Electricity Industry Participation Code
Reconciliation Participant Audit Report
For

NextGen Energy Limited

Prepared by: Ewa Glowacka

Date Audit Commenced: 15 Jun 2017

Date Audit Report Completed:

Executive Summary

This reconciliation participant audit was performed at the request of NextGen Energy (NEXG) to support their application for certification, in accordance with clauses 4 & 5 of Schedule 15.1 of The Code.
The relevant clauses audited are as required by the Guidelines for Reconciliation Participants Audits, V 7.1 issued by the Electricity Authority.

NextGen intends to retail electricity using Advanced Metering Infrastructure (AMI) meters that record and report consumer electricity consumption every half hour (HHR) and are remotely interrogated every day. Legacy metering is still dominant in the City of Nelson network (NELS), on which NextGen wants to trade. For the majority of installations Trustpower is the MEP and does not have plans of replacing legacy metering with smart meters in the near future. Such situation forced NextGen Energy to adapt their business model. The company must be able to process NHH meter readings, make NHH submissions to the reconciliation manager, comply with the requirements of the Code regarding the NHH process and become certified to perform both HHR and NHH processes
Since the last audit NextGen increase number of traded ICPs from 2 to 109. The company does not have any restriction on number of HHR ICPs they can trade. The exemption No 241 restricts number of NHH ICPs to 20 and metering installation category 1 and 2 for both NHH and HHR. NextGen met the restriction imposed by the exemption since it was granted.
The company does not use any agents to conduct functions covered by this audit. All functions are conducted by NextGen's personnel using registry web interface for switching and ETS software (managing meter reads and submission files), written and supported by Paul Troon Consulting, who also acts as a consultant.

15 non-compliances were identified, (two of them was cleared) one issue and one recommendation during this audit. Some of non-compliances are very interconnected.
Most of non-compliances are related to the way how NHH volumes are calculated for reconciliation purposes.

We thank NextGen Energy for its 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 NextGen Energy (NEXG) to support their application for certification, in accordance with clauses 4 & 5 of Schedule 15.1 of The Code.
The audit was carried out on the NextGen Energy premises at 3/295 Trafalgar St, Nelson, on the 12/13 June 2017.
We attached to this document a table, which describes which functions are conducted by NextGen and which by MEPs.

Audit Commentary

This audit report covers the areas which are specified in the scope of the audit. Each function requiring certification will be covered in the relevant part of this audit.

Audit Attachments

Scope of audit.doc

NGE system overview.pdf

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 2. ICP data

Code Reference

Code Related Audit Information

Audit Observation

NextGen Energy provided the LIS file dated 06/06/2017. The type of file was "S", addresses were included.

Audit Commentary

The summary of the file is attached to this section, showing the number of ICPs per metering category and number of ICPs per combination of ICP Status Code/ICP Status Reason.

Audit Attachments

CRP 1.2 ICP Data - ICP Summary -NEXG.xlsx

CRP 1.2 ICP Data - Meter Category Summary NEXG.xlsx

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen Energy was granted the exemption #241, which was gazette on 22/12/2016.
The exemption states that NextGen Energy 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.
a) The exemption will expire with the close of 31August 2017; and
b) NextGen being responsible for more than 20 NHH ICPs; and
c) NextGen being responsible for an ICP with metering installation of category 3, 4, or 5.

NextGen keeps a close eye on the number of NHH ICPs to make sure that the conditions of the exemptions are met. The company tracks NHH ICPs using Meter change log.xlsx. The spreadsheet tracks a switch date, requests meter change, nomination of MEP, a date of meter change, change of profile in the registry.

Audit Commentary

We assessed compliance with the exemption #241 in other parts of this document. To summarize NextGen has met the conditions imposed on them. Based on the LIS file provided, dated 6/6/17 NextGen did not exceed 20 ICPs reconciled as NHH and were responsible for metering installations category 1 and 2 only.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 4. Structure of organisation

Code Reference

Code Related Audit Information

Audit Observation

The company provided the organizational chart attached to this document.

Audit Commentary

The organizational chart shows personnel responsible for NextGen operations.

Audit Attachments

Org Chart.pdf

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 5. Use of agents

Code Reference

Clause 15.34 of Part 15

Code Related Audit Information

Audit Observation

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

Audit Commentary

NextGen did not engage any agents to perform functions covered by this audit. AMS, as the MEP, provides HHR data.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 6. Hardware and software

Code Reference

Code Related Audit Information

Audit Observation

NextGen uses software ETS written and supported by Paul Troon Consulting to manage HHR and NHH readings and submissions to the reconciliation manager

Audit Commentary

In a later part of this document we describe in detail how ETS is used to assist in the meeting of compliance in certain areas.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 7. Breaches or breach allegations

Code Reference

Code Related Audit Information

Audit Observation

We discussed this with NextGen and confirm that there were no breaches or breach allegations noted against NextGen since the last audit.

Audit Commentary

No breaches or breach allegations recorded against NextGen.

Audit Attachments

There are no uploaded attachments for this subsection.

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

1. 8. Authorisation received

Code Reference

Code Related Audit Information

Audit Observation

NextGen provided a letter of authorization, dated 6/6/2017, permitting the collection of data from other parties, for matters directly related to the audit.

Audit Commentary

The authorization letter gave consent to contact the third parties in relation to this audit (Electricity Authority and Reconciliation Manager).

Audit Attachments

1-Auditor Authorization NextGen Energy Ltd 2017 Audit v2.pdf

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 NextGen Energy non-compliant because some information in the registry was incorrect, there are issues with how NHH volumes are calculated and AV120 files contained incorrect information. Such problems lead to inaccurate information but it was never intentionally deceptive or misleading. We will describe in more detail in the relevant sections of the report.

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.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 NextGen and asked if they were requested to provide any information requested 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

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 AMS are conducted electronically via SFTP using FileZilla. Reconciliation files are uploaded via the RM portal.

Audit Commentary

Compliance is confirmed based on observation.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 authorization, 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

NextGen Energy provided Terms and Conditions of Supply, which are attached to this document.

Audit Commentary

We reviewed Terms and Conditions of Supply to assess compliance with clause 10.4. Section 1 explains that this agreement extends to the full term of arrangement. The document describes arrangements with metering companies and networks. Compliance confirmed.

Audit Attachments

Terms and Conditions.pdf

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 NextGen Energy provided Terms and Conditions of Supply to assess compliance.

Audit Commentary

We reviewed Terms and Conditions of Supply to assess compliance. We confirm that section 7 covers access to premises listed as code references for this section.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen trades only in ICPs connected using cat 1 and 2 metering installations. These are installations characterized that metering installation is at the point of connection. The companies rely on professional knowledge of MEPs and ATHs, who certify installations.

Audit Commentary

We confirmed compliance based on conversations with NextGen 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

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 NextGen Energy provided Terms and Conditions of Supply to assess compliance

Audit Commentary

Section 20 of the Terms and Conditions of Supply describes the “Transfer of Responsibilities”, which could be exercised by the Authority in the event that NextGen commit an “event of default”. Compliance confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues 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

NextGen has not had any new connections since the last audit. 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

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

2. 10. Metering certification

Code Reference

Clause 10.33(2)

Code Related Audit Information

A reconciliation participant may energize or authorize 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

NextGen has not had any new connections since the last audit. 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

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen Energy provided Terms and Conditions of Supply to assess compliance. Section 20 is dedicated to arrangements with network companies. Network companies' charges are passed through to their customers. At the time of the audit, NextGen was trading only on two networks, TASM and NELS. We viewed one invoice and confirm that network charges were shown.

According to the LIS file dated 6/6/17 the following MEPs are recorded against their ICPs; AMS, CTCT, LMGL, TRUM, and FCLM. NextGen confirmed that they have contract with AMS, which covers ARCS/SMCO/NGCM. NextGen did not confirmed if arrangements with other MEPs are in place.

Audit Commentary

Non-compliance identified. NextGen did not provide any assurance that there are arrangements in place with CTCT, LMGL, TRUM, and FCLM.

In our view the strength of controls is "Moderate" in place to ensure compliance with this clause

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

LINK to 2.12

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen has arrangements in place with all MEPs. It is a standard process adopted by the company before signing any customer.

Audit Commentary

Compliance confirmed based on documentation provided by NextGen.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen has not signed up any new connections since the last audit. There are no plans to do it in the future.

