

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

For

**ELECTRIC KIWI**

Prepared by: Ewa Glowacka

Date audit commenced: 16 January 2018

Date audit report completed: 16 February 2018

Audit report due date: 16-Feb-18

---

## TABLE OF CONTENTS

Executive summary .....	5
Audit summary .....	6
Non-compliances .....	6
Recommendations .....	7
Issues 7	
1. Administrative .....	8
1.1. Exemptions from obligations to comply with Code (Section 11) .....	8
1.2. Structure of Organisation .....	8
1.3. Persons involved in this audit .....	9
1.4. Use of Agents (Clause 15.34) .....	9
1.5. Hardware and Software .....	9
1.6. Breaches or Breach Allegations .....	10
1.7. ICP Data .....	10
1.8. Authorisation Received .....	11
1.9. Scope of Audit .....	11
1.10. Summary of previous audit .....	12
2. Operational Infrastructure .....	14
2.1. Relevant information (Clause 10.6, 11.2, 15.2) .....	14
2.2. Provision of information (Clause 15.35) .....	16
2.3. Data transmission (Clause 20 Schedule 15.2) .....	17
2.4. Audit trails (Clause 21 Schedule 15.2) .....	17
2.5. Retailer responsibility for electricity conveyed - participant obligations (Clause 10.4) ..	18
2.6. Retailer responsibility for electricity conveyed - access to metering installations (Clause 10.7(2), (4), (5) and (6)) .....	19
2.7. Physical location of metering installations (Clause 10.35(1) & (2)) .....	19
2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B) .....	20
2.9. Connection of an ICP (Clause 10.32) .....	21
2.10. Temporary Electrical Connection of an ICP (Clause 10.33(1)) .....	21
2.11. Electrical Connection of Point of Connection (Clause 10.33A) .....	22
2.12. Arrangements for line function services (Clause 11.16) .....	22
2.13. Arrangements for metering equipment provision (Clause 10.36) .....	23
3. Maintaining registry information .....	25
3.1. Obtaining ICP identifiers (Clause 11.3) .....	25
3.2. Providing registry information (Clause 11.7(2)) .....	25
3.3. Changes to registry information (Clause 10 Schedule 11.1) .....	26
3.4. Trader responsibility for an ICP (Clause 11.18) .....	31
3.5. Provision of information to the registry manager (Clause 9 Schedule 11.1) .....	32
3.6. ANZSIC codes (Clause 9 (1)(k) of Schedule 11.1) .....	32
3.7. Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1) .....	34
3.8. Management of “active” status (Clause 17 Schedule 11.1) .....	35
3.9. Management of “inactive” status (Clause 19 Schedule 11.1) .....	38
3.10. ICPs at new or ready status for 24 months (Clause 15 Schedule 11.1) .....	41
4. Performing customer and embedded generator switching .....	42
4.1. Inform registry of switch request for ICPs - standard switch (Clause 2 Schedule 11.3) ..	42

4.2.	Losing trader response to switch request and event dates - standard switch (Clauses 3 and 4 Schedule 11.3) .....	42
4.3.	Losing trader must provide final information - standard switch (Clause 5 Schedule 11.3).....	44
4.4.	Retailers must use same reading - standard switch (Clause 6(1) and 6A Schedule 11.3).....	47
4.5.	Non-half hour switch event meter reading - standard switch (Clause 6(2) and (3) Schedule 11.3) .....	51
4.6.	Disputes - standard switch (Clause 7 Schedule 11.3).....	53
4.7.	Gaining trader informs registry of switch request - switch move (Clause 9 Schedule 11.3) .....	53
4.8.	Losing trader provides information - switch move (Clause 10(1) Schedule 11.3) .....	54
4.9.	Losing trader determines a different date - switch move (Clause 10(2) Schedule 11.3) .....	54
4.10.	Losing trader must provide final information - switch move (Clause 11 Schedule 11.3).....	55
4.11.	Gaining trader changes to switch meter reading - switch move (Clause 12 Schedule 11.3) .....	59
4.12.	Gaining trader informs registry of switch request - gaining trader switch (Clause 14 Schedule 11.3) .....	62
4.13.	Losing trader provision of information - gaining trader switch (Clause 15 Schedule 11.3).....	63
4.14.	Gaining trader to advise the registry manager - gaining trader switch (Clause 16 Schedule 11.3) .....	63
4.15.	Withdrawal of switch requests (Clauses 17 and 18 Schedule 11.3).....	64
4.16.	Metering information (Clause 21 Schedule 11.3) .....	66
4.17.	Switch saving protection (Clause 11.15AA to 11.15AB).....	67
5.	Maintenance of unmetered load .....	68
5.1.	Maintaining shared unmetered load (Clause 11.14).....	68
5.2.	Unmetered threshold (Clause 10.14 (2)(b)) .....	69
5.3.	Unmetered threshold exceeded (Clause 10.14 (5)) .....	69
5.4.	Distributed unmetered load (Clause 11 Schedule 15.3, Clause 15.37B).....	70
6.	Gathering raw meter data .....	71
6.1.	Electricity conveyed & notification by embedded generators (Clause 10.13, Clause 10.24 and 15.13) .....	71
6.2.	Responsibility for metering at GIP (Clause 10.26 (6), (7) and (8)).....	71
6.3.	Certification of control devices (Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3).....	72
6.4.	Reporting of defective metering installations (Clause 10.43(2) and (3)) .....	72
6.5.	Collection of information by certified reconciliation participant (Clause 2 Schedule 15.2).....	73
6.6.	Derivation of meter readings (Clause 3(1), 3(2) and 5 Schedule 15.2) .....	74
6.7.	NHH meter reading application (Clause 6 Schedule 15.2) .....	74
6.8.	Interrogate meters once (Clause 7(1) and (2) Schedule 15.2) .....	75
6.9.	NHH meters interrogated annually (Clause 8(1) and (2) Schedule 15.2) .....	75
6.10.	NHH meters 90% read rate (Clause 9(1) and (2) Schedule 15.2) .....	76
6.11.	NHH meter interrogation log (Clause 10 Schedule 15.2) .....	76
6.12.	HHR data collection (Clause 11(1) Schedule 15.2) .....	77
6.13.	HHR interrogation data requirement (Clause 11(2) Schedule 15.2) .....	77
6.14.	HHR interrogation log requirements (Clause 11(3) Schedule 15.2) .....	78
7.	Storing raw meter data .....	79
7.1.	Trading period duration (Clause 13 Schedule 15.2) .....	79
7.2.	Archiving and storage of raw meter data (Clause 18 Schedule 15.2) .....	79
7.3.	Non-metering information collected / archived (Clause 21(5) Schedule 15.2) .....	79

8.	Creating and managing (including validating, estimating, storing, correcting and archiving) volume information.....	81
8.1.	Correction of NHH meter readings (Clause 19(1) Schedule 15.2).....	81
8.2.	Correction of HHR metering information (Clause 19(2) Schedule 15.2).....	81
8.3.	Error and loss compensation arrangements (Clause 19(3) Schedule 15.2) .....	82
8.4.	Correction of HHR and NHH raw meter data (Clause 22(1) and (2) Schedule 15.2) .....	82
9.	Estimating and validating volume information.....	84
9.1.	Identification of readings (Clause 3(3) Schedule 15.2).....	84
9.2.	Derivation of volume information (Clause 3(4) Schedule 15.2) .....	84
9.3.	Meter data used to derive volume information (Clause 3(5) Schedule 15.2).....	85
9.4.	Half hour estimates (Clause 15 Schedule 15.2).....	85
9.5.	NHH metering information data validation (Clause 16 Schedule 15.2) .....	86
9.6.	Electronic meter readings and estimated readings (Clause 17 Schedule 15.2) .....	87
10.	Provision of metering information to the pricing manager in accordance with subpart 4 of Part 13 (clause 15.38(1)(f)) .....	88
10.1.	Generators to provide HHR metering information (Clause 13.136) .....	88
10.2.	Unoffered & intermittent generation provision of metering information (Clause 13.137).....	88
10.3.	Loss adjustment of HHR metering information (Clause 13.138).....	89
10.4.	Notification of the provision of HHR metering information (Clause 13.140) .....	89
11.	Provision of submission information for reconciliation.....	90
11.1.	Buying and selling notifications (Clause 15.3).....	90
11.2.	Calculation of ICP days (Clause 15.6) .....	90
11.3.	Electricity supplied information provision to the reconciliation manager (Clause 15.7).....	91
11.4.	HHR aggregates information provision to the reconciliation manager (Clause 15.8) ....	93
12.	Submission computation .....	95
12.1.	Daylight saving adjustment (Clause 15.36) .....	95
12.2.	Creation of submission information (Clause 15.4) .....	95
12.3.	Allocation of submission information (Clause 15.5) .....	96
12.4.	Grid owner volumes information (Clause 15.9) .....	97
12.5.	Provision of NSP submission information (Clause 15.10) .....	97
12.6.	Grid connected generation (Clause 15.11).....	98
12.7.	Accuracy of submission information (Clause 15.12) .....	98
12.8.	Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2).....	99
12.9.	Reconciliation participants to prepare information (Clause 2 Schedule 15.3) .....	100
12.10.	Historical estimates and forward estimates (Clause 3 Schedule 15.3).....	102
12.11.	Historical estimate process (Clause 4 and 5 Schedule 15.3) .....	103
12.12.	Forward estimate process (Clause 6 Schedule 15.3) .....	103
12.13.	Compulsory meter reading after profile change (Clause 7 Schedule 15.3).....	104
13.	Submission format and timing.....	105
13.1.	Provision of submission information to the RM (Clause 8 Schedule 15.3) .....	105
13.2.	Reporting resolution (Clause 9 Schedule 15.3) .....	105
13.3.	Historical estimate reporting to RM (Clause 10 Schedule 15.3) .....	106
	Conclusion .....	107
	Participant response .....	107

## EXECUTIVE SUMMARY

This reconciliation participant audit was performed at the request of Electric Kiwi (ELKI) 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 7.1 issued by the Electricity Authority.

The company has been growing very fast. Since the last audit Electric Kiwi gained 12,716 HHR ICPs. The company only accepts installations for which volumes are recorded by remotely read smart meters. To assess compliance, we used registry files such as the ICP list, Metering Installation Information, Switch Breach Reports, and Event Detail files. To verify compliance of switching, registry updates, and the calculation of reconciliation submissions we conducted judgement -based sampling by selecting typical examples of the population or looking at extreme examples of non-compliance within switching transactions.

The audit found 12 non-compliances and one recommendation was made.

The main issues identified during this audit are:

- Traders must switch on the same switch event read.

Provision of final information to a losing trader is in the form of a CS file and within time frame specified by the Code. Improvements have been made in the following areas since the last audit:

- Accuracy of information in the registry
- Decreased number of “missing ICPs” in GR-090

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 18 which results in an indicative audit frequency of 12 months. We agree with the result.

We thank Electric Kiwi’s staff for their full and complete cooperation in this audit. Their response to any request for information or clarification was answered in a timely manner and each time in depth, supporting evidence was provided.

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	11.2	Registry discrepancies for some ICPs	Strong	Low	1	Identified
Changes to registry information	3.3	10 of Schedule 11.1	Information related to trader information and ICPs' status was backdated	Moderate	Low	2	Identified
ANZSIC codes	3.6	9(1)(k) of Schedule 11.1	Five ICPs had incorrect ANZSIC code assigned	Strong	Low	1	Identified
Management of "active" status	3.8	17(1)(a) of Schedule 11.1	Incorrect application of the "active" status" in the registry for some ICPs	Strong	Low	2	Identified
Management of "inactive" status	3.9	19(a) of Schedule 11.1	Incorrect application of the "inactive" status" in the registry for some ICPs	Moderate	Low	2	Identified
Losing trader response to switch request and event dates - standard switch	4.2	3 of Schedule 11.3	One AN file sent late by one day	Strong	Low	1	Identified
Losing trader must provide final information – standard switch	4.3	5 of Schedule 11.3	344 CS files were submitted late to the registry.	Strong	Low	1	Identified
Retailers must use the same readings	4.4	6(1) of Schedule 11.3	For some switches Electric Kiwi does not use a switch event read provided by a losing trader	Weak	Low	3	Identified
Losing trader provides information – switch move	4.10	11 of Schedule 11.3	200 CS files were sent later than 5 BD after notification from the registry.	Strong	Low	1	Identified
Gaining trader changes to switch meter reading – switch move	4.11	12 of Schedule 11.3	For some switches Electric Kiwi does not use a switch event read provided by a losing trader	Weak	Low	3	Identified
Withdrawal of switch	4.15	17 of Schedule	23 late NW files and 17 AW files	Strong	Low	1	Identified

requests		11.3					
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHRAGGR files do not contain electricity supplied information	Strong	Low	1	Not required. The Code change required a line up with RN file specification. Breach risk rating excluded from total
Reconciliation participants to prepare information	12.9	2 of Schedule 15.3	Submission volumes for ICP 1000555666PC131 were incorrectly calculated.	Strong	Low	1	Cleared
Future Risk Rating						18	

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

Based on Table 1 of the Guidelines for Reconciliation Participant audit, the next audit should happen within the next 12 months. We agree with the result.

