

Electricity Industry Participation Code
Reconciliation Participant Audit Report
For

Electrica Limited

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Date Audit Commenced: 17 Jun 2017

Date Audit Report Completed:

Executive Summary

This reconciliation participant audit was performed at the request of Electrica (ENEL) to support their application for certification, in accordance with clauses 4 of Schedule 15.1 of The Code 2010. This audit is the initial audit. The relevant clauses audited are as required by the Guidelines for Reconciliation Participants Audits V 7.1 issued by the Electricity Authority.

At the time of audit Electrica was trading 9 ICPs. The first ICP was gained on 26/9/16. Electrica's preference is to trade HHR ICPs (residential and small businesses) read remotely by MEPs. The company has built the system called EnelSoft, which manages both NHH and HHR meter readings and submissions to the reconciliation manager. At the time of this audit, Electrica was reconciling both NHH and HHR ICPs, reads were provided by Metrix. Initially, after switch, an ICP is reconciled as NHH. Once the company gains confidence in reliability and quality of data, the type of reconciliation is changed to HHR. Electrica uses the registry web interface to perform switching.

Whilst 3 non-compliances (all were cleared during the audit) have been found during the audit, in our view none of the matters have resulted in material reconciliation issues.

We thank the Electrica staff for their full and complete cooperation in this audit

Participant Response

Not yet complete

Audit Summary

Non-Compliances

There are no non-compliances arising from this audit.

Recommendations

There are no recommendations arising from this audit.

Issues

There are no issues arising from this audit.

1. Administrative

1. 1. Scope of audit

Code Reference

Code Related Audit Information

Audit Observation

This reconciliation participant audit was performed at the request of Electrica to support their application for certification, in accordance with clause 4 of Schedule 15.1 of The Code 2010. This audit is the initial audit. The audit was carried out on the Electrica premises at 153 Vipond Rd, Stanmore Bay, Auckland, on the 17th May, 2017.

Audit Commentary

We attached scope of audit to this document.

Audit Attachments

ENEL scope of audit.

1. 2. ICP data

Code Reference

Code Related Audit Information

Audit Observation

Electrica provided the LIS file dated 05/05/2017. The type of file was "S", addresses were included.

Audit Commentary

The LIS file was used to assess compliance in relation to registry information.

Audit Attachments

CRP 1.2 ICP Data - ICP Summary ENEL.xlsx

CRP 1.2 ICP Data - Meter Category Summary-ENEL.xlsx

1. 3. Exemptions from obligations to comply with code

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

Electrica was granted the exemption #239 on 22 December 2016. The exemption states that Electrica is exempted from complying with the obligation in clause 15.38 of the Electricity Industry Participation Code 2010 to obtain and maintain certification as a reconciliation participant.

The exemption expires at the earliest of:

- a) The close of 31 August 2017
- b) Electrica being responsible for more than 100 installation control points ("ICPs"); and
- c) Electrica being responsible for an ICP with a metering installation category of 2, 3, 4 or 5.

Audit Commentary

We confirm that Electrica has met the obligations imposed by the exemption. At the time of audit, the company was trading 9 ICPs, metering installation category 1.

1. 4. Structure of organisation

Code Reference

Code Related Audit Information

Audit Observation

The company consists of two directors. One of them looks after the operation, the other after finance.

Audit Commentary

The company consists of two directors

1. 5. Use of agents

Code Reference

Clause 15.34 of Part 15

Code Related Audit Information

Audit Observation

Electrica does not use any agents to perform any functions covered by this audit.

Audit Commentary

Electrica does not use any agents to perform any functions covered by this audit

1. 6. Hardware and software

Code Reference

Code Related Audit Information

Audit Observation

Electrica uses their own system, EnelSoft, written by one of the directors, who is a professional programmer.

Audit Commentary

Electrica uses their own system, which holds HHR and NHH metering data and creates reconciliation files.

1. 7. Breaches or breach allegations

Code Reference

Code Related Audit Information

Audit Observation

Electrica has had no breach or breach allegations recorded during the period covered by this audit.

Audit Commentary

Electrica has had no breach or breach allegations recorded during the period covered by this audit.

1. 8. Authorisation received

Code Reference

Code Related Audit Information

Audit Observation

Electrica provided a letter of authorisation dated 6/5/2017.

Audit Commentary

Electrica provided a letter of authorisation dated 6/5/2017

Audit Attachments

Authorization letter

2. Operational infrastructure

2. 1. Relevant information

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 to any person under Part 15 is:

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

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

Audit Observation

We found Electrica non-complaint because AV080 does not display historic estimates even if they are calculated.

Audit Commentary

Compliance with these clauses is closely connected to other parts of the audit. In following parts of the document we insert links which will connect this section with others. Non-compliance noted in this section is connected to incorrect display of historic estimates as "0" in AV080. The programming error was corrected and submission files were re-submitted.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

2. 2. Provision of information

Code Reference

Clause 15.35

Code Related Audit Information

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

Audit Observation

This is discussed in a number of sections of this report. We discussed this with Electrica and asked if they were requested to provide any information by the Authority or participants. The requests from other participants were related to switching or reconciliation files. There were no requests from the Authority to provide information.

Audit Commentary

This is discussed in a number of sections in this report and compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

2. 3. Data transmission

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

All metering data transmissions from Metrix are conducted electronically via SFTP using FileZilla. Reconciliation files are uploaded via the RM portal

Audit Commentary

Compliance is confirmed based on observation.

