

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

For

ECOSMART (ECOS)

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EXECUTIVE SUMMARY

This reconciliation participant audit was performed at the request of Ecosmart (ECOS) to support their application for certification, in accordance with clauses 4 of Schedule 15.1 of The Code 2010. The relevant clauses audited are as required by the Guidelines for Reconciliation Participants Audits V 7.2 issued by the Electricity Authority.

Ecosmart New Zealand Limited is a company which installs solar panels for residential customers at their request. It also offers them an option, as a trader, to purchase electricity.

Ecosmart trades both NHH and HHR customers. At the time of the audit, 1 ICP was reconciled as NHH, and 28 as HHR. Ecosmart does not intend to trade NHH ICPs but in some circumstances it is unavoidable because of problems with communication between the meter and the MEPS back office.

Ecosmart uses JC Consulting to create and submit reconciliation files to meet their obligations described in the Code. As a part of this assessment of compliance we audited JC Consulting.

Three non-compliances were identified during the audit. All of them have a low audit risk rating. Ecosmart's level of compliance has improved since the last audit. The company implemented strong controls to monitor the switching process. As soon as a notification from the registry is sent, Ecosmart is automatically alerted. A review of the EDA file showed that switches were complete within a few days.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. Table 1 of the Guidelines for Reconciliation Participant audit provides some guidance on this matter. The Future Risk Rating score is 4 which results in an indicative audit frequency of 18 months.

JC Consulting provides reconciliation services. Such a configuration of the business gives us confidence that the current level of compliance will be maintained in the upcoming months. It is our recommendation that the next audit be conducted in 24 months to confirm that processes and controls are operating as expected with a larger number of ICPs. At the time of this audit, the company has been not planning actively look for new customers.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Changes to registry information	3.3	10 of Schedule 11.1	Two updates to the registry were later than five business days	Strong	Low	1	Identified
Losing trader must provide final information – standard switch	4.3	5 of Schedule 11.3	One CS file was late by one day	Strong	Low	1	Identified
Electricity supplied information provision to the reconciliation manager	11.3	15.7	Energy supplied is calculated by JC Consulting from the previous months Initial Network volumes	Moderate	Low	2	Identified
HHR aggregates information provision to the reconciliation manager	11.4	15.8	Energy supplied is currently calculated by JC Consulting from the previous months Initial Network volumes.	Strong	Low	1	Not required. The Code change required a line up with RN file specification. Breach risk rating excluded from total
Future Risk Rating						4	
Next audit date						18 months	

Future risk rating	0-1	1-3	4-15	16-40	41-55	56+
Indicative audit frequency	36 months	24 months	18 months	12months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Description	Recommendation
			Nil

ISSUES

Subject	Section	Description	Issue
			Nil

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

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

Audit commentary

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

1.2. Structure of Organisation

At the time of this audit, Ecosmart consisted of one person, Daryn Leaity (Founding Director).

1.3. Persons involved in this audit

Name	Title	Company
Daryn Leaity	Founding Director	Ecosmart
John Candy	Director	JC Consulting
Ewa Glowacka	Electricity Authority Approved Auditor	TEG & Associates

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

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

Audit observation

Ecosmart uses JC Consulting to create and submit files to the reconciliation manager.

Audit commentary

As a part of this audit we audited work done by JC Consulting as Ecosmart's agent. Details are in the relevant parts of this audit. Ecosmart understand their responsibilities in relation to this clause.

1.5. Hardware and Software

The main systems are as follows:

- Switching is conducted via web interface.
- Access Database (RM TOOL) provided and run by JC Consulting for NHH submissions.

1.6. Breaches or Breach Allegations

There were no breaches or breach allegations lodged against Ecosmart in the period covered by this audit.

1.7. ICP Data

Metering Category	19/06/2019	(31/07/18)	(July 2017)	(Feb 2017)
1	29	27	9	3
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
9	0	0	0	0

Status	19/06/2019	(31/07/18)	(July 2017)
Active (2,0)	29	27	3
Inactive – new connection in progress (1,12)	0	0	0
Inactive – electrically disconnected vacant property (1,4)	0	0	0
Inactive – electrically disconnected remotely by AMI meter (1,7)	0	0	0
Inactive – electrically disconnected at pole fuse (1,8)	0	0	0
Inactive – electrically disconnected due to meter disconnected (1,9)	0	0	0
Inactive – electrically disconnected at meter box fuse (1,10)	0	0	0
Inactive – electrically disconnected at meter box switch (1,11)	0	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	0	0	0
Inactive – reconciled elsewhere (1,5)	0	0	0

Decommissioned (3)	0	0	0
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1.8. Authorisation Received

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

1.9. Scope of Audit

This reconciliation participant audit was performed at the request of Ecosmart. Clause 2 of Schedule 15.1 puts the obligation on the reconciliation participant to obtain Authority approval before performing a function listed in clause 15.38(1) without certification. The audit was carried out via Skype on 9 July 2019.

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

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Relevant to audit	Agents Involved in Performance of Tasks	MEPs
(a) - Maintaining registry information and performing customer and embedded generator switching	✓		
(b) – Gathering and storing raw meter data	✓		FCLM, AMS, CTCT (1 ICP – FCLM accepted nomination and the meter with be replaced)
(c)(i) - Creation and management of HHR volume information	✗		
(c)(ii) - Creation and management of NHH volume information	✗		
(c)(ii) - Creation and management of HHR and NHH volume information	✓	JC Consulting	
(c)(iv) - Creation and management of dispatchable load information	✗		
(d)(i) – Calculation and delivery of ICP days under clause 15.6	✓	JC Consulting	
(d)(ii) - delivery of electricity supplied information under clause 15.7	✓	JC Consulting	
(d)(iii) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8	✓	JC Consulting	
(e) – Provision of submission information for reconciliation	✓	JC Consulting	
(f) - Provision of metering information to the grid owner in accordance with subpart 4 of part 13	✗		

1.10. Summary of previous audit

The previous audit was conducted in August'18 by Ewa Glowacka of TEG & Associates. The following non-compliances were identified

Subject	Section	Clause	Non-Compliance	Comment
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Changes to registry information	3.3	10 of Schedule 11.1	Seven updates to the registry were later than five business days	Still exists
Traders must use the same reading – standard switch	4.4	6(1) of Schedule 11.3	Switch event read was not used for 2 ICPs	Cleared
Gaining trader changes to switch meter reading – switch move	4.11	12 of Schedule 11.3	Switch event read was not used for one ICP. A switch event read was too high by 12 kWh	Cleared
Energy supplied information provided to the reconciliation manager	11.3	15.7	Energy supplied is currently calculated by JC Consulting from the previous months Initial Network volumes.	Still exists
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHR aggregates information provision to the reconciliation manager	Still exists

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

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

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

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

Audit observation

The LIS file dated 10/07/19 was examined to assess the correctness of information. The Event Detail (EDA) file for the period 01/08/18 to 20/06/19 was examined to determine how quickly Ecosmart corrects information which is identified as inaccurate.

