# ELECTRICITY INDUSTRY PARTICIPATION CODE RECONCILIATION PARTICIPANT AUDIT REPORT

VERITEK

For

# WAIPA NETWORKS LIMITED NZBN: 9429038884085

Prepared by: Rebecca Elliot

Date audit commenced: 15 May 2023

Date audit report completed: 26 June 2023

Audit report due date: 20 July 2023

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### **EXECUTIVE SUMMARY**

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Waipa Networks** Limited's Swayne Road Generation Facility **(SRGF)**, 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.

A material change audit was undertaken in August 2022 as the Swayne Road Generation Facility (SRGF) ICP 0007175157WA699 was made active from 29 August 2022 with **EMS** as the agent and the Lakes Embedded Network was decommissioned. That audit found five non-compliances. I have reviewed all of these and confirmed they have all been cleared.

SRGF's compliance continues to be reliant on EMS, who complete data collection, validation, and submission for ICP 0007175157WA699 under the SRGF code as an agent. SRGF does not intend to supply any other ICPs in the future.

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

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

The audit found no non-compliances and makes no recommendations. The maximum allowable audit period for a reconciliation participant is in two years on 20 July 2025, and I agree with this recommendation.

# **AUDIT SUMMARY**

# **NON-COMPLIANCES**

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action	
			Nil					
Future Risk Rati	Future Risk Rating							

Future risk rating	0	1-3	4-14	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.

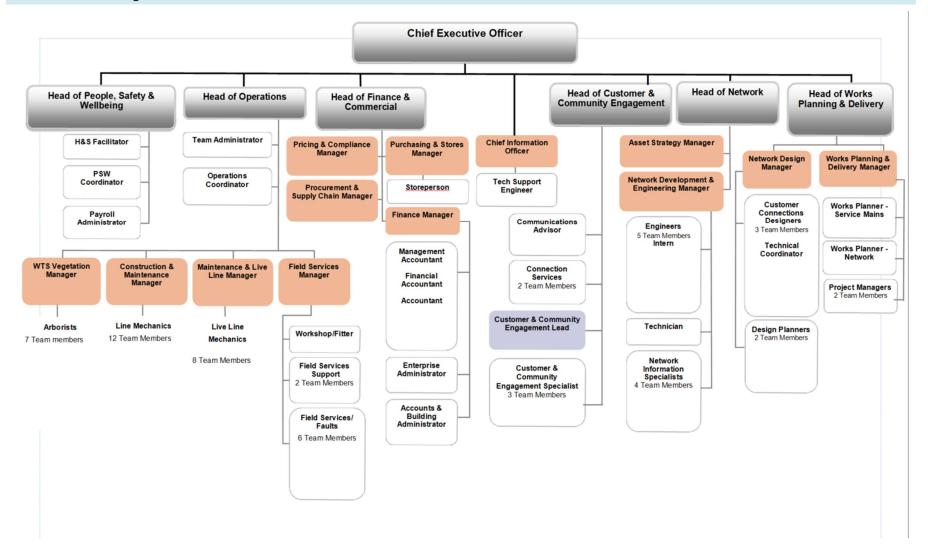
# **Audit observation**

The Electricity Authority's website was reviewed to identify any exemptions relevant to the scope of this audit.

# **Audit commentary**

There are no exemptions relevant to the scope of this audit.

# 1.2. Structure of Organisation



### 1.3. Persons involved in this audit

Auditor:

**Rebecca Elliot** 

**Veritek Limited** 

**Electricity Authority Approved Auditor** 

Personnel assisting in this audit were:

Name	Title	Organisation
Audrey Scheurich	Head of Finance & Commercial	Waipa Networks
Andrew Dickie	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 am 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**

Use of agents was confirmed.

### **Audit commentary**

SRGF's compliance is reliant on EMS, who complete data collection, validation, and submission for ICP 0007175157WA699 under the SRGF code as an agent.

### 1.5. Hardware and Software

The EMS hardware and software is discussed within their agent audit report.

### 1.6. Breaches or Breach Allegations

There are no breach allegations recorded by the Electricity Authority during the audit period.

### 1.7. ICP and NSP Data

ICP	Description	POC	Network	MEP	Metering category
0007175157WA699	SWAYNE ROAD GENERATION FACILITY, 185 SWAYNE ROAD CAMBRIDGE	CBG0111	WAIP	ACCM	5

### 1.8. Authorisation Received

An email of authorisation was provided.