Audit Outcome: Compliant

2. 4. Audit trails

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
- 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

We viewed the audit trail of files downloaded from the registry and information received from the reconciliation manager.

Audit Commentary

Compliance confirmed based on observation.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

2. 5. Retailer responsibility for electricity conveyed - participant obligations

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

Electrica provided Terms and Conditions of Supply, which are attached to this document

Audit Commentary

We reviewed the Terms and Conditions of Supply to assess compliance with clause 10.4. Section 14 and 17 explains that this agreement extends to the full term of arrangement. Compliance confirmed.

Audit Attachments

Term and Conditions

Audit Outcome: Compliant

2. 6. Retailer responsibility for electricity conveyed - access to metering

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

As described in the previous section Electrica provided Terms and Conditions of Supply to assess compliance.

Audit Commentary

We reviewed the Terms and Conditions of Supply to assess compliance. We confirm that section 9 covers access to premises listed as code references for this section

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

2. 7. Physical location of metering installations

Code Reference

Clause 10.35(1)&(2)

Code Related Audit Information

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

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

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

Audit Observation

Electrica trades only in ICPs connected using cat 1 metering installations. One of the characteristics of metering installation category 1 is that they are metered the point of connection. The company rely on professional knowledge of MEPs and ATHs, who certify installations.

Audit Commentary

We confirmed compliance based on conversations with Electrica that they were not aware of any installations traded by them that are not located at the point of connection.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

2. 8. Trader contracts to permit assignment by the Authority

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

As described in the previous section Electrica provided Terms and Conditions of Supply to assess compliance.

Audit Commentary

Section 17.5 of the Terms and Conditions of Supply describes the “Transfer of Responsibilities”, which could be exercised by the Authority in the event that Electrica commit an “event of default”. Recent feedback from the Authority was that wording should be more explicit. Electrica will shortly update the wording. Compliance confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

There are no recommendations arising from this subsection.

2. 9. Electrical connection of an ICP

Code Reference

Clause 10.32

Code Related Audit Information

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

- accept responsibility for the ICP and the obligations under Parts 10 and 11, and, under Part 15; and
- have an arrangement with an MEP to provide metering at the point of connection under Part 15.

Audit Observation

Electrica has not had any new connections since they entered the electricity market. The company policy is to sign up a customer already connected to a network.

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

2. 10. Metering certification

Code Reference

Clause 10.33(2)

Code Related Audit Information

A reconciliation participant may energise or authorise the energisation of a connection only if the reconciliation participant has accepted responsibility for the point of connection if 1 or more certified metering installations are in place.

Audit Observation

Electrica has not had any new connections since they entered the electricity market. The company policy is to sign up a customer already connected to a network.

Audit Commentary

Electrica has not had any new connections since they entered the electricity market.

Audit Outcome: Not applicable

2. 11. Arrangements for line function services

Code Reference

Clause 11.16

Code Related Audit Information

Before notifying the registry of 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 notifying the registry of 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

Electrica provided Terms and Conditions of Supply to assess compliance. Section 15 is dedicated to arrangements with network companies. Network companies' charges are passed through to their customers. Electrica has an arrangement with Metrix as the MEP.

Audit Commentary

Compliance confirmed on review of the Terms and Conditions of Supply, arrangements with the MEP, and review of one invoice where network charges are shown.

Audit Outcome: Compliant

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2. 12. Arrangements for metering equipment provision

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

Electrica has an arrangement with Metrix as their MEP.

Audit Commentary

Compliance confirmed based on MSA signed by Metrix provided by Electrica.

Audit Outcome: Compliant

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3. Maintaining registry information

3. 1. Obtaining ICP identifiers

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

Electrica has not signed up any new connections since it started trading. There are no plans to do it in the future.

Audit Commentary

Compliance is confirmed based on documentation review and the fact that all switching is done via registry web interface, which requires the knowledge of an ICP identifier.

Audit Outcome: Compliant

3. 2. Providing registry information

Code Reference

Clause 11.7(2)

Code Related Audit Information

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

Audit Observation

Electrica provided the LIS file dated 5/5/2017. It was a snapshot of all ICPs (including addresses) on 5/5/17.

Audit Commentary

Based on the file provided, we confirm compliance. All fields were populated to the company's best knowledge. More details will be given in section 3.5.

Audit Outcome: Compliant

3. 3. Changes to registry information

Code Reference

Clause 10 Schedule 11.1

Code Related Audit Information

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

Audit Observation

The EDA file (Event Details) was provided by Electrica for the period between 26 September 2016 to 5 May 2017. In total, there were 12 entries recorded as "trader". 7 updates were backdated. All trader's updates were related to a profile type and type of reconciliation. The most backdated entry was 118 business days. The changes to profile/ type of reconciliation is driven by low quality of data delivered by Metrix. For a start, Electrica reconciles ICPs as NHH and when they are confident that a meter communicates reliably and data delivered does not have gaps, the registry type of reconciliation is changed to HHR.

Audit Commentary

Changing profile and type of reconciliation is caused by non reliable data delivery by Metrix and knowing which meters are read remotely and which ones are not. The registry information does not represent a true picture. Even when a MEP knows that a meter does not communicate, quite often the registry is not updated. We had a good discussion with Electrica about how to deal with that. They have the system which can reconcile both HHR and NHH therefore there is no real need to backdate the type of reconciliation in the registry. Our assessment of controls is as Moderate based on the participant's level of understanding.

