

ELECTRICITY INDUSTRY PARTICIPATION CODE  
RECONCILIATION PARTICIPANT AUDIT REPORT



For

Kiwi Income Properties Trust  
(KIPT)

NZBN: 9429041457610

Prepared by: Rebecca Elliot

Date audit commenced: 9 November 2021

Date audit report completed: 30 November 2021

Audit report due date: 15 December 2021

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## EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Kiwi Income Properties Trust (KIPT)**, to support application for renewal of certification in accordance with clauses 5 and 7 of Schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits version 7.2.

KIPT is an embedded network operator and is therefore required to be a certified reconciliation.

KIPT switched retailer from Simply Energy to TENCO (TENR) from 1 November 2021 for NSP KWG0011, the balance of NSP's remain with Meridian as retailer. A material change audit was completed for the change of primary agent. The sub agent has not changed, and EMS continues to conduct all the relevant activities for all NSPs.

EMS' audit report records compliance in relation to the activities performed on behalf of KIPT. I confirmed the following as part of KIPT's audit:

- no defective meters have been identified during the audit period,
- no estimation volume data has occurred during the audit period, and
- no clock synchronisation errors outside the allowable tolerances have occurred during the audit period.

Corrections have been carried out during the audit period. This was due to the discovery of Meter 217001220 that was electrically connected in April 2018 but due to the misfiling of the metering information from AMS, the meter was never set up in EMS' systems and the volumes were not reconciled until the missing meter was discovered in March 2021 after an audit carried out by KIPT. EMS have reconciled the missing volumes for the missing periods through the R14 revisions for January 2020 to May 2020 submitted in March 2021 to July 2021. The volumes equate to 3% of the overall gate volume or approximately 220,000 kWh per submission. I reviewed the corrections and confirmed that these were compliant. EMS completed an incident report and have strengthened their processes to prevent this occurring in the future.

The audit found two non-compliances and makes no recommendations. The indicative audit frequency table indicates the next audit should be in 18 months. I have considered this result in conjunction with the KIPT responses and agree with this recommendation.

## NON-COMPLIANCES

| Subject                                 | Section | Clause | Non-Compliance   | Controls | Audit Risk Rating | Breach Risk Rating | Remedial Action |
|---|---------|--------|--|----------|-------------------|--------------------|-----------------|
| Relevant information                    | 2.1     | 15.2   | Submissions not complete and accurate as volumes not reconciled on meter 217001220 for NSP SYL0113 from April 2018 to December 2019. | Strong   | High              | 3                  | Cleared         |
| Provision of NSP submission information | 12.5    | 15.10  | Volumes not reconciled on meter 217001220 for NSP SYL0113 from April 2018 to December 2019.  | Strong   | High              | 3                  | Cleared         |
| Future Risk Rating                      |         |        |  |          |                   | 6                  |                 |

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

## RECOMMENDATIONS

| Subject | Section | Description | Recommendation |
|---------|---------|-------------|----------------|
|         |         | Nil         |                |

## ISSUES

| Subject | Section | Description | Issue |
|---------|---------|-------------|-------|
|         |         | Nil         |       |