For existing installations, a customer is asked to provide the ICP identifier on a "New Switch Form Request" (attached to this document or it is taken from the registry based on an address provided, if a customer knows it.)

Audit Commentary

Compliance is confirmed based on documentation review and the fact that all switching is done via web interface. It is simply impossible to claim an ICP without knowing an ICP identifier.

Audit Attachments

Customer Gain

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen Energy provided the LIS file dated 6/6/2017. It was a snapshot of all ICPs (including addresses) on 06/06/17.

Audit Commentary

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

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 NextGen Energy for a period between 1 October 2016 to 31 May 2017. In total, there were 108 entries recorded as "trader" and 1 as "Status".

ICP 0000187723CT3E6 - status was changed from Vacant to Active. (re-energisation confirmation is attached). The update was backdated by 25 days.

Registry updates called “trader” - in total 108, 15 updates were backdated, the latest was 61 days (the list is attached). The following fields were updated: type of reconciliation and an MEP nomination. 4 MEPs nominations were backdated

It was discussed with the company and the main reason for backdating this type of reconciliation was having

HHR reconciliation assigned to RSP profile. It was a correction of information. NextGen was not aware that the registry does not automatically update this type of reconciliation to HHR as soon as a profile specified by a trader is HHR. As soon as they realized it, early June, after discussion with the reconciliation manager related to discrepancies of ICP days, the registry was corrected.

Audit Commentary

Non-compliance was identified based on analyses of the EDA file for a period between 1 October 2010 to 31 May 2017, provided by NextGen.

The status of one ICP was backdated by 25 days and 15 updates of the trader section in the registry were later than 5 business days.
We would assess controls as Moderate because incorrected information was identified and information was corrected. It has been documented that ICPs recorded with HHR profile must reconciled as HHR.

Audit Attachments

List of ICPs, backdated updates.

Audit Outcome: Not compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 an MEP is recorded for all ICPs that NextGen is currently responsible for, using the LIS dated 06/06/17. All ICPs traded have status Active. NextGen has not decommissioned any ICP. All ICPs have an MEP recorded.

Audit Commentary

NextGen Energy only trades 109 ICPs. All ICPs have an MEP recorded in the registry as per the LIS file. Compliance confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 dated 06/06/17. We conducted an analysis of all entries in the file using a specially design spreadsheet which checks, for example 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.

The analysis showed that 7 ICPs had the incorrect type of reconciliation for the type of profile recorded in the registry. Profile HHR and reconciliation type NHH. ICPs in question were 0000013905NTE29, 0000050035NT9AD, 0000181955CT4FF, 0000185532CTC49, 0000185813CT851, 0000187723CT3E6, and 0000200852CT200.

Audit Commentary

Non-compliance identified after analyses of the LIS file. It showed incorrect type of reconciliation (NHH) in the registry for 7 ICPs using HHR profile. The incorrect information was corrected but it was backdated because it was not identified straight away.
We would assess controls as Moderate because incorrected information was identified and information was corrected. It has been documented that ICPs recorded with HHR profile must reconciled as HHR.

Audit Attachments

JC spreadsheet

Audit Outcome: Non-compliant

ADD LINK to 3.5, not possible,

lack of functionality

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 dated 06/06/17revealed that there were 14 ICPs with ANZSIC code other than "0" (residential), 2 ICPs had ANZSIC code of T994, which means "don't know". We discussed this assignment of ANZSIC Code for 2 ICPs [0000186492CTFB2 and 0000200852CT200] with NextGen and they agreed that it was incorrect. It was changed and an updated LIS file was emailed.

Audit Commentary

Non-compliance was identified based on the analysis of the LIS file which showed that 2 ICPs had ANZSIC code T994 and 2 ICPs incorrect ANZSIC code. It was not on priority list for NextGen to review ANZSIC codes after signing up a new customer. During the audit we identified 4 incorrect ANZSIC code but they were corrected promptly. Our assessment of controls is as Weak.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen does not trade any UML ICPs and is not planning to do so. Refer to Terms and Conditions of Supply.

Audit Commentary

No UML ICPs traded.

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.

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 06/06/17 and traded by NextGen have the status Active. Each ICP had only one customer recorded in ETS. Electricity consumed is qualified by a metering installation, for each installation an MEP is recorded in the registry.

Audit Commentary

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

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 06/06/17 showed that there were no ICPs with the status “Inactive” traded by NextGen. NextGen has a comprehensive set of documented processes for example “De-energisation due to vacancy”, “De-energisation due to breach of terms and conditions” etc. These processes have not been used yet but they are ready as a reference.

Audit Commentary

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

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.

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

NextGen switched the first ICP 8/9/16, which means that they have been 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 NextGen’s LIS file because a network did not upload their name as a proposed retailer.

Audit Commentary

According to the LIS file no ICPs have the status of “Ready”

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.

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

NextGen's policy is to trade ICPs as HRR using smart meters read remotely. Most installations connected on NELS network still have legacy meters. Each time such an installation switches to NextGen, the company nominates AMS as the MEP and asks them to install a smart meter. According to the Meter changes log spreadsheet provided by NextGen, 10 ICPs had their meters replaced. 4 MEP nominations were backdated in the registry, which was already covered in other section.

Audit Commentary

NextGen's policy is to replace legacy meters with smart meters for all their customers. The process in place, each meter changed in documented, step by step, in "Ewa meter change.xls" attached to this document. Compliance confirmed

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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, the EDA file for a period 01/10/16 – 31/05/17," NGE TR/MI Switch Process" and "NEXG Customer Gain v2". The Switch Breach Report did not list any breaches in relation to notification to the registry.

NextGen advised the registry of a switch type TR for 85 ICPs. All of them were sent no later than 2 business days after the arrangement was finalized.

Audit Commentary

Compliance is confirmed based on analysis and review of documents listed in the audit observation. The document "NEXG Customer Gain v2 is well written, with many details and easy to follow. NextGen uses the registry web interface to manage switching.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

complete Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen 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 since the last audit. 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

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

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.

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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, NextGen haven't lost any ICPs since the last audit. The process is documented.
The registry web interface will be used to send CS file.

Audit Commentary

NextGen hasn't lost any ICPs since the last audit.

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.

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

NextGen received 56 CS files since the last audit. These files contained the switch event reads which must be used for both the gaining and the losing trader. The process used by NextGen is as follows: the switch event read for NHH ICPs is entered manually into ETS (screenshot is attached). The switch event reads for HHR ICPs are not used for reconciliation process, they are not recorded in ETS.
Using “RR Master Sheet.xls” NextGen runs the following process to monitor compliance with clauses listed in this section:

- Records the switch event read for each ICP, including type of E or A
- Record AMI register read at the end of the first day of NextGen’s responsibility
- Calculate volume from interval data for the first day of NextGen’s responsibility
- Calculate AMI switch event read by subtracting daily volume from AMI register read at the end of the switch date
- Calculate the difference between two switch event reads
- Note in the spreadsheet if readings are the same and mark when RR file was sent.

According to the spreadsheet, 8 RR files were sent, which is reflected in the EDA file. We reviewed calculations of difference of register reads for 21 ICPs for which the comment in the spreadsheet was “reading SAME”. Based on our calculations we don’t agree with such comments. In all 21 reviewed cases the readings were not the same, RR file was not sent to the losing trader asking to accept new switch event read. For almost all ICPs checked the switch event read in the CS file was lower than the switch read calculated by NextGen. It means that if NextGen was using only absolute volumes for HHR ICPs reconciliation, some volumes were left out and not reconciled.
We did not have enough data to fully evaluate an impact but we came across two ICPs, 0000042841NT656 and 0000052673NTFC1, for which the NextGen switch event read was higher in the switch event read in the CS file by 393.02 and 679.03 kWh. RR file was not sent to the losing trader. More analysis needs to be done.
The Company explained that customers are billed register reads provided in the CS files. For customer billing NextGen does not use ETS.

Audit Commentary

Based on discussions with NextGen and reviewing ”RR Master Sheet.xls” our conclusion is that in most cases, NextGen does not use the switch event read provided in the CS file by the losing trader. HHR ICP volumes are

reconciled using monthly interval data provided by the MEP (AMS), we would call it absolute volumes, which are accurate but as monthly usage. The problem is that this process does not take into consideration that both traders do not use the same switch register read. About 50% of the switch event reads are Estimates. This was identified as the issue in the previous audit and the company response was that the process is in place and will be implemented. It appears that the process is in place but the implementation of the process does not deliver compliant results. Non-compliance identified.