Audit Attachments

Trader updates. xlsx

Audit Outcome: Non-compliant

3. 4. Trader responsibility for an ICP

Code Reference

Clause 11.18

Code Related Audit Information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit Observation

We checked and confirm that Metrix as the MEP is recorded for all ICPs that Electrica is currently responsible for, using the LIS file dated 05/05/17. All ICPs traded have the status of Active. Electrica has not decommissioned any ICPs.

Audit Commentary

Electrica only trades 9 ICPs. All ICPs have an MEP recorded in the registry as per the LIS file. Compliance confirmed.

Audit Outcome: Compliant

3. 5. Provision of information to the registry

Code Reference

Clause 9 Schedule 11.1

Code Related Audit Information

Each trader must provide the following information to the registry 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 market administrator (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:
- f) 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
- g) in all other cases, the daily average kWh of unmetered load at the ICP (clause 9(1)(f)(ii)).
- h) the type and capacity of any unmetered load at each ICP (clause 9(1)(g))
- i) the status of the ICP, as defined in clauses 12 to 20 (clause 9(1)(j))
- 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

To assess compliance, we analyzed the LIS file dated 05/05/17. We conducted an analysis of all entries in the file using a specially design spreadsheet which checks, for example, the correct combination of profile/type of reconciliation, active ICP with a blank MEP and UML flag=N and many others. The spreadsheet is attached to this document. Each tab shows the results of different queries described in the Statistic worksheet at the front of the spreadsheet.

Audit Commentary

The analyses of the LIS file proved that all the information is correct. Compliance confirmed.

Audit Attachments

Retail_Audit.xlsx.

Audit Outcome: Compliant

3. 6. ANZSIC codes

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 analysis of the LIS file dated 05/05/17 revealed that there were 16 ICPs with ANZSIC code “0” (residential), 2 ICPs had ANZSIC code of K642 (Auxiliary Insurance Services).

Audit Commentary

Compliance confirmed based on analyses of the LIS file dated 05/05/17.

Audit Outcome: Compliant

3. 7. Changes to unmetered load

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, 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)).

Audit Observation

Electrica does not trade any UML ICPs and is not planning to do so.

Audit Commentary

Electrica does not trade any UML ICPs and is not planning to do so.

Audit Outcome: Compliant

3. 8. Management of “active” status

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 energised (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

All ICPs listed in the LIS file dated 05/05/17 and traded by Electrica have the status Active. Each ICP had only one customer recorded in EnelSoft. Electricity consumed is qualified by a metering installation; for each installation a MEP is recorded in the registry.

Audit Commentary

Compliance confirmed based on the LIS file provided by Electrica. All ICPs have the status Active.

Audit Outcome: Compliant

3. 9. Management of “inactive” status

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

A review of the LIS file dated 05/05/17 showed that there were no ICPs with the status “Inactive” traded by Electrica

Audit Commentary

At the time of this audit no ICPs with the status “Inactive” were recorded in the registry.

Audit Outcome: Not applicable

3. 10. ICPs at new or ready status for 24 months

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

Electrica switched the first ICP 01/10/16, which means that they have been a part of the market for less than 12 months. All their ICPs have the status of “Active”. According to the LIS file there are no ICPs with the status “Ready”. ICPs, which have the status “New” won’t be visible on Electrica’s LIS file because a network did not upload their name as a proposed retailer.

Audit Commentary

Electrica has not been traded for 12 months.

Audit Outcome: Not applicable

3. 11. Change of MEP

Code Reference

Clause 10.22(1)(a)(i)

Code Related Audit Information

If the MEP for an ICP which is not also an NSP changes, the trader must notify the registry of the gaining MEP in accordance with Part 11.

Audit Observation

All ICPs traded by Electrica have Metrix recorded as the MEP. At this stage the company policy is to stay with the existing MEP, (e.g. Metrix).

Audit Commentary

Electrica is not planning to use any other MEP than Metrix.

Audit Outcome: Not applicable

4. Performing customer and embedded generator switching

4. 1. Inform registry of switch request for ICPs - standard switch

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

Audit Observation

To assess compliance with this clause we reviewed the Switch Breach Report and the EDA file for a period 26/09/16 – 30/4/17. The Switch Breach Report did not list any breaches in relation to switch notifications to the registry.

Electrica advised the registry of a switch type TR for 9 ICPs. . Notification for all switches was sent no later than 2 business days after the arrangement was finalized.

Audit Commentary

Compliance identified based on analysis of the EDA file. . All of them were sent no later than 2 business days after the arrangement was finalized.

Audit Outcome: Compliant

4. 2. Losing trader response to switch request and event dates - standard

Code Reference

Clauses 3 and 4 Schedule 11.3

Code Related Audit Information

Within 3 business days after receipt of notification of a switch from the registry, 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 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

Electrica hasn't sent any notifications to the registry in the form of AN file to establish a proposed event date because the company haven't lost any ICPs. The process is documented but has not been used yet. The registry web interface will be used to send AN and later CS file.

Audit Commentary

Electrica haven't lost any ICPs since the last audit. No AN file was sent.