## 1. ADMINISTRATIVE

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

#### Code reference

*Section 11 of Electricity Industry Act 2010.*

#### Code related audit information

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

#### Audit observation

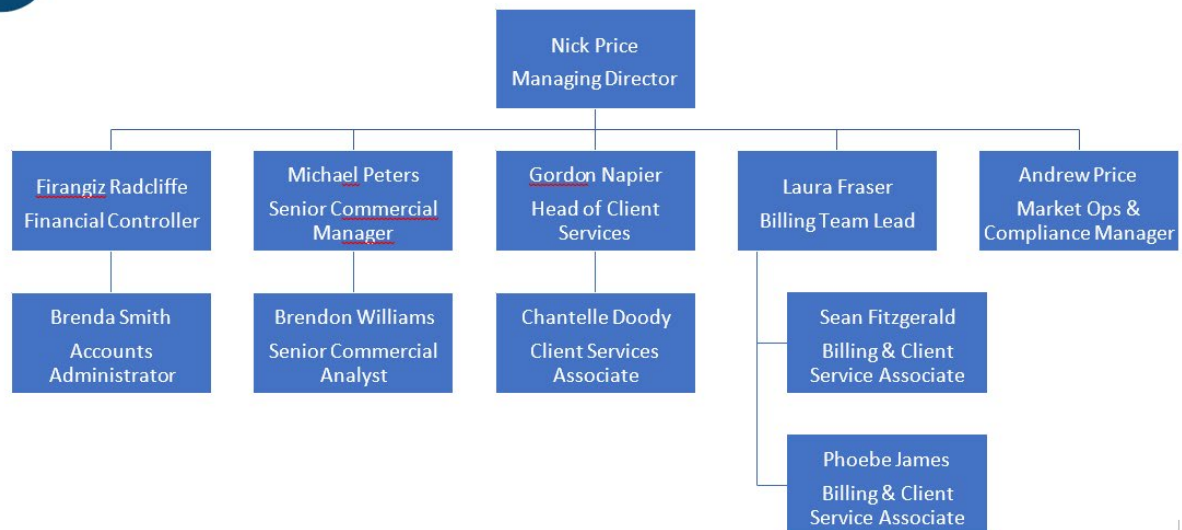
KIPT has no exemptions in place that are relevant to the scope of this audit.

#### Audit commentary

Not applicable

### 1.2. Structure of Organisation

TENCO provided an organisation chart:



### 1.3. Persons involved in this audit

Auditors:

| Name           | Company         | Role               |
|----------------|-----------------|--------------------|
| Rebecca Elliot | Veritek Limited | Lead Auditor       |
| Claire Stanley | Veritek Limited | Supporting Auditor |

Personnel assisting in this audit were:

| Name       | Title             | Company |
|------------|-------------------|---------|
| Nick Price | Managing Director | TENCO   |
| Sunny Feng | Data Analyst      | EMS     |

### 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

Any agents used were identified, and their agent audit reports evaluated as part of this audit.

#### Audit commentary

KIPT switched retailer from Simply Energy to TENCO (TENR) from 1 November 2021 for NSP KWG0011, the balance of NSP's remain with Meridian as retailer. A material change audit was completed for the change of primary agent. The sub agent has not changed, and EMS continues to conduct all the relevant activities for all NSPs.

### 1.5. Hardware and Software

This is discussed in EMS' audit report.

### 1.6. Breaches or Breach Allegations

KIPT has not had any breach allegations recorded by the Electricity Authority within the scope of this audit.



## 1.7. NSP Data

The network supply points table as of 17 November 2021 was examined:

| NSP POC | Embedded Network Name          | Parent POC | Parent Network | Balancing Area | Network Type | Start Date | MEP  |
|---------|--------------------------------|------------|----------------|----------------|--------------|------------|------|
| APC0011 | APEX MEGA CENTRE               | PEN0331    | VECT           | APC0011KIPTE   | E            | 1/08/15    | AMCI |
| KCH0011 | KIWI CENTREPLACE WEST          | HAM0331    | WAIK           | KCH0011KIPTE   | E            | 1/11/12    | AMCI |
| KCH0012 | KIWI CENTREPLACE EAST          | HAM0331    | WAIK           | KCH0012KIPTE   | E            | 1/11/12    | AMCI |
| KCH0014 | KIWI CENTREPLACE TOWER         | HAM0331    | WAIK           | KCH0014KIPTE   | E            | 1/11/12    | AMCI |
| KPP0011 | KIWI PLAZA                     | BPE0331    | POCO           | KPP0011KIPTE   | E            | 20/11/19   | AMCI |
| KRA0111 | KIWI ROYAL SUN ALLIANCE CENTRE | PEN1101    | VECT           | KRA0111KIPTE   | E            | 1/11/12    | AMCI |
| KTW0011 | KIWI TERTWO                    | KWA0111    | CKHK           | KTW0011KIPTE   | E            | 22/03/10   | AMCI |
| KWG0011 | WESTGATE ZONE 7 AUCKLAND       | HEN0331    | UNET           | KWG0011KIPTE   | E            | 21/03/16   | AMCI |
| LMC0011 | Lynn Mall                      | HEP0331    | UNET           | LMC0011KIPTE   | E            | 1/11/12    | AMCI |
| NTL0011 | Northland Shopping Mall        | ISL0661    | ORON           | NTL0011KIPTE   | E            | 1/11/12    | AMCI |
| SYL0113 | SYLVIA PARK                    | PEN0331    | VECT           | SYL0113KIPTE   | E            | 1/11/14    | AMCI |

## 1.8. Authorisation Received

A letter of authorisation was provided.