During this audit when noncompliance is identified, we were asked to determine strength of controls, which will reduce inherent risk. The RR Master Sheet is well designed and we would describe it as corrective control. According to Risk and Materiality Guidelines dated 2 May 2017, corrective controls are controls that ensure an issue or error that has occurred is addressed. Unfortunately, this control is hardly ever used therefore we say that adequacy of this control is “weak”

Audit Attachments

RR Master Sheet spreadsheet attached.

Audit Outcome: No compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 6(2)(b);
- the gaining trader within 5 business days after receiving final information from the registry, 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

As was described in the previous section NextGen sent 8 RR files using AMI register reads. The list is attached to the document. All 7 RR files sent by the company were accepted by the losing trader. NextGen did not received RR files.

Audit Commentary

The process is in place. We are not clear what parameters are used to decide to send RR file to notify about new switch event read. AMI reads must be accepted by the losing trader. I do appreciate that it is not easy to work with the MEP but hopefully more and more traders will be using AMI reads as the switch event read.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

Review process and send RR file for all switches when the switch event read is not the same as your switch event read taken from HHR data unless a decision is made to use provided the switch event read. If the MEP (AMS) does not provide HHR data within 5 business days, put in place another process in conjunction with AMS to receive register read only as soon as possible after a switch finalized.

Issues

There are no issues arising from this subsection.

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, NextGen did not have 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 of review of the RR process in previous sections.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen gained 11 ICPs using Switch Move In process. The process is documented. Two switches (0000017478NT7A7 and 0000043656NT69A) were originally sent as TR, which was incorrect. Once a mistake was identified, MI notification was sent but it caused switches to be backdated. The company commented that it was exceptionally difficult to communicate with a customer connected at 0000017478NT7A7 to clarify Move In date.

ICP 0000200681CT589 the date of Move In was 15/1/17, but the registry was notified on 26/5/17.

Audit Commentary

Non-compliance identified based on analysis of the EDA file for the period 15/10/16- 06/06/17. Notification for 3 MI switches were initiated later than 2 business days after the arrangement with a customer came into effect. The company really works hard to avoid situations when notification to the registry is backdated. Unfortunately, sometimes it is outside of their control. All switches are closely monitor and there is a process in place to lodge “internal self-breach” if non-compliance occurs. Our assessment of this process strength (control) is as “strong”

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

The EDA file mentioned in previous sections shows that NextGen haven’t lost any ICPs using Move In process

Audit Commentary

The process is documented. NextGen haven’t lost any ICPs using Move In process therefore the process has not yet been tested in practice.

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.

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

The EDA file mentioned in previous sections shows that NextGen haven't lost any ICPs using Move In process

Audit Commentary

The process is documented. NextGen haven't lost any ICPs using Move In process therefore the process has not yet been tested in practice.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

The EDA file mentioned in previous sections shows that NextGen haven't lost any ICPs using Move In process

Audit Commentary

The process is documented. NextGen haven't lost any ICPs using Move In process therefore the process has not yet been tested in practice.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 AMI 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

The process is documented. NextGen haven’t lost any ICPs using Move In process therefore the process has not yet been tested in practice.

Audit Commentary

The process is documented. NextGen haven’t lost any ICPs using Move In process therefore the process has not yet been tested in practice.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

The exemption granted to NextGen Energy restricts its trading to metering installations of category 1 and 2. No gaining trader type of switches recorded in the EDA file.

Audit Commentary

Not applicable because of the exemption. No gaining trader type of switches.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

The exemption granted to NextGen Energy restricts its trading to metering installations of category 1 and 2. No gaining trader type of switches recorded in the EDA file.

Audit Commentary

Not applicable because of the exemption. No gaining trader type of switches.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

The exemption granted to NextGen Energy restricts its trading to metering installation category 1 and 2. No gaining trader type of switches recorded in the EDA file.

Audit Commentary

Not applicable because of the exemption. No gaining trader type of switches.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen sent one NW file for ICP 0000030167NTA7C. The withdrawal advisory code was WS. The file was sent within 1 day after being identified as an incorrect switch type.

NextGen sent 6 AW files as a response to NW. We checked all of them and observed that 4 AW files were sent later than 5 business days.

Audit Commentary

Non-compliance confirmed based on the checking of timing of the AW transactions. AW files for 4 ICPs were sent later than 5 business days. They were late by only 2 and 7 business days. NextGen recorded internal breach forms. We viewed the breach forms and we are satisfied hot the process works. Our assessment of this process strength (control) is as “strong”

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 NextGen Energy and they fully understand they 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 are extracted from data provided by AMS.

Audit Commentary

Compliance confirmed based on discussion with NextGen. No ICPs were lost since the last audit.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen is part of the Switch Saving Protection. They haven't lost any ICP since the last audit. The company policy is to respect obligations described in this section.

Audit Commentary

NextGen hasn't lost any ICP since the last audit.

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.

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

NextGen, according to the LIS file dated 6/6/17, does not trade any ICPs with attached shared unmetered load. The company policy is not to switch in such an 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

Not yet complete

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

According to the LIS file dated 06/06/17, there was no UML load traded by NextGen.

Audit Commentary

No UML traded by NextGen as per the LIS file dated 06/06/17.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

As above

Audit Commentary

As above

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen does not trade distributed load ICPs.

Audit Commentary

NextGen does not trade distributed load ICPs. The LIS file dated 06/06/17 was reviewed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen trades in both HHR and NHH ICPs. All installations are metered by certified installations. The company only trades ICPs with metering installations of category 1 and 2. The company does not use subtraction to determine submission information.

Audit Commentary

Compliance confirmed based on analysis of the LIS file dated 16/06/17 and checking the setup of 10 randomly chosen metering installations (Attributes screen in the registry).

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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: No 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

NextGen trades ICPs using profile of HHR, RPS, and PV1 for reconciliation purposes. None of these profiles requires a switch of meter registers. Metering installations where solar panels are installed have an Export/Meter installed.

Audit Commentary

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

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No applicable

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 NextGen, their obligation if an event or circumstances led it to believe a metering installation could be inaccurate, defective, or not fit for purpose. They trade 109 ICPs therefore they are able 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 discussion with NextGen and review of their process of data validation.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 is 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

NextGen receives metering data for HHR reconciled ICPs from AMS on a daily basis. NHH reconciled ICPs are read (photo) by NextGen once per month.

Audit Commentary

Compliance confirmed based on the fact that HHR data is collected by MEPs, which are responsible for meeting requirements of clause 2(3)(5). The company presented the evidence of photos of meters installed at NHH ICPs.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

6. 6. Derivation of meter readings

Code Reference

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

Code Related Audit Information

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

All validated meter readings must be derived from meter readings.

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

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

(a) obtain the meter register

(b) ensure seals are present and intact

(c) check for phase failure (if supported by the meter)

(d) check for signs of tampering and damage

(e) check for electrically unsafe situations.

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

Audit Observation

NHH ICPs are read by NextGen's staff each month. The readings are done on the last day of the month or first 2-3 days of the following month. A photo is taken of each meter register showing the meter number. The company also tries to record an ICP if recorded in a meter box. During manual interrogation NextGen do all checks, which are listed (b) to (e). The process is documented (attached to this report). At the time of the audit. no customer's reads were received.

Audit Commentary

We found the process of manual interrogation robust and well documented. Compliance confirmed.

Audit Attachments

process attached, photos attached

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

Next Gen assured us that ETS software is written according to the Code requirements

Audit Commentary

NextGen assured us that compliance with clause 6 of Schedule 15.2 is met but when asked for supporting evidence, it was not provided.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Unable to

determine

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen has a small number of NHH ICPs, always below 20. They are read regularly every month. NextGen hasn't lost any NHH ICPs yet.

Audit Commentary

NextGen hasn't lost any NHH ICPs yet therefore this situation can't be evaluated.

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. 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

NextGen has not been trading any ICP for 12 months. The first ICP was switched on 8/9/17.

Audit Commentary

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

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. 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

NextGen haven't sent a report to the market administrator since the last audit. The company assumed that because they always read all NHH ICPs every month, a report wouldn't contain any useful information.

Audit Commentary

No compliance is identified. No meter frequency report has been sent to the market administrator since the last audit. The company assumed that it was part of the exemption No241.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen reads NHH meters every month by themselves. Photo is taken of each meter/meters register. Readings form photos are entered manually to ETS.