Audit Outcome: Not applicable

4. 4. Losing trader must provide final information - standard switch

Code Reference

Clause 5 Schedule 11.3

Code Related Audit Information

If the losing trader provides information to the registry 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 (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 on 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

As described in the previous section, Electrica hasn't lost any ICPs. The process is documented. The registry web interface will be used to send CS file.

Audit Commentary

Electrica hasn't lost any ICPs yet.

Audit Outcome: Not applicable

4. 5. Retailers must use same reading - standard switch

Code Reference

Clause 6 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

Electrica download register reads from the CS file to their system. We checked 7 ICPs and compared the switch event reads from the CS files that were recorded in Electrica's system and were used for reconciliation purposes. There was no situation where Electrica had to send a RR file because the difference between reads was greater than 200 kWh.

Audit Commentary

Compliance confirmed based on review reads in EnelSoft and review of documentation for standard switch.

Audit Outcome: Compliant

4. 6. Non-half hour switch event meter reading - standard switch

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 on the registry: and

- the losing 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, 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

Electrica switched two ICPs 0218798083LC9C5 and 1001273375LC594, changing type of reconciliation from NHH to HHR. Type was meters installed on site is AMI.

0218798083LC9C5

The actual transfer date was on 22/03/17

The switching reading was an actual (67300), on 21/03/17

1001273375LC594

The actual transfer date was on 18/04/17

The switching reading was an estimate (4902), the date of the last read was 17/04/17

Audit Commentary

Compliance was confirmed based on analysis of two ICPs 0218798083LC9C5 and 1001273375LC594. The switch event read included in CS files were entered into EnelSoft and used for reconciliation purposes.

Audit Outcome: Compliant

4. 7. Disputes - standard switch

Code Reference

Clause 7 Schedule 11.3

Code Related Audit Information

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

Audit Observation

Since the last audit, Electrica has not had any disputes related to a switch event meter reading. It was discussed with the company, which stated that their aim is to resolve such issues using the RR process as quickly as possible.

Audit Commentary

Compliance confirmed based on review of the RR process in previous sections.

Audit Outcome: Compliant

4. 8. Gaining trader informs registry of switch request - switch move

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 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 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

All switches initiated by Electrica were switches type TR. The process is documented.

Audit Commentary

All switches initiated by Electrica were switches type TR.

Audit Outcome: Not applicable

4. 9. Losing trader provides information - switch move

Code Reference

Clause 10 Schedule 11.3

Code Related Audit Information

10(1) Within 5 business days after receipt of notification of the switch move from the registry, 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:

- confirmation of the switch event date; and
- a valid switch response code; and
- final information as required under clause 1; 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. Determine an event date that is not earlier than the gaining traders proposed date and that date can be no later than 10 business days after the date of the notification.

Alternatively, the losing trader may provide a request for a withdrawal of the switch in accordance with clause 17.

Audit Observation

All switches initiated by Electrica were switches type TR.

Audit Commentary

All switches initiated by Electrica were switches type TR.

Audit Outcome: Not applicable

4. 10. Losing trader determines a different date - switch move

Code Reference

Clause 10 Schedule 11.3 (2)

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 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

Electrica hasn't lost any ICPs.

Audit Commentary

Electrica hasn't lost any ICPs.

Audit Outcome: Not applicable

4. 11. Losing trader must provide final information - switch move

Code Reference

Clause 11 Schedule 11.3

Code Related Audit Information

If the losing trader has provided information to the registry in accordance with clause 10(a), within 3 business days after the later of the actual event date or date of receipt of the switch request, the losing trader must:

- provide the event date (clause 11(a)); and
- provide the switch event meter reading as at the event date for each meter or data storage device noted on the registry (clause 11(b)); and
- if switch event meter reading is not a validated meter reading, provide the date of the last reading of the meter or storage device. (clause (11(c))).

Audit Observation

Electrica hasn't lost any ICPs.

Audit Commentary

Electrica hasn't lost any ICPs.

Audit Outcome: Not applicable

4. 12. Gaining trader changes to switch meter reading - switch move

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 notify 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)):
 - notify 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 AML certified meter flagged Y on 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, 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

Electrica hasn't lost any ICPs.

Audit Commentary

Electrica hasn't lost any ICPs.

Audit Outcome: Not applicable

4. 13. Gaining trader informs registry of switch request - gaining trader

Code Reference

Clause 14 Schedule 11.3

Code Related Audit Information

The gaining trader 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 to trade electricity through or assume responsibility for:

- a half hour metering installation that is not a category 1 or 2 metering installation, that has an ICP with a submission type half hour on the registry and an AMI flag of "N"; or
- a half hour metering installation that has a submission flag of half hour 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 with the losing trader trades 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 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:

- 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, 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, if:

14(4)(a) – the proposed event date is in the same month as the date on which the gaining trader advised the registry; 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 and this date is agreed between the losing and gaining traders.

Audit Observation

All switches initiated by Electrica were switches type TR. Process is well documented.

Audit Commentary

All switches initiated by Electrica were switches type TR. Process is well documented.

Audit Outcome: Not applicable

4. 14. Losing trader provision of information - gaining trader

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, the losing trader must:

- 15(a) - provide to the registry 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

Electrica hasn't lost any ICPs.

Audit Commentary

Electrica hasn't lost any ICPs.

Audit Outcome: Not applicable

4. 15. Gaining trader to notify registry - gaining trader

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 of the event date.