### 1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of KIPT, to support their application for renewal of certification in accordance with clauses 5 and 7 of Schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits version 7.2.

KIPT is an embedded network operator and is therefore required to be a certified reconciliation participant in accordance with clause 15.38 of part 15.

The scope of the audit is shown in the table below:

| Tasks Requiring Certification Under Clause 15.38(1) of Part 15 | Agents Involved in Performance of Tasks |
|--|---|
| (b) – Gathering and storing raw meter data                     | EMS                                     |
| (c)(i) - Creation and management of HHR volume information     | EMS                                     |
| (e) – Provision of submission information for reconciliation   | EMS                                     |

As of 1 November 2021, the main agent for KIPT has changed from Simply Energy to TENCO (TENR) for NSP KWG0011, the balance of NSP's remain with Meridian Energy as the retailer. A material change was completed. The sub agent has not changed, and EMS continues to conduct all the relevant activities.

### 1.10. Summary of previous audit

The previous audit was conducted by Rebecca Elliot and Tara Gannon in December 2019 and the report confirmed compliance for all relevant clauses.

## 2. OPERATIONAL INFRASTRUCTURE

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

#### Code reference

*Clause 10.6, 11.2, 15.2*

#### Code related audit information

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

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

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

#### Audit observation

The process to find and correct incorrect information was discussed.

#### Audit commentary

Compliance is recorded in the agent audit reports in relation to this clause.

Corrections have been carried out during the audit period. This was due to the discovery of Meter 217001220 that was electrically connected in April 2018 but due to the misfiling of the metering information from AMS, the meter was never set up in EMS' system and the volumes were not reconciled until the missing meter was discovered in March 2021 after an audit carried out by KIPT. EMS have reconciled the missing volumes for the missing periods through the R14 revisions for January 2020 to May 2020 submitted in March 2021 to July 2021. The volumes equate to 3% of the overall gate volume or approximately 220,000 kWh per submission. This is recorded below as non-compliance as submissions were not complete and accurate.

I reviewed the corrections and confirmed that these were compliant. EMS completed an incident report and have strengthened their processes to prevent this occurring in the future. These corrections were carried out as soon as practicable.

In the previous audit it found inaccurate distributor information relating to KIPT was identified in the Network Supply Points table. KCA0011 transferred to VDNZ effective from 1 November 2009, but the NSP was reopened against KIPT on the Network Supply Points table effective from 26 September 2019 when an NSP change for the LE ICP was processed in Salesforce. This record does not exist on the registry, therefore there is no impact on reconciliation. TENCO intended to correct the information, but this has not been completed during the audit period. This has now been escalated to the RM to assist in resolving the discrepancy in the Network Supply Points table.

Because this NSP information is maintained by KIPT as a distributor, compliance is recorded in this section for the reconciliation participant audit.