Audit commentary

The LIS file and Metering Installation Information (PR-255) were analysed, the results are shown below:

Issue	Quantity	Comments
ICP Status = 002, MEP = blank, UNM Flag = N	0	No evidence of this occurring
ICP Status = 002, Generation Capacity is not blank,	0	No evidence of this occurring
Highest Metering Category >2 with residential ANZSIC code assigned (000000)	0	No evidence of this occurring
ANZSIC code = blank or T994, T994000, T99, T999, T999999, T995, T995000, T997, T997000, T998, T998000	0	No evidence of this occurring
ICP with B or G Inst Type, or non-null Fuel or Gen Capacity that do not have a corresponding Injection Register	19	
Highest Metering Category greater than 2, Submission Type HHR = No	0	No evidence of this occurring
Highest Metering Category = 9, UNM Flag=N	0	No evidence of this occurring
All active ICPs with Initial Energisation Date populated during a defined period	0	No evidence of this occurring
All Active ICPs (ICP Status = 2) with Shared ICP List not blank	0	No evidence of this occurring

All ICPs at ICP Status 001,12	0	No evidence of this occurring
Submission Type HHR = Y, Profile does not contain HH	0	No evidence of this occurring
Submission Type HHR and Submission Type NHH both = Y	0	No evidence of this occurring
All active ICPs where Distributor has indicated UML (UML Load Details not NULL) but Retailer has none (UNM Flag = N)	0	No evidence of this occurring
All active ICPs with UNM Flag = Y	0	No evidence of this occurring
All active ICPs with load in excess of 6kWh (Daily Unmetered kWh greater than 16.4 daily)	0	No evidence of this occurring
All active ICPs with load between 3-6k kWh (Daily Unmetered kWh between 8.2-16.4 daily)	0	No evidence of this occurring
All active ICPs with Engineered profile (Daily Unmetered kWh = ENG)	0	No evidence of this occurring

The information provided to the registry for 29 ICPs is complete and accurate.

Audit outcome

Compliant

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

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

Audit observation

The processes used to provide information to the reconciliation manager were reviewed and assessed throughout this document. JC Consulting acts as the agent for Ecosmart to provide information in accordance with Part 15.

Audit commentary

Ecosmart meet their obligations described in clause 15.35. All information was provided in a timely manner to the reconciliation manager and other participants.

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

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

Audit observation

Ecosmart downloads data from NGCM using FileZilla, JC Consulting downloads data from FCLM and MTRX.

Audit commentary

After the NGCM data is downloaded by Ecosmart, a copy of data is uploaded to Dropbox where it is picked up by JC Consulting and used for reconciliation services. Ecosmart reads meters themselves or accepts customer reads for NHH ICPs for which communication is intermittent. Photo reads are placed in Dropbox.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

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

Audit observation

Ecosmart uses the registry web interface for switching and information updates. The reconciliation services are provided by JC Consulting.

Audit commentary

During this audit we audited JC Consulting and confirm that all communication with the reconciliation manager is recorded. The Registry web interface has a built-in functionality to record all communications between a participant and the registry.

We reviewed the logs for the following:

- Switching files - audit trail within the registry
- Registry notification - audit trail within the registry
- Meter readings – audit trail within the RM TOOL
- Reconciliation files – audit trail within the RM portal

All of them met the requirements of this clause.

Audit outcome

Compliant

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

Code reference

Clause 10.4

Code related audit information

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

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

Audit observation

Ecosmart provided a copy of the Terms and Conditions which was previously reviewed by the Authority.

Audit commentary

The Electricity Supply Terms and Conditions are attached to a sign-up form provided to a customer. They provide the relative information for a customer to meet the requirements of this clause.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The trader must use its best endeavours to provide access:

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

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

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

Audit observation

Ecosmart provided a copy of the Electricity Supply Terms and Conditions which was previously reviewed by the Authority.

Audit commentary

Access to the customers' installations is covered in section 7 of the Terms and Conditions. Ecosmart will use its best endeavours to provide access to premises. Any Health & Safety requirements imposed by a customer must be taken into consideration.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

Audit observation

The LIS file was reviewed. All metering installations traded by Ecosmart are category 1.

Audit commentary

Based on the category 1 metering installations traded by Ecosmart we confirm compliance. Ecosmart is not responsible for any metering installations with loss compensation factors. All ICPs are metered and a responsible MEP is recorded in the registry.

Audit outcome

Compliant

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

Code reference

Clause 11.15B

Code related audit information

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

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

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

Audit observation

The Ecosmart's Electricity Supply Terms and Conditions were reviewed.

Audit commentary

We checked the Ecosmart's Terms and Conditions and confirm that they contain the appropriate clauses to allow the transfer of ICPs when a "default trader" situation arises. It is under section 13.6 and 13.7.

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

The LIS file dated 19/06/19 was reviewed.

Audit commentary

Since the last audit Ecosmart did not gain any new installations. The process is in place and it was reviewed during the last audit.

Audit outcome

Compliant

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

Code reference

Clause 10.33(1)

Code related audit information

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

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

Audit observation

As described in **section 2.9**, Ecosmart did not gain any new connections since the last audit.

Audit commentary

Compliance was not assessed because there were no new connections.

Audit outcome

Not applicable

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

Code reference

Clause 10.33A(1)

Code related audit information

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

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

Audit observation

The EDA file for the period 01/08/18 to 20/06/19 was reviewed.