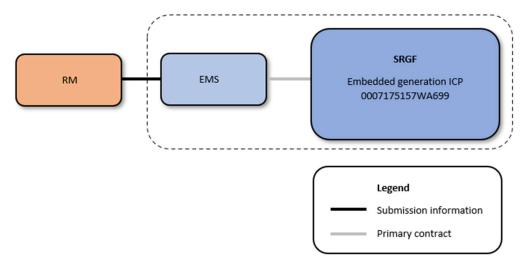
# 1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Waipa Networks Limited's Swayne Road Generation **Facility (SRGF), to** support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1.

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	MEPs 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	

The scope of the audit is shown in the diagram below.



SRGF's compliance is reliant on EMS, who complete data collection, validation, and submission for ICP 0007175157WA699 under the SRGF code as an agent. The last EMS audit report was completed by Veritek Limited, and records compliance in relation to the activities performed on behalf of SRGF.

# 1.10. Summary of previous audit

I reviewed the last Reconciliation Participant audit and the Material Change audit and have noted the current status of compliance in relation to clauses as detailed below:

# **2021 Reconciliation Participant Audit**

# **Table of Non-compliance**

Subject	Section	Clause	Non-compliance	Status
Meter data used to derive volume information.	9.3	3(5) Schedule 15.2	The EIEP3 format rounds the trading period data to two decimal places if the volume for that half hour has a non-zero value in the third decimal place.	Cleared

# **2022 Reconciliation Participant Material Change Audit**

# **Table of Non-compliance**

Subject	Section	Clause	Non-compliance	Status
Material Change Audit	1.11	16A.11	Material change audit not conducted prior to commencing trading at ICP 0007175157WA699 using the SRGF code.	Has not occurred during audit period
Relevant information	2.1	15.2	The AV090 and AV140 submissions included unnecessary zero volumes from 28 June 2022 until 28 August 2022. Submission was expected to start from 29 August 2022. AV110 ICP days were overstated on the AV110 ICP days report from 28 June 2022 until 28 August 2022.	Cleared
Calculation of ICP days	11.2	15.6	AV110 ICP days were overstated on the AV110 ICP days report from 28 June 2022 until 28 August 2022.	Cleared
HHR aggregates information provision to the reconciliation manager	11.4	15.8	The AV090 and AV140 submissions included unnecessary zero volumes from 28 June 2022 until 28 August 2022. Submission was expected to start from 29 August 2022.	Cleared
Accuracy of submission information	12.7	15.12	The AV090 and AV140 submissions included unnecessary zero volumes from 28 June 2022 until 28 August 2022. Submission was expected to start from 29 August 2022. AV110 ICP days were overstated on the AV110 ICP days report from 28 June 2022 until 28 August 2022.	Cleared

### 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 reviewed.

### **Audit commentary**

I did not identify any incorrect or misleading information. Compliance is recorded in the EMS audit report in relation to this clause. EMS confirmed there have been no changes to their processes since the September 2022 audit.

Instances of incorrect or missing information are investigated and corrected as they arise.

### **Audit outcome**

Compliant

### 2.2. Provision of information (Clause 15.35)

### **Code reference**

Clause 15.35

# **Code related audit information**

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

# **Audit observation**

Processes to provide information were reviewed and observed throughout the audit.

### **Audit commentary**

Compliance is recorded in the EMS audit report in relation to this clause. EMS confirmed there have been no changes to their processes since the September 2022 audit.

No alleged breaches have been recorded for late provision of submission information to date.

### **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 discussed in the EMS audit report.

### **Audit commentary**

The EMS agent audit report records compliance. EMS confirmed there have been no changes to their processes since the September 2022 audit.

### **Audit outcome**

Compliant

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

### **Code reference**

Clause 21 Schedule 15.2

### Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

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

### **Audit observation**

This is discussed in the EMS report.

### **Audit commentary**

The EMS agent audit report records compliance. EMS confirmed there have been no changes to their processes since the September 2022 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 MFP
- 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 confirmed SRGF's policy in relation to allowing access to metering, and if any access issues have occurred since the meter was installed in August 2022.

Arrangements for access to metering will be made 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**

Metering is located at the point of connection.

### **Audit commentary**

Metering is located at the 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**

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**

No new connections have been made or are expected to be made.

**Audit commentary** 

Not applicable

**Audit outcome** 

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

### **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:
  - 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 two business days of electrical connection,
  - if the ICP has metered load, one 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**

No new connections have been made or are expected to be made.

### **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 two business days of electrical connection,
  - o if the ICP has metered load, one 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 electrical connection.