#### Audit outcome

Non-compliant

| Non-compliance  | Description  |                         |                        |
|---|--|-------------------------|------------------------|
| <p>Audit Ref: 2.1</p> <p>With: Clause 15.2</p> <p>From: 01-Apr-18</p> <p>To: 05-Mar-21</p>  | <p>Submissions not complete and accurate as volumes not reconciled on meter 217001220 for NSP SYL0113 from April 2018 to December 2019.</p> <p>Potential impact: High</p> <p>Actual impact: High</p> <p>Audit history: None</p> <p>Controls: Strong</p> <p>Breach risk rating: 3</p> |                         |                        |
| Audit risk rating   | Rationale for audit risk rating  |                         |                        |
| High  | <p>The controls are recorded as strong as the process controls have been strengthened since this incident to prevent this occurring again in the future.</p> <p>The audit risk rating is high due to the kWh involved.</p>   |                         |                        |
| Actions taken to resolve the issue  |  | Completion date         | Remedial action status |
| <p>KIPT carried out an audit of the NSP Vols submissions and reconciled against the metering data available to it via Stream (Vector Metering) and become aware that there was a mismatch in volume. KIPT notified Meridian Energy on the 24/03/2021 who in-turn notified EMS on the 05/03/2021 and an investigation report was completed. As noted, a correction to the non-submitted volumes was completed during March-2021 to July-2021 via the R14 revisions for January-2020 to May-2020. A copy of the EMS incident report is available upon request.</p>  |  | March-2021 to July-2021 | Cleared                |
| Preventative actions taken to ensure no further issues will occur   |  | Completion date         |                        |
| <p>EMS have changed the site setup process so new sites are loaded into IMAMS (system used to track tasks during the setup process) as soon as information becomes available and rather than the start of the main setup. This should prevent a being overlooked.</p> <p>EMS have further suggested that in EIPC Part 10 10.25 (2) and (3) there are obligations on distributors to provide information on metering installation expiry dates to the RM. It would be helpful if information was at an installation level as opposed to an NSP level and was made available to participants to help improve visibility of the number of installations at an NSP. KIPT and Tenco support this recommendation by EMS.</p> <p>Tenco have also introduced a monthly check of all NSP Vols submissions for all of its clients and runs a comparison of these next to the metered/billed gateway volumes and an ICP level and proactively works with EMS on any discrepancies. This further check will pick up the above type of issue in the first month it occurs going forward should it occur again.</p> |  | Ongoing                 |                        |

## 2.2. Provision of information (Clause 15.35)

### Code reference

Clause 15.35

### Code related audit information

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

### Audit observation

The process to find and correct incorrect information was discussed.

### Audit commentary

This area is discussed in a number of sections in this report.

### 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

This is covered in EMS' audit report.

### Audit commentary

Compliance is recorded in EMS' audit report.

### 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**

This is discussed in EMS' audit report.

#### **Audit commentary**

Compliance is recorded in EMS' audit

#### **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**

Not applicable

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

### **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**

I discussed KIPT's policy in relation to allowing access to metering and if any requests had been received during the audit period.

#### **Audit commentary**

Arrangements for access to metering are completed as necessary. There have been no cases where access could not be arranged.

#### **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**

Not applicable

#### **Audit commentary**

Not applicable

## Audit outcome

Not applicable

## 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

Not applicable

### Audit commentary

Not applicable

## Audit outcome

Not applicable

## 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**

Not applicable

#### **Audit commentary**

Not applicable

#### **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 trader may temporarily electrically connect a point of connection, or authorise a MEP to temporarily electrically connect a point of connection, only if:*

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
  - o *the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within 2 business days of electrical connection*
  - o *if the ICP has metered load, 1 or more certified metering installations are in place*
  - o *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*

#### **Audit observation**

Not applicable

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

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

#### **Code reference**

*Clause 10.33A(1)*

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

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

- *for a point of connection to the grid – the grid owner has approved the connection*

- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
  - *the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within 2 business days of electrical connection*
  - *if the ICP has metered load, 1 or more certified metering installations are in place*
  - *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the electrical connection.*

#### **Audit observation**

Not applicable

#### **Audit commentary**

Not applicable

#### **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**

Not applicable

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

### **2.13. Arrangements for metering equipment provision (Clause 10.36)**

#### **Code reference**

*Clause 10.36*

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

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

#### **Audit observation**

The NSP supply point table as of 17 November 2021 was examined, and the NSP details are recorded in **section 1.7**.

#### **Audit commentary**

The embedded networks have an MEP recorded.

