

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

For

**LAKELAND NETWORK LIMITED
NSP GATE METERING**

Prepared by: Borcoski Energy Services Ltd

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Date audit report completed: 30 June 2022

Audit report due date: 12-Jul-22

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EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Lakeland Network Limited (LLNW) as an embedded network owner, 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.

Lakeland Network is managed by PowerNet, and this audit covers the embedded networks Northlake, Clearview, and Wooing Tree. A new embedded network Gorge Rd was livened 27 June 2022 but is outside this audit period.

PowerNet/Lakeland Network engage EMS as their agent to meet their obligations described in the Code. As a part of this assessment of compliance we reviewed the EMS (Agent for HHR and NHH data and registry management) audit report dated 14 June 2021.

No non-compliance was identified for Lakeland Network NSP gate metering during the audit period.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. Table 1 of the Guidelines for Reconciliation Participant audit provides some guidance on this matter.

The Future Risk Rating score is 0.

We thank PowerNet and EMS Staff for their full and complete cooperation in this audit.

The audit period was 1 July 2020 to 30 May 2022

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Nil	Nil	Nil	Nil	Nil	Nil	0	Nil
Future Risk Rating							

RECOMMENDATIONS

Subject	Section	Description	Recommendation
Nil	Nil	Nil	Nil

ISSUES

Subject	Section	Description	Issue
Nil	Nil	Nil	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

We checked the Electricity Authority website.

Audit commentary

Lakeland Network did not apply for any exemptions and confirm that Lakeland Network does not have any exemptions granted to exempt them from compliance with all or any of the clauses.

1.2. Structure of Organisation

Lakeland Network Limited is the owner of the Northlake Clearview, and Wooing Tree Embedded Networks. PowerNet manages the Lakeland Network embedded networks.

1.3. Persons involved in this audit

Name	Title	Company
Aaron Sinclair	Commercial Manager	PowerNet
Ian Martin	Metering Manager	EMS
Allan Borcoski	Electricity Authority Approved Auditor	Borcoski Energy Services Ltd

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

PowerNet/Lakeland Network engages EMS as the agent to provide half hour data collection and submission of consumption information to the reconciliation manager.

Audit commentary

As a part of this audit, we reviewed the EMS audit report dated 14 June 2021.

EMS was undertaking a new audit (Agent for HHR and NHH data and registry management) during this audit, the new EMS audit report was not available at the time of writing this audit report.

1.5. Hardware and Software

Hardware and software used to meet obligations of the Code are described in the EMS audit report.

They are as follows:

Hardware	Software
Blade Server hardware	<ul style="list-style-type: none">• MV 90 interrogation software• GMMS is a bespoke system, which is supported by YouDo.• The database used is PostgreSQL.• The application server layer is Ruby on Rails.

The backup schedule for the systems noted above is as follows: □

- daily back-ups are recycled after a month
- monthly back-ups are retained indefinitely,
- back-ups are restored periodically to check readability.

1.6. Breaches or Breach Allegations

PowerNet/Lakeland Network advise they are not aware of any breach allegations lodged against the network during the audit period. A check of the Electricity Authority (EA) Website also indicates there were no breaches or breach allegations lodged against Lakeland network during the audit period.

1.7. ICP Data

Gate Meter ICP	NSP POC	Owner	Parent POC	Parent Network	Balancing Area	Type	Start Date	MEP
0000505609CE056	CML0331	Northlake (LLNW)	NKL0111	DUNE	NLK0111LLNWE	E	12/07/2017	PWNT
0000510729CEBC6	CML0331	Clearview (LLNW)	CLV0111	DUNE	CLV0111LLNWE	E	17/05/2021	PWNT
0000511495CE8C9	CML0331	Wooring Tree (LLNW)	WTR0111	DUNE	WTR0111LLNWE	E	20/05/2021	PWNT

The following is a new embedded network livened 27 June 2022 and is outside this audit period.

Gate Meter ICP	NSP POC	Owner	Parent POC	Parent Network	Balancing Area	Type	Start Date	MEP
0000510728CE783	FKN0331	Gorge Rd (LLNW)	NTU0111	DUNE	NTU0111LLNWE	E	27/06/2022	PWNT

1.8. Authorisation Received

Authorisation to collect information from other parties was provided by PowerNet/Lakeland Network.

1.9. Scope of Audit

This reconciliation participant audit was performed at the request of PowerNet, on behalf of Lakeland Network Ltd, to encompass the Authority's request for annual audits as required by clause 4 of Schedule 15.1, of the Code to assure compliance with the Electricity Industry Participation Code 2010.