Audit Commentary

We confirm compliance based on the process document attached to the report.

Audit Attachments

Check list meter reading v.1

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

At the beginning of each month ETS created a list of NHH meters to be read. When on site NextGen's employee make sure that a meter serial number line up with the number on the list. Photo is taken of each meter register. The date of time photo taken is embedded within photos.

Audit Commentary

Compliance is confirmed based observation and process review.

Audit Attachments

NHH meter reads, missing reads list

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

HHR data connection is conducted on behalf of NextGen by AMS. Data is delivered daily.

Audit Commentary

HHR data is collected by AMS and uploaded to SFTP server. The compliance with this clause is assessed by

AMS’s audit.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

HHR data connection is conducted on behalf of NextGen by AMS. Data is delivered daily.

Audit Commentary

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

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

HHR data connection is conducted on behalf of NextGen by AMS. Data is delivered daily.

Audit Commentary

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

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 ±0.1% (±2 seconds).

Audit Observation

HHR data connection is conducted on behalf of NextGen by AMS.

Audit Commentary

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

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

Next Gen interrogates NHH metering installations themselves. Data is archived in a form of photos stored in a directory on a server. Access to photos is restricted to operational people. Photos can't be modified without an audit trail. It is very unlikely to have a reason to modify photos.

Audit Commentary

NextGen demonstrated during the audit how photos of NHH reads are stored. Compliance confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen does not have such information.

Audit Commentary

NextGen does not have such information.

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.

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

NextGen adopted a following process, the first read comes from CS file provided by the losing trader, all following reads are obtained by taking a photo of the meter registers and entered manually into ETS. If during validation an error is detected, NextGen obtains another photo to confirm the original meter reading.

Audit Commentary

We reviewed a process and found it robust and compliant.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

The Access database ETS, which is used for the management of HHR data, has estimation and correction capabilities. In a situation where HHR data has some gaps (missing intervals), NextGen will expect AMS to provide the missing information. If AMS is not able to provide the missing intervals, NextGen expects to be provided information to allow the most accurate estimation. During the audit NextGen voiced their concern about a low quality of interval data provided by AMS. For a number of weeks, AMS was providing only 46 intervals per day instead of 48. Actual data was never provided for the missing intervals. NextGen did not have a choice but to estimate the data. Additional difficulty that the company experienced was that AMS does not always provide daily register reads in HERM files.

We asked NextGen to provide an example of data estimation to assess compliance with quoted clause. The example is attached to this document.

Paul Troon Consulting, company who wrote ETS, to described estimation methodology. It is quoted below:

"When ETS assembles HHR data for reconciliation it gathers up all relevant the meter readings it can find. HHR meter data is processed in 48 trading period records. Each record is validated, one of the validation checks is for missing values in any trading period. It is most common that values are missing for all trading periods in a record, however occasionally only some of the trading periods may be identified with missing data,

ETS then performs a HHR estimate calculation under schedule 15.2 clause 15 and replaces the data that has failed the validation test with estimated data which is calculated according to the following rules:
1 An average calculation is produced TP by TP using recent historical data from the same meter and register if available, otherwise
2 an average calculation is produced by using recent historical data from other meter registers on the same NextGen pricing code if available, otherwise
A manual estimate must be performed - software cannot perform magic".

Audit Commentary

We reviewed provided example. In the spreadsheet, there are two sets of data, HERM file with TP 47 and 48 missing and ETS estimation. From our point of view, the estimation methodology does meet compliance with clause 19(2) of Schedule 15.2 as explained below:

1. Daily volume for this ICP, after estimation, is lower by 1.97 kWh, which is not much but it could be higher if interval's values were higher.

2. Validated meter readings are replaced by estimated readings – this clause does not allow meter readings that not fail validation to be corrected.

According to Paul's Troon comment, ETS replaces the data that has failed the validation test with estimation data. The given example does not confirm that described methodology is applied.
Also clause 4(1) of Schedule 15.2 stated that that *"only volume information created using validated meter readings, or if such values are unavailable, permanent estimates has permanence within the reconciliation process (unless subsequently found to be in error)."*. Because validated meter readings are available for the trading periods in question, they must be used to create the volume information.

3. The total consumption recoded on the meter probably does not match data after estimation. It is not clear if register reads were used to estimate daily volume, possibly not. If cumulative meter readings are available for the period, the match should be exact, i.e. scale the infill data so that the totals match.

Non-compliance identified. In our view there are no controls in place to ensure compliance because submitted information is not correct and it was not identified by NextGen.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Not compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen does not have such metering installations.

Audit Commentary

NextGen is not aware of any metering installations, which require error and/or loss compensation. The company only trades metering installations of category 1 and 2.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

complete 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

NextGen does not store HHR raw data. Raw data is stored by AMS. Their obligation that the raw data must not be overwritten is checked during the AMS audit.

The only raw data stored by NextGen is NHH. Photos are taken and data is entered manually into ETS. We asked NextGen to provide as example of situation when NHH register read to be altered. For simplicity, we suggested to use test system if no real example was available.

Audit Commentary

NextGen did not provide example of alteration of NHH read. They response dated 27 June 2017 was:

When a Non half hour meter read is corrected Nextgen will enter a record of the event into the Read_Notes field of the meter reading record in the NHH_meter_reading table. The record entered will contain the information specified in clause 22(2) above.

There have not been any corrections to Non half hour meter reads, and entering text into a field is not a test performed in the test system. There are therefore no examples of this happening.

Based on NextGen response we are not in a position to assess compliance.

Audit Outcome: Unable to

determine

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

ETS has two types of flag for NHH reads, E and R. There were no instances when they had to exchange data with other participants and identify readings as estimates or permanent estimates.

HHR interval data is not flagged at the trading period in ETS, which is requirement of the Code. Actual (R) or E flag is recorded against a day not interval.

Audit Commentary

Noncompliance is identified because ETS flags “E” or “R” is against a day not each interval. The example is attached to this section. In our view there are no controls in place to ensure compliance.

Audit Attachments

Estimation flag

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

LINK to 2.1

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 from validated meter readings from AMS. If meter readings are not available, outside of NextGen control, ETS estimate missing data

NHH volumes are derived from validated meter readings. In the case of NextGen they always use actual reads.

Audit Commentary

Compliance confirmed based on a process of creation of RM files and the process of reading of NNH ICP and processing them in ETS.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NHH register reads are always a whole number, no decimal point. Data received from AMS is not rounded or truncated, it is stored in the ETS database as it arrives from the MEPs. Readings from NGCM have up to 3 decimal places, from ARCS one decimal point.

Audit Commentary

Compliance confirmed, NextGen checked with Paul Troon Consultancy and confirmed that “ETS was build referencing the appropriate code in respect not rounding data until its final output, thereby conserving accuracy”.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

This section should be read in conjunction with section 8.2

As per last years audit we confirm that NextGen has two steps of HHR estimation, Interim estimation and Permanent estimation. Interim estimation is based on the assumption that on some occasions interval data (TP) received from NGCM does not have a register read. From our observation, usually the next day, data contains the register reads, which could be used for estimation. It was a proposed process of Permanent Estimates. If a permanent estimate should be required a manual process will be followed to ensure that the ETS created TP estimates are reviewed and used in addition to register reads, if these are available. ETS would build the 48 TP period ‘profile shape’ by normalising values to % per TP. We are not sure if this process was implemented since the last audit.

Audit Commentary

We believe that NextGen use reasonable endeavors to ensure that estimated submission information is within the percentage specified by the Authority. It could be check comparing initial and consecutive submissions.

Compliance confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

LINK TO 9.1

9. 5. NHH metering information data validation

Code Reference

Clause 16 Schedule 15.2

Code Related Audit Information

Each validity checks of non half hour meter readings and estimated readings must include the following:
16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register
16(2)(b) - checks for invalid dates and times
16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend
16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected 0 values.

Audit Observation

NHH meters are read manually by NextGen by taking photos of meter registers. Data is entered manually and visually compared with the previous readings. NextGen has a small number of NHH reads so such a process is sufficient however by using only a visual validation check this leaves the process open to human error. A person could easily be interrupted or distracted by a phone call.
During the audit we came across AV080, which had negative values per interval. The file was rejected and values replaced by a positive number. This will be described in more detail in section 12.7. After checking what caused the negative values, the conclusion was that register reads for one ICP were lower than the switch event read.