#### **Audit outcome**

Compliant

### **2.14. Connecting ICPs then withdrawing switch (Clause 10.33A(5))**

#### **Code reference**

*Clause 10.33B*

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

*If a trader connects an ICP it is in the process of switching and the switch does not proceed or is withdrawn the trader must:*

- *restore the disconnection, including removing any bypass and disconnecting using the same method the losing trader used*
- *reimburse the losing trader for any direct costs incurred*

#### **Audit observation**

Not applicable

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

### **2.15. Electrical disconnection of ICPs (Clause 10.33B)**

#### **Code reference**

*Clause 10.33B*

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

*Unless the trader is recorded in the registry or is meeting its obligation under 10.33A(5) it must not disconnect or electrically disconnect the ICP or authorise the metering equipment provider to disconnect or electrically disconnect the ICP.*

#### **Audit observation**

Not applicable

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

### **2.16. Removal or breakage of seals (Clause 48(1C), 48 (1D), 48 (1E), 48 (1F) of Schedule 10.7)**

### Code reference

*Clause 48(1C), 48 (1D), 48 (1E), 48 (1F) of Schedule 10.7*

### Code related audit information

*A trader can remove or break a seal without authorisation from the MEP to:*

- *reset a load control switch, bridge or un-bridge a load control switch – if the load control switch does not control a tome block meter channel*
- *electrically connect load or generation, of the load or generation has been disconnected at the meter*
- *electrically disconnect load or generation, if the trader has exhausted all other appropriate methods of electrical disconnection*
- *bridge the meter*

*A trader that removes or breaks a seal in this way must:*

- *ensure personal are qualified to remove the seal and perform the permitted work and they replace the seal in accordance with the Code*
- *replace the seal with its own seal*
- *have a process for tracing the new seal to the personnel*
- *update the registry (if the profile code has changed)*
- *notify the metering equipment provider*

### Audit observation

Not applicable

### Audit commentary

Not applicable

### Audit outcome

Not applicable

## 2.17. Meter bridging (Clause 10.33C and 2A of Schedule 15.2)

### Code reference

*Clause 10.33C and 2A of Schedule 15.2*

### Code related audit information

*A trader, or a distributor or MEP which has been authorised by the trader, may only electrically connect an ICP in a way that bypasses a meter that is in place (“bridging”) if, despite best endeavours:*

- *the MEP is unable to remotely electrically connect the ICP*
- *the MEP cannot repair a fault with the meter due to safety concerns*
- *the consumer will likely be without electricity for a period which would cause significant disadvantage to the consumer*

*If the trader bridges a meter, the trader must:*

- *determine the quantity of electricity conveyed through the ICP for the period of time the meter was bridged*
- *submit that estimated quantity of electricity to the reconciliation manager*
- *within one business day of being advised that the meter is bridged, notify the MEP that they are required to reinstate the meter so that all electricity flows through a certified metering installation.*

*The trader must determine meter readings as follows:*

- *by substituting data from an installed check meter or data storage device*
- *if a check meter or data storage device is not installed, by using half hour data from another period where the trader considers the pattern of consumption is materially similar to the period during which the meter was bridged*
- *if half hour data is not available, a non-half hour estimated reading that the trader considers is the best estimate during the bridging period must be used.*

**Audit observation**

Not applicable

**Audit commentary**

Not applicable

**Audit outcome**

Not applicable

**2.18. Use of ICP identifiers on invoices (Clause 11.30)**

**Code reference**

*Clause 11.30*

**Code related audit information**

*Each trader must ensure the relevant ICP identifier is printed on every invoice or document relating to the sale of electricity.*

**Audit observation**

Not applicable

**Audit commentary**

Not applicable

**Audit outcome**

Not applicable

**2.19. Provision of information on dispute resolution scheme (Clause 11.30A)**

**Code reference**

*Clause 11.30A*

**Code related audit information**

*A retailer must provide clear and prominent information about Utilities Disputes:*

- *on their website*
- *when responding to queries from consumers*
- *in directed outbound communications to consumers about electricity services and bills.*

*If there are a series of related communications between the retailer and consumer, the retailer needs to provide this information in at least one communication in that series.*

**Audit observation**

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### 2.20. Provision of information on electricity plan comparison site (Clause 11.30B)

#### Code reference

*Clause 11.30B*

#### Code related audit information

*A retailer that trades at an ICP recorded on the registry must provide clear and prominent information about Powerswitch:*

- *on their website*
- *in outbound communications to residential consumers about price and service changes*
- *to residential consumers on an annual basis*
- *in directed outbound communications about the consumer's bill.*

*If there are a series of related communications between the retailer and consumer, the retailer needs to provide this information in at least one communication in that series.*

#### Audit observation

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### **3. MAINTAINING REGISTRY INFORMATION**

This audit report is for NSP gate volumes only. No ICPs are traded therefore this section has been deleted.