If the ICP is being de-energised 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 de-energised 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 de-energised or removed, advise the losing trader of the results and metering component numbers for each data channel in the metering installation.

Audit Observation

Electrica hasn't lost any ICPs.

Audit Commentary

Electrica hasn't lost any ICPs.

Audit Outcome: Not applicable

4. 16. Withdrawal of switch requests

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 with (clause 18(c)):
- the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and
- the withdrawal advisory code published by the Authority. (clause 18(c)(ii))
- within 5 business days after receiving a notification from the registry of a switch, the trader receiving the withdrawal must notify the registry 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 notification from the registry, 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 receipt of notification from the registry 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

Electrica did not initiate any withdrawal. Process is documented.

Audit Commentary

Electrica did not initiate any withdrawal. Process is documented.

Audit Outcome: Not applicable

4. 17. Metering information

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 discussed this clause with Electrica and they fully understand their obligation if such a situation arises. There were no special reads carried out to gain the switch event read because the company haven't lost any ICPs. Any switch event reads, if required for comparison are provided by Metrix.

Audit Commentary

No such situation has occurred yet.

Audit Outcome: Not applicable

4. 18. Switch saving protection

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

Electrica is planning up to Switch Saving Protection program. The company is committed to honor other traders who are a part of it. They will not contact a customer during a switch out.

Audit Commentary

Electrica hasn't lost any ICP.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

5. Maintenance of unmetered load

5. 1. Maintaining shared unmetered load

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 notify 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 notify 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 notify the registry 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 notify 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 notify the distributor of the change. The amount of electricity attributable to that ICP becomes UFE.

Audit Observation

Electrica, according to the LIS file dated 05/05//17, did not trade any ICPs with attached shared unmetered load. The company policy is not to switch in such ICP. The registry is checked during the evaluation of information to see if shared unmetered load is part of a connection before NT file is initiated

Audit Commentary

Based on analysis of the LIS file we confirm that Electrica does not trade ICPs with shared unmetered load

Audit Outcome: Compliant

5. 2. Unmetered threshold

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

Electrica does not have UML ICPs.

Audit Commentary

Electrica does not have UML ICPs.

Audit Outcome: Not applicable

5. 3. Unmetered threshold exceeded

Code Reference

Clause 10.14 (5)

Code Related Audit Information

If the unmetered load limit is exceeded the retailer must:

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

Audit Observation

Electrica does not have UML ICPs.

Audit Commentary

Electrica does not have UML ICP.

Audit Outcome: Not applicable

5. 4. Distributed unmetered load

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

Electrica does not have DUML ICPs. The LIS file was checked.

Audit Commentary

Electrica does not have DUML ICPs.

Audit Outcome: Not applicable

6. Gathering raw meter data

6. 1. Electricity conveyed & notification by embedded generators

Code Reference

Clause 10.13, Clause 10.24 and 15.13

Code Related Audit Information

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

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

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

- there is 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 ICPs traded by Electrica are metered, all installations are category 1. No subtraction is use to determine submission information.

Audit Commentary

Compliance confirmed based on analysis of the LIS file.

Audit Outcome: Compliant

6. 2. Responsibility for metering at GIP

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

Not yet complete

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

6. 3. Certification of control devices

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

Electrica uses only profile HNL and RPS.

Audit Commentary

Electrica does not use a profile which would require a certified control device.

Audit Outcome: Not applicable

6. 4. Reporting of defective metering installations

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

We discussed with Electrica, their obligation if an event or circumstances led it to believe a metering installation could be inaccurate, defective, or not fit for purpose. Electrica trades 9 ICPs therefore they are able closely to monitor metering data. To their best knowledge none of their traded installations could be considered inaccurate or defective.

Audit Commentary

Compliance confirmed based on a discussion with Electrica and review of their process of data validation. The company commented that they need to closely watch the data provided by Metrix because when Metrix is not able to read a meter, the same register read is repeated for 3 consecutive days, flag of actual read is used in a file.

Audit Outcome: Compliant

6. 5. Collection of information by certified reconciliation participant

Code Reference

Clause 2 Schedule 15.2

Code Related Audit Information

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

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

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

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

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

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

2(6) – The interrogation systems must record:

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

Audit Observation

Electrica has an arrangement with Metrix to read all their meters.

Audit Commentary

Compliance confirmed based on the fact that HHR data is collected by the MEP, which are responsible for meeting requirements of clause 2(3)(4)(5).

Audit Outcome: Compliant

6. 6. Derivation of meter readings

Code Reference

Clause 3(1), 3(2) 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

Metering data is always received form Metrix. Electrica does not accept readings from customers.

Audit Commentary

Compliance confirmed based on observation of how metering data is collected and imported into EnelSoft.

Audit Outcome: Compliant

6. 7. NHH meter reading application

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

In section 12.10 we will describe test scenarios used to assess compliance of calculation of forward and historic estimates for NHH ICPs.

Audit Commentary

Compliance confirmed based on evaluation of results of NHH scenarios, section 12.10.

Audit Outcome: Compliant

6. 8. Interrogate meters once

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

Electrica hasn't lost any ICPs yet.

Audit Commentary

Electrica hasn't lost any ICPs yet. Not possible to evaluate compliance

Audit Outcome: Not applicable

6. 9. NHH meters interrogated annually

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

Electrica has traded for less than a year.

Audit Commentary

No ICPs have been traded for a full 12 months yet.