Audit commentary

As described in **section 2.9**, Ecosmart did not gained any new connections since the last audit. Compliance was not assessed because there were no new connections.

Audit outcome

Not applicable

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

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

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

Audit observation

Ecosmart trades on 8 networks. Ecosmart has an arrangement in place with all networks but one. Ecosmart has been waiting for the counter signing of the agreement with The Line Company.

Audit commentary

Ecosmart demonstrated the existence of a trading arrangement for all networks to which their ICPs are connected.

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

The EDA file was reviewed.

Audit commentary

Ecosmart has an arrangement with all MEPs which provide metering services to them.

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

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

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

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

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

Audit observation

As described in **section 2.9**, Ecosmart has not gained any new connections since the last audit.

Audit commentary

Analysis of the LIS file confirmed that Ecosmart only trades already established connections.

Audit outcome

Compliant

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

Code reference

Clause 11.7(2)

Code related audit information

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

Audit observation

The LIS file was evaluated as a part of this audit.

Audit commentary

According to the process, the company checks each ICPs information in the registry before the ICP is accepted. We analysed the LIS file and confirm that the company provided all information to the registry for installations to which they supply energy.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

We reviewed the EDA file for the period 01/08/18 to 20/06/19.

Audit commentary

We reviewed the timeliness of updates. We used the extreme case methodology examining the most backdated trader’s entries to the registry.

Activity	Status code	Total number of updates		No of updates later than 3BD		Date range of updates [BD]	
		2018	2019	2018	2019	2018	2019
Status (2)	Active	1	0	0	0		
Status (1,12)	New connection in progress	1	0	0	0		
Trader		11	11	7 (63.7%)	2 (18%)*	Up to 26	Up to 32

*0006824892TU8C7 – change of the profile and type of reconciliation after the meter stopped communicating and AMS is not able to fix it.

*0007156671RN41B – change of the profile and type of reconciliation

Delays in the registry updates were caused by slow responses from the MEPs in relation to non-communicating meters. The number of backdated entries decreased significantly since the last audit. There is a solid process in place to meet compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.3 With: 10 of Schedule 11.1 From: 17-Jan-19 To: 04-May-19	Two updates to the registry were later than five business days Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as strong, there are is a solid process in place. There are not many activities happening in the registry, which requires even more vigilance to meet compliance with this clause. The audit risk rating is low because there is minor impact on the settlement outcome.		
Actions taken to resolve the issue		Completion date	Remedial action status
			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Some backdated updates are inevitable to maintain accuracy no remedial action planned			

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

The LIS file dated 10/07/19 was analysed and we confirm that all ICPs have a MEP recorded in the registry. There were no ICPs marked as “ready for decommissioning”.

Audit commentary

All ICPs traded by Ecosmart have the status “active”. Ecosmart fully understands that as soon as they are recorded in the registry as accepting responsibility, the responsibility will cease only when an ICP switches out to another trader and its code is recorded in the registry.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

The EDA file for the period covered by this audit was analysed to assess compliance.

Audit commentary

We confirm that all information was recorded in the registry within 5 business days of trading.

Audit outcome

Compliant

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

Code reference

Clause 9 (1(k) of Schedule 11.1

Code related audit information

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

Audit observation

The process for the management of ANZSIC codes was discussed during the audit. The LIS was reviewed.

Audit commentary

Ecosmart trades 2 commercial ICPs and 27 residential. We checked 6 ICPs using the Link to Google maps attached to the registry. The assigned ANZSIC codes were correct.

We used the Google maps street view (link on the registry summary page) functionality to conduct this check.

Audit outcome

Compliant

3.7. Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1)

Code reference

Clause 9(1)(f) of Schedule 11.1

Code related audit information

if a settlement type of UNM is assigned to that ICP, the trader must populate:

the code ENG - if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or

the daily average kWh of unmetered load at the ICP - in all other cases (clause 9(1)(f)(ii)).

Audit observation

The LIS file was reviewed.

Audit commentary

Ecosmart does not trade unmetered load. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

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

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

Audit observation

The EDA file was reviewed to identify all changes to the “Active” status in the period covered by this audit. The process for ICP reconnection/disconnection was reviewed.

Audit commentary

There were no changes to the “Active” status. All ICPs have the “Active” status assigned in the registry. The reconnection/connection process is compliant, it has not been used since the last audit.

Audit outcome

Compliant

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

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

Audit observation

The EDA file was reviewed to identify all changes to the “Inactive” status in the period covered by this audit.

Audit commentary

There were no changes to the “Inactive” status.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

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

Audit commentary

Ecosmart has not received such a query from any distributor because the company has not traded any new connections since the last audit.

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

We would like to note that the Switch Breach Report (details) does not align with the current Code. Jade is in the process of updating it. We used the Switch Breach Report (details) to indicate non-compliance but due to inaccuracies for some switching activities it was not always possible to give a definite number for volumes of late files.

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

Code reference

Clause 2 Schedule 11.3

Code related audit information

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

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

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

Audit observation

The Standard Switch process was examined. The Event Listing file (EDA) and the Switch Breach History details report for the period of the audit was provided.

Audit commentary

Ecosmart advised the registry of the switch of 7 ICPs using this process via the web interface. No switches were backdated.

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

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

When establishing an event date for clause 4, the losing trader may disregard every event date established by the losing trader for an ICP for which when the losing trader received notice from the registry manager under clause 22(a) the losing trader had been responsible for less than 2 months.

Audit observation

The Event Listing file (EDA) and the Switch Breach report were analysed to identify any AN files sent by Ecosmart.

Audit commentary

Ecosmart lost 3 ICPs using this process. The AN files were provided the same day or following day after the notification was received. The correct response code was used. For all switches Ecosmart accepted an event date proposed by the gaining traders therefore compliance with clause 4(b) of Schedule 11.3 was met.

No late files were identified in the Switch Breach report.

Audit outcome

Compliant

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

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

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

Audit observation

The Event Listing file (EDA) and the Switch Breach report were analysed to identify any CS files sent by Ecosmart.

Audit commentary

Ecosmart lost 3 ICPs using this process. The CS files were created in the registry within 5 business days except one CS file for 0165881895LC2DB. It was late by one day. This particular file was late because of a Christmas holiday.