## RECOMMENDATIONS

Subject	Section	Description	Recommendation
ANZSIC code	3.6	Incorrect address description for 10 ICPs	Electric Kiwi to contact distributors and ask for update of address details in the registry

## 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.*

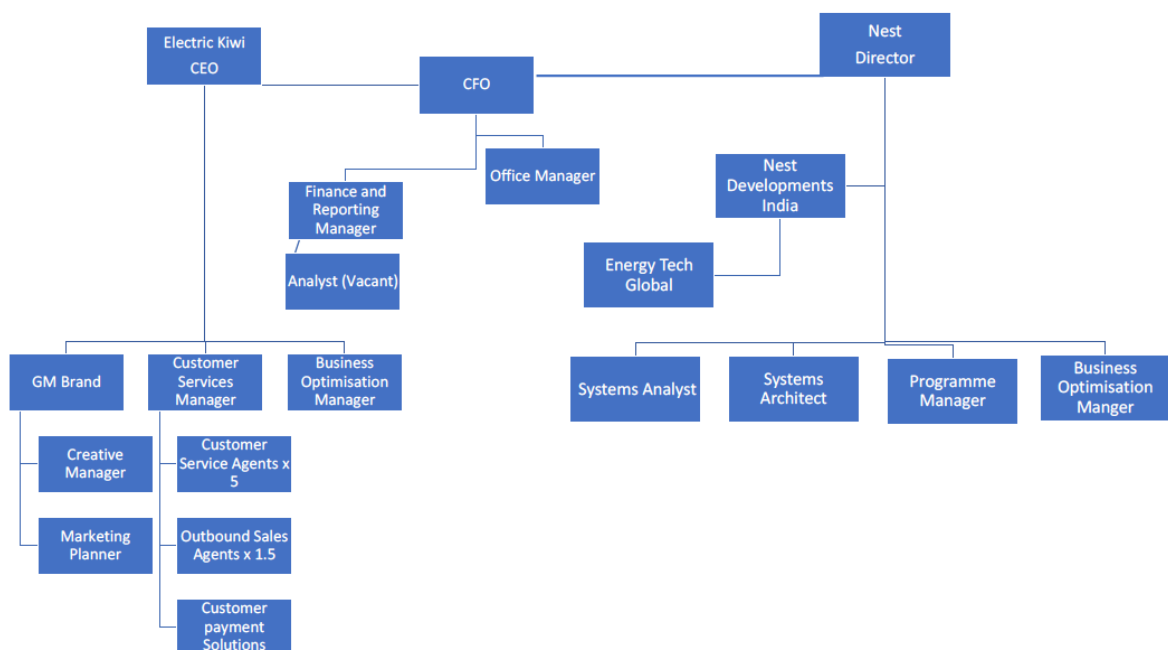
#### Audit observation

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

#### Audit commentary

Electric Kiwi 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





### 1.3. Persons involved in this audit

Name	Title	Company	Comment
Bradford Sticker	Commercial Manager	Electric Kiwi	
Andrew McKenzie	Customer Operational Manager	Electric Kiwi	
Cory Williams	Business Optimisation Manager	Electric Kiwi	
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

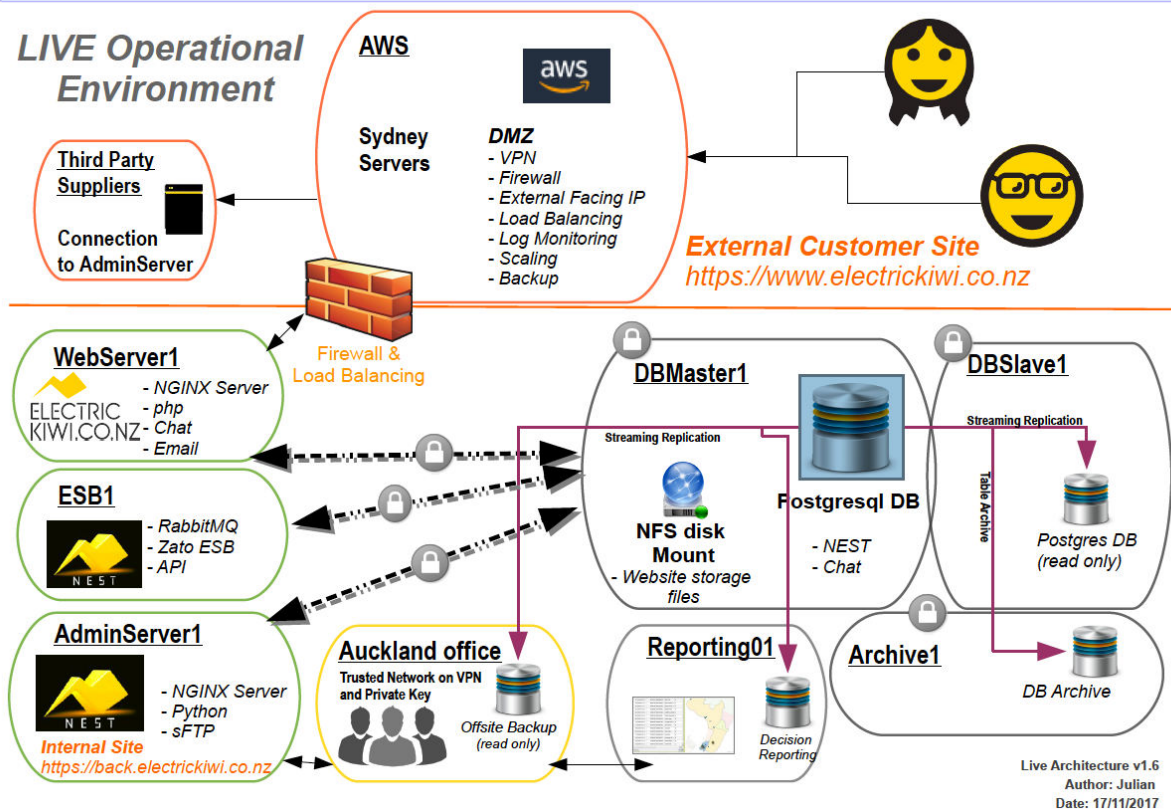
Electric Kiwi does not use any agents to fulfil their obligations to obtain the certification.

#### Audit commentary

Electric Kiwi does not use any agents. All functions are performed by Electric Kiwi's staff.

### 1.5. Hardware and Software

Electric Kiwi uses an IT platform called "NEST", developed in-house, which is used to manage their day to day operations, reconciliation, and billing.



## 1.6. Breaches or Breach Allegations

No breaches or breach allegations have been recorded since the last audit.

## 1.7. ICP Data

Electric Kiwi provided the LIS file dated 8/01/2018. The total number of ICPs was 19,536.

Metering Category	(08/01/2017)	(31/12/2016)	(2015)
1	19,522	6,814	778
2	8	4	2
3	0	0	0
4	0	0	0
5	0	0	0
9	6	0	0

Status	Number of ICPs (08/01/2018)	Number of ICPs (31/12/2016)	Number of ICPs (2015)
Active (2,0)	19,141	6,675	771

Inactive – new connection in progress (1,12)	0	0	0
Inactive – electrically disconnected vacant property (1,4)	87	16	9
Inactive – electrically disconnected remotely by AMI meter (1,7)	289	125	0
Inactive – electrically disconnected at pole fuse (1,8)	2	1	0
Inactive – electrically disconnected due to meter disconnected (1,9)	0	0	0
Inactive – electrically disconnected at meter box fuse (1,10)	1	0	0
Inactive – electrically disconnected at meter box switch (1,11)	0	1	0
Inactive – electrically disconnected ready for decommissioning (1,6)	2	0	0
Inactive – reconciled elsewhere (1,5)	0	0	0
Decommissioned (3)	14	2	0

#### 1.8. Authorisation Received

Electric Kiwi 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 Electric Kiwi to encompass the Authority's request for annual audits as required by clause 2, of Schedule 15.1, of the Code to assure compliance with the Electricity Industry Participation Code 2010.

The audit was carried out on 16 & 17th January 2018 at Level 3, West Plaza Building, Auckland.

The audit covers the following processes under clause 15.38 of Part 15, performed by Electric Kiwi:

- (1)(a) - Maintaining registry information and performing customer switching
- (1)(b) - Gathering and storing raw meter data
- (1)(c)(i) - Creation and management (including validating, estimating, storing, correcting and archiving) half hour volume information
- (1)(d) - Calculation of ICP days, monthly kWh information of half hour metered ICPs, and electricity supplied

- (1)(e) - Provision of submission information for reconciliation

#### 1.10. Summary of previous audit

The previous audit was conducted in January 2017 by Ewa Glowacka of TEG & Associates. The following non-compliances were identified.

Subject	Clause	Non-compliance	Cleared
Traders must use the same readings	6(10(a) of Schedule 11.3	In some instances, not using the switch read provided by a losing trader	Still existing
Provision of information to the registry	9 of Schedule 11.3	Profile for 25 ICPs incorrectly populated in the registry	Cleared
Correction of errors in the registry	11 of Schedule 11.1	No comparison done between NEST and the registry on the 1st business day of each reconciliation period and the information in the registry not corrected after becoming aware of the error	Cleared
Traders to change ICP information provided to registry	10 of Schedule 11.1	Information for 33 ICPs updated in the registry later than 5 business days	Still existing
NRM rounding and accuracy of information	9 of Schedule 15.3 15.12 of Part 15	Methodology of rounding data for reconciliation purposes results in discrepancies between HHRVOLS (AV-080) and HHRAGGR (AV-140)	Cleared

Subject	Clause	Recommendation	Cleared
Traders to change information provided to the registry	10 of Schedule 11.1	Specify correct profile in NT file instead accepting a profile used by a losing trader	Cleared

Subject	Clause	Recommendation	Cleared
ICP days information	15.6 of Part 15	Use LIS file provided by the registry to calculate ICP days	There is daily update of EDA file from the registry and updating NEST information if any changes identified

## 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

To assess compliance with these clauses we examined the process of validating information in the registry. The LIS file dated 8<sup>th</sup> January 2018 was examined to identify any inaccuracies. The Event Detail (EDA) file for the period of audit was examined to determine how quickly Electric Kiwi provide information to the registry and correct information which was identified as inaccurate.

#### Audit commentary

To meet compliance with above clauses, Electric Kiwi set up daily and weekly monitoring listed below:

- Exception reporting (Flight Path) which is monitored daily, weekly, or monthly
- LIS file checker which is run monthly based on the LIS file provided by the RM
- NEST pulls in EDA file daily with audit trail recorded
- Tech team monitors the Live Logs for any exceptions which are reported daily and resolved via Powerhouse prioritisation dashboard
- Billed Vs Supplied is monitored monthly

All exceptions identified are resolved as soon as possible.

Analysis of the LIS file and Metering Installation Information (PR-255) showed that the overall quality of information in the registry has improved since the last audit.

Issue	Quantity	Comments
ICP Status = 002, MEP = blank, UNM Flag = N	0	No evidence this occurring
ICP Status = 002, Generation Capacity is not blank,	53	All meters are Export/Import
Highest Metering Category >2 with residential ANZSIC code assigned (000000)	0	No evidence this occurring
ANZSIC code = blank or T994, T994000, T99, T999, T999999, T995, T995000, T997, T997000, T998, T998000	3	0000013828WE7EA, 0000122621UN711, and 0000360512TUDCC
ICP with B or G Inst Type, or non null Fuel or Gen Capacity that do not have a corresponding Injection	1	0122744934LC163, it was incorrect information in the registry. Solar panel

Register		was removed when a house was sold
Highest Metering Category greater than 2, Submission Type HHR = No	0	No evidence this occurring
Highest Metering Category = 9, UNM Flag=N	0	No evidence this occurring
All active ICPs with Initial Energisation Date populated during a defined period	0	No new connections
All Active ICPs (ICP Status = 2) with Shared ICP List not blank	1	1000555666PC131, daily kWh was not recorded
All ICPs at ICP Status 001,12	0	No new connections
Submission Type HHR = Y, Profile does not contain HH	0	No evidence this occurring
Submission Type HHR and Submission Type NHH both = Y	0	No evidence this occurring
All active ICPs where Distributor has indicated UML (UML Load Details not NULL) but Retailer has none (UNM Flag = N)	1	1000555666PC131
All active ICPs with load in excess of 6kWh (Daily Unmetered kWh greater than 16.4 daily)	0	No evidence this occurring
All active ICPs with load between 3-6k kWh (Daily Unmetered kWh between 8.2-16.4 daily)	0	No evidence this occurring
All active ICPs with Engineered profile (Daily Unmetered kWh = ENG)	0	No evidence this occurring

Updating the registry's information will be analysed in section 3.3

In section 12.9 we identified an incorrect calculation of submission volumes for SUML ICP. We also identified that when creating HHRAGGR files, volumes are rounded at the ICP interval level and then summed up. The same methodology is used to calculate volumes for the HHRVOLS file (per NSP and Loss Factor). Electric Kiwi commented that this was their understanding of file formats published in the Reconciliation Manager Functional Specification.