The audit was carried out between 20/05/2022 and 30/06/2022. The audit was conducted by phone and email with PowerNet and EMS. The audit covers the following processes under clause 15.38 of Part 15, performed by PowerNet on behalf of Lakeland Network:

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

1.10. Summary of previous audit

PowerNet provided a copy of the previous Lakeland Network Northlake audit report conducted in June 2020 by Ewa Glowacka of TEG & Associates. No non-compliances were noted.

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 EMS Agent Audit Report 14 June 2021 was reviewed. A sample of three raw meter data and NSPVOLS files from the audit period were reviewed.

Audit commentary

PowerNet/Lakeland Network advised they engage EMS as their agent for gathering and storing raw meter data, creation, and management of HHR volume information, provision of submission information for reconciliation in accordance with clause 15.38 of Part 15.

Checks confirmed there were no incorrect, incomplete, or misleading information identified in the EMS Agent Audit report. Compliance with this clause was confirmed.

Audit outcome

Compliant

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

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

Audit observation

The EMS Agent Audit Report 14 June 2021 was reviewed. A sample of three raw meter data and NSPVOLS files from the audit period were reviewed.

Audit commentary

PowerNet/Lakeland Network advised they engage EMS as their agent for gathering and storing raw meter data, creation, and management of HHR volume information, provision of submission information for reconciliation in accordance with clause 15.38 of Part 15.

Checks of the EMS Agent Audit report and data confirmed information was provided in accordance with this clause.

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

The EMS Agent Audit Report 14 June 2021 was reviewed.

Audit commentary

PowerNet/Lakeland Network advised they engage EMS as their agent for gathering and storing raw meter data, creation, and management of HHR volume information, provision of submission information for reconciliation in accordance with clause 15.38 of Part 15.

Checks of the EMS Agent Audit report confirmed metering information was provided in accordance with this clause.

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

The EMS Agent Audit Report 14 June 2021 was reviewed.

Audit commentary

PowerNet/Lakeland Network advised they engage EMS as their agent for gathering and storing raw meter data, creation, and management of HHR volume information, provision of submission information for reconciliation in accordance with clause 15.38 of Part 15.

Checks of the EMS Agent Audit report confirmed metering information was provided in accordance with this clause.

Audit outcome

Compliant

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

Code reference

Clause 10.4

Code related audit information

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

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

Audit observation

This was discussed with PowerNet/Lakeland Network. The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

This clause is not applicable Compliance was not assessed

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

This was discussed with PowerNet/Lakeland Network.

Audit commentary

PowerNet/Lakeland Network advises it would use its best endeavours under all circumstances to provide physical access to the metering installations as required by this clause subject to health and safety requirements. Generally, access would be provided during normal business hours.

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:

- if practical in the circumstances, ensure that the metering installation is located at a point of connection; or*
- 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

This was discussed with PowerNet/Lakeland Network and EMS. Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

Audit commentary

PowerNet/Lakeland Network confirms the Lakeland Network embedded network gateway metering is located at:

Gate Meter ICP	NSP POC	Owner	Parent POC	Parent Network	Balancing Area	Type	Start Date	MEP
0000505609CE056	CML0331	Northlake (LLNW)	NKL0111	DUNE	NLK0111LLNWE	E	12/07/2017	PWNT
0000510729CEBC6	CML0331	Clearview (LLNW)	CLV0111	DUNE	CLV0111LLNWE	E	17/05/2021	PWNT
0000511495CE8C9	CML0331	Wooring Tree (LLNW)	WTR0111	DUNE	WTR0111LLNWE	E	20/05/2021	PWNT

The metering installations have no loss compensation factors required.

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

This was discussed with PowerNet/Lakeland Network. The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

This clause is not applicable Compliance was not assessed

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

This was discussed with PowerNet/Lakeland Network. The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

This clause is not applicable Compliance was not assessed

Audit outcome

Not applicable

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:*
 - 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

This was discussed with PowerNet/Lakeland Network . The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

This clause is not applicable Compliance was not assessed

Audit outcome

Not applicable

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

Code reference

Clause 10.33A(1)

Code related audit information

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

- *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 electrical connection.*

Audit observation

This was discussed with PowerNet/Lakeland Network . The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

This clause is not applicable Compliance was not assessed

Audit outcome

Not applicable

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

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

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

Audit observation

This was discussed with PowerNet/Lakeland Network, the PowerNet (PWNT) MEP audit was also checked. Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

Audit commentary

PowerNet/Lakeland Network confirms the Lakeland Network embedded networks Northlake, Clearview and Wooing Tree gateway metering is located at the points of connection with the Aurora Energy Ltd at NSPs NLK0111, CLV0111 and WTR0111 respectively.