Audit Commentary

We reviewed the process and NextGen demonstrated how NHH register reads are entered to ETS. The current process is compliant but not robust.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

Create an automated process to validate NHH reads when entering reads manually. It could be an alert when the reading is entered or a report which is run at the beginning of the month after entering all NHH reads.

Issues

There are no issues arising from this subsection.

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

AMS electronically interrogates meters on behalf of NextGen.

Audit Commentary

AMS is responsible for compliance to have validation checks for electronically interrogated meters, it is part of the MEP audit.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen uses RPS, HHR, and PV1 profile.

Audit Commentary

We checked files provided to the reconciliation manager to confirm that only RPS, HHR, and PV1 profiles are used. There are no plans to use other profiles.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen provided a set of reconciliation files including AV110 (ICPs days). The calculation of ICP days is based on data stored in ETS. A daily LIS file is downloaded to ETS in order to have information up to date. NextGen 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 participant system.

The results of the comparison are shown in the file attached to this document.

Audit Commentary

The analysis of GR100 files shows that in 2016 calculated ICP days by the registry and ETS were the same. At the beginning of 2017 NextGen initiated replacing legacy meters with the smart meter. From January 2017 onwards we noted a mismatch between the two systems. Discrepancies of around 8% were found, usually ETS counting more ICP days. It took a while to understand the cause of the discrepancies but the conclusion was that the type of reconciliation flag in the registry and ETS were different for HHR ICPs, where meters were replaced.

Audit Attachments

GR comparison.xlsx

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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 ETS system which stores data used for reconciliation purposes. ETS outputs meter readings in EIEP3 format, which are used for billing. AV120 has to contain volumes aggregated by invoice month, not submission month.

Audit Commentary

Noncompliance was identified because the electricity supplied file needs to include information relating to the quantities of electricity supplied by retailers to consumers not quantities of electricity supplied to retailers by generators. Usually both volumes are offset by one month.

In our view there are no controls in place to ensure compliance because submitted information is not correct and it was not identified by NextGen.

Audit Attachments

Supplied versus submitted

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

&

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

NextGen provided a set of HHRAGGR files for 5 months. We checked format and compared volumes with HHRVOL. We also reviewed GR090, unfortunately this file is not always reliable. The fact that for a few months NextGen had the incorrect type of reconciliation flag for ICPS with profile HHR, means the analyses conclusion did not have much value.
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 Authoritys' attention and we got assurance that it is on the list of proposed changes to the Code.

Audit Commentary

Compliance confirmed based on analyses of 5 months data provided by NextGen. We also cross checked with the registry for four months to see if ICPs matched.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

Mismatch between the Code and the Reconciliation Manager Functional Specification.

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

HHR data provided by AMS is already adjusted for NZD.

Audit Commentary

We checked AMS files and confirm that they are daylight saving adjusted. NextGen HHRVOL file had got in a file header “TPR”

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

Since the last audit all RM files were submitted on time.

Audit Commentary

Compliance confirmed based on a review of RM files provided by NextGen since the last audit. As a part of process revisions, files are submitted every month for relevant month. NextGen has excellent reconciliation check, attached to this section, which described in details steps to assure correct output of reconciliation module

One of the processes adopted by NextGen is to change legacy meters to smart meters read remotely. Once meter is changed, type of reconciliation is changed from NHH to HHR on the day of meter change.

We analyzed ICP 0000185468CTFD4. The meter was changed on 13/1/17. Type of reconciliation was changed to HHR starting 13/1/17. Purpose of our analysis was to check what volumes were submitted to the reconciliation for 13/1/17. We asked NextGen for assistance and they provided the following information:

- Photos of final read of old meter
- WO to AMS
- AMS HHR data for 13/1/17 for ICP 0000185468CTFD4

The summary of my finding are:

- AMS SR request says that the meter number 27039501 was removed on 13/1/17 at 13:44, the final read was 94321
- The reading of 94321 was recorded in ETS for ICP 0000185468CTFD4 as of 12/1/17
- New meter was installed on 13/1/17 at 14:44, start read “00000”, the installation was without power for 1 hour
- I checked the following files to see if HHR data was provided to NextGen for 13/1/17:
  AMS_E_NEXG_HERM_20170113_20170115_0001 copy.csv
  AMS_E_NEXG_HERM_20170114_20170116_0001 copy.csv
  AMS_E_NEXG_HERM_20170115_20170117_0001 copy.csv

  None of above files contained data for 0000185468CTFD4 for 13/1/17

- In the file, AMS_E_NEXG_HERM_20170116_20170118_0001 copy.xlsx, AMS first time included HHR reading for ICP 0000185468CTFD4, data starts on 14/1/17 TP1, total volume for a day was 17.178.

- Register read at the end of 14/1/7 was 29.6 kWh, total for the day 17.178, which means volume of 12.42 kWh was used on 13/1/17 from 13:44 till midnight. It looks like very small amount of energy but it needs to be reconciled. AMS never provide HHR data for 13/1/17, when meter was installed. Unfortunately, it is a common practice for AMS not to provide HHR data for a day when a meter change occurs. We are assuming that the volume for 13/1/17 was never submitted to the reconciliation manager.

We are assuming that it is NextGen standard process of volume reconciliation in situation when meter changes from NHH to HHR and reconciliation type changes to HHR on the same day as the meter change. It appears that volume as NHH was fully reconciled but some HHR volume is missing.

Our recommendation is to review this process.

Audit Attachments

ETS screen shot and ETS Reconciliation check.

Audit Outcome: Compliant

Recommendations

Review process how volumes are reconciled on the day of meter change from NHH to HHR.

Issues

Part of energy recorded on the day of meter change is not reconciled when type of reconciliation is changed from NHH to HHR on a day of meter change

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

The Daily LIS file is requested from the registry and uploaded to the ETS. This process allows ETS to have the most current information. This process is very important because switching is done via registry web interface. There is a report generated by ETS, which tells an operator of mismatches between two sets of data (registry and ETS). We observed the process of setting up a new customer in ETS, it is very thorough. All entries in the registry are duplicated in ETS

Audit Commentary

Compliance is confirmed based on observing a process of customer setup in ETS and daily upload of LIS file to ETS.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen has a process in place to submit reconciliation files for both HHR and NHH ICPs. On some occasions, AMS does not provide data for all HHR intervals due to a problem with their system. ETS estimates data and it is replaced by Actual data if provided by AMS. NextGen follows a revision schedule to make sure that the most accurate information is submitted to the reconciliation manager. There are two problems with the accuracy of submissions. The first one is related to the fact that NextGen does not always uses the switch event reads

provided by the losing trader when switching, using AMI meter from NHH to HHR reconciliation. The second one is that NHH ICP volumes should be forward estimated if there is no read on the last day of the month, but they are not. More investigation needs to be done to assess the impact.

Audit Commentary

Noncompliance identified based identifying a problem with NHH submission, no FE calculated when no read on the last day of the month. Problem with accuracy of HHR submissions when the switch event read from losing trader is not used.

In our view the strength of controls is “weak” in place to ensure compliance because submitted information was not correct but it was identified by NextGen.

Audit Attachments

NHHVOL April’17 and files with positive and negative values.

Audit Outcome: Non complaint

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

The only time a permanent estimate is created by ETS is when AMS does not provide interval data for ICPs traded by NextGen. Permanent estimates are marked as E in ETS.

NHH ICPs are always reconciled using actual reads, which are collected by NextGen’s employees.

Audit Commentary

Compliance confirmed based of review estimation process and NHH readings.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

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

The creation of reconciliation files was reviewed. We also examined NHH and HHR volume files for this year. We confirm that NextGen created and submitted files for NHH ICP (profile RPS and PV1) and HHR ICP (profile HHR) – HHRAGGR and HHRVOL.

Audit Commentary

We identified that NNHVOL submitted for May'17 contained negative daily values for STK0331, which was not noticed before submission. RM file checker rejected file. NextGen decided to replace negative values with small positive values and resubmit file, which was accepted.

We asked NextGen to show us detail (per ICP) for Aprl'17 submissions for STK0331 and STK0661. It was only 1 ICP reconciled (0000022160NTC17) but daily volumes were negative. It indicates that it was a problem with register reads for this ICP.