#### Audit outcome

Non-compliant

Non-compliance	Description
----------------	-------------

Audit Ref: 2.1 With: 11.2  From: 01-Jan-17 To: 31-Dec-17	Registry discrepancies for some ICPs, incorrect calculation of submissions for SUML ICP and incorrect HHR submissions caused by rounding  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate because there are some improvements that can be made to them. Electric Kiwi put a number of monitoring tools in place. The audit risk rating is low because the impact on the settlement outcome is minor.		
Actions taken to resolve the issue		Completion date	Remedial action status
-Resubmitted UML to RM with correct calculations within same month as original submission  - ANZIC Codes were corrected  -We have a development task which has been prioritized to correct this issue. The changes will ensure that all rounding occurs at the very end of the report creation – not at ICP level.		-14/2/18  -Jan/Feb 2018  -Estimated: May 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
-New Flight Path report developed to ensure all incorrect ANZSIC Codes are caught. This is a secondary check in addition to a NEST ticket already getting created.  -For UML: our sign-up process does not allow UML ICPs. If a distributor changes the UML field once a customer is already with ELKI, a ticket is created in NEST to alert us. We will contact the customer advising them that they need to switch away. We aim to switch them away from before the UML start date and never have to reconcile on UML.		25/1/18	

## 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**

Provision of information was reviewed in section 8, 9,11 and 12.

#### **Audit commentary**

Electric Kiwi is compliant with regard to timeliness and information and format of information in accordance with Part 15. The company provided many examples to support this statement.

#### **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**

Electric Kiwi receives HHR data from ARCS, AMS, and MTRX daily. Data is downloaded automatically from MEPs servers.

#### **Audit commentary**

Once metering data is downloaded from MEPs servers it is uploaded to NEST. Any transfer of data is fully automated.

#### **Audit outcome**

Compliant

### **2.4. Audit trails (Clause 21 Schedule 15.2)**

#### **Code reference**

*Clause 21 Schedule 15.2*

#### **Code related audit information**

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

*The audit trail must include details of information:*

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

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

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

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

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

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

### Audit observation

Electric Kiwi sends and receives data to and from the registry. It is an automated process. Each upload is recorded by the software. Reconciliation files are uploaded via the RM portal, which records date, time and a participant's login details. Metering data provided by MEPs is automatically uploaded by NEST. Once the data is uploaded it is moved to an archive directory.

Electric Kiwi communicates with other participants via email e.g. notification of sending RR file. Emails are archived.

### Audit commentary

NEST has a built-in functionality to records a complete audit trail for all data gathering, validation, and processing data. During the audit we noticed that it is really easy to follow metering data from the point of downloading from MEPs to reconciliation submissions. The screenshot below shows the switching audit trail.

ID EK ICP	0122744934LC163	Network Participant Identifier	VECT
Switch Status	16 - Active	Network Available Flag	Y
hhr Flag	Y	MEP Participant Identifier	NGCM
Expected Event Date	26/09/2017	MEP Available Flag	Y
Actual Event Date	26/09/2017	Switch Type	TR
Move In Date		Contact Email	
Tariff Change		Contact Phone Area Code	
ami Flag	Y	Contact Phone Number	
UML Flag	N	Customer Reason	
Losing Retailer	MERI	Gaining Retailer	
Average Daily Consumption	23	Trader churn ratio (switches:days)	0:270
		Benchmark ratio	4:270

Attachments	
Switch NT	<a href="#">Download 0122744934LC163.txt</a>
Switch NT ACK	<a href="#">Download Switch_NT_0122744934LC163.ack</a>
Switch AN	<a href="#">Download AN20170921100019.txt</a>
Switch AN ACK	
Switch CS	<a href="#">Download CS20170926021639.txt</a>
Switch CS ACK	
Switch RR	

### 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

Electric Kiwi published their Terms and Conditions on their website. The document states that the agreement applies from the agreed date and to the date a customer applies to switch to another electricity supplier. The agreement covers any other participants such as MEPs or a distributor.

#### Audit commentary

Compliance confirmed based on a review of the Terms and Conditions.

#### 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

Section 15 of the Terms and Conditions covers access to a customer's property. Electric Kiwi will give at least 10 BD notice if they or their representative or the network company need to construct, upgrade, repair, or maintain any equipment. A notice will be provided in writing, text message or email.

#### Audit commentary

Compliance confirmed based on a review of the Terms and Conditions.

#### 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**

Electric Kiwi trades 19,522 category 1 metering installations and 8 category 2 metering installations. Category 1 installations are located as physically close to a point of supply as practical.

#### **Audit commentary**

Compliance confirmed based on the characteristics of the installations traded by Electric Kiwi. There are seven ICPs which require a multiplier to be applied to metering data, but it is related to CTs ratio and not because the metering installation is not located close to a point of connection.

#### **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**

Section 11.10 of the Terms and Conditions covers a situation where Electric Kiwi commit a relevant event of default as defined under the Code.

#### **Audit commentary**

Compliance confirmed based on a review of the Terms and Conditions.

#### **Audit outcome**

Compliant

### **2.9. Connection of an ICP (Clause 10.32)**

#### **Code reference**

*Clause 10.32*

#### **Code related audit information**

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

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

#### **Audit observation**

Electric Kiwi does not accept new connections. Only established installations are traded.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **Audit outcome**

Not applicable

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

#### **Code reference**

*Clause 10.33(1)*

#### **Code related audit information**

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

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

#### **Audit observation**

Electric Kiwi does not accept new connections. Only established installations are traded.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

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

#### Code reference

*Clause 10.33A (1)*

#### Code related audit information

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

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

#### Audit observation

Electric Kiwi does not accept new connections. Only established installations are traded.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### 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

Electric Kiwi have arrangements with the following MEPs: ARCS, AMS, and Metrix.

The company trades on 13 networks and network charges are part of a customer's invoice. Section 19 of the Terms and Conditions covers network companies' requirements.

#### Audit commentary

Compliance confirmed based on a review of the Terms and Conditions and assurance from Electric Kiwi about arrangements with MEPs.

#### 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**

Electric Kiwi has arrangements with AMS, Metrix, Counties Power, and Arc Innovations. The company would not sign the customer up if their MEP was not MTRX, NGCM, ARCS, or COUP.

**Audit commentary**

To show how this business decision is honoured, Electric Kiwi provided a copy of a screen shot from their website for ICP 1000572535PCB57 which has the MEP = TRUM.



## 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

Electric Kiwi only accept already established connections.

##### Audit commentary

This clause is not applicable. Compliance not assessed.

##### Audit outcome

Not applicable

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

##### Code reference

Clause 11.7(2)

##### Code related audit information

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

##### Audit observation

Electric Kiwi does not trade new connections. We checked the EDA file and no new connections were identified since the last audit.

### Audit commentary

Electric Kiwi's business model is to trade existing installations only. Compliance was not assessed.

### Audit outcome

Not applicable

### 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 analysed the EDA file for the period 01/01/2017 to 31/12/2017. Electric Kiwi uploaded 2,423 trader's transactions to the registry. 154 updates (6.66%) were uploaded later than 5BD. The range of backdated days are from -6 to -409.

We closely analysed ten of the most backdated trader's changes to registry

ICP	Effective Date	Input Date	BD	Comment
0124959032LCEAB	23/02/16	15/09/17	409	incorrect MEP nominations from MTRX to NGCM, which were caught by the monthly LIS file checker which ELKI implemented last year.
0000029944DE322	25/07/16	15/09/17	300	incorrect MEP nominations from MTRX to NGCM, which were caught by the monthly LIS file checker which ELKI implemented last year.
0005313384RN559	11/09/16	17/02/17	115	ARCS meter was displaced by NGCM
0000151537UN769	10/09/16	7/12/17	324	change of ANZSIC code
0000536914NRBC3	5/01/17	27/10/17	212	change of ANZSIC code
1001281391LC8F8	1/04/16	20/01/17	211	change of ANZSIC code, correction after the last audit
0005215471RN6AF	14/05/16	20/01/17	180	change of ANZSIC code, correction after the last audit
1000024972BP7A3	16/06/16	20/04/17	221	change of ANZSIC code
1001278651UN93A	4/10/16	4/11/17	284	change of ANZSIC code

0089828712LC15C	1/10/16	24/03/17	125	change of profile to HHZ
0369019482LC317	21/07/16	31/01/17	139	change of profile to HHZ, correction after the last audit
0000022381DEC68	17/09/16	31/01/17	97	change of profile to HHZ, correction after the last audit
0000201500UN29B	28/08/16	31/01/17	112	change of profile to HHZ, correction after the last audit
0000216593UND3D	18/09/16	31/01/17	97	change of profile to HHZ, correction after the last audit

Electric Kiwi uploaded 988 status updates to “active”, 99 updates (10.02%) were uploaded later than 5BD. The range of backdated days are from -6 to -269.

We closely analysed eight of the most backdated changes

ICP	Effective Date	Input Date	BD	Comment
0000034231DEAFF	7/10/16	1/02/17	84	it was reconciled from Oct'16 till Jan'17 even having “inactive” status in the registry
0000209332UNEE0	17/09/16	28/09/17	269	it has been reconciled for the period of the status “inactive”
0000210398UN02F	9/09/16	5/07/17	214	it has been reconciled for the period of the status “inactive”
0000600786UN446	24/02/17	4/10/17	159	it has been reconciled since Feb'17
0005577241RN342	24/09/16	18/07/17	212	it has been reconciled for the period of the status “inactive”
0143632000LCC0EF	11/01/17	18/09/17	179	it has been reconciled for the period of the status “inactive”
0437433048LC0DC	5/07/17	11/10/17	71	it has been reconciled for the period of the status “inactive”
0485330687LCFB8	23/12/16	20/06/17	128	it has been reconciled for the period of the status “inactive”

Electric Kiwi uploaded 1,050 status updates to “inactive”, 30 updates (2.85%) were uploaded later than 5BD. The range of backdated days are from -6 to -144.

We closely analysed eight of the most backdated changes

ICP	Effective Date	Input Date	BD	ELKI's Comment
0000003924DEB5F	19/01/17	27/02/17	-28	Contact changed the status to Inactive after we sent NT on 18/1/17. Customer didn't contact us until 12/2/17 to say the power was off. We finally reconnected on 13/2/17, which is when the registry was updated to Active, but for the wrong effective date (19/1/17). On 27/2/17, we realized we put the wrong effective date, and corrected it.
0000021621UN19D	16/01/17	10/05/17	-83	Long backdated switch for 16/1/17, but CS from 21/4/17. The registry status was incorrectly updated to Active as of 2/3/17 on 21/4/17. The customer contacted us to say the power was off on 26/4/17, and then next day we got AMS to reconnect them. The registry was then corrected on 10/5/17.
0000102785DECC2	25/11/16	15/02/17	-59	This one was accidental. As you can see below, there were a few changes. We correctly update the status to inactive on 25/11/16. When we reconnected the customer on 10/2/17, we accidentally overwrote the Inactive status, so we had to fix it.
0000201246DECBC	27/06/17	30/08/17	-47	We raised a Verify Fault to AMS on 8/8/17 because there were no readings from the meter. Then the customer confirmed the power had gone off, but AMS said they had no record of a disconnection. After some investigation, AMS confirmed that an onsite reconnection needed to be done on 30/8/17 – which is why we changed the status to Inactive on that date (although we were not responsible for the disconnection). We then got the site reconnected on 2/10/17.
0007167366RN6F5	7/04/17	25/10/17	-144	<p>This one is a bit messy as we've had 3 customers come and go, with multiple reconnections and discos.</p> <p>Initially we disconnected and set the ICP to Inactive on 7/4/17, but the new customer got in touch on 7/4/17 for a reconnection so we changed it back to Active on the same day.</p> <p>The 2nd customer then moved out, and we disconnected again and meant to set the registry to Inactive from 25/10/17 – but we incorrectly updated it to Inactive from 7/4/17 (because the registry defaults to that day).</p> <p>We then reconnected the property for a 3rd customer on 31/10/17.</p>

				However, we've just realized the mistake from the 2nd customer's disconnection, so we've now corrected it all in the registry to reflect accurate dates.
0163271259LC58C	10/03/17	11/04/17	-23	This one was accidentally missed when the MEP disconnected it, we forgot to update the registry. When we received an NT from GEOL and processed the CS on 11/4/17, we realized our mistake and update the status in the registry.
0337170029LC1A1	10/05/17	8/08/17	-65	This ICP was correctly updated to Inactive on 10/5/17, but then we received a decommission notice from VECT so we updated the status to ready for decommissioning.
1001292743LC33F	13/10/17	1/12/17	-36	We spent some time on this one trying to figure out why we couldn't get reads. Finally, customer confirmed that the shed had been disconnected by the previous retailer and there was no supply there. Therefore, we updated the status to Inactive back to date we gained ICP.

#### Audit commentary

Overall the management of the status of ICPs' in the registry is not the best. In particular there appears to be a lot of backdating of ICP status' to "active". Our concern is that it could affect reconciliation volumes. However, as shown multiple times during the audit, the status in the billing engine is used to determine which ICP volumes are submitted. Since last audit, Electric Kiwi has done monthly reviews of the LIS file checker to ensure that all discrepancies are caught. For the last two weeks, Electric Kiwi has started to actively synchronise data between NEST and the registry by comparing data daily using Flight Path.