### **4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING**

This audit report is for NSP gate volumes only. No ICPs are traded therefore this section has been deleted.

### **5. MAINTENANCE OF UNMETERED LOAD**

This audit report is for NSP gate volumes only. No ICPs are traded therefore this section has been deleted.

## 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 one 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

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### 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**

Not applicable

#### **Audit commentary**

Not applicable

#### **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**

Not applicable

#### **Audit commentary**

Not applicable

#### **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**

This is covered in EMS audit report.

#### **Audit commentary**

EMS support compliance by advising of any potential data accuracy issues identified during data validation.

EMS confirmed that no defective meters have been identified for KIPT during the audit period.

#### 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

This is covered in the EMS audit reports.

#### Audit commentary

EMS confirmed that there have been no clock synchronisation errors outside permissible limits during the audit period.

#### Audit outcome

Compliant

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

### Code reference

*Clauses 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

Not applicable

### Audit commentary

Not applicable

### Audit outcome

Not applicable

## 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

Not applicable

### Audit commentary

Not applicable

### 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

Not applicable

##### Audit commentary

Not applicable

##### 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

Not applicable

##### Audit commentary

Not applicable

##### 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

Not applicable

##### Audit commentary

Not applicable

##### 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

Not applicable

##### Audit commentary

Not applicable

##### 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

Data collection is carried out by the MEP.

### Audit commentary

Data collection is carried out by the MEP, and compliance is recorded in the EMS audit report.

### Audit outcome

Compliant

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

### Code reference

*Clause 11(2) Schedule 15.2*

### Code related audit information

*The following information is collected during each interrogation:*

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

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

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

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

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

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

### Audit observation

HHR interrogation data was reviewed as part of EMS' audit.

### Audit commentary

Compliance is recorded in EMS' audit report.

## Audit outcome

Compliant

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

#### Code reference

*Clause 11(3) Schedule 15.2*

#### Code related audit information

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

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

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

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

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

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

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

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

#### Audit observation

HHR interrogation logs were reviewed as part of EMS' audit.

#### Audit commentary

Compliance is recorded in EMS' audit report.

## 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

Trading period duration is the responsibility of the MEP.

#### Audit commentary

Trading period duration is the responsibility of the MEP.

As recorded in **section 6.5**, no clock synchronisation events outside the allowable threshold were identified during the period reviewed.

#### 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

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

#### 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

Not applicable

#### Audit commentary

Not applicable

#### 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

Not applicable

#### Audit commentary

Not applicable

#### 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

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

EMS confirmed that there have been no corrections required for KIPT during the audit period.

#### 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

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

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

#### Code reference

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

#### Code related audit information

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

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

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

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

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

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

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

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

#### Audit observation

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

EMS notified that there have been corrections made in relation to a meter that was missed on the SYL0113 NSP. An incident report has been completed by EMS and concluded that due to the volume of meters being installed this was missed (17 meters in total).

#### **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

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

#### 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

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

#### 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 for derive volume information must not be rounded or truncated from the stored data from the metering installation.*

#### Audit observation

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

#### 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

This is covered in EMS' audit report.

Information on temporary and permanent estimates created during the audit period was requested.

#### Audit commentary

Compliance is recorded in EMS' audit report.

EMS confirmed no estimates have been required for KIPT during the audit period.