### **Audit observation**

No new connections have been made or are expected to be made.

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 registry was checked to confirm if an MEP is recorded.

### **Audit commentary**

ACCM is the MEP for ICP 0007175157WA699, indicating that an arrangement is in place.

### **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 (1F), 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 unbridge 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** 

### 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** 

### 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**

SRFG is not expected to request any further ICPs.

### **Audit commentary**

Not applicable.

### **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**

The registry was checked for the one ICP supplied by SRGF.

The required registry information was provided for ICP 0007175157WA699.

### **Audit outcome**

Compliant

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

### **Code reference**

Clause 10 Schedule 11.1

### **Code related audit information**

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

### **Audit observation**

The registry was checked for the one ICP supplied by SRGF.

### **Audit commentary**

There have been no changes to the trader information for ICP 0007175157WA699 during the audit period.

### **Audit outcome**

Compliant

### 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)):
  - arrange for a final interrogation to take place prior to or upon meter removal (clause 11.18(3)(a)); and
  - o advise the MEP responsible for the metering installation of the decommissioning (clause 11.18(3)(b)).

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

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

### **Audit observation**

The registry was checked for compliance.

### **Audit commentary**

ICP 0007175157WA699 is metered, and load is determined from the HHR meter data. No unmetered load is connected, and distributed generation is submitted as HHR.

### **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)(q))
  - the status of the ICP, as defined in clauses 12 to 20 (clause 9(1)(j))
  - except if the ICP exists for the purposes of reconciling an embedded network or the ICP has distributor status, the trader must provide the relevant business classification code applicable to the customer (clause 9(1)(k)).

The trader must provide information specified in (a) to (j) above within 5 business days of trading (clause 9(2)). The trader must provide information specified in 9(1)(k) no later than 20 business days of trading (clause 9(3))

### **Audit observation**

The registry was checked for compliance.

### **Audit commentary**

All information required is populated in the registry.

### **Audit outcome**

Compliant

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

### **Code reference**

Clause 9 (1(k) of Schedule 11.1

### **Code related audit information**

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

### **Audit observation**

The registry was checked for compliance.

### **Audit commentary**

ICP 0007175157WA699 has the D261 (Electricity Generation) ANZSIC code correctly applied.

### **Audit outcome**

Compliant

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

### **Code reference**

Clause 9(1)(f) of Schedule 11.1

### **Code related audit information**

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

- the code ENG if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or
- the daily average kWh of unmetered load at the ICP in all other cases (clause 9(1)(f)(ii)).

### **Audit observation**

The registry was checked for compliance.

### **Audit commentary**

ICP 0007175157WA699 is metered, and no unmetered load is connected.

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

### **Audit observation**

The registry was checked for compliance.

ICP 0007175157WA699 has had "active" status continuously since it was initially electrically connected. The "active" status date is consistent with the meter certification and initial electrical connection date.

### **Audit outcome**

Compliant

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

### **Code reference**

Clause 19 Schedule 11.1

### Code related audit information

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

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

### **Audit observation**

The registry was checked for compliance.

### **Audit commentary**

ICP 0007175157WA699 has had "active" status continuously since it was initially electrically connected. The ICP is expected to remain "active".

### **Audit outcome**

Compliant

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

### **Code reference**

Clause 15 Schedule 11.1

### **Code related audit information**

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

### **Audit observation**

The registry was checked for compliance.

### **Audit commentary**

SRGF is used only for ICP 0007175157WA699, and no further new connections are expected.

### **Audit outcome**

Compliant

# 4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

SRGF is used only for ICP 0007175157WA69, and switching activity is not expected.

# 5. MAINTENANCE OF UNMETERED LOAD

SRGF is used only for ICP 0007175157WA69, and no unmetered load is connected or is expected to be connected.

### 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**

The registry was checked for compliance.

### **Audit commentary**

ICP 0007175157WA699 is metered. Load is determined from the meter data, not by subtraction. No unmetered load is connected, and distributed generation is submitted as HHR.

### **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 three 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**

The registry was checked for compliance.

### **Audit commentary**

ICP 0007175157WA699 has the HHR profile assigned, and certification of control devices is not required.

### **Audit outcome**

Compliant

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

### **Code reference**

Clause 10.43(2) and (3)

### Code related audit information

If a participant becomes aware of an event or circumstance that leads 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**

Processes relating to defective metering were examined.

