audit commentary

We reviewed six ICPs for which a NHH meter was replaced by a HHR meter and confirm that for each of them a profile change was conducted using a register read 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

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

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

Audit observation

We reviewed reconciliation files for September and October 2017.

Audit commentary

Submission information is provided to the reconciliation manager in the correct format.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

When reporting submission information, the number of decimal places must be rounded to not more than 2 decimal places.

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

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

Audit observation

We reviewed AV-080 for HOR0331 and ISL0661. The correct rounding methodology is used.

Audit commentary

Av-080, AV-090, and AV140 files are rounded to two decimal places.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.3

Code related audit information

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

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

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

Audit observation

JC Consulting created and submits reconciliation file for NHH ICPs. Kea Energy has been trading since 4 September 2017. At the time of this audit, the company has not been trading for 3 months yet.

Audit commentary

Compliance was not assessed because Kea Energy has not been trading for 3 months yet.

Audit outcome

Not applicable

CONCLUSION

PARTICIPANT RESPONSE

Kea Energy take compliance seriously and will strive to ensure we meet Code obligations and ensure accurate information is presented within market processes and functions. The commencement of our trading has been a learning curve and we are now confident with our small customer base that we can resolve issues promptly. The two non-compliant issues have been discussed with our consultants and agent, we do not foresee these to be an issue going forward.