In our view the strength of controls is "weak" in place to ensure compliance because submitted information was not correct but it was identified by NextGen. The process to correct mistake wasn't quite clear. More investigation would be beneficial.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

LINK to 12.7

Issues

There are no issues arising from this subsection.

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

Due to the timing of NHH ICPs reads (first few days of the following month), NextGen should calculate FE or permanent estimates but there is no such process in place.

Audit Commentary

Non-compliance is identified because NextGen's' understanding was that, even if they read NHH meters on the first few days next month, they can apply a straight line for that reconciliation period. There is no process to create a FE and later on replace by HE using GR030 file.

In our view there are no controls in place to assure compliance. The process of NHH reads needs to changed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Noncompliance

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen' business strategy is to read NHH meters every month to avoid using historic estimate methodology as prescribed in the Code. More details in the next section.

Audit Commentary

Historic Estimates are not calculated for NHH ICPs.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: No 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

NextGen does not calculate forward estimates because they always have actual reads for NHH ICPs. It is reasonably easy to always have actual reads for all of them because according to the exemption No 241 they can (not?) trade more than 20 ICPs in any given time. The problem is that NHH meters are not read on the last day of the month therefore volumes must be forwards estimated.

During the audit while checking the process of NHH reads, we noted that the register reads are not taken on the last day of the month. NextGen' understanding was that meters do not have to necessarily be read on the day of the month, meters must be read between day 0 and day 4 inclusive (usually a 7-day window). It looks like a misunderstanding on the part of NextGen.

Audit Commentary

Non-compliance identified. NHH meters are not read on the last day of the month therefore volumes must be forward estimates.

We consulted with the Authority, their comment was "We would not agree with a read between day 0 and 4 and applying a straight line for that period unless it was a FE later to be replaced by a HE, regardless of the volumes impacted. The issue is compliance with the Code."

There is an easy solution to clear this non-compliance, change the schedule of NHH reads. Make sure that NHH meters are always read on the last day of the month.

In our view there are no controls in place to assure compliance with this clause.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Non-compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

The only time that an ICP profile changes (RPS to HHR) is when a legacy meter is replaced with a smart meter. An MEP installing a new meter takes both the final read of the legacy meter and the start read of the smart meter. Both reads are provided to NextGen and used for reconciliation purposes.

Audit Commentary

Based on discussion with NextGen, review of the process compliance is confirmed.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

We checked RM files submitted to the reconciliation manager for the month of January to April 2017.

Audit Commentary

Compliance confirmed based on review of RM files for 4 months. All information listed in this clause was included in the reviewed files.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

NextGen checked with Paul Troon Consultancy and confirmed that “ETS was build referencing the appropriate code in respect not rounding data until its final output, thereby conserving accuracy”.

Audit Commentary

Compliance confirmed based on statement from NextGen.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

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

We checked reconciliation files (revision3) for the months of December 2016 to February 2017. Total monthly historic estimate was 100%. In another section we already discussed that historic estimates are probably not

quite right when calculated for ICPs which were not read on the last day of the month.

Audit Commentary

Compliance confirmed based on analysis of reconciliation files (revision3) for the months of December 2016 to February 2017. The obligations set by this clause were met.

Audit Attachments

There are no uploaded attachments for this subsection.

Audit Outcome: Compliant

Recommendations

There are no recommendations arising from this subsection.

Issues

There are no issues arising from this subsection.

Conclusion

Since the last audit number of ICPs traded by NextGen increased from 2 to 109.

15 non-compliances were identified, (two of them was cleared) one issue and one during this audit. Some of non-compliances are very interconnected. Most of non-compliances are related to the way how NHH volumes are calculated for reconciliation purposes.

Auditor Protocol Guideline dated 2 May 2017 was used to calculate breach risk rating for each non-compliance. Total score is 51.

Based on Table 1 from the Guidelines for Reconciliation Participants audits the recommendation is to conduct the next audit in 6 months.

Introduction

NextGen Energy Ltd (NextGen) dispute a number of the Auditors findings, we provide here an explanation and rationale for our dispute.

The information provided below is numbered to reference the relevant section in the body of this audit report.

2.1 Relevant information

This alleged non compliance is disputed.

The auditor has not demonstrated any instance where Nextgen have failed to take all practical steps to provide complete and accurate information.

4.5 Switch event meter readings

NextGen disputes the allegation of non compliance as it is written by the auditor.

The situation in which NextGen has failed to comply with the requirements of the Code is as follows:

Clause 6 (1) of schedule 11.3 requires that traders must use the same switch event meter reading. Non compliance has occurred in the situation where NextGen has switched in ICPs that have AMI meters and has commenced trading the ICP with a submission type of HHR, when the losing trader was trading the ICP with a submission type of NHH.

NextGen now understand that clause 6 (2) and (3) apply to this situation and that NextGen must provide the losing trader with a revised switch event meter read obtained from the half-hour metering information received for the meter on the first day for which NextGen is responsible for the ICP being traded with the submission type of HHR.

We had previously misunderstood this requirement, and have now amended our switch in process in the light of this learning to ensure we always return a switch event meter read to the losing trader that correctly represents the losing traders obligations at midnight on the switch event date.

8.2 Correction of meter readings 19(2) of S 15.2

This alleged non compliance is disputed by Nextgen.

19 Correction of meter readings

(1) If errors are detected during the validation of non **half hour meter readings**, 1 of the following must be undertaken:
   (a) confirmation of the original **meter reading** by carrying out another **meter reading**:
   (b) replacement of the original **meter reading** by another **meter reading** (even if the replacement **meter reading** may be at a different date):
   (c) if the original **meter reading** cannot be confirmed or replaced by a **meter reading** from another **interrogation**, an **estimated reading** may be substituted if the **estimated reading** is marked as an estimate and it is subsequently replaced in accordance with clause 4(2).

(2) If errors are detected during the validation of **half-hour meter readings**, the **meter readings** must be corrected as follows:
   (a) if a check **meter** or **data storage device** is installed at the **metering installation**, data from the check **meter** or **data storage device** may be substituted:
   (b) in the absence of any check **meter** or **data storage device**, data may be substituted from another period if the total of all substituted intervals matches the total consumption recorded on a **meter**, if available, and the pattern of consumption is considered to be materially similar to the period in error.

(3) **Error compensation** and **loss compensation** may be carried out as part of the process of determining accurate data. Whatever methodology is used, the compensation process must be documented and must comply with audit trail requirements.

Compare: Electricity Governance Rules 2003 clause 9 schedule J2
Clause 19(2): amended, on 29 August 2013, by clause 32 of the Electricity Industry Participation (Metering Arrangements) Code Amendment 2011.

It is difficult from the audit report text to determine exactly why the auditor has alleged non compliance with this clause, while the arguments presented raise some interesting issues, they do not relate to this clause.

When creating NHH estimates non compliance with clause 19 (2) can only be achieved if;

a. A check meter is installed at the meter installation for which the estimate is being calculated, or
b. Consumption information is available from another meter.

And the participant fails to use this information to inform their estimate calculation.

All ICPs traded by NextGen are category 1 or 2 AMI smart meters. None of these meter installations have check meters or another meter recording the consumption at the installation.

We provide the following additional commentary:

The auditor may be suggesting that a register read from an AMI meter should be used to bound HHR estimation values, and that where only some trading periods of data are missing in a daily record, the data for remaining trading periods must be used.

AMI half-hour metering information is provided in daily records for each register of each meter. The record consists of 48[1] half hour volume information fields and 1 register meter read field recorded at midnight. This information is defined in the Code as Half-Hour metering information. NextGen validates each **record** of Half-Hour metering information**,** and given that the entire record (all 49 fields of data returned) are sourced from the same meter and measuring element, if 1 item of data fails validation all others are considered suspect and also failed (including the register read).

[1] Except on DST changeover days

Nextgen create half hour estimated quantities for AMI meters (where there is no check metering) according to the requirements of Schedule 15.2 clause 15.

15 Half hour estimates

(1) If a **reconciliation participant** is unable to **interrogate** an electronically **interrogated metering installation** before the deadline for providing **submission information** or **dispatchable load information**, the **reconciliation participant** must submit to the **reconciliation manager** its 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**.

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

Compare: Electricity Governance Rules 2003 clause 6.5 schedule J2
Clause 15(1): amended, on 29 August 2013, by clause 29 of the Electricity Industry Participation (Metering Arrangements) Code Amendment 2011.
Clause 15(1): amended, on 15 May 2014, by clause 102 of the Electricity Industry Participation (Modified Dispatchable Demand) Code Amendment 2013.