PowerNet/Lakeland Network confirms they have appropriate agreements in place with Aurora Energy Ltd.

The metering installations have no loss compensation factors required. The MEP is PowerNet (PWNT).

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

This was discussed with PowerNet/Lakeland Network, the PowerNet (PWNT) MEP audit was also checked. Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

Audit commentary

PowerNet/Lakeland Network confirms the MEP is PowerNet (PWNT).

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

This was discussed with PowerNet/Lakeland Network . The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

This ICP is not subject to Trader activity such as switching.

This clause is not applicable Compliance was not assessed.

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

This was discussed with PowerNet/Lakeland Network. The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

These ICPs are not subject to Trader activity such as electrical disconnection.

This clause is not applicable Compliance was not assessed.

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 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

This was discussed with PowerNet/Lakeland Network. The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

These ICPs are not subject to Trader activity such as electrical disconnection or bridging.

This clause is not applicable Compliance was not assessed.

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 1 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

This was discussed with PowerNet/Lakeland Network and EMS.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

PowerNet/Lakeland Network and EMS confirm that no meter bypass (bridging) of the gate meters occurred during the audit period.

Audit outcome

Compliant

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

This was discussed with PowerNet/Lakeland Network. The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

This ICP is not subject to Trader activity.

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

This was discussed with PowerNet/Lakeland Network. The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

These ICPs are not subject to Trader activity.

This clause is not applicable Compliance was not assessed

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

This was discussed with PowerNet/Lakeland Network. The Registry was checked.

Audit commentary

Checks confirm that ICPs 0000505609CE056, 0000510729CEBC6 and 0000511495CE8C9 represent gate meters to embedded networks Northlake, Clearview, and Wooing Tree respectively, owned by Lakeland Network.

These ICPs are not subject to Trader activity.

Audit outcome

Not applicable

3. MAINTAINING REGISTRY INFORMATION

- 3.1. Obtaining ICP identifiers (Clause 11.3)
- 3.2. Providing registry information (Clause 11.7(2))
- 3.3. Changes to registry information (Clause 10 Schedule 11.1)
- 3.4. Trader responsibility for an ICP (Clause 11.18)
- 3.5. Provision of information to the registry manager (Clause 9 Schedule 11.1)
- 3.6. ANZSIC codes (Clause 9 (1(k) of Schedule 11.1)
- 3.7. Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1)
- 3.8. Management of “active” status (Clause 17 Schedule 11.1)
- 3.9. Management of “inactive” status (Clause 19 Schedule 11.1)
- 3.10. ICPs at new or ready status for 24 months (Clause 15 Schedule 11.1)

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

- 4.1. Inform registry of switch request for ICPs - standard switch (Clause 2 Schedule 11.3)
- 4.2. Losing trader response to switch request and event dates - standard switch (Clauses 3 and 4 Schedule 11.3)
- 4.3. Losing trader must provide final information - standard switch (Clause 5 Schedule 11.3)
- 4.4. Retailers must use same reading - standard switch (Clause 6(1) and 6A Schedule 11.3)
- 4.5. Non-half hour switch event meter reading - standard switch (Clause 6(2) and (3) Schedule 11.3)
- 4.6. Disputes - standard switch (Clause 7 Schedule 11.3)
- 4.7. Gaining trader informs registry of switch request - switch move (Clause 9 Schedule 11.3)
- 4.8. Losing trader provides information - switch move (Clause 10(1) Schedule 11.3)
- 4.9. Losing trader determines a different date - switch move (Clause 10(2) Schedule 11.3)
- 4.10. Losing trader must provide final information - switch move (Clause 11 Schedule 11.3)
- 4.11. Gaining trader changes to switch meter reading - switch move (Clause 12 Schedule 11.3)
- 4.12. Gaining trader informs registry of switch request - gaining trader switch (Clause 14 Schedule 11.3)
- 4.13. Losing trader provision of information - gaining trader switch (Clause 15 Schedule 11.3)
- 4.14. Gaining trader to advise the registry manager - gaining trader switch (Clause 16 Schedule 11.3)
- 4.15. Withdrawal of switch requests (Clauses 17 and 18 Schedule 11.3)
- 4.16. Metering information (Clause 21 Schedule 11.3)
- 4.17. Switch protection (Clause 11.15AA to 11.15AB)

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

5. MAINTENANCE OF UNMETERED LOAD

- 5.1. Maintaining shared unmetered load (Clause 11.14)
- 5.2. Unmetered threshold (Clause 10.14 (2)(b))
- 5.3. Unmetered threshold exceeded (Clause 10.14 (5))
- 5.4. Distributed unmetered load (Clause 11 Schedule 15.3, Clause 15.37B)

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

- *there is 1 or more metering installations*
- *all electricity conveyed is quantified in accordance with the Code*
- *it does not use subtraction to determine submission information for the purposes of Part 15.*

An embedded generator must give notification to the reconciliation manager for an embedded generating station, if the intention is that the embedded generator will not be receiving payment from the clearing manager or any other person through the point of connection to which the notification relates.