#### 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

Not applicable

#### Audit commentary

Not applicable

#### 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 the meter and data storage device event log for any event that could have affected the integrity of metering data*

*17(4)(g) – a review of the relevant metering data where there is an event that could have affected the integrity of the metering data*

*If there is an event that could affect the integrity of the metering data (including events reported by MEPs but excluding where the MEP is responsible for investigating and remediating the event) the reconciliation must investigate and remediate any events.*

*If the event may affect the integrity or operation of the metering installation the reconciliation participant must notify the metering equipment provider.*

#### Audit observation

Validation processes were reviewed as part of EMS' audit. Information on meter events that could affect meter accuracy during the period from 1 November 2019 to 31 October 2021 was requested.

#### Audit commentary

Compliance is recorded in the EMS audit report in relation to this clause.

There were no meter events that could affect meter accuracy that occurred during the period reviewed.

#### 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

Not applicable

#### Audit commentary

Not applicable

#### 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

Not applicable

#### Audit commentary

Not applicable



#### 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

Not applicable

#### Audit commentary

Not applicable

#### 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

Not applicable

#### Audit commentary

Not applicable

#### 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

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### 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

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### 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

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### 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

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

## 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

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

#### 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

This clause refers to ICPs. This audit is for NSP volumes only.

#### Audit commentary

This clause refers to ICPs. This audit is for NSP volumes only.

#### Audit outcome

Not applicable

### 12.3. Allocation of submission information (Clause 15.5)

#### Code reference

Clause 15.5

#### Code related audit information

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

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

#### Audit observation

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

### 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

Not applicable

#### Audit commentary

Not applicable

#### 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 is covered in EMS' audit report.

### Audit commentary

Compliance is recorded in the EMS audit report.

No breaches were recorded for late provision of submission information.

Meter 217001220 was electrically connected in April 2018 on the SYL0113 NSP, but due to the misfiling of the metering information from AMS, the meter was never set up and the volumes were not reconciled until the missing meter was discovered in March 2021. The volumes equate to 3% of the overall gate volume or approximately 220,000 kWh per submission. This is recorded as non-compliance below.

The correction of this is discussed in **section 2.1**.

### Audit outcome

Non-compliant

| Non-compliance  | Description   |                    |                        |
|---|---|--------------------|------------------------|
| <p>Audit Ref: 12.5</p> <p>With: Clause 15.10</p> <p>From: 01-Apr-18</p> <p>To: 05-Mar-21</p>  | <p>Volumes not reconciled on meter 217001220 for NSP SYL0113 from April 2018 to December 2019.</p> <p>Potential impact: High</p> <p>Actual impact: High</p> <p>Audit history: None</p> <p>Controls: Strong</p> <p>Breach risk rating: 3</p> |                    |                        |
| Audit risk rating   | Rationale for audit risk rating   |                    |                        |
| High  | <p>The controls are recorded as strong as the process controls have been strengthened since this incident to prevent this occurring again in the future.</p> <p>The audit risk rating is high due to the kWh involved.</p>                  |                    |                        |
| Actions taken to resolve the issue  |   | Completion date    | Remedial action status |
| <p>KIPT carried out an audit of the NSP Vols submissions and reconciled against the metering data available to it via Stream (Vector Metering) and become aware that there was a mismatch in volume. KIPT notified Meridian Energy on the 24/03/2021 who in-turn notified EMS on the 05/03/2021 and an investigation report was completed. As noted, a correction to the non-submitted volumes was completed during March-2021 to July-2021 via the R14 revisions for January-2020 to May-2020. A copy of the EMS incident report is available upon request.</p>  |   | March to July-2021 | Cleared                |
| Preventative actions taken to ensure no further issues will occur   |   | Completion date    |                        |
| <p>EMS have changed the site setup process so new sites are loaded into IMAMS (system used to track tasks during the setup process) as soon as information becomes available and rather than the start of the main setup. This should prevent a being overlooked.</p> <p>EMS have further suggested that in EIPC Part 10 10.25 (2) and (3) there are obligations on distributors to provide information on metering installation expiry dates to the RM. It would be helpful if information was at an installation level as opposed to an NSP level and was made available to participants to help improve visibility of the number of installations at an NSP. KIPT and Tenco support this recommendation by EMS.</p> <p>Tenco have also introduced a monthly check of all NSP Vols submissions for all of its clients and runs a comparison of these next to the metered/billed gateway volumes and an ICP level and proactively works with EMS on any discrepancies. This further check will pick up the above type of issue in the first month it occurs going forward should it occur again.</p> |   | Ongoing            |                        |

## 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

Not applicable

### Audit commentary

Not applicable

### 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

Accuracy of submission information was reviewed as part of EMS' audit.