The process and calculation used by NextGen to calculate estimates of missing half-hour metering information is fully compliant with the Code.

8.4 Audit trails 22(1) and (2) of S15.2

We do not understand why the auditor is unable to determine the audit status of this clause.

NextGen have demonstrated excellent audit trails of all the requirements listed in clause 21 (2). There have not been any changes to NHH raw meter data, however the auditor has been shown the field in the NHH meter reading database where this information will be recorded if changes are made.

21 Audit trails

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

(2) The audit trail must—

- (a) include details of information—
  - (i) provided to and received from the **registry**;
  - (ii) provided to and received from the **reconciliation manager**; and
  - (iii) provided and received from other **reconciliation participants** and their agents; and
- (b) cover all **raw meter data** and any changes to the **raw meter data** archived under clause 18.

We have demonstrated compliance with this requirement and that strong controls are in place to ensure the required audit trails are recorded.

9.1 Source of volume information 3(3) of schedule 15.2

This alleged non compliance is disputed

3 Source of volume information

(1) A **meter reading** must, in accordance with the relevant **reconciliation participant's 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.

(2) A **validated meter reading** must be derived from a **meter reading**. A **meter reading** that is provided by a **consumer** may be used as a **validated meter reading** only if another set of **validated meter readings** that has not been provided by the **consumer** is used during the validation process specified in clauses 16 and 17.

(3) An **estimated reading** and a **permanent estimate** must be clearly identified as an estimate at source and in an exchange of metering data or **volume information** between **participants** (excluding the **reconciliation manager**).

(4) **Volume information** must be directly derived, in accordance with this Schedule, from—

(a) **validated meter readings**; or

(b) **estimated readings**; or

(c) **permanent estimates**.

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Schedule 15.2

(5) A **reconciliation participant** must ensure that all **raw meter data** used to derive **volume information** in accordance with this Schedule is not rounded or truncated from the stored data from the **metering installation.**

Compare: Electricity Governance Rules 2003 clause 3 schedule J2

Clause 3(5): inserted, on 1 February 2016, by clause 102 of the Electricity Industry Participation Code Amendment (Code Review Programme) 2015.

The auditor has alleged non compliance based on the following:

Noncompliance is identified because ETS flags "E" or "R" is against a day not each interval. The example is attached to this section. In our view there are no controls in place to ensure compliance.

The issue raised relates to half-hour metering information. We have explained under the heading 8.2 (with reasons) that Nextgen validates each HHR metering information record as a whole, this includes all 48 trading period values and the register read. The NextGen system estimates all HHR trading period values for a failed record and marks the record E for estimate, many examples of this have been provided in audit disclosure files.

NextGen has not yet needed to create a permanent estimate, when this happens the record will be marked P. Records that pass the validation test are marked R.

The auditor has not identified any instance in which NextGen has failed to identify the source of volume information in any exchange of metering data or volume information with any participant.

The process for identifying reads and estimates (allocating the E or R flag to volume information records) is largely automated which represents a high strength control. Creation of a permanent

estimate is a rare occurrence and is not relegated to an automated process because computer automation is unable to realistically consider all the factors that should go into the creation of permanent estimates.

11.3 Retailer electricity supplied information 15.7

This alleged non compliance is disputed.

The auditor has alleged non compliance on the basis that the electricity supplied file does not contain a record of electricity supplied to consumers, and that the file must contain volumes aggregated by invoice month not submission month.

Nextgen invoices all their customers (consumers) by month. One dataset is assembled in ETS containing all quantities for a month. From this data set the system creates submission information, distributor information and retail billing quantities. Retail billing quantities are exported to a separate "billing" system that uses the quantities (without modification) along with prices to determine customer charges.

The process and outputs are fully compliant with the Code. The process is fully automated and we believe the control strength is high.

The auditor has performed this evaluation in a spreadsheet which confirms our compliance with the Code.

12.7 Accuracy of submission information 15.12

This alleged non compliance is disputed.

15.12 Accuracy of submitted information

If a **reconciliation participant** submits information in accordance with this Code, and the **reconciliation participant** subsequently obtains more accurate information, the **reconciliation participant** must provide the most accurate information 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.

Compare: Electricity Governance Rules 2003 rule 4.4 part J
Clause 15.12: amended, on 15 May 2014, by clause 98 of the Electricity Industry Participation (Modified Dispatchable Demand) Code Amendment 2013.

Two issues are identified by the auditor.

1: *Noncompliance identified based identifying a problem with NHH submission, no FE calculated when no read on the last day of the month*

The rationale provided by the auditor is;

…that NHH ICP volumes should be forward estimated if there is no read on the last day of the month, but they are not.

The auditor has not provided a reason to support the assertion that Nextgen must use the NHH FE process to calculate submission information and we do not understand why the auditor would make this allegation.

We offer the following commentary.

This alleged non compliance appears to relate to the code prescribed process for the calculation of NHH submission volume information which is described in schedule 15.3 from clause 3 onwards.

Here is how NextGen calculate NHH submission information in compliance with the Code. First some definitions:

> **historical estimate** means, in relation to non **half hour** metered **ICPs**, **volume information** (in kWh), apportioned to part or full **consumption periods** after having the **seasonal adjustment shape**, or any other **profile** that has, from time to time, been approved by the **Authority** for this purpose, applied, being 1 of the following:
> (a) the difference between 2 **validated** actual **meter readings**:
> (b) the difference between 2 **permanent estimates**:
> (c) any relevant **unmetered load**

> **forward estimate** means, in relation to non **half hour** metered **ICPs**, any **volume information** (in kWh) submitted for a part or full **consumption period** that is not an **historical estimate**

We define Historical estimate = HE, Forward estimate = FE

Nextgen uses validated meter reads to always calculate HE, consequently NextGen does not use the FE process.

Nextgen performs the vast majority of HE calculations in ETS in compliance with schedule 15.3 clause 5 using a validated meter reading that is obtained immediately prior to the initial submission and following the end of the intended reconciliation period. The calculation is performed when the seasonal adjustment shape is not available.

> **5 Historical estimates without seasonal adjustment**
> If a **seasonal adjustment shape** is not available, either due to timing (for the provision of **submission information** by the 4th **business day** of each **reconciliation period**) or for any other reason, the methodology for preparing an **historical estimate** of **volume information** for each **ICP** must be the same as in clause 4, except that the relevant quantities kWh_{PX} must be prorated as determined by the **reconciliation participant** using its own methodology or on a flat shape basis using the relevant number of days that are—
> (a) within the **consumption period**; and
> (b) within the period covered by kWh_{PX}.
> Compare: Electricity Governance Rules 2003 clause 2.2.2 schedule J3

If NextGen receives further information after the initial reconciliation, the revision will be manually calculated[2] using the available seasonal adjustment shape file.

Because meter readings are always obtained such that they encompass the entire consumption period, the methodology described in schedule 15.3 clause 4(a) or 4(b) is always used. Because the seasonal adjustment shape is not available the volume information is prorated on a flat shape basis using the

[2] Note that NEXG trade no more than 20 NHH ICPs and any one time and many NHH processes are manual.

relevant number of days in the consumption period and covered by the volume calculation as per clause 5 above.

We would note that a Historic estimate is not an estimate of the volume of electricity that has flowed, it is an estimate of the periodic allocation of a known volume that has been calculated using 2 consecutive validated meter reads.

A forward estimate is used when there is no meter read available encompassing the latter part of the consumption period and is an estimate of both the volume and its periodic distribution. Use of the FE methodology is only permitted by the Code when the HE methodology cannot be used.

6 Forward estimates

(1) A **forward estimate** is an estimation of the total quantity of **electricity** that flowed through an **ICP** during all or part of a **consumption period**.

(2) A **forward estimate** may be used only for a period for which an **historical estimate** cannot be calculated.

(3) The methodology used for calculating a **forward estimate** may be determined at the discretion of the **reconciliation participant**, and only if the **reconciliation participant** ensures that the accuracy of its initial **submission information** against each subsequent

revision cycle **submission information** for each **balancing area** is within the percentage of error specified and **published**, from time to time, by the **Authority**.

Compare: Electricity Governance Rules 2003 clause 2.2.3 schedule J3

Nextgen always has meter reads that encompass the entire consumption period and would be in breach of the Code if they were to use the FE methodology as suggested by the auditor.