EMS is not responsible for compliance with this requirement but does support the compliance of participants by advising them of any potential meter issues identified during data validation. They confirmed there have been no changes to their processes since the September 2022 audit.

EMS confirmed that no meter defects were identified between ICP 0007175157WA699 being connected and 15 May 2023.

### **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 is 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 report.

### **Audit commentary**

The EMS agent audit report records process compliance. They confirmed there have been no changes to their processes since the September 2022 audit.

EMS confirmed that no clock synchronisation events outside allowable thresholds occurred between ICP 0007175157WA699 being connected and 15 May 2023.

### **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 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**

### **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** 

### 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**

This is covered in the EMS audit report.

### **Audit commentary**

Compliance is recorded in the EMS audit report. EMS confirmed there have been no changes to their processes since the September 2022 audit.

### **Audit outcome**

Compliant

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

### **Code reference**

Clause 11(2) Schedule 15.2

### **Code related audit information**

The following information is collected during each interrogation:

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

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

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

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

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

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

### **Audit observation**

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

The EMS agent audit report records compliance. EMS confirmed there have been no changes to their processes since the September 2022 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**

This is covered in the EMS audit report.

# **Audit commentary**

The EMS agent audit report records compliance. EMS confirmed there have been no changes to their processes since the September 2022 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**

This is covered in the EMS audit report.

#### **Audit commentary**

The EMS agent audit report records compliance. EMS confirmed there have been no changes to their processes since the September 2022 audit.

#### **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 the EMS audit report.

### **Audit commentary**

The EMS agent audit report records compliance. EMS confirmed there have been no changes to their processes since the September 2022 audit.

### **Audit outcome**

# 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** 

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

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

#### **Code reference**

Clause 19(1) Schedule 15.2

## **Code related audit information**

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

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

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

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

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

#### **Audit observation**

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

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

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

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

#### **Audit observation**

This is covered in the EMS audit report.

#### **Audit commentary**

The EMS agent audit report records compliance. EMS confirmed there have been no changes to their processes since the September 2022 audit. Where errors are detected during validation of half-hour metering information, and check metering data is not available, then data from a period with a quantity and profile similar to that expected is used. EMS confirmed that no corrections have occurred to date.

#### **Audit outcome**

Compliant

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

#### **Code reference**

Clause 19(3) Schedule 15.2

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

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

#### **Audit observation**

Not applicable

# **Audit commentary**

Not applicable

#### **Audit outcome**

Not applicable

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

# **Code reference**

Clause 19(4) and (5) Schedule 15.2

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

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

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

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

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

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

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

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

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

# **Audit observation**

This is covered in the EMS audit report.

# **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit and that no corrections have occurred to date.

# **Audit outcome**

# 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 the EMS audit report.

# **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit and that no corrections have occurred to date.

#### **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 the EMS audit report.

## **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

I reviewed all HHR volumes and aggregates submission data from August 2022 until April 2023 and confirmed that volume and aggregates data was consistent with the interval data retrieved from the meter.

#### **Audit outcome**

# 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**

This is covered in the EMS audit report.

#### **Audit commentary**

The EMS agent audit report records compliance. EMS provides submission data, and submissions are calculated from the raw data and rounded at the point of submission.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

I reviewed all HHR volumes and aggregates submission data from August 2022 until April 2023 and confirmed that volume and aggregates data was consistent with the interval data retrieved from the meter.

#### **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**

I considered whether the material change was likely to affect future compliance.

### **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

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

#### **Audit outcome**

# 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 zero 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**

This is covered in the EMS audit report.

## **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

EMS confirmed that no meter events which could affect accuracy occurred between ICP 0007175157WA699 being connected and 15 May 2023.

## **Audit outcome**

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

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

#### **Code reference**

Clause 13.136

#### Code related audit information

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

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

## **Audit observation**

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 relevant grid owner half-hour metering information for:

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

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

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

#### **Audit observation**

Not applicable

## **Audit commentary**

Not applicable

#### **Audit outcome**

# 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 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** 

# 11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

## 11.1. Buying and selling notifications (Clause 15.3)

#### **Code reference**

Clause 15.3

#### Code related audit information

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

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

#### **Audit observation**

The one ICP being traded was checked.

## **Audit commentary**

ICP 0007175157WA699 has the HHR profile assigned, and trading notifications are not required.

#### **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**

This is covered in the EMS audit report.

#### **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

All ICP day files for the audit period were checked and compliance was confirmed.

#### 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**

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**

This is covered in the EMS audit report.