We checked the accuracy of the content of the CS file and confirm it was correct.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.3 With: 5 of Schedule 11.3 From: 21-Dec-18 To: 05-Jan-19	One CS file was late by one day Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as strong, there is a robust process in place. As soon as a notification from the registry is sent, Ecosmart is automatically alerted. There are not many switching activities therefore even more vigilance is required to meet compliance with this clause. The audit risk rating is low because there is minor impact on the settlement outcome.		
Actions taken to resolve the issue		Completion date	Remedial action status
			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Systems are already in place			

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

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

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

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

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

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

The Event Listing file (EDA) was analysed to identify any RR files sent or received by Ecosmart.

Audit commentary

No RR files were sent or received during the period covered by this audit.

We walked through 4 CS files provided by the losing traders and confirm they were imported into the RM TOOL and used for the calculation of submission volumes.

Audit outcome

Compliant

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

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

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

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

Audit observation

The Event Listing file (EDA) and the Switch Breach report were analysed.

Audit commentary

No RR files were sent or received during the period covered by this audit.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 11.3

Code related audit information

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

Audit observation

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

Audit commentary

Ecosmart stated that they will not decline to accept another traders' validated meter reading or permanent estimate if they are reasonable and appropriate in the applicable circumstances. The company will also provide a reasonable explanation to the other participant where it does decline to accept their validated meter reading or permanent estimate.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

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

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

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

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

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

Audit observation

The EDA file for the period 01/08/18 to 20/06/19 and the Switch Breach Report (details) were analysed. The Switch Move Switch process was examined.

Audit commentary

Ecosmart gained one ICP (0006824892TU8C7) using this process. The event date not backdated.

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

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

Audit observation

The EDA file for the period 01/08/18 to 20/06/19 and the Switch Breach Report (details) were analysed.

Audit commentary

Ecosmart lost 3 ICPs using the Switch Move process. The AN files were sent the same day as the notification from the registry was received. The proposed event date was accepted.

Audit outcome

Compliant

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

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

Audit observation

The EDA file the period 01/08/18 to 20/06/19 was analysed.

Audit commentary

As described in **section 4.8**, the proposed event date was accepted by Ecosmart.

Audit outcome

Compliant

4.10. Losing trader must provide final information - switch move (Clause 11 Schedule 11.3)

Code reference

Clause 11 Schedule 11.3

Code related audit information

The losing trader must provide final information to the registry manager for the purposes of clause 10(1)(a)(ii), including—

- the event date (clause 11(a)); and
- a switch event meter reading as at the event date for each meter or data storage device that is recorded in the registry with an accumulator type of C and a settlement indicator of Y (clause 11(b)); and
- if the switch event meter reading is not a validated meter reading, the date of the last meter reading of the meter or storage device. (clause 11(c)).

Audit observation

The EDA file for the period 01/08/18 to 20/06/19 and the Switch Breach Report (details) were analysed.

Audit commentary

We reviewed 3 CS files and confirm that information was complete and accurate.

Audit outcome

Compliant

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within 4 calendar months of the date the registry manager gives the gaining trader written notice of having received information about the switch completion, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*
- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 12(3)(b)).*

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

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 12(2A)(b));*

- *the gaining trader no later than 5 business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading. (clause 12(2B)).*

Audit observation

The EDA file for the period 01/08/18 to 20/06/19 was analysed.

Audit commentary

No RR files were sent or received during the period covered by this audit.

We walked through 3 CS files provided by the losing traders and confirm they were imported into the RM TOOL and used for the calculation of submission volumes.

Audit outcome

Compliant

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

Code reference

Clause 14 Schedule 11.3

Code related audit information

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

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

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

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

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

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

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

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

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

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

Audit observation

The EDA file was reviewed to check if this type of switch was used.

Audit commentary

Ecosmart did not use this type of switch.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

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

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

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

Audit observation

The EDA file was reviewed to check if this type of switch was used.

Audit commentary

Ecosmart did not use this type of switch.

Audit outcome

Not applicable

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

The EDA file was reviewed to check if this type of switch was used.

Audit commentary

Ecosmart did not use this type of switch.

Audit outcome

Not applicable

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

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

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

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
 - o *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*
 - o *the withdrawal advisory code published by the Authority. (clause 18(c)(ii))*
- *within 5 business days after receiving notice from the registry manager of a switch, the trader receiving the withdrawal must advise the registry manager that the switch withdrawal request is accepted or rejected. A switch withdrawal request must not become effective until accepted by the trader who received the withdrawal. (clause 18(d))*
- *on receipt of a rejection notice from the registry manager, in accordance with clause 18(d), a trader may re-submit the switch withdrawal request for an ICP in accordance with clause 18(c). All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request. (clause 18(e))*
- *if the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within 2 business days after receiving notice from the registry manager in accordance with clause 22(b), the losing trader must comply with clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16. (clause 18(f))*

Audit observation

The EDA file the period 01/08/18 to 20/06/19 and the Switch Breach Report (details) were analysed.

Audit commentary

Ecosmart received 2 NW files. The company responded the same or following day.

Ecosmart did not sent any NW files.

Audit outcome

Compliant

4.16. Metering information (Clause 21 Schedule 11.3)

Code reference

Clause 21 Schedule 11.3

Code related audit information

For an interrogation or validated meter reading or permanent estimate carried out in accordance with Schedule 11.3:

21(a)- the trader who carries out the interrogation, switch event meter reading must ensure that the interrogation is as accurate as possible, or that the switch event meter reading is fair and reasonable.

21(b) and (c) - the cost of every interrogation or switch event meter reading carried out in accordance with clauses 5(b) or 11(b) or (c) must be met by the losing trader. The costs in every other case must be met by the gaining trader.

Audit observation

We examined the meter reading process in conjunction with the switching process (sending CS files).

Audit commentary

All readings used in the switching process are validated meter readings. They received from MEPs, customers or Ecosmart read themselves.

Ecosmart understands their responsibilities as stated in this clause.

Audit outcome

Compliant

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

Code reference

Clause 11.15AA to 11.15AB

Code related audit information

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

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

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

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

Audit observation

Ecosmart is part of the Switch Saves-Protection scheme.