The development was implemented in May 2017 which gives an operator the ability to send the reconnection and disconnection via NEST and in turn update the Active/Inactive status of the ICP in the EA Registry via sftp.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 3.3 With: 10 of Schedule 11.1 From: 01-Jan-17 To: 31-Dec-17	Information related to trader information and ICPs' status was backdated Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating

<b>Low</b>	The controls are rated as moderate because there are some improvements that can be made to them. Backdated status changes to the registry have a minor impact on settlement outcomes because Electric Kiwi uses ICP's billing status to determine if volumes should be submitted. The company has a project underway to line up the registry and NEST information. Audit Risk Rating is recorded as low.		
Actions taken to resolve the issue		Completion date	Remedial action status
-Since our audit in 2017, we have implemented a monthly LIS file checker to compare the ICP days count from the LIS file VS the ICP Days created by NEST. Because of this checker, we are backdating several changes in the registry. However, the checker now ensures that we catch all discrepancies between NEST and the registry.		-Early 2017	Identified
-In May 2017, we introduced the reconnect and disconnect buttons in NEST. This means that we can open/close all account aspects as well as send a status update to the registry with 1 button.		-May 2017	
Preventative actions taken to ensure no further issues will occur		Completion date	
-We will continue to monitor the LIS file monthly, as we finish the clean up during the coming months the backdated switches will be less frequent.		-June 2018	
-We have already built a Flight Path report which will do a comparison of NEST's billing status vs NEST ICP status daily. Because the NEST ICP status is driven by the daily EDA file downloads, this will ensure that we can find any mismatches between the registry and NEST's billing status (i.e. we could close a billing status in NEST because we disconnected a customer, but we didn't update the registry. This situation would be caught in Flight Path).		-January 2018	
We feel that we have very strong controls in place, however it has taken us a while to review all past statuses due to our fast growth. These controls allow us to catch all inconsistencies – albeit a bit late until we are fully caught up.			

#### 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**

Electric Kiwi understands that as soon as they are recorded in the registry as accepting responsibility, that responsibility will only cease when an ICP switches out to another trader. The LIS file dated 8<sup>th</sup> January

2018 showed 14 decommissioned ICPs. The company showed us documentation for the decommissioning of two ICPs 0000026393UN2CF and 0000001060DE2B9.

According to the LIS file all ICPs have MEPs recorded.

#### **Audit commentary**

Compliance confirmed based on a review of the LIS file and review of the registry entries for two ICPs.

#### **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

Electric Kiwi does not trade new connections. We checked the EDA file for the period 19/6/17 to 6/12/17 and no new connections were identified since the last audit.

#### Audit commentary

Electric Kiwi's business model is to trade existing installations only. Compliance was not assessed.

#### Audit outcome

Not applicable

### 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

All customers traded by Electric Kiwi are category 1 metering installations, residential customers and category 2. The ANZSIC code assigned to residential customers is "0".

The examination of the LIS file showed that 0000013828WE7EA, 0000122621UN711, and 0000360512TUDCC have incorrect ANZSIC codes assigned.

0002124468CND0F - L672 Real Estate Service, incorrect information from a customer, it will be changed to "0".

1099575031CN0B2 - E301 - Residential Building Construction - This was building construction, but it is now residential. ELKI has updated to "0".

#### Audit commentary

Non-compliance was identified because three ICPs had incorrect ANZSIC codes assigned. We queried 10 ICPs, which according to a distributor entry should not be classified as residential e.g. a pump or shop. Electric Kiwi checked all of them, contacted customers to confirm. In all cases information in the registry was out of date. We recommend Electric Kiwi to notify distributors and ask them to update registry information.

#### Audit outcome

Non-compliant

Non-compliance	Description
----------------	-------------



Audit Ref: 3.6 With: 9(1)(k) of Schedule 11.1  From: 01-Jan-17 To: 31-Dec-17	Five ICPs had incorrect ANZSIC code assigned  Potential impact: Low  Actual impact: Low  Audit history: Once previously  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated strong only five ICPs out of 20,000 had incorrect ANZSIC code assigned. No impact on settlement outcomes. Audit Risk rating is rated low.		
<b>Actions taken to resolve the issue</b>		<b>Completion date</b>	<b>Remedial action status</b>
-0000013828WE7EA, 0000122621UN711, and 0000360512TUDCC were all updated to residential  -0002124468CND0F – customer was contacted after sign-up. Their email made it seem like it was real estate, but likely it was just under the realtor’s name whilst being sold. We’ve updated to 000000.  -1099575031CN0B2 – updated to 00000000		-January 2018  -February 2018  -February 2018	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>		<b>Completion date</b>	
-New Flight Path report developed to ensure all incorrect ANZSIC Codes are caught. This is secondary check in addition to a NEST ticket already getting created for all non-residential ANZSIC’s so that the operations team can confirm with the property.		25/1/18	

Description	Recommendation	Audited party comment	Remedial action
Incorrect address description for 10 ICPs	Electric Kiwi to contact distributors and ask for update of address details in the registry	We are currently focusing on completing this audit report, and as soon as complete, we will contact the distributors about these updates.	Contact distributors

### 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

At the time of audit Electric Kiwi traded one ICP (1000555666PC131) which had 77 W of shared unmetered load connected. Originally when the ICP was gained by Electric Kiwi it did not have SUML connected. On 22/12/17, PowerCo uploaded SUML information to the registry. NEST created two tickets on 22/12/17 and 23/12/17 as the alert.

The customer switched away on 16<sup>th</sup> January 2018 to Meridian on Electric Kiwi's request.

### Audit commentary

Electric Kiwi's policy is not to trade UML. The customer was requested to switch away as per section 7.3 of the Terms and Conditions. The PowerCo update was handled the best way possible given that it was Christmas time and most traders take a few days off. The customer was contacted and requested to switch away. Later in this report we confirm that volumes were reconciled for 26 days.

### Audit outcome

Compliant

## 3.8. Management of "active" status (Clause 17 Schedule 11.1)

### Code reference

*Clause 17 Schedule 11.1*

### Code related audit information

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

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

*Before an ICP is given the "active" status, the trader must ensure that:*

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

### Audit observation

During analysis of the EDA file for the period covered by this audit it was noted that for 10% of ICPs the status "active" in the registry was backdated by up to 269 BD.

### Audit commentary

Non-compliance was identified because the registry indication of the ICP status did not reflect reality. Electric Kiwi uses billing status in NEST as their tool for reconciliation. This ensures that they are always reconciling even if the registry status was not updated correctly. After the last audit the company implemented a process to compare the LIS file with their system once per month, just before a reconciliation run. Last month they also implemented a Flight Path report which is monitored daily.

### Audit outcome

## Non-compliant

Non-compliance	Description		
Audit Ref: 3.8 With: 19(a) of Schedule 11.1  From: 01-Jan-17 To: 31-Dec-17	Incorrect application of the “active” status” in the registry for some ICPs Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate because there are some improvements that can be made to them. Electric Kiwi developed a new tool to allow an operator to change the ICP status in the registry. It will take till next audit to show that the process is consistent and continuous. Audit Risk Rating assigned as low because any impact on settlement outcomes is minor		
Actions taken to resolve the issue		Completion date	Remedial action status
-Since our audit in 2017, we have implemented a monthly LIS file checker to compare the ICP days count from the LIS file VS the ICP Days created by NEST. Because of this checker, we are backdating several changes in the registry. However, the checker now ensures that we catch all discrepancies between NEST and the registry. -In May 2017, we introduced the reconnect and disconnect buttons in NEST. This means that we can open/close all account aspects as well as send a status update to the registry with 1 button.		-Early 2017  -May 2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

<p>-We will continue to monitor the LIS file monthly, as we finish the clean up during the coming months the backdated switches will be less frequent.</p> <p>-We have already built a Flight Path report which will do a comparison of NEST's billing status vs NEST ICP status. Because the NEST ICP status is driven by the daily EDA file downloads, this will ensure that we can find any mismatches between the registry and NEST's billing status (i.e. we could close a billing status in NEST because we disconnected a customer, but we didn't update the registry. This situation would be caught in Flight Path).</p> <p>We feel that we have very strong controls in place, however it has taken us a while to review all past statuses due to our fast growth. These controls allow us to catch all inconsistencies – albeit a bit late until we are fully caught up.</p>	<p>-June 2018</p> <p>-January 2018</p>	
---	--	--

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

#### Code reference

Clause 19 Schedule 11.1

#### Code related audit information

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

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

#### Audit observation

The process of disconnections was examined. It is a good, robust process and any communication with MEPs is archived. The weakest part of this process is updating the registry information.

The LIS dated 8th of January 2018 showed 382 ICPs with the status “inactive “. 87 ICPs were marked as “vacant”, 289 ICPs as “inactive – disconnected remotely by AMI meter”, 2 ICPs as “inactive – electrically disconnected at pole fuse” and 1 ICP “inactive – electrically disconnected at meter box fuse”.

During the audit, we walked through the process of requesting an electrical connection and disconnection of an ICP. All disconnections are done remotely by the MEPs. Electric Kiwi provided five examples for examination.

During analysis of the EDA file for the period covered by this audit it was noted that for 2.85% of ICPs the status “inactive” in the registry was backdated by up to 144 BD.

#### Audit commentary

Non-compliance was identified because the registry indication of the ICP status did not reflect reality. Electric Kiwi uses billing status in NEST as their tool for reconciliation. This ensures that they are always reconciling even if the registry status was not updated correctly. We confirm that the process used by

Electric Kiwi is compliant. The five examples provided showed that the registry status is updated the same day as a confirmation of “soft” disconnection was received from the MEP.

We also review two ICPs (0006875130RN770 and 0631688073LC377) for which remote disconnection was not possible.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.9 With: 19(1)(a) of Schedule 11.1  From: 01-Jan-17 To: 31-Dec-17	Incorrect application of the “inactive” status” in the registry for some ICPs Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate because there are some improvements that can be made to them. Audit Risk Rating assigned as low because any impact on settlement outcomes is minor		
Actions taken to resolve the issue		Completion date	Remedial action status
-Since our audit in 2017, we have implemented a monthly LIS file checker to compare the ICP days count from the LIS file VS the ICP Days created by NEST. Because of this checker, we are backdating several changes in the registry. However, the checker now ensures that we catch all discrepancies between NEST and the registry.  -In May 2017, we introduced the reconnect and disconnect buttons in NEST. This means that we can open/close all account aspects as well as send a status update to the registry with 1 button.		-Early 2017          -May 2017	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

<p>-We will continue to monitor the LIS file monthly, as we finish the clean up during the coming months the backdated switches will be less frequent.</p> <p>-We have already built a Flight Path report which will do a comparison of NEST's billing status vs NEST ICP status. Because the NEST ICP status is driven by the daily EDA file downloads, this will ensure that we can find any mismatches between the registry and NEST's billing status (i.e. we could close a billing status in NEST because we disconnected a customer, but we didn't update the registry. This situation would be caught in Flight Path).</p> <p>We feel that we have very strong controls in place, however it has taken us a while to review all past statuses due to our fast growth. These controls allow us to catch all inconsistencies – albeit a bit late until we are fully caught up.</p>	<p>-June 2018</p> <p>-January 2018</p>	
---	--	--

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

#### Code reference

Clause 15 Schedule 11.1

#### Code related audit information

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

#### Audit observation

It is a distributor's code obligation to monitor an ICP which has had the status of "New" or "Ready" for 24 calendar months or more. It is expected that a trader be able to respond to such queries from distributors. Electric Kiwi does not sign up new connections.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

## 4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

#### Code reference

Clause 2 Schedule 11.3

#### Code related audit information

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

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

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

#### Audit observation

The standard switch was examined to assess compliance. We reviewed the EDA file for the period 01/01/2017 to 31/12/17. Initial contact with a new customer is via the Electric Kiwi website. The website does a preliminary assessment of customers from the point of view of the metering installed at their premises. The details of what metering installations are accepted are listed in the Terms and Conditions published on the website. Only installations for which consumption is measured by remotely read smart meters are accepted.

The next step is to contact the customer and finalise a sign up with the company. Electric Kiwi sends a confirmation of agreement. The customer is asked to confirm a meter serial number to avoid switching the wrong premises due to possible incorrect address information in the registry.

#### Audit commentary

Since the last audit 10,728 NT files were sent. NT files are sent as soon as pre-conditions are met and files are uploaded to the registry. All NT files, except one, were sent within two business days after conditions being met. The exception is ICP 0000173399TRABE. Electric Kiwi sent the NT file on 26/06/17 but GIVE assigned a switch event date in the AN file as of 4/05/17. The end result was the ICP switched back to GEOL. GIVE did not want a customer at all, probably because of high spot process. Further in this report we will give more details about GIVE assigning a switch event date earlier than a notification received date. It is non-compliance on their part.

#### Audit outcome

Compliant

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

#### Code reference

Clauses 3 and 4 Schedule 11.3

#### Code related audit information

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

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

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

#### **Audit observation**

The switching processes were examined. Exchange of data with the registry is via SFTP server. Switching files are downloaded automatically. At the time of audit AN files and CS files were created manually and uploaded to the registry. Electric Kiwi is in the process of introducing more automation to the process.

The Switch Breach report and the EDA file for the period covered by this audit was reviewed. We randomly chose five AN files to check if the response code was applied correctly.

#### **Audit commentary**

Analysis of the Switch Breach Report showed that all AN files, except one, were sent within the time as specified in this clause. The AN file for 0000148106UN494 was sent one day late.

The clause requires that in a 12-month period a trader is to establish a proposed event date that is no more than 5 BD for at least 50% of switches away.

The EDA file contained 2,083 switches out, 1,687 of them switched away within 5 BD (80.99%). There were no ICPs for which an event date was more than 10BD.