Audit Outcome: Not applicable

6. 10. NHH meters 90% read rate

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

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

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

All meters are read daily by Metrix. Electrica sends the Meter Frequency report to the market operation every month.

Audit Commentary

Compliance confirmed based on a review of Meter Frequency Reports and observation that meters are read daily by Metrix.

Audit Outcome: Compliant

6. 11. Non half-hour metering information

Code Reference

Clause 5 of Schedule 15.2

Code Related Audit Information

A reconciliation participant must, when manually interrogating a non half-hour metering installation, if the relevant parts of the metering installation are visible and it is safe to do so,-

- (a) obtain the meter register value; and
- (b) ensure the seals are present and intact; and
- (c) check for phase failure if the meter supports it; and
- (d) check for signs of tampering or damage; and
- (e) check for electrically unsafe installations

Audit Observation

Electrica does not read meters themselves.

Audit Commentary

Electrica does not read meters themselves.

Audit Outcome: Not applicable

6. 12. NHH meter interrogation log

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 meters are read by Metrix remotely as HHR.

Audit Commentary

All meters are read by Metrix remotely as HHR.

Audit Outcome: Not applicable

6. 13. HHR data collection

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

Raw meter data is obtained and stored by Metrix on behalf of Electrica.

Audit Commentary

Raw meter data is obtained and stored by Metrix on behalf of Electrica.

Audit Outcome: Compliant

6. 14. HHR interrogation data requirement

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

As mention previously, all meters installed at metering installations are read by Metrix traded by Electrica.

Audit Commentary

Compliance is confirmed based on the fact that data is collected by the MEP.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

6. 15. HHR interrogation log requirements

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

Data connection is conducted on behalf of Electrica by Metrix. Register reads are delivered daily.

Audit Commentary

HHR data is collected by AMS and uploaded to a SFTP server. The compliance with this clause is assessed by Metrix's audit.

Audit Outcome: Compliant

7. Storing raw meter data

7. 1. Trading period duration

Code Reference

Clause 13 Schedule 15.2

Code Related Audit Information

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

Audit Observation

HHR data connection is conducted on behalf of Electrica by Metrix.

Audit Commentary

The compliance with this clause is assessed by Metrix's audit.

Audit Outcome: Not applicable

7. 2. Archiving and storage of raw meter data

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

Electrica does not store raw data. It is collected and archived by Metrix.

Audit Commentary

The compliance with this clause is assessed by Metrix's audit

Audit Outcome: Not applicable

7. 3. Non metering information collected / archived

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

Electrica does not have such ICPs.

Audit Commentary

Electrica does not have such ICPs.

Audit Outcome: Not applicable

8. Creating and managing (including validating, estimating, storing, correcting and archiving) volume information

8. 1. Correction of NHH meter readings

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

Electrica receives NHH register reads from Metrix. If there are any issues Electrica contacts Metrix and asks for the data to be resent. Usually if data is missing from the original file, it is never re-sent to Electrica.

Audit Commentary

Compliance confirmed based the process adopted by Electrica. The only option is to contact Metrix and request the data again. Electrica can't read the meters themselves.

Audit Outcome: Compliant

8. 2. Correction of HHR metering information

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

Metering data is always received from Metrix who as the MEP, who validated data. Electrica does additional validation, which is required by the HNL profile approval by the Authority.

Audit Commentary

Compliance confirmed.

Audit Outcome: Compliant

8. 3. Error and loss compensation arrangements

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

Electrica does not have such metering installations.

Audit Commentary

Electrica is not aware of any metering installations which require error and/or loss compensation. The company only trades metering installations of category 1.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Complaint

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

8. 4. Correction of HHR and NHH raw meter data

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

Electrica never corrects NHH reads, they come from Metrix as daily register reads.

Strictly speaking Electrica does not raw half-hour data, it is stored and collected by Metrix.

Half-hour data received from Metrix is corrected because according to the HNL approval, Electrica must address

“any difference, larger than one kWh over a 24 hour period or 2kWh over a one month period, between the accumulating register and the half hour data stream is recognized and the half hour data is corrected so that there is no difference between master register reads and the half hour data stream for the same time period;”

Audit Commentary

Compliance confirmed based on the process of register reads for provided by Metrix. Electrica provided audit trail of correction to half-hour data and example of how it is calculated.

Audit Outcome: Compliant

9. Estimating and validating volume information

9. 1. Identification of readings

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

A flag is recorded against each interval such as “I” meaning initial, “PE” - permanent estimate. NHH register reads have slightly different terminology such as A, FE. There is no special reason for these names, or for them being different. It is the way Enelsoft is designed.

Audit Commentary

Compliance confirmed based on review of the files in EnelSoft.

Audit Outcome: Compliant

9. 2. Derivation of volume information

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

HHR volumes are derived only from validated meter readings from the MEP, Metrix. If data is not provided by Metrix, it is estimated as noted in other sections.

Audit Commentary

We confirm compliance based on an overview of the process. Metrix provides validated data, Electrica additionally validates data as per HNL profile requirements.

Audit Outcome: Compliant

9. 3. Meter data used to derive volume information

Code Reference

Clause 3(5) Schedule 15.2

Code Related Audit Information

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

Audit Observation

Register reads are provided by Metrix for all ICPs traded by Electrica. At the end of each month, Electrica received LP data, which is HHR data in a form of spreadsheet. Register reads and HHR data are loaded into the system. No data received from Metrix is not rounded or truncated.