Audit commentary

According to the EDA file provided by the company, no NW file with the reason code "CX" was sent to a gaining trader. Ecosmart confirmed their policy not to contact a customer after a switch notification is received from the registry.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

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

11.14(2) - The distributor must give written notice to the traders responsible for the ICPs across which the unmetered load is shared, of the ICP identifiers of the ICPs.

11.14(3) - A trader who receives such a notification from a distributor must give written notice to the distributor if it wishes to add or omit any ICP from the ICPs across which unmetered load is to be shared.

11.14(4) - A distributor who receives such a notification of changes from the trader under (3) must give written notice to the registry manager and each trader responsible for any of the ICPs across which the unmetered load is shared.

11.14(5) - If a distributor becomes aware of any change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must give written notice to all traders affected by that change as soon as practicable after that change or decommissioning.

11.14(6) - Each trader who receives such a notification must, as soon as practicable after receiving the notification, adjust the unmetered load information for each ICP in the list for which it is responsible to ensure that the entire shared unmetered load is shared equally across each ICP.

11.14(7) - A trader must take responsibility for shared unmetered load assigned to an ICP for which the trader becomes responsible as a result of a switch in accordance with Part 11.

11.14(8) - A trader must not relinquish responsibility for shared unmetered load assigned to an ICP if there would then be no ICPs left across which that load could be shared.

11.14(9) - A trader can change the status of an ICP across which the unmetered load is shared to inactive status, as referred to in clause 19 of Schedule 11.1. In that case, the trader is not required to give written notice to the distributor of the change. The amount of electricity attributable to that ICP becomes UFE.

Audit observation

The LIS file was reviewed to confirm that Ecosmart did not supply any ICPs with shared unmetered load.

Audit commentary

Ecosmart did not supply any ICPs with shared unmetered load. Any shared unmetered load will be identified through the registry checks by JC Consulting and reconciled using the registry information.

Audit outcome

Not applicable

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

Code reference

Clause 10.14 (2)(b)

Code related audit information

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

Audit observation

The LIS file was reviewed to confirm that Ecosmart did not supply any unmetered load ICPs.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The LIS file was reviewed to confirm that Ecosmart did not supply any unmetered load ICPs.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

The LIS file was reviewed to confirm that Ecosmart did not supply any distributed unmetered ICPs.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

- *there 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

The LIS file dated 10/07/19 was examined to identify all ICPs with distributed generation.

Audit commentary

Ecosmart supplies 19 ICPs which have solar panels installed. For all installations Import/Export meters are installed and volumes are submitted to the reconciliation manager.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The participant responsible for the metering installation must:

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

Audit observation

Ecosmart is not responsible for any GIP.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

Audit observation

The LIS file and reconciliation files were examined.

Audit commentary

The file analysis showed that Ecosmart submits volumes to the reconciliation manager using the RPS, PV1 and HHR profiles. These profiles are not reliant on certified control devices. The company has never approached a MEP asking for a control device to be certified.

Audit outcome

Compliant

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

The process for identifying defective metering was examined. JC Consulting conducts extensive data validation which is instrumental in the identification of defective metering installations.

Audit commentary

Metering files are uploaded from MEPs' servers or Dropbox by JC Consulting. After files are uploaded to the RM TOOL, validation is conducted by running a number of reports which assist in identifying defective metering. The reports identify ICPs with too high or too low consumption, zero readings, not advancing registers. This report could also identify bridged meters.

No examples of defective metering were identified during this audit.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.2

Code related audit information

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

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

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

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

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

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

2(6) – The interrogation systems must record:

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

Audit observation

As described in **section 2.3** data is collected by FCLM and AMS.

Audit commentary

Data is downloaded by Ecosmart, uploaded to the RM TOOL and validated.

Compliance with this clause in relation to clock synchronisation is validated during the FCLM and AMS audit.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

MEPs provide daily register reads, which can be read remotely.

Audit commentary

HHR metering data is collected remotely by AMS and FCLM. There was one ICP, 0000801342TU7FF, which was read manually at the time of audit. ICP 0000801342TU7FF was read interchangeably by a customer (family member of the company owner) or Ecosmart (reconciliation participant read). The reads conducted by Ecosmart met compliance with this clause.

Audit outcome

Compliant

6.7. NHH meter reading application (Clause 6 Schedule 15.2)

Code reference

Clause 6 Schedule 15.2

Code related audit information

For NHH switch event meter reads, for the gaining trader the reading applies from 0000 hours on the day of the relevant event date and for the losing trader at 2400 hours at the end of the day before the relevant event date.

In all other cases, All NHH readings apply from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation.

Audit observation

The process for NHH reading application, conducted by JC Consulting as the Ecosmart agent, was examined during the audit.

Audit commentary

All MEPs used by Ecosmart provide meter readings, which are all stamped 23:59:59.

With the exception of opening reads from the losing trader, all reads are applied as at 2400 on the day they were taken. In **section 12.11** we reviewed the application of reads.

Audit outcome

Compliant

6.8. Interrogate meters once (Clause 7(1) and (2) Schedule 15.2)

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

Each reconciliation participant must ensure that a validated meter reading is obtained in respect of every meter register for every non half hour metered ICP for which the participant is responsible, at least once during the period of supply to the ICP by the reconciliation participant and used to create volume information.

This may be a validated meter reading at the time the ICP is switched to, or from, the reconciliation participant.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 7(1).

Audit observation

The process for monitoring missing reads, conducted by JC Consulting, was examined.

Audit commentary

Ecosmart lost 6 ICPs and a validated meter reading was obtained for all of them. We reviewed the readings.

Audit outcome

Compliant

6.9. NHH meters interrogated annually (Clause 8(1) and (2) Schedule 15.2)

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

At least once every 12 months, each reconciliation participant must obtain a validated meter reading for every meter register for non-half hour metered ICPs, at which the reconciliation participant trades continuously for each 12 month period.

If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 8(1).

Audit observation

The process for obtaining meter readings was examined. The Meter Reading Frequency report is created by JC Consulting and provided to the Authority monthly.

Audit commentary

The company provided the report for Aug'18 to May'19. Ecosmart has not traded any ICP continuously for 12 months.