#### **Audit outcome**

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.2</p> <p>With: 3 of Schedule 11.3</p> <p>From: 25-Aug-17</p> <p>To: 25-Aug-17</p>	<p>One AN file sent late by one day</p> <p>Potential impact: None</p> <p>Actual impact: None</p> <p>Audit history: None</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	The controls are rated as strong because the process is well managed. We identified only one AN file which was late. Audit Risk Rating assigned as low because there is no impact on settlement outcomes.



Actions taken to resolve the issue	Completion date	Remedial action status
<p>We believe this was a 1 off scenario and is very harsh to receive a non-compliance point for 1 AN being 1 day late out of 4341 ANs sent last year.</p> <p>It is clear that we actively monitor our ANs in order to make sure we're compliant, and our policy is to always send the AN within 1 BD of receiving an NT.</p>		Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>We will continue our policy of making sure to send an AN within 1BD of switch notification</p> <p>We have a development task which has now been prioritized which will automate the sending of ANs to the registry from NEST</p>	<p>-ongoing</p> <p>-estimated: June 2018</p>	

Description	Issue	Remedial action

#### 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

To assess compliance, we used the EDA file and the Switch Breach Report for the period covered by this audit.

Overall 2,083 CS file for standard switches out were sent. According to the Switch Breach Report, Electric Kiwi was late to send 344 CS files, which is 16.5%. We checked ten randomly chosen ICPs and we confirm the findings are correct. The breakdown of delayed files is shown below.

Number of CS files	Number of late BD
218	2
73	3
36	4
18	5
1	6

### Audit commentary

We randomly chose five CS files and checked the content. We checked for the correct identification of meter readings and correct date of last meter reading and accuracy of average daily consumption. Compliance was confirmed for the file content.

CS files are triggered by an operator, most often through NEST and occasionally directly in the registry. Electric Kiwi is working on automating parts of the switching process which are still manual and will review automating CS's in the future.

In October last year, Kiwi Electric made changes to ensure that the Switch Breach report is checked daily. The switching team aims all TR and MI switches to be processed within 3 BD. This is evident in the sharp drop in breaches since early Oct 2017.

The tables below are the summary of the EDA file (TR and MI switches), which confirms that strong controls used by Electric Kiwi are effective.

Code	E2					
Count of ICP	Column Labels					
Row Labels	2	3	4	5	6	Grand Total
Mar	3					3
Apr	5	1				6
May	33	7	3	3	3	49
Jun	41	43	10	3	1	98
Jul	49	23	9	8	1	90
Aug	41	22	6	5		74
Sep	133	38	30	12	1	214
Oct	7	2				9
Nov				1	1	2
Dec	1	2				3
Grand Total	313	138	58	32	7	548

Row Labels      Count of ICP

>5 BD

Jan	244	0	0.00%
Feb	237	0	0.00%
Mar	230	3	1.30%
Apr	250	6	2.40%
May	298	49	16.44%
Jun	319	98	30.72%
Jul	327	90	27.52%
Aug	432	74	17.13%
Sep	554	214	38.63%
Oct	505	9	1.78%
Nov	531	2	0.38%
Dec	498	3	0.60%
Grand Total	4425		

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.3  With: 5 of Schedule 11.3  From: 01-Jan-17  To: 31-Dec-17	343 CS files were submitted late to the registry.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong. Since putting a new process in place it was noted the sharp drop of late CS files Risk Rating assigned as low because any impact on settlement outcomes is minor.		
Actions taken to resolve the issue		Completion date	Remedial action status

Since last year, we've made changes to ensure that the Switch Breach report is checked daily. The switching team ensures that all TR and MI switches are to be processed within 3 BD since. This is evident in the sharp drop in breaches since early Oct 2017. You can see there were only 4 TR switches completed after 5 BD in October. There were no late switches in Nov or Dec 2017 which highlights strong controls put in place. We also hired a new switching specialist (he came from Pulse) in late September.	Sep/Oct 2017	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
<p>We will continue to monitor the Switch Breach Report daily.</p> <p>We are also developing a dashboard which will be placed in the office which will show a count of ICPs in switching status and how many days until breach.</p> <p>We have a development task which has now been prioritized which will automate the sending of CSs to the registry from NEST. This will be worked on post the automation of ANs.</p>	<p>-ongoing</p> <p>-estimated: April 2018</p> <p>-estimated: Q3 2018</p>	

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

##### Code reference

Clause 6(1) and 6A Schedule 11.3

##### Code related audit information

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

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

*If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within 4 calendar months of the actual event date, provide to the losing trader a changed switch event meter reading supported by 2 validated meter readings.*

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

##### Audit observation

It is the gaining trader responsibility to use the switch event meter read provided by the gaining trader (or RR read if change is accepted) to ensure all volumes are accounted for in the reconciliation process.

Electric Kiwi trades only HHR installations where smart meters are read remotely. To meet compliance with this clause is easy when both traders reconcile energy as HHR using smart meters but if a losing trader reconciles an ICP as NHH and a gaining as HHR, it become more complex.

The process of the management of read requests was examined. According to the document “Switch RR overview”

- a. *If the difference of Switch RR is less than or equal to 20kWh, the gaining retailer can ignore the difference*
- b. *If the difference between the consumption is between 21kwh to 200kWh, the gaining retailer can send Switch RR.*
- c. *If the difference between the reads is greater than 200kWh, then update the corresponding ICP to Andrew Review.*

It contradicts clause 6(1) of Schedule 11.3 requiring that both traders must use the same switch event meter reading.

#### Audit commentary

Every time an ICP switches in, Electric Kiwi compares the reading provided by a losing trader with a meter reading provided by an MEP. MEPs provide both a register read and HHR data but sometimes a register read is missing. Electric Kiwi can calculate a switch event meter reading using HHR and available register reads. During the audit, the company demonstrated a tool which reports the difference between two reads. The company uses their own readings if the difference is less than 20 kWh as per the “Switch RR overview” document

Traders who reconcile ICPs as NHH can easily, in their system, adjust a switch event read. NEST calculates submission volumes using interval data only, which gives absolute volumes.

Register reads provided by the MEPs are used for the estimation of missing volumes and meeting requirements of the profile HHZ. They are not used for submission calculation.

Clause 6(2) of Schedule 11.3 asks a gaining trader to provide final information from a certified metering installation with an AMI flag of Y, no later than 5 business days. Electric Kiwi commented that in some cases, it is difficult to meet this deadline because of a lack of cooperation from the MEPs to provide data within 5 BDs after a switch. The result is that a losing trader refuses to accept RR. More details will be provided in the next section.

If the difference is greater than 200 kWh then the HHR retailer can provide a new volume outside of the 5BD set by the Code.

#### Audit outcome

Non-compliant

Non-compliance	Description
----------------	-------------

<p>Audit Ref: 4.4</p> <p>With: 6(1) of Schedule 11.3</p> <p>From: 01-Jan-17</p> <p>To: 31-Dec-17</p>	<p>For some switches Electric Kiwi does not use a switch event read provided by a losing trader</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: twice previously</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
<b>Audit risk rating</b>	<b>Rationale for audit risk rating</b>		
<b>Low</b>	<p>Controls are rated weak because Electric Kiwi's strategy is not to switch on the same read if the difference between a switch event read from CS files and a switch event read from a losing trader is less than or equal to 20kWh. A tool to calculate the difference is in place but parameters used are not in accordance with this clause.</p> <p>Audit risk rating is rated as low because Electric Kiwi trades low volume ICPs. The switch event reads provided by a losing trader could under-estimate or over-estimate. Overall, across 10,000 switches, the difference could cancel each other out. Of course, from a customer perspective, the picture is different. The issue may have a minor impact on settlement outcomes.</p>		
<b>Actions taken to resolve the issue</b>		<b>Completion date</b>	<b>Remedial action status</b>
<p>The 20 kWh difference was not Electric Kiwi's strategy. This was agreed upon at the switching forum by all attending retailers. Previously, other retailers would reject ELKI's RRs if they were less than 20 kWh different. However, since last month, we are now sending RR's for all TR and MI switches if the read is 1 kWh or greater difference. Post this change, we had multiple other retailers get in contact complaining about how many RRs we were sending, but we've explained that we're following the Code. We are closely monitoring what RRs reject and getting in touch with the losing retailers if they reject them.</p>		January 2018	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>		<b>Completion date</b>	

<p>We will continue to push the MEPs to deliver data to us quick enough to meet the deadline of 5BD. In 2017, AMS (who the majority of our ICPs are with) was not providing register reads 7 days per week (they did only 5). This as well as the fact that they take up to 10 BD to deliver us data, and only recently started providing data for backdated switches. We expect that 2018 will be an improvement with sending RRs.</p> <p>We have a development task which will automate the sending of RRs to the registry from NEST. NEST will compare reads received from the MEPs and the CS we received. If there is any discrepancy, an RR will automatically be sent to the registry. Any rejects will come back into NEST as ticket in which the operators need to review and reach out to the losing retailer. This will be worked on post the automation of ANs.</p>	<p>-ongoing</p> <p>-estimated: Q3 2018</p>	
---	--	--

#### 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

Electric Kiwi traders only HHR installations where smart meters are read remotely. As described in the previous section, the company does not always receive has meter readings from MEPs within 5 BD after a switch is finalised. The process is to send RR files if the difference is more than 20 kWh.

We reviewed the EDA file for the period 01/01/2017 to 31/12/2017.

##### Audit commentary

1,943 RR files were sent for standard switches. According to Electric Kiwi records 425 were rejected by a losing trader.

One of the reasons that some files were rejected where RRs were being sent with reads all on one channel. Electric Kiwi finished development work to fix this in September 2017.

Randomly we chose eight ICPs, for which the RR file was rejected, to see the difference in volume between the two reads. The results are shown below:

ICP	Response	Date	Difference in kWh
0007129883RN15B	rejected	10/5/2017	42
0001262380PC5B0	Rejected	14/08/2017	20
0005484766RN5C8	Rejected	14/08/2017	25
0005654360RNCCF	Rejected	30/08/2017	-11.9
0000051328TRAA8	Rejected	10/11/2017	24
0000014466TR821	Rejected	1/11/2017	23
0005043158RNEC2	Reject	7/12/2017	250
0006542522RN2B7	Reject	20-12-2017	-60

Electric Kiwi received 33 RR files for standard switches. It is a very small number because a switch event reads are provided from AMI reads. 23 RR files were accepted.

The process of evaluation of received RR was described by Electric Kiwi. It is the same for move in switches.

*Depending on the scenario will depend on what process we follow (note that this will be the same if we receive a NTMI).*

- 1. We will look at the RR that we have received from the other retailer, determine if these match the registry reads that we have received and then if they are the same we would then accept, if they are different (generally if the other retailer estimates) we will reject and email the other retailer to say the actual register reads that they should be sending through are X/Y/Z and that ELKI did not split them correctly - the total consumption would be correct just not the split - as mentioned this scenario should no longer occur due to the fix that we have made.*
- 2. When receiving an RR of this nature, ELKI will firstly look to see if the reads from our CS gain match our consumption start reads, generally they don't and ELKI would have already looked to make sure that the register reads matched our CS gain (we would have sent an RR if the gain reads and the register reads are different). From here we would look to see if the RR matches the Register reads, if they do we accept. If the RR does not match our register reads we will then reject and send an email to the other retailer to resend for the register read of X/Y/Z, generally the other retailer has provided actual reads in the RR due to them requesting from the MEP so more often than not the RR is accepted.*
- 3. Generally, we have already agreed with the customer the end read for a non-comm, if we do receive a RR we would then recalculate the reads for the customer and bill them accordingly (if we have over charged we would then arrange a refund).*

*With the above in mind if there is a need to update our total consumption for reconciliation purposes we will adjust consumption accordingly, that being said it is only when we have estimated that this would need to take place.*

#### 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

Electric Kiwi 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 switch gain process was examined. It is made clear to the staff in the office the difference between a standard switch and move in switch.

At the time of signing up a customer they must specify if they are moving into a premise and the date of move in. Electric Kiwi allows a customer to go back by 28 days. If a customer wants to go even further back, they need to contact the office.

According to the EDA file, Electric Kiwi sent 8,303 NT files to gain customers.

#### Audit commentary

All NT files were sent within two business days of conditions being met by a customer.

#### 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

During the period covered by this audit 7,395 switch moves were finalised by sending AN file. We examined the Switch Breach Report to see if switch requests were accepted within 5 BD after receiving notification from the registry.

#### Audit commentary

Analysis of move in switches showed that AN files are sent within 48 hours.

#### Audit outcome

Compliant

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

#### Code reference

*Clause 10(2) Schedule 11.3*

#### Code related audit information

*If the losing trader determines a different date, the losing trader must also complete the switch by providing to the registry manager as described in subclause (1)(a):*

- *the event date proposed by the losing trader; and*

- a valid switch response code; and
- final information as required under clause 1.

#### Audit observation

Electric Kiwi's policy is to accept the requested date by a gaining trader. To verify if this is the case, we compared the requested event date for NT with the AN event date sent by Electric Kiwi.

NEST does not allow an event date to be set more than 10 BD in advance. If a customer requests a date further into the future, NT is held back.

#### Audit commentary

No events dates were set earlier than the requested date. Electric Kiwi accepts the date requested by a gaining trader.