Audit Commentary

We confirm compliance based on example provided by Electrica and their statement dated 29/6/17.

Audit Outcome: Compliant

9. 4. Half hour estimates

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

Metrix provides register reads daily and HHR data at the end of each month. There are no problems receiving data from Metrix. It could be that some intervals are missing so data is estimated.

Audit Commentary

Compliance confirmed. Electrica will estimate data if not available to follow previously described process. Only intervals are missing are estimated and register reads are used to calculate the missing volume. Another factor of process as HNL profile, which was described previously.

Audit Outcome: Compliant

9. 5. NHH metering information data validation

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

Electrica receives NHH register reads from Metrix. The company relies on Metrix validation.

Audit Commentary

Electrica receives NHH register reads from Metrix. The company relies on Metrix validation.

Audit Outcome: No applicable

9. 6. Electronic meter readings and estimated readings

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

Electrica receives HHR data form Metrix at the end of each month. There is an issue with the validation performed by Metrix as the requirement of clause 17(4) (e) is not met. Under the Electrica profile of HNL, the conditions of this profile require it to have a process as follows:

“To validate the half hour consumption, for each ICP, the sum of the absolute volume of the half hour profile shape will be compared to the volume calculated from between the accumulating meter registers for the same period of time. Where the two values do not match, the half hour profile shape accumulating meter registers will be proportionately scaled so that the two volumes are equal. The maximum allowable discrepancy is 2 kWh and should not be breached unless there is a fault with the meters”. On 1 August 2016 Electrica was granted an amendment to the methodology for the HHZ profile

Compliance of HNL profile is not part of the reconciliation participant audit. This will be audited under a separate audit next year.

Audit Commentary

During this audit we had a look at the process of validation of Metrix data based on HNL profile requirements. Electrica runs the process end the end of month when LP data arrived from Metrix. The validation proves difficult because Metrix does not provide register reads. We suggested Electrica to validate data monthly and check the difference over a month. It is the option given in the HNL profile approval.

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

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

Not yet complete

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 2. Unoffered & intermittent generation provision of metering information

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

Not yet complete

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 3. Loss adjustment of HHR metering information

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

Not yet complete

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

10. 4. Notification of the provision of HHR metering information

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

Not yet complete

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

11. Provision of submission information for reconciliation

11. 1. Buying and selling notifications

Code Reference

Clause 15.3

Code Related Audit Information

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

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

Audit Observation

Electrica uses RPS and HNL profile.

Audit Commentary

We checked the files provided to the reconciliation manager to confirm that only RPS and HHR profiles are used. There are no plans to use other profiles.

Audit Outcome: Compliant

11. 2. Calculation of ICP days

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

Electrica provided a set of reconciliation files including AV110 (ICPs days) for March and April '17. The calculation of ICP days is based on data stored in Enelsoft. Electrica also provided a set of GR100 files, which are created by the reconciliation manager. These files allow the comparison between ICPdays counted by the reconciliation manger and a participants' system. There were no differences between ICP days calculated by the registry and Electrica's system.

Audit Commentary

Compliance confirmed based on analysis of AV 110 files and GR 100 provided by Electrica.

Audit Outcome: Compliant

11. 3. Electricity supplied information provision to the reconciliation manager

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

We analyzed AV120 files submitted to the reconciliation manager. File AV120 is created in the Enelsoft, which stores all metering data.

We compared supplied volumes versus submitted volumes, it is presented in the attached graph. We noted that since October'16 supplied and submitted volumes are the same. There is a simple explanation for it. When Electrica runs invoices in their billing system the invoice month is the same as the month when the energy was used.

Audit Commentary

Compliance confirmed based on review of AV120 for 3 months.

Audit Attachments

Supplied versus submitted.xlsx

Audit Outcome: Compliant

11. 4. HHR aggregates information provision to the reconciliation manager

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

Electrica provided a set of HHRAGGR files for 3 (January, March, and April'17) months. We compared volumes in HHRAGGR and HHRVOL for the corresponding month and they match. Electrica was not sending revision files because none of the ICPs Electrica has obtained required revised submission information.

Clause 15.8 states that the aggregates file should contain electricity supplied information rather than submission information. It differs from the Reconciliation Manager Functional Specification. In Section 3 of the Reconciliation Manager Functional Specification, HHR Aggregates information is described as: "*HHR submission information that is aggregated per ICP for the whole month (not half-hourly)*", which suggests an intention that this information should be sourced from submission information not electricity supplied information, which is covered by clause 15.7. It was brought to the Authority's attention and we got assurance that it is on the list of proposed changes to the Code.

Audit Commentary

Compliance confirmed based on the analysis of 3 months data provided by Electrica.

Audit Outcome: Compliant.

12. Submission computation

12. 1. Daylight saving adjustment

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

Metrix provides data in NZ Standard time. Electrica's system has the functionality to adjust metering data for NZDT. The type of technique used is TPR.

Audit Commentary

Compliance is confirmed

Audit Outcome: Compliant

12. 2. Creation of submission information

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

At the time of audit, Electrica's process was not to submit revision files because they were able to provide the most accurate information as an initial submission. Due to the small number of ICPs, actual data from Metrix, and a sound estimation process they concluded that there was no need to submit revision files.