Nextgen is able to always use the HE methodology because the NHH methodology is only used for ICPs while they are being transitioned from legacy metering to AMI metering. The number of these ICPs is limited to no more than 20 at any time which makes obtaining the meter readings possible. This could not work in a traditional retail situation where NHH submission is "business as usual" in high volumes.

We conclude there is no basis for the alleged non compliance and that as this process is largely automated the controls in place are strong.

***2:** Problem with accuracy of HHR submissions when the switch event read from losing trader is not used.*

The rationale provided by the auditor is;

… is related to the fact that NextGen does not always uses the switch event reads provided by the losing trader when switching, using AMI meter from NHH to HHR reconciliation

This is the non compliance identified in section 4.5 and has resulted from confusion over the Code requirements that allow the gaining retailer to revise the losing retailer switch meter read based on the AMI data received by the gaining retailer (The RR switching process). Nextgen have not always implemented this, the requirement is now clearly understood.

12.9 Preparation of submission information 2 of S 15.3

This alleged non compliance is disputed.

2 Reconciliation participants to prepare information

(1) If a **reconciliation participant** is required to prepare **submission information** for an **NSP** for the relevant **consumption period** in accordance with this Code, the **submission information** must comprise the following:

- (a) **half hour volume information** for each **ICP** provided under clause 11.7(2) for which there is a category 3 or higher **metering installation**:
- (b) for each **ICP** about which information is provided under clause 11.7(2) for which there is a **category 1 metering installation** or **category 2 metering installation**,—
  - (i) **half hour volume information** for the **ICP**; or
  - (ii) non **half hour volume information** calculated under clauses 4 to 6 (as applicable) for the **ICP**:
- (c) **unmetered load** quantities for each **ICP** that has **unmetered load** associated with it, which must be 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.

(2) To create non **half hour submission information**, a **reconciliation participant** must only use information that is dependent on a **control device** if—

- (a) the **certification** of the **control device** is recorded in the **registry**; or
- (b) the **metering installation** in which the **control device** is located is an **interim certified metering installation**.

(3) A **reconciliation participant** must, to create **submission information** for a **point of connection** for which it is responsible, apply to the **raw meter data** obtained from each **metering installation**—

- (a) for each **ICP**, the **compensation factor** recorded in the **registry** for the **metering installation**; or
- (b) for each **NSP**, the **compensation factor** recorded in the **metering installation's** most recent **certification report**.

Compare: Electricity Governance Rules 2003 clause 2.1 schedule J3
Clause 2: substituted, on 29 August 2013, by clause 34 of the Electricity Industry Participation (Metering Arrangements) Code Amendment 2011.
Clause 2(1)(c): amended, on 15 May 2014, by clause 66 of the Electricity Industry Participation (Minor Code Amendments) Code Amendment 2014.

We believe we have complied with each of the requirements identified in clause 2 of schedule 15.3.

The auditor has identified an issue that in our opinion has been inadequately investigated. We offer the following commentary.

Prior to submitting for May 2017 the NEXG operator tested the draft submission files in the RM file checker, and found negative total quantities reported at STK0331. This was identified and addressed prior to submission.

From the audit trail available in the NextGen system we ascertain the following.

For the reconciliation period of May 2017 initial submission in June 2017 (immediately prior to this audit) use of the RM file checker failed the submission because of negative submission volume values. This had not occurred before and took the operator by surprise.

Examining (in hindsight) the cause of the negative submission values we find it was contributed to by the following three ICPs.

ICP	From	To
0000022160NTC17	1/5	3/5
0000183534CT806	15/5	31/5
0000187087CT5F1	9/5	31/5

We examine the meter read history for these ICPs as recorded in the system for audit purposes:

ICP	Meter_no	Register_no	Read_date	Read	Read_type	Read_notes
0000022160NTC17	NTL1402079	1	07/03/2017	252	E	CS file
0000022160NTC17	NTL1402079	1	30/03/2017	277	E	NEXG
0000022160NTC17	NTL1402079	1	03/05/2017	345	R	Customer pic
0000022160NTC17	NTL1402079	1	01/06/2017	424	R	RO read, pic taken
0000022160NTC17	NTL1402079	2	07/03/2017	0	E	CS file
0000022160NTC17	NTL1402079	2	30/03/2017	7	E	NEXG
0000022160NTC17	NTL1402079	2	03/05/2017	0	R	Customer pic
0000022160NTC17	NTL1402079	2	01/06/2017	0	R	RO Read
0000183534CT806	4126	1	14/05/2017	5375	E	CS File
0000183534CT806	4126	1	02/06/2017	4637	R	NG picture taken
0000183534CT806	8694	1	14/05/2017	58015	E	CS File
0000183534CT806	8694	1	02/06/2017	57849	R	NG picture taken
0000187087CT5F1	NZ2479460	1	08/05/2017	32723	E	CS File

ICP	Meter_no	Register_no	Read_date	Read	Read_type	Read_notes
0000187087CT5F1	NZ2479460	1	01/06/2017	32673	R	NG picture taken
0000187087CT5F1	NZ2479460	1	20/06/2017	32887	R	Final read, meter changed, AMS provided
0000187087CT5F1	NZ2479461	1	08/05/2017	31332	E	CS File
0000187087CT5F1	NZ2479461	1	01/06/2017	31524	R	NG picture taken
0000187087CT5F1	NZ2479461	1	20/06/2017	31678	R	Final read, meter changed, AMS provided

We examine in detail the event for each ICP.

0000022160NTC17: The NEXG meter read for register 2 obtained on 3/5/2017 is lower than the previously recorded estimate on 30/3/2017. This has occurred because we erroneously entered an estimated value (7) on 30/3/2017. This will be corrected.

0000187087CT5F1 and 0000183534CT806: In both these instances the first validated read that NEXG took after a switch was lower than the switch read provided by the losing retailer.

This situation was noted for the first time immediately prior to the deadline for submission of May volumes on business day 4 of June. We note that this was immediately prior to the audit visit.

The auditor states that NEXG did not identify the issue prior to submission, this is not true. NEXG use the RM file checker as a control prior to submission and consequently identified and acted on the issue prior to submission.

The NEXG operator had not seen this issue arise previously and did not have time to seek advice prior to the deadline for delivery of submission files. The operator correctly concluded the issue was a result of negative volume calculated because a NEXG meter read was lower than the switch read supplied by the losing retailer. At the time the best solution available to the operator was to adjust out the negative submission quantity noting that this had the same effect as would be revising the switch meter read.

In making this adjustment the operator was unsure of the impact of reporting 0 volume values[3] and erred on the safe side providing a slight over submission with a small positive value.

This resulted in the submission information being materially accurate, the minor erroneous outcome being that the combined total submitted by the losing retailer and NEXG overstated the electricity purchased leaving no other party or the market adversely affected.

We have taken advice and the correct course of action in this situation is now known, although not well supported by the Code - hindsight is a wonderful thing.

When we took our first meter read following the switch, our validation should have picked up that the read was lower than the switch read supplied by the losing retailer. At this point we have a validated

[3] Testing for 0 values has been the subject of some controversy in the industry and it has attracted negative connotations and caused confusion with some (particularly new) people participating in the industry.

meter read and may use this to alter the switch read. As we cannot know what the meter read was at the time of the switch[4] it is, in this case, appropriate to use the first obtained validated read as a switch read. This value can be returned to the losing retailer who should also use it as the switch read, although we note they are not required to - see disputed switch read clause 6A of schedule 11.3. This is problematic because it is clearly established that the switch read provided by the losing trader is wildly inaccurate and if applied by NextGen results in negative submission quantities that are rejected by the RM.

In this instance there was no time for us to enact this process, however the revised switch read has now been provided to the losing retailer and they may correct their (over) submission in the next revision.

12.10 Historical estimates 3 of S 15.3

This alleged non compliance is disputed.

This alleged non compliance is a repeat of that made in section 12.7. Our reasons for disputing the allegation are fully provided in our response to section 12.7.

12.12 Forward estimate process 6 of S 15.2

This alleged non compliance is disputed.

This alleged non compliance is a repeat of that made in section 12.7. Our reasons for disputing the allegation are fully provided in our response to section 12.7.

[4] The code determines that the losing retailer will set the switch data and retrospectively advise the gaining retailer after the event. The gaining retailer therefore cannot schedule a meter read for the switch. This is a significant shortcoming of the Code.