Audit outcome

Compliant

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

The process for obtaining meter readings was examined. The Meter Reading Frequency report is created by JC Consulting and provided to the Authority monthly.

Audit commentary

The company provided the report for Aug'18 to May'19. We confirm that compliance with this clause was met.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

As described in **section 6.6**, Ecosmart reads occasionally NHH meters manually themselves seen as a reconciliation participant read.

Audit commentary

Ecosmart does not use NHH reads provided by a metering company such as Wells. This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

HHR meters are read by FCLM and AMS.

Audit commentary

Compliance with this clause is assessed during the FCML and AMS MEP audit.

Audit outcome

Compliant

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

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

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

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

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

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

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

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

Audit observation

HHR meters are read by FCLM and AMS.

Audit commentary

Compliance with this clause is assessed during the FCML and AMS MEP audit.

Audit outcome

Compliant

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

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

HHR meters are read by FCLM and AMS.

Audit commentary

Both companies provide log files which are reviewed by JC Consulting. Compliance with this clause is assessed during the FCML and AMS MEP audit.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

Ecosmart received HHR data from FCLM and AMS.

Audit commentary

We reviewed data provided by AMS and confirm that the trading period duration is 30 minutes.

Audit outcome

Compliant

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

Code reference

Clause 18 Schedule 15.2

Code related audit information

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

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

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

Audit observation

HHR data is received from FCLM and AMS, who archives raw meter data. Ecosmart keeps a copy of all HHR data.

Audit commentary

A review of audit trails in **section 2.4** confirmed that reads cannot be modified without creating an audit trail.

The processes to store and archive raw meter data are reviewed during the MEPs audit.

Audit outcome

Compliant

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

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

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

Audit observation

Ecosmart only uses the RPS, PV1, and HHR profiles for reconciliation submissions. No external control equipment is used.

Audit commentary

Compliance was not assessed because this clause is not applicable.

Audit outcome

Compliant

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

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

19(1)(b) - replace the original meter reading the second meter reading (even if the second meter reading is at a different date)

19(1A) if a reconciliation participant detects errors while validating non half hour meter readings, but the reconciliation participant cannot confirm the original meter reading or replace it with a meter reading from another interrogation, the reconciliation participant must:

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

Audit observation

The correction of NHH readings, if necessary, is completed by JC Consulting

Audit commentary

The process used by JC Consulting was an easy process to follow during the audit. It is robust and transparent. The process documentation is compliant.

There were no changes to a switch event read (RR file) or changes as a result of faulty metering.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

19(2)(a) - if the relevant metering installation has a check meter or data storage device, substitute the original meter reading with data from the check meter or data storage device; or

19(2)(b) - if the relevant metering installation does not have a check meter or data storage device, substitute the original meter reading with data from another period provided:

- (i) *The total of all substituted intervals matches the total consumption recorded on a meter, if available; and*
- (ii) *The reconciliation participant considers the pattern of consumption to be materially similar to the period in error*

Audit observation

The correction of HHR readings, if necessary, is completed by JC Consulting

Audit commentary

No HHR corrections were made during the period covered by this audit. JC Consulting conducts very thorough HHR data validation to detect possible data inaccuracies. As an additional check, data for each ICP is validated visually.

Audit outcome

Compliant

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

Audit observation

Error and loss compensation was discussed during the audit.

Audit commentary

Ecosmart only supplies ICPs with metering categories 1 and does not deal with any installations with error or loss compensation.

The RM TOOLS have a built-in functionality which can be used if necessary.

Audit outcome

Compliant

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

Code reference

Clause 19(4) and (5) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

Ecosmart receives a copy of raw data which is never overwritten. If data is corrected, the journal is created. Audit trail was discussed in **section 2.4**.

Audit commentary

No corrections have occurred since the last audit. JC Consulting receives only a copy of raw meter data. Retention of raw meter data is the responsibility of AMS and FCLM. It was covered in their audits and found compliant. Customer reads (photo) and Ecosmart reads are archived by Ecosmart.

Audit outcome

Compliant

9. ESTIMATING AND VALIDATING VOLUME INFORMATION

9.1. Identification of readings (Clause 3(3) Schedule 15.2)

Code reference

Clause 3(3) Schedule 15.2

Code related audit information

All estimated readings and permanent estimates must be clearly identified as an estimate at source and in any exchange of metering data or volume information between participants.

Audit observation

We reviewed readings in the RMT00L as a part of the review of the CS files (switching section), **section 4.3, 4.4.**

Audit commentary

Estimated readings were clearly identified as required.

Audit outcome

Compliant

9.2. Derivation of volume information (Clause 3(4) Schedule 15.2)

Code reference

Clause 3(4) Schedule 15.2

Code related audit information

Volume information must be directly derived, in accordance with Schedule 15.2, from:

3(4)(a) - validated meter readings

3(4)(b) - estimated readings

3(4)(c) - permanent estimates.

Audit observation

We reviewed a sample of submission data Mar'19 to May'19 in **section 12.**

Audit commentary

Volumes provided to the Reconciliation Manager are derived as required by this clause.

Audit outcome

Compliant

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

We reviewed data provided by MEPs and submission files. We compared a sample of data from AMS and FCLM.

Audit commentary

Data provided by MEPs is not rounded or truncated. Submission volumes are rounded to two decimal places.

Audit outcome

Compliant

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

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

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

Audit observation

We checked the estimation process used by JC Consulting. we found it compliant.

Audit commentary

The method which is used depends on how many intervals needs to be estimated. If it is only a small number of intervals needing to be estimated, a straight line is used. If one day or more requires estimation, a customer profile is used. Estimated data is created in Excel and imported into the RM TOOL, labelled as "estimated" against each interval. In both scenarios estimated data is scaled to match the total kWh. The RM TOOL records the name of the file, date and time of when it is imported.

We walked through three examples to check the calculations. The final check made by JC Consulting is to visually check for the correctness of the estimation. The company use reasonable endeavours to ensure submnitions data is within the percentage specified by the Authority.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 15.2

Code related audit information

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

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

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

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

16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected 0 values.

Audit observation

The NHH meter readings validation process used by JC Consulting was reviewed.