Audit Commentary

Compliance confirmed based on the process documentation. After discussions during the audit, Electrica decided to always submit revision files as good industry process regardless if more accurate data was provided by Metrix.

Audit Outcome: Compliant

12. 3. Allocation of submission information

Code Reference

Clause 15.5

Code Related Audit Information

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

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

Audit Observation

LIS file is downloaded to Enelsoft and compared with its own records. Submission files are created based on information in Enelsoft, which is updated by the registry file.

Audit Commentary

Compliance confirmed

Audit Outcome: Compliant

12. 4. Grid owner volumes information

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

Not yet complete

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

12. 5. Provision of NSP submission information

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

Not yet complete

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

12. 6. Grid connected generation

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

Not yet complete

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

12. 7. Accuracy of submission information

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

At the time of audit, Electrica's process was not to submit revision files because they were able to provide the most accurate information as an initial submission. Due to a small number of ICPs, actual data from Metrix and sound estimation process they concluded that there was no need to submit revision files. Of course this situation will change when the customer database grows and metering data would be provided by a number of providers.

Compliance confirmed based on a review of data delivery from Metrix and data validation process.

Audit Outcome: Compliant

Recommendations

Introduce a routine process to submit revision files regardless if more accurate data was provided or not by MEPs. It is common industry practice to assure compliance.

12. 8. Permanence of meter readings for reconciliation

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

Electrica has not been trading for 1 month yet.

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

12. 9. Creation of submission information

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

Audit Observation

At the time of this audit, Electrica traded 9 ICPs. ICPs were traded as NHH and HHR. EnelSoft created submission files. We followed the process of how submission files were created, AV080, AV090, AV110, and AV140. Submission volumes were calculated for all ICPs recorded in the registry as Electrica being a trader.

Audit Commentary

Compliance is confirmed based of a review of the process and checking ICPs in the LIS file and validating submission files.

Audit Outcome: Compliant

12. 10. Historical estimates and forward estimates

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 provided Electrica with a set of scenarios to check if EnelSoft correctly calculates estimated and historic estimates for different switching scenarios. The results are attached to this document.

Audit Commentary

Compliance confirmed based on results of scenarios. We walked through each scenario and confirm that calculations were correct and forward and historic estimates were clearly identified.

Audit Attachments

Scenarios.xlsx

Audit Outcome: Compliant

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12. 11. Historical estimate process

Code Reference

Clause 4 and 5 Schedule 15.3

Code Related Audit Information

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

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

Audit Observation

Electrica does create their own shape file. For day 4 submissions, if they did not have two validated meter readings, they would submit forward estimates.

Audit Commentary

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

12. 12. Forward estimate process

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

Electrica does not use forward estimates as such but EnelSoft has a functionality, which allows it to do it. It was extensively testing by providing calculations for scenarios, which are attached to section 12.10. This functionality could be used when the number of traded ICPs increases.

Audit Commentary

Compliance based on test results of scenarios described in section 12.10.

Audit Outcome: Compliant

12. 13. Compulsory meter reading after profile change

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

Electrica submits data to the reconciliation manager, which is provided by Metrix. When Electrica changes the type of reconciliation for an ICP from NHH to HHR, the profile changes from RPS to HNL. It is the only situation when a profile change occurs. Volumes are calculated for both profiles using validated meter readings.

Audit Commentary

Compliance confirmed based on a review of the process.

Audit Outcome: Compliant

13. Submission format and timing

13. 1. Provision of submission information to the RM

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

Electrica provided NHHVOLS, NHHVOLS for Jan, March, and April'17 for review. We confirm that all files contain information as described above.

Audit Commentary

Compliance confirmed based on review of files provided by Electrica.

Audit Outcome: Compliant

13. 2. Reporting resolution

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

Electrica provided a statement, email date 29/6/17 that the rounding in the data for submission happens as described in Clause 9 Schedule 15.3

Audit Commentary

Compliance confirmed based on statement from Electrica.

Audit Outcome: Compliant

13. 3. Historical estimate reporting to RM

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

At the time of audit of the audit it was noted that the format AV080 was incorrect because the last column of the file contained only zeros, which indicated that all data submitted was estimated which was not true. Metering data for all ICPs is collected by Metrix and passed to Electrica, which means they are always actual reads collected remotely. If there are gaps in the data, it will be estimated and becomes a Permanent Estimate.

Audit Commentary

Non-compliance was identified based on AV080 files provided. The proportion of historical estimates per NSP contained within non-half hour submission information at the month 3 revision was 0%. The problem was with the format of AV080, how the data was presented. Before the report was finalized, Electrica made changes to their reporting in their system and re-submitted AV080 files showing that all NHH data for month Nov'16, March'17, and May'17 was Actual (HE).

Audit Outcome: Non-compliant

Conclusion

Whilst 3 non-compliances all of them cleared during the audit) have been found during the audit, in our view none of the matters have resulted in material reconciliation issues.

Auditor Protocol Guideline dated 2 May 2017 was used to calculate breach risk rating for each non-compliance. Total score is 8. All non-compliances were cleared by the time this report was finalized.

Based on Table 1 from the Guidelines for Reconciliation Participants Audits the recommendation is to conduct the next audit in 36 months. From our point of view, it won't be appropriate because of small number of ICPs traded by Electrica. Our recommendation is 12 months.

Participant Response

Not yet complete