We discussed with Electric Kiwi the possible scenarios which could occur. Their comment is quoted below:

- o Our customer is already billed up to a later date than NTMI and they had advised us of their move out date. In this case, we would provide another event date to the gaining retailer, but not Date Fail them.*
- o ELKI will send a NWDF if the gaining retailer sends a NTMI with a move in date 5 working days in the future or if ELKI are requested to by the new retailer to have the NTMI moved to an earlier date (generally by email or phone call). In both instances ELKI would send a NWDF and email the retailer to resend the NTMI either with the correct date or closer to the date if a future move in.*

#### 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

Analysis of move in switches showed that AN files are sent within 48 hours and in some cases the CS file is sent straight away, but often it is sent after 5BD. It appears that there is a lack of understanding around the timelines for switch move switches.

Electric Kiwi has been growing very fast, about 12,000 new ICPs were gained. The process of sending CS files is manual therefore some mistakes were made.

#### Audit commentary

The Switch Breach Report was examined. 200 CS files were sent later than 5 BD after receiving notification from the registry. The breakdown is shown below.

Number of CS files	Number of BD
96	2
66	3
23	4
15	5

Electric Kiwi aims to process all CS's within 5 business days, regardless of whether it is a TR or MI. From our observation compliance with this clause has improved during the second part of 2017.

We randomly chose five CS files and checked the content. We checked for the correct identification of meter readings and correct date of last meter reading and accuracy of average daily consumption. Compliance was confirmed for the file content.

In October last year, Kiwi Electric made changes to ensure that the Switch Breach report is checked daily. The switching team aims all TR and MI switches to be processed within 3 BD. This is evident in the sharp drop in breaches since early Oct 2017.

The tables below are the summary of the EDA file (TR and MI switches), which confirms that strong controls used by Electric Kiwi are effective.

Code	E2					
Count of ICP	Column Labels					
Row Labels	2	3	4	5	6	Grand Total
Mar	3					3
Apr	5	1				6
May	33	7	3	3	3	49
Jun	41	43	10	3	1	98
Jul	49	23	9	8	1	90
Aug	41	22	6	5		74
Sep	133	38	30	12	1	214
Oct	7	2				9
Nov				1	1	2
Dec	1	2				3
Grand Total	313	138	58	32	7	548

Row Labels      Count of ICP

>5 BD

Jan	244	0	0.00%
Feb	237	0	0.00%
Mar	230	3	1.30%
Apr	250	6	2.40%

May	298	49	16.44%
Jun	319	98	30.72%
Jul	327	90	27.52%
Aug	432	74	17.13%
Sep	554	214	38.63%
Oct	505	9	1.78%
Nov	531	2	0.38%
Dec	498	3	0.60%
Grand Total	4425		

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.10 With: 11 of Schedule 11.3 From: 01-Jan-17 To: 31-Dec-17	200 CS files were sent later than 5 BD after notification from the registry. Potential impact: Low Actual impact: Low Audit history: once Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as strong. Since putting a new process in place, it was noted the sharp drop of late CS files. Risk Rating assigned as low because any impact on settlement outcomes is minor .		
Actions taken to resolve the issue		Completion date	Remedial action status

<p>Since last year, we've made changes to ensure that the Switch Breach report is checked daily. The switching team ensures that all TR and MI switches are to be processed within 3 BD since. This is evident in the sharp drop in breaches since early Oct 2017. You can see there were only 5 MI switches completed after 5 BD from Oct to Dec 2017 which highlights strong controls put in place. We also hired a new switching specialist (he came from Pulse) in late September.</p> <p>Also, upon review of several of the latest CS's &gt; 5 BD, we can see they were due to NW's being sent after the NT. We then had to wait for the gaining retailer to respond. Once the gaining retailer rejected it, we sent the CS right away. Please see these ICPs as examples:</p> <p>1001102826LC5FF 0006410600RN83C 0006688195RN78A</p> <p>We believe these aren't breaches, so the issues are less than 200.</p>	Sep/Oct 2017	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
<p>We will continue to monitor the Switch Breach Report daily.</p> <p>We are also developing a dashboard which will be placed in the office which will show a count of ICPs in switching status and how many days until breach.</p> <p>We have a development task which has now been prioritized which will automate the sending of CSs to the registry from NEST. This will be worked on post the automation of ANs.</p>	<p>-ongoing</p> <p>-estimated: April 2018</p> <p>-estimated: Q3 2018</p>	

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

##### Code reference

Clause 12 Schedule 11.3

##### Code related audit information

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

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

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

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

#### Audit observation

Electric Kiwi trades only HHR installations where smart meters are read remotely. As described in the previous section, the company does not always receive meter readings from MEPs within 5 BD after a switch is finalised. The process is to send RR files if the difference is more than 20 kWh.

We reviewed the EDA file for the period 01/01/2017 to 31/12/2017.

#### Audit commentary

1,847 RR files were sent for move in switches.

Randomly we chose eleven ICPs for which RR file was rejected to see the difference in volume between the two reads. The results are shown below:

ICP	Response	Date	Difference in kWh
0007105819RNE60	Rejected	05/05/2017	110
0000036447TR3BC	Rejected	04/07/2017	37
0005005680RN0C3	Rejected	09/01/2017	-53
0469498838LCE6C	Rejected	10/04/2017	46
0005026830RNF57	Rejected	10/06/2017	136
0000068274CE3FA	Rejected	10/11/2017	-683
0000030034WE579	Rejected	10/25/2017	5005
0000450116HBC04	Rejected	10/27/2017	-33
0000136187TR53A	Reject	30-11-2017	-52
0000075858TR3B6	Reject	06/12/2017	71

0007165060RN739	Reject	06/12/2017	120
-----------------	--------	------------	-----

#### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.11</p> <p>With: 12 of Schedule 11.3</p> <p>From: 01-Jan-17</p> <p>To: 31-Dec-17</p>	<p>For some switches Electric Kiwi does not use a switch event read provided by a losing trader</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: twice previously</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>Controls are rated weak because Electric Kiwi's strategy is not to switch on the same read if the difference between a switch event read from CS files and a switch event read from a losing trader is less than or equal to 20kWh. A tool to calculate the difference is in place but the parameters used are not in accordance with this clause.</p> <p>Audit risk rating is rated as low because Electric Kiwi trades low volume ICPs. The switch event reads provided by a losing trader could be under-estimated or over-estimated. Overall across 18,000 switches the difference could cancel each other out. Of course, from a customer perspective, the picture is different. The issue may have a minor impact on settlement outcomes.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>The 20 kWh difference was not Electric Kiwi's strategy. This was agreed upon at the switching forum by all attending retailers. Previously, other retailers would reject ELKI's RRs if they were less than 20 kWh different. However, since last month, we are now sending RR's for all TR and MI switches if the read is 1 kWh or greater difference. Post this change, we had multiple other retailers get in contact complaining about how many RRs we were sending, but we've explained that we're following the code. We are closely monitoring what RRs reject and getting in touch with the losing retailers if they reject them.</p>		January 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	



<p>We will continue to push the MEPs to deliver data to us quick enough to meet the deadline of 5BD. In 2017, AMS (who the majority of our ICPs are with) was not providing register reads 7 days per week (they did only 5). This as well as the fact that they take up to 10 BD to deliver us data, and only recently started providing data for backdated switches. We expect that 2018 will be an improvement with sending RRs.</p> <p>We have a development task which will automate the sending of RRs to the registry from NEST. NEST will compare reads received from the MEPs and the CS we received. If there is any discrepancy, an RR will automatically be sent to the registry. Any rejects will come back into NEST as ticket in which the operators need to review and reach out to the losing retailer. This will be worked on post the automation of ANs.</p>	<p>-ongoing</p> <p>-estimated: Q3 2018</p>	
---	--	--

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

##### Code reference

Clause 13 Schedule 11.3

##### Code related audit information

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

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

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

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

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

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

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

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

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

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

#### **Audit observation**

Electric Kiwi does not use this type of switch. They only trade category 1 and 2 metering installations metered by smart meters.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **Audit outcome**

Not applicable

### **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**

Electric Kiwi does not use this type of switch. They only trade category 1 and 2 metering installations metered by smart meters.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **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**

Electric Kiwi does not use this type of switch. They only trade category 1 and 2 metering installations metered by smart meters.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **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 switch withdrawal process was analysed. The EDA file for the period covered by this audit was provided by Electric Kiwi. We also reviewed the Switch Breach Report.

1,074 NW files were sent. Reason codes used were permitted by the registry. 23 NW files were sent later than 2 calendar months. We also reviewed the Switch Breach Report to confirm that AW files were sent within 5BD. 17 AW files were sent later than this clause requires.

Electric Kiwi received 1,698 NW files, 1,516 were accepted. The table below shows which reasons codes were used

Reason code	Number of ICPs
CE	24
CX	376
DF	115
MI	12
WP	375
WR	1
WS	171

We randomly selected ten switch rejections with a mixture of withdrawal codes of WS,WP, CX, DF. It was discussed with Electric Kiwi. For each withdrawal they were able to give details of correspondence.

#### Audit commentary

The withdrawal process is well managed. It is confirmed by the small number of NW files sent later than 2 calendar months from the event date. Late NW files mostly related to incorrect properties, which are discovered by the billing process.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.15 With: 17 of Schedule 11.3  From: 01-Jan-17 To: 31-Dec-17	23 late NW files and 17 AW files  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	Controls are rated strong. The process is well monitored. Only a small number of NW files were sent after 2 calendar months.  Audit risk rating is rated as low. The issue may have a minimal impact on settlement outcomes.		
Actions taken to resolve the issue		Completion date	Remedial action status

We aim to send all NWs and AWs within allowed time frame and will continue to closely monitor this in the future. As noted above in the audit commentary, many of the late NWs are only done because wrong properties are discovered late in the billing cycle.		Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
We will actively continue to monitor our switching timeframes to ensure we're sending all AWs and ANs within the allowed timeframe	ongoing	

#### 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

Meter readings are received from MEPs. Electric Kiwi relies on MEPs to provide accurate readings but as is described in relevant sections, extensive validation is conducted upon uploading readings to the system.

##### Audit commentary

All meter readings used in the switching process are validated meter readings or permanent estimates. The cost of additional interrogation is covered in a commercial agreement between Electric Kiwi and MEPs.

##### 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**

This was discussed during the audit. The process used by Electric Kiwi is as follows, NT is received, an email is sent to a customer asking for confirmation that it is a valid request. The company also asks for feedback of why she/he decided to switch away. No special deal is offered.

#### **Audit commentary**

Compliance confirmed based on a process review and copy of email (template) sent to a customer. Electric Kiwi adopted this process to avoid switching the wrong premises or switching requested by a non-authorized person.

#### **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

Electric Kiwi's policy is not to trade any unmetered load. It is described in section 7.3 of the Terms and conditions.

*We are unable to supply electricity to you as a customer if you have (or come to have) any unmetered supply connected to your property. If you are already a customer of ours and you introduce an unmetered supply to your property or are found to have unmetered supply to your property, you will be immediately required to choose another retailer to supply you with electricity in accordance with clause 11.6 (and we can then end this Agreement).*

At the time of audit Electric Kiwi traded one SUML ICP (1000555666PC131), which had 77 W of shared unmetered load connected. Originally, when the ICP was gained by Electric Kiwi, it did not have SUML connected. On 22/12/17, PowerCo uploaded information about SUML to the registry. NEST created two tickets on 22/12/17 and 23/12/17. The customer was contacted and requested to switch away. The

customer switched away on 16th January 2018 to Meridian. Later on, in this report we confirm that 77W was reconciled for 26 days.

#### **Audit commentary**

Electric Kiwi have a clause in their Terms and Conditions which allows the company to contact a customer and asked to switch to another trader if unmetered load is introduced after they switch in.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 10.14 (2)(b)*

#### **Code related audit information**

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

#### **Audit observation**

Unmetered load was 6.41 W only and the ICP switched out at the time of audit.

#### **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 MEP proposes to take or is taking to reduce the unmetered load.*

#### **Audit observation**

Unmetered load was 6.41W only and the ICP switched out at the time of audit.

#### **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

Electric Kiwi does not trade distributed unmetered load.

#### 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

All installations traded by Electric Kiwi are metered as per the LIS file. No subtraction is used to calculate submission information.

#### Audit commentary

Electric Kiwi uses the quantity of electricity measured by HHR metering installations, which is provided by MEPS.

#### 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**

Electric Kiwi does not trade such installations.

#### **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**

Electric Kiwi does not use any engineered profiles. The only profiles recorded in the registry are HHR and HHZ. Only HHR profiles are used for submitting volumes. The HHZ profile is recorded in the registry to identify ICPs for which Metrix provides metering data. The terms of HHZ profile require additional validation to be conducted by Electric Kiwi. Compliance of HHZ will be audited on 20<sup>th</sup> February 2018.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **Audit outcome**

Not applicable

### **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**

As a part of this audit, Electric Kiwi provided a document called “Metering”, which describes the process of data validation. Looking for faulty meters or bridged meters is a part of the validation process. Flight Path catches: consecutive 0 reads from the MEP. Any unusual patterns or “zero” data is analysed, and appropriate action taken such as contacting a customer or talking to the relevant MEP.

#### Audit commentary

We were provided with four examples of faulty meters or non-communicating meters which required replacement of equipment. AMS provides a weekly report of verified faults, which specifies the data of the last successful read. The report is analysed by Electric Kiwi. If necessary a customer is contacted to confirm that, for example, a premises is empty or power is switched off due to renovation.