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

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

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. Lakeland Network NSPs are not grid connected.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

If a participant becomes aware of an event or circumstance that led 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 was discussed with PowerNet/Lakeland Network and EMS. The EMS Agent Audit Report 14 June 2021 was reviewed.

Audit commentary

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

The agreement between PowerNet/Lakeland Network and EMS requires EMS to check and validate metering data for errors and anomalies. PowerNet/Lakeland Network will be advised of potential or actual errors and anomalies.

No events or circumstances which lead EMS to believe that the Lakeland Network NSPs gate metering installations were inaccurate or defective were notified during the audit period.

The EMS audit report dated 14 June 2021 identified no non-compliance related to the above clause.

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 was discussed with PowerNet/Lakeland Network and EMS. The EMS Agent Audit Report 14 June 2021 was reviewed.

Audit commentary

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

The agreement between PowerNet/Lakeland Network and EMS requires EMS to check and validate metering data for errors and anomalies. PowerNet/Lakeland Network will be advised of potential or actual errors and anomalies.

No clock synchronisation events outside the allowable threshold were identified on the Lakeland Network NSPs gate metering installations during the audit period.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

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

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

This was discussed with PowerNet/Lakeland Network and EMS. The EMS Agent Audit Report 14 June 2021 was reviewed.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

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

This was discussed with PowerNet/Lakeland Network and EMS. The EMS Agent Audit Report 14 June 2021 was reviewed.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The EMS audit report dated 14 June 2021 outlines the data collection process and confirmed that metering information collected during each remote interrogation of the Lakeland Network NSPs HHR metering installations are compliant with the above clause.

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 was discussed with PowerNet/Lakeland Network and EMS. The EMS Agent Audit Report 14 June 2021 was reviewed.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

EMS obtain the metering data from the Lakeland Network remotely.

The EMS audit report dated 14 June 2021 outlines the data collection process and confirmed that metering information collected during each remote interrogation of the Lakeland Network Northlake HHR metering is compliant with the above clause.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

This was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed. A sample of three raw meter data and NSPVOLS files from the audit period were checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

No clock synchronisation events outside the allowable threshold were identified on the Lakeland Network gate metering installation during the audit period.

The EMS Agent Audit Report 14 June 2021 and checks of the sample raw meter data and NSPVOLS files from the audit period confirm compliance with this clause.

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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The EMS audit report states all data is archived in accordance with this clause for a period of more than 48 months. Audit trails would be created if raw meter data was accessed and modified. EMS confirmed no data was modified during this audit period.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

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

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

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 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

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

If 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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The agreement between PowerNet/Lakeland Network and EMS requires EMS to check and validate metering data for errors and anomalies. PowerNet/Lakeland Network will be advised of potential or actual errors and anomalies.

EMS confirm there were no corrections to any half hour meter readings from the Lakeland Network NSPs gate metering during the audit period.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

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

This was discussed with PowerNet/Lakeland Network and EMS, the PowerNet (PWNT) MEP audit was also checked.

Audit commentary

PowerNet/Lakeland Network confirms the Lakeland Network embedded networks Northlake, Clearview and Wooing Tree gateway metering is located at the points of connection with the Aurora Energy Ltd at NSPs NLK0111, CLV0111 and WTR0111 respectively.

PowerNet/Lakeland Network confirm they have appropriate agreements in place with Aurora Energy Ltd.

The metering installations have no loss compensation factors required. The MEP is PowerNet (PWNT).

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

Audit outcome

Compliant

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

Code reference

Clause 19(4) and (5) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

This was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager.

EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The agreement between PowerNet/Lakeland Network and EMS requires EMS to check and validate metering data for errors and anomalies. PowerNet/Lakeland Network will be advised of potential or actual errors and anomalies.

EMS confirm there were no corrections to any half hour meter readings from the Lakeland Network NSPs gate metering during the audit period.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The agreement between PowerNet/Lakeland Network and EMS requires EMS to check and validate metering data for errors and anomalies. PowerNet/Lakeland Network will be advised of potential or actual errors and anomalies.

The EMS audit report states all estimated data is correctly identified at trading period level.