Audit commentary

The data validation process is very thorough. Metering data is checked for invalid dates and times, excessive consumption, zero consumption, missing reads, missing meters, consumption on electrically disconnected ICPs. The obligations described in this clause are met.

At the time of audit only one ICP was reconciled as NHH. Ecosmart's aim is to trade HHR ICPs only.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

All ICPs, except one traded by Ecosmart, are metered by AMI meters read remotely by MEPS.

Audit commentary

All meter data downloaded to the RM TOOL is firstly checked for invalid dates and times. The next step is to run queries which identify "unexpected 0 values"(registers do not advance), missing reads etc. Metering data is validated again using different criteria before submission files are created.

FCLM and AMS provide log files which are reviewed.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

Ecosmart is not responsible for providing information to the grid owner.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 13.137

Code related audit information

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

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

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

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

Audit observation

Ecosmart is not responsible for providing information to the grid owner.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 13.138

Code related audit information

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

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

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

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

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

Audit observation

Ecosmart is not responsible for providing information to the grid owner.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 13.140

Code related audit information

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

Audit observation

Ecosmart is not responsible for providing information to the grid owner.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

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

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

Audit observation

The LIS files and submission files for the period Feb'19 to May'19 were reviewed.

Audit commentary

Ecosmart only use the RPS, PV1 and HHR profiles.

Audit outcome

Compliant

11.2. Calculation of ICP days (Clause 15.6)

Code reference

Clause 15.6

Code related audit information

Each retailer and direct purchaser (excluding direct consumers) must deliver a report to the reconciliation manager detailing the number of ICP days for each NSP for each submission file of submission information in respect of:

15.6(1)(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period

15.6(1)(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.

The ICP days information must be calculated using the data contained in the retailer or direct purchaser's reconciliation system when it aggregates volume information for ICPs into submission information.

Audit observation

The process for the calculation of ICP days was examined. We also reviewed the GR-100 files from the reconciliation manager for Jan'19 to May'19.

Audit commentary

We found no discrepancies between ICP days calculated by the registry and the RM TOOL.

Audit outcome

Compliant

11.3. Electricity supplied information provision to the reconciliation manager (Clause 15.7)

Code reference

Clause 15.7

Code related audit information

A retailer must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each NSP, aggregated by invoice month, for which it has provided submission information to the reconciliation manager, including revised submission information for that period as non-loss adjusted values in respect of:

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

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

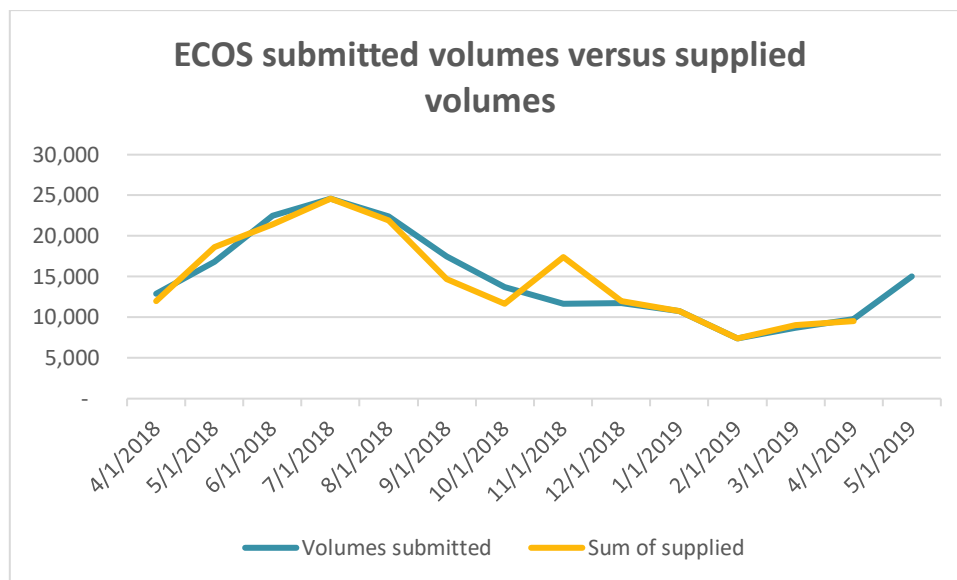
Audit observation

The process was examined. Every month JC Consulting supplies electricity supplied information to the reconciliation manager.

Audit commentary

Energy supplied is currently calculated by JC Consulting from the previous months Initial Network volumes, not from Ecosmart's billing records. The company explain that they always billed customers exactly the same volumes as submitted to networks.

The graph below shows a comparison between volumes submitted and supplied over 12 months. The billed volumes we "moved" back by one month to ensure a more logical comparison.



Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.3 With: 15.7 From: 01-Aug-18 To: 20-Jun-19	Energy supplied is calculated by JC Consulting from the previous months Initial Network volumes Potential impact: None Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as moderate because data is not coming from a billing system, however volumes submitted to networks are very accurate based on meter readings. There is no impact on settlement outcomes. Audit risk low.		
Actions taken to resolve the issue		Completion date	Remedial action status
			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
No remedial action planned			

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

Code reference

Clause 15.8

Code related audit information

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

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

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

Audit observation

Ecosmart provided a set of submission files (AV140) for the month Aug'18 to May'19. We also checked the GR-090 (ICP missing) file for the same period.

Audit commentary

We compared the volumes in HHRVOLS against HHRAGGR for the months Jan'19 to May'19. Volumes in both files were the same.

The HHRAGGR files are prepared at ICP level based on submission information. Clause 15.8 states that the HHRAGGR should contain electricity supplied information rather than submission information. The reconciliation manager Functional Specification in section 3, described HHRAGGR as HHR submission information that is aggregated per ICP for the whole month.

There is a misalignment between the Code requirements and RM file specification. It is a problem well known to the Authority and is awaiting a resolution.

Audit outcome

Non-compliant

Non-compliance		Description	
Audit Ref: 11.4 With: 15.8 From: 01-Aug-18 To: 30-Jun-19	HHRAGGR files do not contain electricity supplied information Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating		Rationale for audit risk rating	
Low	Ecosmart submits submissions volumes as per the reconciliation manager specification.		
Actions taken to resolve the issue		Completion date	Remedial action status
			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
NO remedial action from ECOS is planned			

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

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

Audit observation

HHR data is collected by FCLM and AMS.