#### 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

Metering data for all Electric Kiwi ICPs is collected by four MEPs, AMS, COUP, MTRX, and ARCS. The company does not collect data themselves.

#### Audit commentary

Compliance with this clause is assessed as a part of the MEPs 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

Electric Kiwi only trades HHR ICPs. Customer reads are not accepted.

All data received from the MEPs is validated upon uploading to NEST.

#### Audit commentary

Compliance confirmed based on a review of the LIS file and data validation process.

#### 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

Electric Kiwi trades HHR ICPs only.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **Audit outcome**

Not applicable

### **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**

Electric Kiwi trades HHR ICPs only.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **Audit outcome**

Not applicable

### **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**

Electric Kiwi trades HHR ICPs only.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

#### 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

Electric Kiwi trades HHR ICPs only.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

#### 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

Electric Kiwi trades HHR ICPs only.

#### Audit commentary

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

Metering data for all ICPs traded by Electric Kiwi is collected remotely by the MEPs. If a meter can't be read remotely, it is replaced by other equipment or a customer is asked to switch away.

### Audit commentary

Compliance with this clause is assessed as a part of MEPs 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

Metering data for all ICPs traded by Electric Kiwi is collected remotely by the MEPs.

### Audit commentary

Data interrogation requirements are covered in the MEPs 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**

Metering data for all ICPs traded by Electric Kiwi is collected remotely by the MEPs. Metrix provides a report which list meters for which time had to be adjusted.

**Audit commentary**

Data interrogation requirements are covered in the MEPs 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  $\pm 0.1\%$  ( $\pm 2$  seconds).*

#### Audit observation

Electric Kiwi receives HHR data from MTRX, AMS, COUP, and ARCS.

#### Audit commentary

MEPs are responsible for meeting compliance with this clause. It is reviewed during their audits. 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 the MEPs, who archive raw meter data. Electric Kiwi keeps a copy of all HHR data.

MEPs are responsible for archiving raw meter data.

#### Audit commentary

MEPs are responsible for meeting compliance with this clause. It is reviewed during their audits.

#### 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**

Electric Kiwi only uses the HHR profile for reconciliation submissions. No external control equipment is used.

**Audit commentary**

Compliance was not assessed because this clause is not applicable to the Electric Kiwi operation.

**Audit outcome**

Not applicable

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

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

#### Code reference

Clause 19(1) Schedule 15.2

#### Code related audit information

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

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

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

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

#### Audit observation

Electric Kiwi trades HHR ICPs only.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

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

#### Code reference

Clause 19(2) Schedule 15.2

#### Code related audit information

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

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

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

#### Audit observation

The correction of HHR metering information, if necessary, is done in house. If Electric Kiwi considers that the data is not accurate, in the first instance it will talk to the MEP who provided the data. Installations traded are mostly domestic customers therefore a check meter or data storage device won't be installed.

If data needs to be substituted, register reads will be used to ensure that substituted intervals match the total consumption recorded on the meter. The process is described in detail in the relevant section of this report.

#### **Audit commentary**

There were no instances where HHR metering data had to be corrected.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 19(3) Schedule 15.2*

#### **Code related audit information**

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

#### **Audit observation**

Error and loss compensation was discussed during the audit. Seven ICPs have a multiplier factor applied to metering data. A multiplier is applied because the installations are category 2.

#### **Audit commentary**

Electric Kiwi does not have any ICPs for which error or compensation needs to be applied. We checked seven ICPs and confirm that NEST have a multiplier recorded which is applied to metering data.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 22(1) and (2) Schedule 15.2*

#### **Code related audit information**

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

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

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

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

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

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

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

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

**Audit observation**

Electric Kiwi trades HHR ICPs only. The report called Flight Path Report identifies ICPs metering data which requires closer analysis. If any correction or adjustment is required a journal will be created. It is the same journal which is created when metering data is estimated.

**Audit commentary**

The company stated that, in the last 12 months, there were no instances of HHR data which required correction/alteration. HHR raw data is never overwritten because raw data is always stored by the MEPs. Electric Kiwi receives only a copy of HHR raw meter data and it is archived and never adjusted.

**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

NEST has a built-in function which allows the identification of actual and estimated readings. At the time of audit, the system has been assigning a type of reading flag per day. If part of the day had to be estimated, NEST displays estimated readings on a separate screen with “E” flag.

#### Audit commentary

Electric Kiwi is working on a new enhancement to NEST which will allow it to have actual and estimated data on the same screen. The type of reading flag will be assigned to each interval.

#### 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

All readings received from the MEPs are validated upon upload to NEST.

Volume information is derived from validated HHR readings provided by the MEP. NEST has the functionality to use both validated and estimated readings to create reconciliation files. The screen below shows a screenshot of Flight Pass, which catches consecutive 0 reads from the MEP, consumption records that are too high or too low compared to the most recent consumption records. Electric Kiwi also have a “Outlier CRON” which runs every day in NEST on billing charges (before we invoice the customer). It’s a bit technical, but basically it looks for outliers which are very high or very low compared to the last 50 days average.



## FLIGHT PATH - BUSINESS-OPTIMISATION

Other reports

meter\_bill\_date\_billing\_status\_enddate\_mismatch

### Business Optimisation - Priority 1 - Metering Management

Business optimisation reports to be executed daily

#### P1 - Metering Management

<u>A customer has been waiting too long for reconnection</u>	The customer has been waiting to be reconnected, however the deadline has passed a_customer_has_been_waiting_too_long_for_reconnection
<u>A customer has active unmetered load</u>	A customer has active unmetered load against their connection. NEST does not support unmetered load so the customer must be requested to leave a_customer_has_active_unmetered_load
<u>A consumption record has a negative value</u>	A consumption record has negative values. Negative values are not supported by NEST and these should be manually updated using a manual estimation routine a_consumption_record_has_a_negative_value
<u>A CS was received to process the replacement read</u>	A customer has now successfully joined. The data is used to find those connections where a replacement read is required a_cs_was_received_to_process_the_replacement_read
<u>A customer has consecutive zero data in consumption records</u>	A meter is sending constant zero data to NEST for the last 5 days, or more. Its highly likely that the meter is not communicating a_customer_has_consecutive_zero_data_in_consumption_reads
<u>NEST may have created an invalid high consumption estimate</u>	NEST may have created an estimation that is high (greater than 200kwh) for a single day, and inaccurate. Manual revision is required nest_may_have_created_an_invalid_high_consumption
<u>Those ICPs that have exporting or solar installations without NA channel</u>	Properties that have an injection channel at the premise, generally from solar installations those icps that have exporting or solar installations but without NA channel Those_ICPs_that_have_exporting_or_solar_installations_without_NA_channel
<u>Closed Account Consumption</u>	ICPs that are still with ELKI, having no open billing status but are still receiving consumption Closed_Account_Consumption

#### Audit commentary

There were no instances of permanent estimates, but the NEST system has such functionality.

#### 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

Metering data is neither rounded or truncated upon uploading to NEST. Electric Kiwi provided 10 examples of data from AMS, ARCS, and MTRX to demonstrate compliance.

#### Audit commentary

Compliance confirmed based on a review of examples provided.

#### 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

All HHR data and register reads are provided by MEPs. Electric Kiwi closely monitors completeness and accuracy of data. If there are any intervals missing the relevant MEP is contacted and asked for catch-up data. In most cases MEPs are not able to provide it. In such a situation metering data is estimated

Estimation methods used are:

- Proportional – usually used for one day, it is a straight line. Volume allocated is balanced by the difference between register reads.
- Average of 7 days is used when no registers are provided for a day where data is missing
- Estimation based on profile

Electric Kiwi provided two examples for each type of estimation to show how volumes are calculated.

#### Audit commentary

Overall a very small percentage of data has to be estimated, around 1.52%. Proportional allocations accounts for around 0.16% for December 2017. The screen shot below shows the audit trail for estimation in NEST.

Alterations Daily Reads Daily Billing Charges Daily Network Charges									
Consumption	Read Date	Interval Start Read	Interval End Read	Alteration Date	Alteration Type	Alteration Reason	Alteration Method	Authoriser	Interval Count
ek.consumption,7388474	24/10/2017	612.657		26/10/2017	01 - Actual	02 - Null data	01 - Actual	Automatic	48
ek.consumption,7388474	24/10/2017	612.657	628.839	26/10/2017	02 - Estimate	02 - Null data	03 - Avg of last 7 Days	Automatic	48

#### 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

Electric Kiwi trades HHR ICPs only.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

### 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 data received from MEPs is validated by NEST. When data is uploaded an exception, report is created. To assist validation AMS and ARCS provide log files.

#### Audit commentary

In section 9.2, the screenshot of Flight Path shows some validation conducted.

#### Audit outcome

Compliant

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

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

#### Code reference

Clause 13.136

#### Code related audit information

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

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

#### Audit observation

This clause is not applicable.

#### 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 pricing manager and the relevant grid owner half-hour metering information for:*

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

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

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

#### Audit observation

This clause is not applicable.

#### 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

This clause is not applicable.

##### 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 the pricing manager or a grid owner under clauses 13.136 to 13.138, or 13.138A, it must also, by 0500 hours of that day, advise the relevant grid owner.*

##### Audit observation

This clause is not applicable.

##### 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

Electric Kiwi only uses HHR profile for reconciliation submissions.

#### Audit commentary

Electric Kiwi only uses HHR profile for reconciliation submissions. To were confirm by checking the LIS file and submission files for Sept'17 to Dec'17.

#### 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

We reviewed the ICP days file (AV-110) submitted to the reconciliation manager and GR-100 provided by the reconciliation manager. The results are shown below:

Month	R0	R1	R3	R7	R14
Sept'16	-0.11%	-0.10%	-0.16%	-0.35%	-0.21%

<b>Oct'16</b>	-0.18%	-0.22%	-0.27%	-0.33% <del>x</del>	0.20%
<b>Nov'16</b>	-0.25%	-0.35%	-0.36%	-0.39%	
<b>Dec'16</b>	-0.19%	-6.31%	-0.76%	-0.27%	
<b>Jan'17</b>	-0.37%	-0.52%	-0.58%	-0.26%	
<b>Feb'17</b>	-0.33%	-0.37%	-0.44%	-0.28%	
<b>Mar'17</b>	-0.32%	-0.35%	-0.33%	-0.32%	
<b>Apr'17</b>	-0.34%	-0.33%	-0.28%	-0.29%	
<b>May'17</b>	-0.26%	-0.27%	-0.27%	-0.31%	
<b>June'17</b>	-0.25%	-0.26%	-0.34%		
<b>July'17</b>	-0.15%	-0.22%	-0.29%		
<b>Aug'17</b>	-0.20%	-0.22%	-0.24%		
<b>Sept'17</b>	-0.21%	-0.21%	-0.25%		
<b>Oct'17</b>	-0.31%	-0.29%			
<b>Nov'17</b>	-0.31%	-0.39%			
<b>Dec'17</b>	-0.33%				

### Audit commentary

We confirm that ICP days are submitted for all revisions. The table above shows Electric Kiwi volumes for more ICPs than expected every month, based on the ICPs status in the registry.

It was discussed with the company and the comment was that in Feb'17 a new process was introduced to compare the LIS file with information in NEST. Originally it was done once before a reconciliation run and later changed to every two weeks. Now the comparison is done daily with the Flight Path report looking at the ICP billing status and comparing that with the registry ICP status. Reconciliation files are run using the ICP billing status, not the status recorded in the registry. Electric Kiwi is in the process of lining up both sets of data.

### 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:

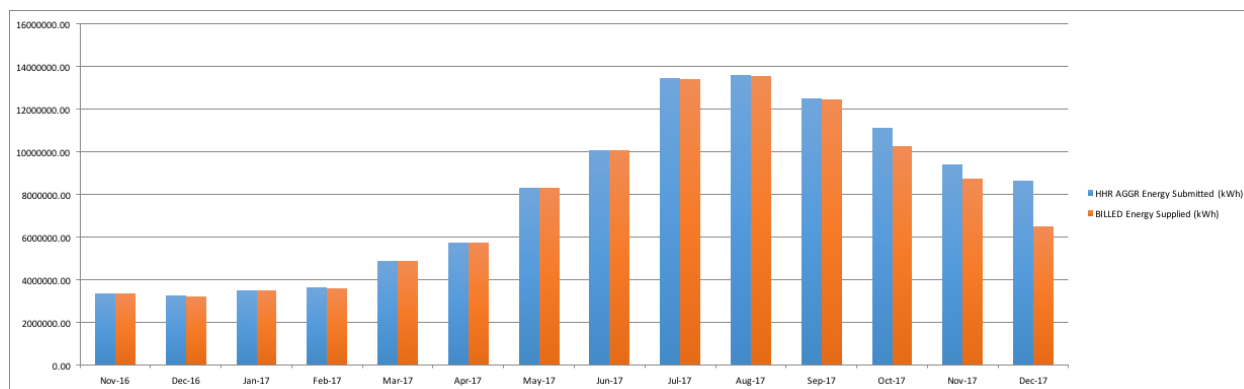
15.7(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period

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

Electric Kiwi submits AV-120 monthly. We confirm it submits for all revisions. The table below shows a comparison between volumes submitted and supplied (billed).