EMS confirm there were no estimations of any half hour meter readings from the Lakeland Network NSPs gate metering during the audit period.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The EMS audit report confirmed all volume data was sourced from validated data.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

Audit outcome

Compliant

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

This was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The EMS audit report confirmed the rounding process was used as required. Volume data was calculated from raw meter reading data first. Rounding to two decimal places was only applied when creating the volume submission data file.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

EMS state that if estimation were required it would be conducted using the process outlined in the audit report.

EMS confirm there were no estimations of any half hour meter readings from the Lakeland Network NSPs gate metering 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

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

17(4)(f) - a review of 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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The agreement between PowerNet/Lakeland Network and EMS requires EMS to check and validate metering data for errors and anomalies. PowerNet/Lakeland Network will be notified of potential or actual errors and anomalies.

EMS confirm no metering events that could have affected metering accuracy were identified with the Lakeland Network NSPs gate metering installations during the audit period. Consequently PowerNet/Lakeland Network did not receive any such notifications from EMS during this audit period. If this did occur the internal MEP PWNT would be informed, and an investigation requested.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

Audit outcome

Compliant

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

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

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

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. Lakeland Network has no Retail customers. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSP during the audit period.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

11.2. Calculation of ICP days (Clause 15.6)

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. Lakeland Network has no Retail customers. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSP during the audit period.

These clauses are not applicable. Compliance was not assessed.

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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The daylight-saving adjustment function is performed by EMS as agent for PowerNet/Lakeland Network.

According to the EMS audit report, the company uses the "trading period run on" technique for daylight saving adjustment.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

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

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. Lakeland Network has no Retail customers. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Compliant

12.3. Allocation of submission information (Clause 15.5)

Code reference

Clause 15.5

Code related audit information

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only. Lakeland Network has no Retail customers. The Registry checks confirm there has not been any Retailer Registry activity related to the Lakeland Network NSPs during the audit period.

These clauses are not applicable. Compliance was not assessed.

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

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

This was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

EMS confirm there were no late submission files during the audit period. Checks of the EA website confirms there were no alleged breaches recorded during the audit period.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

Audit outcome

Compliant

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

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

Lakeland Network does not operate any grid connected generation.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

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

Audit observation

This was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

EMS submits revision files on behalf of PowerNet/Lakeland Network. The EMS audit report outlines the process used to create revision files.

The EMS Agent Audit Report 14 June 2021 confirms compliance with this clause.

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

These clauses were discussed with PowerNet/Lakeland Network and EMS, the Registry was also checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

These clauses were discussed with PowerNet/Lakeland Network and EMS, the Registry was also checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

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

These clauses were discussed with PowerNet/Lakeland Network and EMS, the Registry was also checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

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

If a seasonal adjustment shape is not available, the methodology for preparing an historical estimate of volume information for each ICP must be the same as in clause 4, except that the relevant quantities kWh_{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

These clauses were discussed with PowerNet/Lakeland Network and EMS, the Registry was also checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 Schedule 15.3

Code related audit information

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and EMS, the Registry was also checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

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

Code reference

Clause 7 Schedule 15.3

Code related audit information

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

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

Audit observation

These clauses were discussed with PowerNet/Lakeland Network and the Registry was checked.

Audit commentary

Lakeland Network is an embedded network operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

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

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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed. A sample of three raw meter data and NSPVOLS files from the audit period were checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The EMS Agent Audit Report 14 June 2021 and checks of the sample raw meter data and NSPVOLS files from the audit period confirm compliance with this clause.

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 was discussed EMS and the EMS Agent Audit Report 14 June 2021 was reviewed. A sample of three raw meter data and NSPVOLS files from the audit period were checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

EMS are PowerNet/Lakeland Network's agent for collection of raw meter data, calculation of submission data and the transmission of data to the reconciliation manager. EMS obtain the metering data from the Lakeland Network NSPs gate metering remotely.

The EMS audit report confirmed that submission information is appropriately rounded to two decimal places.

The EMS Agent Audit Report 14 June 2021 and checks of the sample raw meter data and NSPVOLS files from the audit period confirm compliance with this clause.

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

These clauses were discussed with PowerNet/Lakeland Network Staff and the Registry was checked.

Audit commentary

Northlake, Clearview, and Wooing Tree are Lakeland Network embedded networks operated by PowerNet Ltd. This audit involves the gate metering and NSP volume submission activities only.

These clauses are not applicable. Compliance was not assessed.

Audit outcome

Not applicable

CONCLUSION

See Executive Summary.

PARTICIPANT RESPONSE

PowerNet has reviewed this report and welcome the scrutiny of it. PowerNet wish to thank Allan from Borcoski Energy Services Limited for conducting the audit.