## **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

I reviewed all HHR volumes and aggregates submission data from August 2022 to April 2023 and confirmed:

- that the volumes and aggregates data was consistent with the interval data retrieved from the meter,
- that the volumes reported were consistent with the aggregates, with rounding differences of less than ± 1 kWh across each submission,
- that the submissions contained ICP 0007175157WA699 as expected, and
- that aggregation factors were correctly recorded.

# **Audit outcome**

# 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 the EMS audit report.

# **Audit commentary**

Compliance is recorded in the EMS audit report.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

I checked the September HHR VOLS 2022 files and confirmed compliance.

#### **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 is covered in the EMS audit report.

#### **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

No alleged breaches were recorded for late provision of submission information.

I reviewed all HHR volumes and aggregates submission data from August 2022 to April 2023 and found that volume and aggregates data was consistent with the interval data retrieved from the meter, and correct aggregation factors were recorded.

#### Compliant

# 12.3. Allocation of submission information (Clause 15.5)

#### **Code reference**

Clause 15.5

#### Code related audit information

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

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

#### **Audit observation**

This is covered in the EMS audit report.

# **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

I reviewed all HHR volumes and aggregates submission data from August 2022 to April 2023 and confirmed that volume and aggregates data was consistent with the interval data retrieved from the meter, and correct aggregation factors were recorded.

#### **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**

Not applicable

# **Audit commentary**

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**

Not applicable.

### **Audit commentary**

Not applicable, SRGF is not responsible for any NSPs.

#### **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**

Not applicable

**Audit commentary** 

Not applicable

**Audit outcome** 

## 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**

This is covered in the EMS audit report.

# **Audit commentary**

Compliance is recorded in the EMS audit report.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

I reviewed all HHR volumes and aggregates submission data from August 2022 to April 2023 and confirmed that volume and aggregates data was consistent with the interval data retrieved from the meter, and correct aggregation factors were recorded.

#### **Audit outcome**

Compliant

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

#### **Code reference**

Clause 4 Schedule 15.2

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

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

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

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

#### **Audit observation**

This is covered in the EMS audit report.

#### **Audit commentary**

Compliance is recorded in the EMS audit report.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

ICP 0007175157WA699 has actual readings recorded for the audit period.

#### Compliant

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

#### **Code reference**

Clause 2 Schedule 15.3

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

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

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

#### **Audit observation**

This is covered in the EMS audit report.

#### **Audit commentary**

Compliance is recorded in the EMS audit report.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

Compliance with this clause was assessed for submissions from August 2022 to April 2023:

- ICP 0007175157WA699 has meter category 5 and is correctly submitted as HHR with HHR profile,
- no ICPs with unmetered load are supplied,
- no profiles requiring a certified control device are used,
- no loss compensation arrangements are required, and
- aggregation of the reconciliation reports is compliant.

# **Audit outcome**

## 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  $kWh_{Px}$  must be prorated as determined by the reconciliation participant using its own methodology or on a flat shape basis using the relevant number of days that are within the consumption period and within the period covered by  $kWh_{Px}$ .

### **Audit observation**

Not applicable

**Audit commentary** 

Not applicable

**Audit outcome** 

## 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.

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**

Compliance was assessed.

# **Audit observation**

ICP 0007175157WA699 has the HHR profile and no profile changes have occurred during the audit period.

# **Audit outcome**

## 13. SUBMISSION FORMAT AND TIMING

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

#### **Code reference**

Clause 8 Schedule 15.3

#### Code related audit information

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

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

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

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

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

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

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

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

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

#### **Audit observation**

This is covered in the EMS audit report.

#### **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

I reviewed all HHR volumes and aggregates submission data from August 2022 to April 2023 and confirmed that aggregation factors were correctly recorded.

#### 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 two 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 the EMS audit report.

## **Audit commentary**

The EMS agent audit report records compliance.

EMS confirmed there have been no changes to their processes since the September 2022 audit.

I reviewed all HHR volumes and aggregates submission data to date and confirmed that data is rounded to no more than two decimal places.

#### **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**

# **CONCLUSION**

SRGF's compliance continues to be reliant on **EMS**, who complete data collection, validation, and submission for ICP 0007175157WA699 under the SRGF code as an agent. SRGF does not intend to supply any other ICPs in the future.

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

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

The audit found no non-compliances and makes no recommendations. The maximum allowable audit period for a reconciliation participant is in two years on 20 July 2025, and I agree with this recommendation.

# PARTICIPANT RESPONSE

Waipa have reviewed this report and no further comments were provided.