Report Type	Latest Revision	
Name	HHR AGGR	BILLED
Month	Energy Submitted (kWh)	Energy Supplied (kWh)
Nov-16	3,341,734	3,331,823
Dec-16	3,242,530	3,231,053
Jan-17	3,513,949	3,499,816
Feb-17	3,616,171	3,607,152
Mar-17	4,897,671	4,884,046
Apr-17	5,729,651	5,714,954
May-17	8,322,872	8,293,781
Jun-17	10,070,652	10,045,219
Jul-17	13,416,455	13,392,537
Aug-17	13,571,567	13,528,231
Sep-17	12,466,561	12,448,539
Oct-17	11,102,925	10,240,115
Nov-17	9,401,647	8,713,991
Dec-17	8,642,551	6,492,396
Total	111,336,935	107,423,651



The difference between submitted and supplied volumes is 3.64%.

### Audit commentary

Compliance confirmed based on a review of processes and a sample of submission files.

### Audit outcome

Compliant

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

### Code reference

Clause 15.8

### Code related audit information

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

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

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

### Audit observation

Electric Kiwi provided a set of submission files (AV140) for the month Nov'16 to Dec'17. The file shows volumes for each HHR ICP. AV-140 files are created by NEST using validated meter readings. AV-140 files contain all ICPs for which the billing status is "open". It does not necessarily line up with the status "active" in the registry.

The GR-090 "ICP missing" files were examined for December 2017. There are still discrepancies around which ICP subdivision volumes are submitted and which ones are not required. A total of 175 ICPs are listed. For 27 ICPs submission volumes are not in HHRAGGR and for 148 ICPs are not included in the files but are not expected to be. The total number of ICPs for December 2017 was 19,650 therefore there is a discrepancy of 0.9% and we are assured it is getting smaller and smaller.

### Audit commentary

We checked some of the 27 ICPs for which volumes were not included in HHRAGGR, there were valid reasons for them not being included e.g. late switch notification etc. 175 ICP volumes were submitted but, according to the RM, should not have been. This is the result of the mismatch between NEST and the registry. Electric Kiwi are actively working towards solving it.

We compared the volumes in HHRVIOLS and HHRAGGR for the months Nov'17 and Dec'17. Volumes in both files were within a few kWh.

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-Jan-17 To: 31-Dec-17	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	Electric Kiwi 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	

## 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

All data provided to Electric Kiwi is daylight saving adjusted except data provided by Metrix. The company gave evidence for three ICPs to demonstrate how data was adjusted for NZDT.

#### Audit commentary

We checked submission data for this September'17 and confirm the correct number of trading periods were recorded in all cases.

#### Audit outcome

Compliant

### 12.2. Creation of submission information (Clause 15.4)

#### Code reference

Clause 15.4

#### Code related audit information

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

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

#### Audit observation

Electric Kiwi provided reconciliation data for the last 6 months. We confirmed that Electric Kiwi submits volume information on day 4 and day 13 (all relevant revisions). We were provided with screenshots of the RM portal to show that all files were submitted within the timeframe specified by the Code.



*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**

Electric Kiwi has a process in place to compare data recorded in the registry and data stored in NEST before each reconciliation run. An EDA file is uploaded to NEST daily to update records. Any discrepancies are corrected. NSP allocation is one of the variables which is checked.

#### **Audit commentary**

Compliance confirmed based on a process review.

#### **Audit outcome**

Compliant

### **12.4. Grid owner volumes information (Clause 15.9)**

#### **Code reference**

*Clause 15.9*

#### **Code related audit information**

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

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

#### **Audit observation**

This clause is not applicable.

#### **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**

This clause is not applicable.

#### **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**

This clause is not applicable.

#### **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**

The process of calculation of initial and subsequent submission volumes was examined.

Every month, before day 13, revision files are submitted for month 3, 7, and 14.

#### Audit commentary

To assess compliance, we analysed GR-100 and GR-170HHR and submission files provided by Electric Kiwi. In the year 2017, the variance between initial submission and revision 7 was within 5% except in two cases, BRK0331 and HOR0661 for Apr'17. Electric Kiwi submissions are mostly based on actual data therefore there is a small variance of submission volumes.

Submissions for BRK 0331 and HOR0661 April 2017 are shown below:

month	revision	NSP	Network	Trader	Metering Type	Total monthly submission	Percentage variation of this rev submission against the initial rev cycle
04/2017	1	BRK0331	POCO	ELKI	HHR	9715.55	-22.52
04/2017	3	HOR0661	ORON	ELKI	HHR	14.24	-48.63

It was discussed with Electric Kiwi, they provided the following comment:

**HOR0661:** this was ICP **0006649742RN414**. The difference, although a high %, was only 13 kWh. This ICP was switched to us on 21/4/17 but wasn't reconnected until 26/4/17. We accidentally set the status date to Active on 28/4 instead of 26/4 and updated NEST incorrect to 28/4 after the initial submission, so the 13 kWh were removed from the RM report. I have now corrected NEST and the registry, and we will resubmit the 13 kWh on the next revision.

**BRK0331:** this was from ICP **0038622240PCD83** which was NW'd back to the old retailer because the customer signed up the wrong property. That is why submission for ICP went from 2834.7 to 0

**BRK0331:** Also, there was a 10 kWh difference for ICP 0030446556PC075, but this is only because the initial submission had 2 estimates, and by the time we submitted revisions, we had actuals.

#### Audit outcome

Compliant

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

#### Code reference

Clause 4 Schedule 15.2

#### Code related audit information

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

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

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

### Audit observation

This clause is not applicable. Electric Kiwi trades HHR ICPs only.

### Audit commentary

This clause is not applicable. Compliance was not assessed.

### Audit outcome

Not applicable

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

### Code reference

Clause 2 Schedule 15.3

### Code related audit information

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

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

### Audit observation

The process of calculation of submission information was reviewed.

Electric Kiwi prepares every month submission information for each NSP which comprises of half hour volume information for each ICP. The files two months were reviewed.

As an exception Electric Kiwi reconciled unmetered load for December 2017 and January 2018. The document "A customer has an active Unmetered Load flightpath report" describes in detail how to identify UML.

In December 2017 and January 2018, NHH volumes were submitted for ICP 1000555666PC131as per section 5.1. Electric Kiwi provided a screenshot of RM portal.

**RMS**  
Reconciliation

**Uploads**

**ELECTRICITY AUTHORITY**  
TE MANA HIKO

SITE  
 Home  
 News  
 Public Files  
 Resources  
 Contact us

Submit New File:  No file selected.

**Search for Uploads**  
 Consumption Period:  Date Generated:  to   
 File Type:  File Status:

731 Results | Show  per page

File Name	Type	File Status	Date/Time
ELKI_E_NZRM_HHRVOLS_201801_20180206_0001.csv	HHR Submissions	Successful	07 Feb 2018 12:14
ELKI_E_NZRM_ICPDAYS_201801_20180206_0001.csv	Purchaser ICP Days	Successful	07 Feb 2018 12:13
ELKI_E_NZRM_HHRAGGR_201801_20180206_0001.csv	Purchaser HHR Aggregates	Successful	07 Feb 2018 12:12
ELKI_E_NZRM_BILLED_201801_20180206_0001.csv	Electricity Supplied	Successful	07 Feb 2018 12:12
ELKI_E_NZRM_NHHVOLS_201801_20180125_0001.csv	NHH Submissions	Successful	01 Feb 2018 11:31
ELKI_E_NZRM_NHHVOLS_201712_20180125_0001.csv	NHH Submissions	Successful	01 Feb 2018 11:30
ELKI_E_NZRM_ICPDAYS_201712_20180118_0001.csv	Purchaser ICP Days	Successful	18 Jan 2018 15:02
ELKI_E_NZRM_ICPDAYS_201710_20180118_0001.csv	Purchaser ICP Days	Successful	18 Jan 2018 15:02
ELKI_E_NZRM_ICPDAYS_201706_20180118_0001.csv	Purchaser ICP Days	Successful	18 Jan 2018 15:02
ELKI_E_NZRM_ICPDAYS_201611_20180118_0001.csv	Purchaser ICP Days	Successful	18 Jan 2018 15:02

### Audit commentary

Post audit investigation showed we recalculated submission volumes for 1000555666PC131. It was incorrect. It was calculated 0.006417 kWh per day, it should be 0.077 kWh/ day. Kiwi Electric advised that two files for the UML have been updated to the RM manager again with the updated values, these had not been multiplied by 12 as you have indicated, this will be noted for any future uploads.

### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.9 With: 2 of Schedule 15.3 From: 21-Dec-17 To: 15-Jan-18	Submission volumes for ICP 1000555666PC131 were incorrectly calculated. 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. Good processes are in place, a small mistake was made in the calculation of SUML submission volumes. No impact on settlement outcome. Audit Risk rating is low.
Actions taken to resolve the issue	
Completion date	Remedial action status



Our sign-up process does not allow UML ICPs. If a network changes the UML field once a customer is already with ELKI, we will contact the customer advising them that they need to switch away. We aim to switch them away and never have to reconcile on UML.  In the rare circumstance where we need to reconcile UML, we will ensure to submit correct calculations to the RM. This was a one off as we were unfamiliar with the calculation.	ongoing	Cleared
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	

#### 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

Electric Kiwi trades HHR ICPs only.

##### Audit commentary

This clause is not applicable. Compliance was not assessed.

##### Audit outcome

Not applicable

#### 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<sub>px</sub> 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<sub>px</sub>.*

#### **Audit observation**

Electric Kiwi trades HHR ICPs only.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **Audit outcome**

Not applicable

### **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**

Electric Kiwi trades HHR ICPs only.

#### **Audit commentary**

This clause is not applicable. Compliance was not assessed.

#### **Audit outcome**

Not applicable

### **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**

Electric Kiwi uses only the HHR profile in submission files. There is only one situation which could require changing the profile in the registry associated with a meter. That would be changing an MEP from MTRX to AMS. It does not affect the profile used in submission files.

#### **Audit commentary**

Compliance confirmed based on a review of the LIS file and HHRVOLS.

#### **Audit outcome**

Compliant

## 13. SUBMISSION FORMAT AND TIMING

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

#### Code reference

Clause 8 Schedule 15.3

#### Code related audit information

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

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

#### Audit observation

We reviewed submission file for Oct'17 – Dec'17 and confirm that volumes are aggregated correctly.

#### Audit commentary

Compliance confirmed based on a review of reconciliation files.

#### 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 submission (HHRVOLS and HHRAGGR) files for October and November 2017.

#### Audit commentary

Both the HHRVOLS and HHRAGGR submission information is rounded to two decimal places. It was discussed with the company as to how submission information was calculated, and Electric Kiwi confirm that both the HHRVOLS and HHRAGGR reports are rounded at the ICP interval level then summed up, which leads to inaccurate submissions volumes. It was identified as non-compliance under clause 15.2

## 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

Electric Kiwi trades HHR ICPs only.

## Audit commentary

This clause is not applicable. Compliance was not assessed.

## Audit outcome

Not applicable

## CONCLUSION

### PARTICIPANT RESPONSE

Electric Kiwi would like to thank the EA for taking the time to review this audit report, as well as Ewa Glowacka for preparing it.

Electric Kiwi has grown significantly over the last 12 months, more than doubling the number of ICPs it serves. With this growth comes the challenge of hiring and training new staff, keeping our customers just as happy as they were when there were only 100 of them, improving our systems and processes, staying competitive in the market, challenging the bigger retailers to do better for NZ, and very importantly – staying compliant. We recognize that this is a very delicate balance that we need to maintain.

We aim to ensure that all system and process improvement are good for our customers and keep us compliant at the same time. While we may make a few mistakes, we actively try to identify these mistakes as soon as possible and put further controls in place wherever we can. We make as much use as possible of our strong development team, who aid daily in helping us build new Flight Path reports and automation in NEST.

Whilst Electric Kiwi appreciates the move to an updated audit format, we would like to highlight a few points which would use improvement.

- Receiving non-compliance points for having only 1 mistake out of 000's (this applies to section 4.2). Our suggestion would be that there's a threshold, i.e. mistakes are less than 1% or 0.5%.
- We feel that many sections duplicate your non-compliance points and would like further clarification on why they are separate ratings. For example, 3.3, 3.8, and 3.9 totalled 6 non-compliant points for the same issue. 4.3 and 4.10 are another example, as well as 4.4 and 4.11.
- Our main point that we would like to highlight is a non-compliance which was raised on our last audit. This is surrounding the RR process which is not currently suitable for HHR participants. As we are supposed to reconcile only HHR data, having to use the switch reads from a NHH participant seems to be a conflict. This point, coupled with the below, makes us question whether HHR participants are catered for in the Code. The 20 kWh difference noted in our non-compliance in sections 4.4 and 4.11 was agreed upon at the switching forum by all attending retailers. Previously, other retailers would reject ELKI's RRs if they were less than 20 kWh different. We have now corrected this to send if there is 1 kWh difference or more.
- The MEPs (mostly AMS) are often delayed in sending us reads. Until recently, AMS would not provide backdated reads for backdated switches.
- Until 31 January 2018, AMS was only providing register reads 5 days per week, with no catch up.

Due to some of these reasons, it is not possible to send an RR within 5 BD. We believe that we would be able to send more reads if that timeline was extended. Alternatively, if the MEP would be responsible for providing actual start and end reads to the gaining and losing retailers, or if the MEP were required to send reads to the gaining retailer within 48 hours, the issue would be solve