### Audit commentary

Compliance is recorded in the EMS audit report.

As detailed in **section 2.1**, meter 217001220 that was electrically connected in April 2018 but due to the misfiling of the metering information from AMS, the meter was never set up and the volumes were not reconciled until the missing meter was discovered in March 2021 after an audit carried out by KIPT. EMS have reconciled the missing volumes for the missing periods through the R14 revisions for January 2020 to May 2020 submitted in March 2021 to July 2021. The volumes equate to 3% of the overall gate volume or approximately 220,000 kWh per submission. This is recorded below as non-compliance as submissions were not complete and accurate.

I reviewed the corrections and confirmed that these were compliant. EMS completed an incident report and have strengthened their processes to prevent this occurring in the future. These corrections were carried out as soon as practicable.



## 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 is covered in EMS' audit report.

#### Audit commentary

As discussed in **section 9.4**, compliance is recorded in EMS' audit report.

EMS confirmed that that no estimates have been required for KIPT during the audit period.

## 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 on the registry; or
  - b) the metering installation in which the control device is location has interim certification.
- to create submission information for a point of connection the reconciliation participant must apply to the raw meter data (clause 2(3)):
  - 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**

This clause refers to ICPs. KIPT only supplies NSP volumes.

#### **Audit commentary**

This clause refers to ICPs. KIPT only supplies NSP volumes.

#### **Audit outcome**

Not applicable

### **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**

Not applicable

#### **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

### **12.11. Historical estimate process (Clauses 4 and 5 Schedule 15.3)**

#### **Code reference**

*Clauses 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**

Not applicable

**Audit commentary**

Not applicable

**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**

Not applicable

**Audit commentary**

Not applicable

**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**

Not applicable

**Audit commentary**

Not applicable

**Audit outcome**

Not applicable

## 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

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

#### 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

This is covered in EMS' audit report.

#### Audit commentary

Compliance is recorded in EMS' audit report.

#### 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

Not applicable

#### Audit commentary

Not applicable

#### Audit outcome

Not applicable

## CONCLUSION

The embedded network is managed by Tenco, who assisted with this audit.

KIPT switched retailer from Simply Energy to TENCO (TENR) from 1 November 2021 for NSP KWG0011, the balance of NSP's remain with Meridian as retailer. A material change audit was completed for the change of primary agent. The sub agent has not changed, and EMS continues to conduct all the relevant activities.

EMS' audit report records compliance in relation to the activities performed on behalf of KIPT. I confirmed the following as part of KIPT's audit:

- no defective meters have been identified during the audit period,
- no estimation volume data has occurred during the audit period, and
- no clock synchronisation errors outside the allowable tolerances have occurred during the audit period.

Corrections have been carried out during the audit period. This was due to the discovery of Meter 217001220 that was electrically connected in April 2018 but due to the misfiling of the metering information from AMS, the meter was never set up in EMS' systems and the volumes were not reconciled until the missing meter was discovered in March 2021 after an audit carried out by KIPT. EMS have reconciled the missing volumes for the missing periods through the R14 revisions for January 2020 to May 2020 submitted in March 2021 to July 2021. The volumes equate to 3% of the overall gate volume or approximately 220,000 kWh per submission. I reviewed the corrections and confirmed that these were compliant. EMS completed an incident report and have strengthened their processes to prevent this occurring in the future.

The audit found two non-compliances and makes no recommendations. The indicative audit frequency table indicates the next audit should be in 18 months. I have considered this result in conjunction with the KIPT responses and agree with this recommendation.

## PARTICIPANT RESPONSE

Tenco on behalf of KIPT have reviewed the above audit report on the 13/12/2021 and are in agreement with the findings contained within it.