Audit commentary

Compliance with this clause has been demonstrated by FCLM and AMS as part of their MEP audit.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

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

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

Audit observation

Ecosmart provided reconciliation data for Aug'18 to May'19. We also reviewed the GR-170HHR and GR-170NHH files.

Audit commentary

There were no late files submitted by JC Consulting on behalf of Ecosmart. Volumes were provided for all traded NSPs.

Audit outcome

Compliant

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

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

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

Audit observation

The process for aggregating the AV-080 and AV-090 files was examined by checking submissions for Jan'19 to May'19.

Audit commentary

JC Consulting refreshes information from the registry prior to running reconciliation reports to ensure the accuracy of data (statuses, NSP allocation, loss factor codes). We confirm that the submission files were consistent with the registry information for the months Jan'19 to May'19.

We compared consecutive submissions and confirm all contained the same NSPs.

The RM TOOL has a functionality to submit zero volumes for an NSP which no longer has any ICPs where a particular combination of NSP and loss factor code exists. This functionality was not used for Ecosmart submissions.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

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

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

Audit observation

Ecosmart is not a grid owner.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

Ecosmart is not an embedded network owner.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

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

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

Audit observation

Ecosmart is not a generator.

Audit commentary

This clause is not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

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

Audit observation

We checked the process for revisions. Every month volumes are submitted, as expected, by a schedule.

Audit commentary

A review of alleged breaches confirmed that no reconciliation submissions were made late.

The RM TOOL has a functionality which recalculates submission volumes if a more accurate reading is obtained.

JC Consulting provided evidence that any updates to metering information are submitted to the RM. On day 4 JC Consulting used Ecosmart's own profile to calculate NHH submissions, they are replaced as soon as GR-030 is available.

Audit outcome

Compliant

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

Code reference

Clause 4 Schedule 15.2

Code related audit information

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

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

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

Audit observation

Submission volumes were reviewed. We also downloaded the GR-170NHH file to assess compliance.

Audit commentary

Ecosmart is compliant with this clause. Submissions for revision 14 did not contain forward estimates.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

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

Audit observation

Ecosmart provided submission files for the month of Aug'18 to May'19 which were reviewed, and compliance assessed.

Audit commentary

Ecosmart only trades category 1 metering installations. Volumes are submitted using profiles RPS, PV1 and HHR.

All installations are metered. No UML is traded.

Audit outcome

Compliant

12.10. Historical estimates and forward estimates (Clause 3 Schedule 15.3)

Code reference

Clause 3 Schedule 15.3

Code related audit information

For each ICP that has a non-half hour metering installation, volume information derived from validated meter readings, estimated readings, or permanent estimates must be allocated to consumption periods using the following techniques to create historical estimates and forward estimates. (clause 3(1))

Each estimate that is a forward estimate or a historical estimate must clearly be identified as such. (clause 3(2))

If validated meter readings are not available for the purpose of clauses 4 and 5, permanent estimates may be used in place of validated meter readings. (clause 3(3))

Audit observation

We reviewed the AV-080 files from Sept'18 (including revisions) to Jan'19. Historical Estimates (HE) were included and identified.

Audit commentary

The methodology used to calculate Forwards Estimates (FE) is described in **section 12.12**.

Audit outcome

Compliant

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

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

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

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

Audit observation

According to the EDA files for the period covered by this audit, there were no changes to ICPs statuses and all ICPs are metered.

Audit commentary

There were only three scenarios which were reviewed during the period covered by this audit:

- Switch in during a month
- Switch out during a month
- Meter change

JC Consulting provided calculations for 3 ICPs. The calculations were correct.

Audit outcome

Compliant

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 Schedule 15.3

Code related audit information

Forward estimates may be used only in respect of any period for which an historical estimate cannot be calculated.

The methodology used for calculating a forward estimate may be determined by the reconciliation participant, only if it ensures that the accuracy is within the percentage of error specified by the Authority.

Audit observation

The process for creating forward estimates was reviewed.

Audit commentary

The process is only used when actual readings are not available. They are based on the average daily consumption provided by a losing trader in the CS file or historic consumption.

Audit outcome

Compliant

12.13. Compulsory meter reading after profile change (Clause 7 Schedule 15.3)

Code reference

Clause 7 Schedule 15.3

Code related audit information

If the reconciliation participant changes the profile associated with a meter, it must, when determining the volume information for that meter and its respective ICP, use a validated meter reading or permanent estimate on the day on which the profile change is to take effect.

The reconciliation participant must use the volume information from that validated meter reading or permanent estimate in calculating the relevant historical estimates of each profile for that meter.

Audit observation

The EDA file was reviewed.

Audit commentary

We identified a number of ICPs for which the profile was changed during the period covered by this audit, from RPS to HHR and from HHR to RPS. Changes from RPS to HHR were when a legacy meter was replaced by a smart meter. Changes from HHR to RPS were caused by non-communicating meters. In all cases final reads of removed meters were used or an AMI meter reading.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

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

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

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

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

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

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

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

Audit observation

The company provided submission files for Aug'18'19 to May'19. Ecosmart provided NHHVOLS, HHRVOLS, HHRAGGR, ICPDAYS, and BILLED files.

Audit commentary

We confirm that the format for submissions files is compliant. The RM TOOL has the functionality to store all ICP's recorded in the registry. ICPs traded by Ecosmart do not require the application of multipliers.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

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

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

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

Audit observation

We reviewed the aggregation of the submission files for Jan'19 and May'19.

Audit commentary

We confirm, that the volumes provided to the reconciliation manager were correctly rounded.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.3

Code related audit information

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

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

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

Audit observation

JC Consulting creates and submits reconciliation files for NHH ICPs. We reviewed NHHVOLS and the GR-70 NHH files for the period Aug'18 to Mar'19 created by the reconciliation manager.

Audit commentary

The review of the above files showed that Ecosmart meets compliance with this clause.

Audit outcome

Compliant

CONCLUSION

PARTICIPANT RESPONSE

We accept the findings of the audit, and are happy with the recommendation.